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## Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
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# Economic and Social Development

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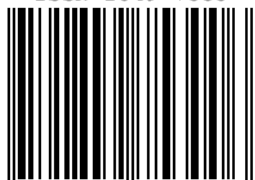
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Editors:

**Altay Ismayilov, Azerbaijan State University of Economics, Azerbaijan**  
**Khatai Aliyev, Azerbaijan State University of Economics, Azerbaijan**  
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## **CONTENTS**

### **METHODS FOR IMPROVING THE MANAGEMENT OF PUBLIC SERVANTS PROVIDING SERVICES TO ENTREPRENEURSHIP .....1**

Afag Huseyn

### **AZERBAIJAN'S EXPORT POTENTIAL AND ITS DEVELOPMENT PROSPECTS .13**

Amirova Farida Shamil

### **ON IMPROVEMENT OF MODERN SOFTWARE FOR MANAGEMENT OF OIL AND GAS INDUSTRY ENTERPRISES OF THE REPUBLIC OF AZERBAIJAN .....20**

Anvar Allahyar Gasimov, Galib Bahram Hajiyeu

### **ENSURING GLOBAL FOOD SAFETY .....29**

Ilaha Tagiyeva

### **CURRENT STATE OF MECHANIZATION AND AUTOMATION OF WEAVING WORKSHOPS.....36**

Mezahir Farzaliyev, Nurlana Karimova

### **FINANCIAL SUPPORT FOR INNOVATION AND ITS IMPACT ON SUSTAINABLE ECONOMIC DEVELOPMENT .....44**

Sarvinaz M. Khanlarzadeh

### **THE PROBLEMS OF FINANCIAL PROVISION OF THE REAL SECTOR OF THE ECONOMY .....51**

Leyla Mehdiyeva

### **THE STATE REGULATION OF THE HEALTH CARE SYSTEM: CROSS-COUNTRY COMPARATIVE ANALYSIS .....57**

Rasmiyya Abdullayeva, Allahyar Muradov, Ayten Kuliyeu, Samir Mahmudov

### **SOME ISSUES OF INNOVATIVE DEVELOPMENT OF INDUSTRIAL ENTERPRISES IN AZERBAIJAN .....68**

Ashurov Ali Sari Oglu

### **INNOVATIVE ENTREPRENEURSHIP AS AN IMPORTANT FACTOR OF SUSTAINABLE ECONOMIC DEVELOPMENT .....77**

Alijan Abbasov, Samira Rustamova

### **DETERMINATION OF OPPORTUNITIES FOR THE PROVISION OF TAX BENEFITS TO ENSURE EFFICIENT EMPLOYMENT .....84**

Alirza Israfil Mammadov, Javid Alirza Mammadov

### **CORPORATE GOVERNANCE PROBLEMS IN AZERBAIJANI INDUSTRY AND ITS DEVELOPMENT .....94**

Huseynov Arzuman

<b>THE DEVELOPMENT PROCESS OF DISTANCE EDUCATION IN AZERBAIJAN .....</b>	<b>101</b>
Aybaniz Huseinova	
<b>INNOVATIVE DIRECTIONS OF HRM IN THE BUSINESS ENVIRONMENT OF AZERBAIJAN.....</b>	<b>106</b>
Hamid Hamidov, C. Aygun Abdulova	
<b>PROTECTION FROM THE EFFECTS OF GLOBAL FINANCIAL CRISES AND WAYS OUT OF THEM.....</b>	<b>115</b>
Aynur Zeynalova	
<b>LABOR PRODUCTIVITY AND SALARIES IN THE AZERBAIJAN REPUBLIC ...</b>	<b>124</b>
Gulanbar Azizova	
<b>OPPORTUNITIES AND PERSPECTIVES OF BIG DATA FOR THE DEVELOPMENT OF BUSINESS.....</b>	<b>132</b>
Bahruz Samadov	
<b>ECONOMIC AND ENERGY COOPERATION OF THE CASPIAN COUNTRIES ...</b>	<b>139</b>
Mansur Barxudarov, Konstantin Markelov, Elena Matsuy	
<b>FINANCIAL SECURITY AS A GUARANTEE OF NATIONAL ECONOMIC SECURITY .....</b>	<b>147</b>
Durdane Eyvazova	
<b>PRIORITY AREAS OF SOCIO - ECONOMIC DEVELOPMENT OF THE NON – OIL SECTOR IN AZERBAIJAN.....</b>	<b>153</b>
Godjayeve Elmira Mahammad, Babayeva Saida Jabi, Sadigova Ulker Farhad	
<b>ECONOMETRIC MODEL FOR GROSS DOMESTIC PRODUCT IN AZERBAIJAN .....</b>	<b>160</b>
Shafizade Elnure	
<b>METHODS OF EVALUATING THE ECONOMIC EFFECTIVENESS OF E-LEARNING IN AZERBAIJAN .....</b>	<b>167</b>
Arzu Huseynova, Ophelya Mazanova	
<b>CURRENT SITUATION AND PROSPECTS OF DEVELOPMENT IN THE SPHERE OF FINANCING OF SMALL AND MEDIUM BUSINESS ENTITIES IN THE REPUBLIC OF AZERBAIJAN.....</b>	<b>174</b>
Naila Akhundova	
<b>ADAPTIVE METHOD OF ECONOMETRIC MODELING AND FORECASTING OF AZERBAIJAN'S GDP.....</b>	<b>184</b>
Esmira Ahmadova	
<b>COGNITIVE MODELING AS A METHOD FOR IMPROVING THE EFFECTIVENESS OF INTERNATIONAL BANKING.....</b>	<b>194</b>
Fahri Murshudli, Olena Golovko, Kateryna Oriekhova	

<b>THE ROLE OF THE TAX SYSTEM IN ENSURING ECONOMIC AND FINANCIAL SECURITY OF THE COUNTRY .....</b>	<b>204</b>
Tahmasib Huseynov, Faig Huseynov	
<b>THE IMPROVEMENT OF THE UTILIZATION OF COMPETITIVE ADVANTAGES OF NON-OIL INDUSTRIAL ENTERPRISES IN MODERN CONDITIONS .....</b>	<b>211</b>
Fidan Mahish Safarova	
<b>GOVERNMENT SUPPORT FOR AGRICULTURAL DEVELOPMENT: EXPERIENCE AND PRIORITIES.....</b>	<b>219</b>
Ibrahim Guliyev, Musayeva Yagut Surkhay	
<b>INFLUENCE OF INNOVATIVE DEVELOPMENT FACTORS TO IMPROVE HUMAN CAPITAL IN AZERBAIJAN .....</b>	<b>228</b>
Samira Abasova, Gulnara Mikayilzade	
<b>OPPORTUNITIES AND PRIORITIES OF AZERBAIJAN'S TRANSITION TO THE CONCEPT OF SUSTAINABLE DEVELOPMENT.....</b>	<b>238</b>
Gunay Mahish Panahova	
<b>ECONOMETRIC EVALUATION OF THE RATIO BETWEEN DOMESTIC AND WORLD PRICES.....</b>	<b>246</b>
Ibrahim Guliyev	
<b>SPECIFICITY OF RISKS IN THE TOURISM INDUSTRY.....</b>	<b>255</b>
Inara Rzayeva	
<b>INCREASED EFFICIENCY TO SOLVE THE PROBLEM OF EXPANDING PRODUCTION.....</b>	<b>263</b>
Kamala Dadasheva	
<b>MACROECONOMIC ASPECTS OF SUSTAINABLE DEVELOPMENT OF NATIONAL ECONOMY IN THE CONTEXT OF GLOBAL PROBLEMS .....</b>	<b>269</b>
Hanifa Jafarli	
<b>THE DIRECTIONS FOR IMPROVEMENT OF COMPETITION STRATEGIES ....</b>	<b>279</b>
Jafarova Ulviyya Yusif	
<b>TAX BENEFITS IN ENSURING SOCIAL DEVELOPMENT AS ONE OF THE MEANS OF ECONOMIC INFLUENCE .....</b>	<b>283</b>
Javid Alirza Mammadov	
<b>DIGITAL EDUCATION IN THE CONTEXT OF NEW ECONOMY.....</b>	<b>290</b>
Leyla Hajiyeva	
<b>IDENTIFICATION OF THE MAIN FACTORS OF TOURISM DEVELOPMENT IN AZERBAIJAN.....</b>	<b>298</b>
Leyla Huseynova, Esmira Ahmadova	

<b>LIFE (DIS)SATISFACTION AND INTENTION TO EMIGRATE IN AZERBAIJAN: MEDIATING ROLE OF INSTITUTIONAL TRUST .....</b>	<b>306</b>
Khatai Aliyev, Ilkin Gasimov	
<b>MACROECONOMIC ANALYSIS AND DIAGNOSTICS OF AZERBAIJAN'S TRANSITION TO THE CONCEPT OF INCLUSIVE DEVELOPMENT .....</b>	<b>314</b>
Mahish A. Ahmadov	
<b>THE ROLE OF MARKETING FACTORS IN ENSURING SUSTAINABLE SOCIO- ECONOMIC DEVELOPMENT.....</b>	<b>322</b>
Mammadova Simuzar Sultan	
<b>FORMATION OF INNOVATIVE BUSINESS ACTIVITIES IN THE NON-OIL SECTOR AND THE MAIN DIRECTIONS OF ITS DEVELOPMENT .....</b>	<b>327</b>
Qabil Nadir Manafov, Namig Anver Sadigov	
<b>INNOVATIVE POTENTIAL OF A HUMAN-WORKER AS A FACTOR OF THE HUMANIZATION OF ECONOMY .....</b>	<b>334</b>
Melek F. Ismailova	
<b>THE STABILITY OF COMMERCIAL BANKS OF THE REPUBLIC OF AZERBAIJAN AND ITS IMPACT ON THE ECONOMIC DEVELOPMENT OF THE COUNTRY .....</b>	<b>338</b>
Alida Huseynova	
<b>EVALUATION OF NATIONAL WEALTH APPROACHES AND PROBLEMS .....</b>	<b>344</b>
Farhad Mikayilov, Shafiga Mammadova, Elman Ibishov, Rafail Rzayev, Rashad Huseynov	
<b>THE IMPROVEMENT PROBLEM OF THE STATE FINANCIAL - BANKING SYSTEM ROLE IN PROVISION OF SUSTAINABLE DEVELOPMENT.....</b>	<b>350</b>
Mushrevan Ali Aliyev	
<b>CURRENT PROBLEMS OF THE BANKING SYSTEM OF AZERBAIJAN IN THE CONDITIONS OF THE GLOBAL FINANCIAL CRISIS AND THE DIRECTION OF IMPROVING THE MECHANISMS OF SOLUTION .....</b>	<b>358</b>
Muslum Mursalov Mursal Ogli	
<b>ROLE OF MANAGEMENT ACCOUNTING IN THE ORGANIZATION.....</b>	<b>367</b>
Namig Alizadeh Zahid, Leyla Mammadova Vagif	
<b>ASSESSMENT OF INSTITUTIONAL MECHANISMS OF COMPETITION POLICY (THE CASE OF AZERBAIJAN).....</b>	<b>373</b>
Nazim Hajiyeve	
<b>SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT OF REGIONS IS THE BASIS OF NATIONAL ECONOMY SECURITY.....</b>	<b>384</b>
Nazim Mammadov	
<b>LEASING IN AZERBAIJAN: THE REGULATORY PROBLEMS AND PROPOSED SOLUTIONS .....</b>	<b>389</b>
Aslanova Nigar	

<b>OPTIMIZATION OF THE STRUCTURE OF TAXATION IN THE STATE .....</b>	<b>394</b>
Ramiz Maharramov, Rauf Salayev, Nigar Allahverdiyeva, Dinara Ramazanova	
<b>SOCIO-ECONOMIC ASPECTS OF VOLUNTARY HEALTH INSURANCE.....</b>	<b>404</b>
Ramis Azizov, Saida Huseynova	
<b>EFFICIENT INNOVATION POLICY POTENTIAL IN GROWTH OF AZERBAIJAN NON-OIL SECTOR .....</b>	<b>411</b>
Rashad R. Maharramov, Tahmasib Huseynov	
<b>DIGITAL PLATFORMS IN THE CONTEXT OF PRIORITY USE OF INTELLECTUAL CAPITAL .....</b>	<b>420</b>
Rasul Balayev, Matlab Ali zadeh, Sevda Hajizada, Sevda Badalova	
<b>PAYMENT SERVICE PROVIDERS AS PLAYERS OF PAYMENTS INDUSTRY: THE CASE OF AZERBAIJAN .....</b>	<b>427</b>
Ruslan Q. Talıbov	
<b>SOME ISSUES OF THE FORMATION OF THE THEORETICAL AND METHODOLOGICAL BASIS FOR ASSET ACCOUNTING .....</b>	<b>433</b>
Sakit Yagubov, Vaqif Quliyev	
<b>MAIN DIRECTIONS OF THE TAX SYSTEM IN IMPROVING THE ECONOMY OF THE AZERBAIJAN REPUBLIC .....</b>	<b>439</b>
Rauf Salayev, Emin Rahmanov	
<b>TEACHING METHODS IN THE EPIDEMIC PERIOD IN AZERBAIJAN .....</b>	<b>447</b>
Samira Ahmadova	
<b>AZERBAIJAN'S WTO MEMBERSHIP: TO BE OR NOT TO BE .....</b>	<b>452</b>
Sevar Mammadova	
<b>FORMATION AND DEVELOPMENT PROSPECTS OF THE NATIONAL INNOVATION FUND IN AZERBAIJAN.....</b>	<b>463</b>
Sevda K. Mamedova	
<b>TOOLS AND METHODS OF MANAGING ENTREPRENEURIAL RISKS .....</b>	<b>471</b>
Shafa Guliyeva	
<b>THEORETICAL FRAMEWORK OF TRANSFORMATION TO THE INCLUSIVE INNOVATION MODEL .....</b>	<b>479</b>
Tahmasib Alizada	
<b>THE INVESTMENT IN THE NON-OIL SECTOR AND ITS STATE REGULATION .....</b>	<b>486</b>
Shahla M. Rzayeva, Fatima Z. Rzayeva	
<b>THE RELATIONSHIP BETWEEN FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN AZERBAIJAN .....</b>	<b>496</b>
Shahriyar Mukhtarov	

<b>SIGNIFICANCE OF CULTURAL VALUES FOR MANAGEMENT .....</b>	<b>502</b>
Vasif Aliyev	
<b>SELF-PERCEIVED SOCIAL STRATIFICATION AND LIFE SATISFACTION IN AZERBAIJAN.....</b>	<b>510</b>
Khatai Aliyev	
<b>ENGLISH AS A GLOBAL LANGUAGE .....</b>	<b>518</b>
Abidi Solmaz Aghazaki	
<b>STRATEGIC GOVERNANCE OF TOURISM DEVELOPMENT IN AZERBAIJAN: PRACTICAL ASPECTS AND A MECHANISM FOR IMPROVEMENT.....</b>	<b>521</b>
Elnara Samedova, Yasaman Abasova	
<b>INVESTIGATION OF FACTORS AFFECTING CONSUMPTION IN THE DOMESTIC FOOD MARKET OF AZERBAIJAN .....</b>	<b>533</b>
Sugra Humbatova Ingilab	
<b>AN ANALYSIS OF THE ROLE OF INFORMATION TECHNOLOGIES IN EDUCATION IN THE GLOBALIZATION PROCESS .....</b>	<b>545</b>
Basti Aliyeva	
<b>FOREIGN ECONOMIC ASPECTS OF THE PROVISION OF SUSTAINABLE ECONOMIC DEVELOPMENT IN AZERBAIJAN.....</b>	<b>551</b>
Eyvazov Elchin Tahmaz	
<b>THE PLACE OF THE AGRICULTURAL SECTOR IN THE NATIONAL ECONOMY OF AZERBAIJAN AND THE ROLE OF THE STATE IN ITS DEVELOPMENT IN MODERN TIMES .....</b>	<b>560</b>
Lala Amanova	
<b>THE IMPLEMENTATION OF AGRARIAN POLICY AND ITS EMPLOYMENT ASPECTS.....</b>	<b>566</b>
Ulviyya Mammedova	
<b>NEW APPROACH TO THE NATURE AND ACCOUNTING OF AMORTIZATION OF ASSETS.....</b>	<b>571</b>
Vagif Guliyev, Nazim Hajiyeve	
<b>THE EFFICIENCY OF AZERBAIJANI BANKS: AN EMPIRIC ANALYSIS.....</b>	<b>581</b>
Sakit Yagubov Mamadi, Ulvi Yagubov Makhdut	
<b>ISSUES OF INCREASING THE KEY ROLE OF HUMAN CAPITAL IN ECONOMIC DEVELOPMENT IN MODERN CONDITIONS .....</b>	<b>588</b>
Gurbanova Zumerud Mammad	
<b>CONSTITUTIONAL-LEGAL REGULATION OF LABOR RELATIONS OF CIVIL SERVANTS: THE COMPARATIVE ANALYSIS .....</b>	<b>594</b>
Oruj Mammadov	

<b>ASSESSMENT OF THE MINIMUM WAGE IMPACT ON POVERTY IN OIL-RICH COUNTRIES .....</b>	<b>605</b>
Rahmanov Farhad P. , Gulaliyev Emil Ch.	
<b>MODELLING THE IMPACT OF EXCHANGE RATE VOLATILITY ON FINANCIAL SECTOR: IN CASE OF AZERBAIJAN .....</b>	<b>611</b>
Ali Rustamov, Tahmasib Huseynov	
<b>TESTING OF FDI AND NON-OIL FDI INFLOWS IN AZERBAIJAN USING DUNNING'S ECLECTIC MODEL.....</b>	<b>620</b>
Abdulla Alikhanov, Nizami Khudiyev	
<b>CONCEPTUAL ASPECTS OF THE ANALYZE OF AGRO INSTITUTIONS MANAGEMENT ACTIVITY.....</b>	<b>627</b>
Nadjiba Gabil Hajiyeve	
<b>BANKING MARKETING: TRENDS AND PROSPECTS .....</b>	<b>637</b>
Gasimov Alislam	
<b>ECOLOGICAL-CLEAN INNOVATION PROBLEMS IN THE IMPROVEMENT OF PRODUCT INNOVATIONS IN THE NEW MANAGEMENT SYSTEM .....</b>	<b>644</b>
Safarov Rashad Akif Oglu	
<b>NOBEL LAUREATES AT THE GUARD OF THE WORLD ECONOMY .....</b>	<b>649</b>
Elshad Samedzade Ziyad	
<b>THE ROLE OF COTTON IN THE DEVELOPMENT OF REGIONS.....</b>	<b>652</b>
Tagiyeva Leyla	
<b>ECONOMIC EFFICIENT AND ECOLOGICALLY CLEAN THERMOELECTRIC ENERGY CONVERTERS.....</b>	<b>658</b>
Tagiyev M. M. , Rzayev R. M.	
<b>CURRENT TRENDS IN THE ASSESSMENT OF THE TOURISM MARKET.....</b>	<b>665</b>
Samira Rustamova Rasim	
<b>ANALYSIS OF REVIVAL AND DEVELOPMENT OF BUSINESS LAW OF AZERBAIJAN.....</b>	<b>669</b>
Neriman Hanahmedov	
<b>SEA SHIPPING : PORT OF AZERBAIJAN .....</b>	<b>677</b>
Malak Novruzova	
<b>DEVELOPMENT OF MEDICAL BUSINESS IN AZERBAIJAN .....</b>	<b>687</b>
Sevda Mamedova	
<b>PRECIOUS STONES - WEALTH HIDDEN BEHIND GLITTER .....</b>	<b>694</b>
Khaver Babayeva Ali	



<b>THE PRINCIPLES FOR ESTABLISHMENT OF THE EFFECTIVE QUALITY MANAGEMENT SYSTEM OF THE ENTERPRISE .....</b>	<b>697</b>
Seydaliyev Ilham Mohammed	
<b>ENTERPRISE RISK MANAGEMENT STRATEGY .....</b>	<b>704</b>
Shafa Guliyeva	
<b>ESTIMATION OF SECTORAL ELASTICITIES OF SUBSTITUTION: CASE OF AZERBAIJAN.....</b>	<b>711</b>
Yadulla Hasanli, Gunay Rahimli	
<b>SUSTAINABLE DEVELOPMENT OF REAL ESTATE MARKETS IN THE REPUBLIC OF AZERBAIJAN.....</b>	<b>717</b>
Shamil Shirinov	
<b>MANAGEMENT ACCOUNTING SYSTEM IN HIGHER EDUCATION AND ITS DISTINCTIVE FEATURES FROM FINANCIAL ACCOUNTING .....</b>	<b>724</b>
Irada Pashayeva	
<b>THE ANALYSIS OF CONSUMER-ORIENTED BEHAVIORS IN AZERBAIJAN'S FOOD SECTOR.....</b>	<b>728</b>
Parvin Pashayeva, Shamil Rahimov	
<b>ROLE OF FOREIGN LOANS IN DEVELOPMENT OF THE REAL SECTOR OF ECONOMY (THE CASE OF AZERBAIJAN) .....</b>	<b>736</b>
Fikret Yusifov, Nazim Hajiyev	
<b>ASSESSMENT OF THE IMPACT OF STATE ADMINISTRATION ON ENTREPRENEURSHIP DEVELOPMENT .....</b>	<b>745</b>
Afaq Huseyn, Fikret Yusifov	

## METHODS FOR IMPROVING THE MANAGEMENT OF PUBLIC SERVANTS PROVIDING SERVICES TO ENTREPRENEURSHIP

**Afag Huseyn**

*Associate professor at Department of Economics and Business Administration,  
UNEC Business School, Azerbaijan State University of Economics (UNEC),  
The Republic of Azerbaijan  
afag.huseyn@unec.edu.az; a.huseyn@mail.ru*

### **ABSTRACT**

*The article discusses civil servants management issues, as well as methods to improve the efficiency of state administration bodies in the regulation of business. The tasks are to, based on statistical data, determine the relationship between the incomes of civil servants, the effectiveness of their fulfillment of the goals and functions of the state body for regulating entrepreneurship; to determine the relationship between the quality of activities of public servants and their income, as well as evaluate the effectiveness of the style of state administration. The article uses methods of comparative analysis, logical generalization and synthesis. The author analyzed the theoretical foundations and practical methods of management of civil servants. Performed analysis of various approaches to ensuring the opportunities and freedoms of public servants and the expectations of the interests of entrepreneurs in the decision-making process on the regulation of entrepreneurial activity. Outlined are reforms in the model of state administration in Azerbaijan. Particular attention was paid to optimizing work with personnel in the public service and improving implementation mechanisms. As a result of the research, weremade recommendations to improve the effectiveness of the activities of public servants providing services to entrepreneurship.*

**Keywords:** *Civil Service, Civil Servants, Management, Effectiveness Of The Style Of State Administration, Methods*

### **1. INTRODUCTION**

Most literature on personnel management (for example, Genkin B.M. (2000), Gary Dessler (2010), John Bratton and Jeff Gold (2007), Raymond Noe (2013), etc.) consider working with personnel as a common mechanism of organizational and economical processes of management: “engaging in work - choice - conformity - staff development (training) - termination of working relations.” But very few authors analyze the economic situation and the provisions requiring changes in the management system and the quality of staff activities. In recent years, the name of “personel department” has been replaced by “human resources management” in government bodies. However, the question arises: how correctly to consider a person as a resource? Man has reason and logic. It differs from other resources in the ability to make decisions, its knowledge, like an information resource, is constantly growing. And as it grows, it brings the owner even more profit. We also take into account that decisions made by a person can be unexpected, creative. This means that a person should not be considered as a resource, but as a potential, and a person can be controlled only to the extent to which he allows. And how to determine this extent? Research does not provide a clear answer to this question. This is more often associated with the needs of a person, the level of his development, the requirements of his work system, the features of his position, the possibilities of motivation and other similar factors. It is also noticeable that human psychology is changing under the requirements of the development of the information society. It should be noted that a person with experience in the management process, having noticed wrong actions in relation to himself, begins to behave with caution, relying on his experience. When such a person does not want to be controlled, he turns not into one who is controlled by another, but into one who

protects himself from someone else's control. His behavior, requirements and desires are changing. Modern management requires finding new forms and methods, taking into account this and similar points. In this article, we will explore the methods of organizing and managing the performance of public servants involved in decision-making regarding the activities of owners. The purpose of this article is to determine the possibilities of applying new management methods in this area. Since during the study we encountered a lack of statistical data and / or certain limitations in obtaining information, we tried to use data from open access.

## **2. HUMAN RESOURCES MANAGEMENT METHODS: COMPARISON OF PUBLIC SERVICE AND OTHER SYSTEMS**

### **2.1. Human Resource Management Principles: Different Approaches and Position in the Civil Service**

Crises - one of the cases that contribute to finding new ways, new management methods. Success is associated with continuous updating, improvement. The way out of the crisis also requires constant improvement, being sustainable through the use of new products, and being one step ahead of the problem. This applies to both economic situations and people. If, for possessing a highly professional team, one of the goals is to form a team that can solve the problem in any situation, then another goal is to preserve such a team. Because, it is difficult to achieve a breakthrough in activity, having a team of specialists that is not positively different from others. Depending on the comparison, people, situations and events can be positive or negative. That is, everything is relative. In order to stay afloat, a business person must behave with caution and have various options for facilities and actions (for example, a fallback option for investment, financial and production assets). And what facilities and styles are considered successful in managing people? Of course, the connection between management methods and situations should not be denied. At this time, the following are taken into account:

- *Personal qualities*, that is, the attitude to a new risk, the importance of personal motives and values, the forms of influence and reputation, being creative, the level of knowledge and education, the ability to cope with tasks, the ability to apply innovations, experience, the superiority of intuition and thinking, sensority, coordination, ability to control and regulate, accuracy in analysis and forecasting;
- *Extraneous influence*, i.e. instability, to be accepted by the leadership and the team and vice versa, personal security, etc.

And these aspects, in turn, act as one of the parts of management principles. Principles show compliance with laws. The principles of human resource management express the rules, main provisions and norms that must be observed by managers and specialists in human resource management. And the main thing is that the principles of human resource management reflect the requirements of objective economic laws. During this period, studies conducted in the direction of determining the principles of human resource management show the existence of various approaches in this area. Traditionally, the following are taken as principles of human resource management: the scientific nature; planning; first-person will; unity of governance; selection and placement of personnel; the single or collegial validity of orders, the unity of centralization and decentralization; choice of linear, functional and targeted management; monitoring the execution of orders and employee behavior, etc. Modern approaches to the principles of human resource management are based on: a strategic approach to human resource management; the formation and application of the approach to the employee as a decisive factor in the competitiveness of the enterprise; the feasibility of investing in the formation and development of human resources in terms of economics and prospects; the professionalism of the leader himself; giving preference in management to partnership and democracy approaches; enrichment of labor functions; improving the quality of work; continuous training and

professional development, etc. At the moment, in the 4th article of the Law of the Republic of Azerbaijan “On Civil Service”, the following are noted as principles of public service: legality; setting limits on the powers of legislative, executive and judicial authorities; verifiability and accountability of state bodies and public servants; obligatory execution of decisions of higher state bodies and officials, adopted within their competence, by lower state bodies and officials; the obligation of all citizens and officials to comply with the legal requirements of public servants and protect their legal actions; transparency of public service admission; the admission of citizens to the civil service on the basis of competition and interviews; equality of citizens in the occupation of a particular position in the civil service in accordance with their abilities, successes in service and professional training; equality of civil servants regardless of race, nationality, religion, language, gender, social origin, marital, property and official status, place of residence, religion, beliefs, membership of public associations, or other reasons not related to the business qualities of employees; rational use of the potential of public servants, rotation in order to increase their official and professional level; social and legal protection of public servants, ensuring for them and their families a decent standard of living; the responsibility of the public servant for the performance of his official duty, as well as the responsibility of the state body for the actions of the public servant. In the performance of their duties, public servants should be guided by the Constitution, laws and other relevant legislative acts of the Republic of Azerbaijan. Enforcement of decisions of political parties and public associations does not apply to public service. As you can see, the current principles of public service are built on a modern approach. The implementation of these principles requires the application of human resources management mechanisms in the public service.

## **2.2. Methods and mechanisms of human resource management**

Of course, the provision of employment depends on the state of the labor market, the characteristics of the public service and other systems, the requirements of the public authority or private enterprise for personnel. However, the influence on the state body or private enterprise, on their activity and development of the moment that the object is a person who, moreover, can be both a producer and a consumer is not always taken into account. At the moment, the public service system serving the development of the economy requires managers who have a business mind and thinking. That is, when making decisions, leaders in the civil service are required not only to observe the interests of the state body, consisting of individual elements and subsystems with peculiar particles, but also to see the economy as a single dynamic system, the ability to give an impetus to its development, to be able to learn and train. And this requires the ability to think wider than the scale of the activities of one state body. That is, to aim at state interests that are higher than the interests of a state body. Even in the preparation and adoption of decisions on the regulation of the activities of owners, in the provision of necessary services to them, civil servants should be regarded as the interests of the state, not the goals of the state body. Owners can sometimes violate the rules, be dissatisfied with the services of public servants, and demonstrate higher requirements. And this means that the owners have new, higher expectations regarding the professionalism and competence of the personnel who provide them with services. Along with the quality of the services provided, the culture and ethics of the civil servant also become a subject of discussion among the owners. Currently, depending on the features of the system and situation, in addition to the classical method of managing human resources, administrative-legal, economic and socio-psychological methods are also used. The application of these methods is aimed at solving existing problems in the field of human resources and their management.

As a result of the research, it is possible to note the mechanism of human resource management by solving three main problems [Huzlid Mark A., Becker Brian I., Beatty Richard V. (2007)]:

- 1) relationship problem;
- 2) problem of events (activities);
- 3) implementation problems.

- *Relationship problem.* Both in the private sector and in the public service system, the main problem in relations arises when approaching human resources in terms of costs. In both systems, a reduction in the number of employees is put forward and applied as one of the means of reducing costs. But if you look at human resources not as expenditures, but as the basis for future development, the approach changes and is often marked by investments in workers. Most often this happens with increasing requirements for the professionalism of personnel.
- *Problem of events (activities).* Human resources management requires determining the presence of labor problems associated with success, way of thinking, competence and behavior. This is due to the implementation of measures after identifying problems in four directions. Basically, it analyzes the skills, way of thinking and behavior that help the workforce achieve the main strategic goals of the enterprise, contributing to the successful implementation of these orders. The main problems arise if you do not consider skill, way of thinking and behavior as a whole. In practice, there is often a preference for either skills or the other two factors, the presentation of unequal quality requirements for each of the three factors. In this case, the answers to the question “what kind of problem arose?” also differ. On the one hand, it can be stated that the formation of skills takes time. Especially when you look at labor as a long-term resource, investments in building skills are growing. We can also say that the destruction of stereotypes and the formation of a new way of thinking can sometimes require more time than the creation of new skills. People in many cases try to hide what they think, and this further complicates the process of regulating the way of thinking. Regulation of behavior can be disciplined and framed in a shorter time than is required for the formation of skills and ways of thinking.
- *Implementation problem.* The role of managers in coordinating the work of personnel, assessing performance and quality, and ensuring strategic success cannot be denied. However, the presence of problems (obstacles that arise on the way and performance flaws) in the implementation of these processes requires wider attention to this topic. Let's look at these issues separately.

### 2.2.1. Staff coordination

If in traditional management methods the manager gives an order and demands its unquestioning execution, then in the simplified (facilitation) management method the manager must not only manage, but also turn from an organizer into a participant and simplify the whole process. In this case, the manager is forced to become a member, combining the qualities of a manager, leader and group member; and we are faced with a completely different management situation. (Lushin P.V. (2005)). Many people work not only for the sake of earning, but also for the idea. Everything that is created by man, until it takes on a finished form, is just an idea in the human brain. That is, at first everything appears as a product of thought, and only then, turning into a goal, is realized. Therefore, if the first condition for success is the emergence of an idea, the second condition is the availability of the necessary knowledge and action for its implementation. Unfortunately, in our time it is possible to observe cases of “theft” of ideas, or their nomination not from the side of their owner, but from another person. This may be due to either indecision on the part of the owner of the idea, or his carelessness, or the fact that he is forced to give it away, or he decides to give it away for the sake of earnings, etc.

The problem as such begins with this. Because there is a close connection between the idea and its implementation. Realization of the idea not by its author (sometimes the deliberate removal of the author) does not give a predicted effect. The reason may be that the author of the idea and the one who only realizes it often has different visions of the problem, different approaches to choosing ways to solve it, mechanisms. Sometimes this is assessed as a subjective factor. In management today, one of the requirements on the agenda is overcoming the problem with an idea. That is, the idea should not be aimed at eliminating the problem, but at ensuring that it does not arise; should be ahead of her. The speed of implementation of the idea must be high so that implementation occurs before the problem occurs. In reality, the opposite process occurs in management, especially in structures with a functional-hierarchical structure. A person does not want to think about a problem before it occurs and strive to carry out its activities with the thought that "problems need to be solved as they arise." To the question "Are there any hopeless situations?" the answer is given: "Situations, before they are turned into duties necessary to fulfill, may seem hopeless." After turning them into responsibilities, solutions are found. That is, there are no unsolvable problems, there are incorrectly performed duties. In fact, one of the suggestive questions is to compare the costs of fulfilling these duties and the results obtained. For this reason, coordination of staff should be aimed at increasing the result while reducing costs. The implementation of the idea is associated with actions. Action often requires courage, and it depends on whether you know how you will behave in the event of an indecisive and suspicious attitude of others. It is the answer to the question "How?" is one of the main paths to leadership. If you, using a certain skill and technique, combine the answer to the question "How?" in one method, this is already a formula for success. Such remedies are repeated and improved from time to time by various people. Improving existing abilities, acquiring new ones, uniting and working as a team of people with different abilities changes the number of successes, the speed of their achievement, their quality and scale.

#### *2.2.2. Assessment of the quality and performance of staff*

Both the traditional and simplified management method highlight the performance of human resources among the results.

In the public service to monitor (control) the activities of the employee pay attention to the following indicators:

- time for the provision of public services (time interval);
- waiting time in line for receiving public services;
- courtesy and competence of an employee who is in communication with the applicant in the process of providing public services;
- conditions of convenience (comfort) in the room for the provision of public services;
- availability of information on the rules for the provision of public services;
- the availability of electronic forms of documents necessary for the provision of services;
- the availability of electronic payments necessary to receive the service;
- waiting time for a response to the application, time for the provision of public services;
- convenience of public services procedures;
- availability of information when applying;
- the availability and convenience of making appointments, applying;
- providing the applicant with information about the time and progress of consideration of the application, the progress of the provision of public services, obtaining results of the provision of public services.

Currently, in Azerbaijan, Asan service centers under the State Agency for the Provision of Services to Citizens and Social Innovations regularly conduct accounting, verification and

analysis of these indicators. However, it is impossible to deny the presence of certain problems in the application of these indicators. For example, it is not always possible to have electronic forms of necessary documents, ensuring the convenience of public services. And this becomes the reason for the additional loss of time and dissatisfaction of customers (citizens, business people). A. Nagimova proposed another system of criteria for assessing the rationality of public administration, implying criteria in three areas: criteria characterizing the rationality of the management process; criteria characterizing the rationality of the organization of the management structure; criteria characterizing the organizational and technical rationality of the management system (Nagimova A. (2009). In my opinion, of these criteria, the greatest attention is required to be paid to the rationality of the organizational and technical level of the public administration system (state of labor organization and technical support of public servants - the main indicator of management), which can be expressed by the following formula:

$$E_{tti} = (K_1 + K_2 + K_3 + K_4 + K_5 + K_6 + K_7 + K_8 + K_9 + K_{10} + K_{11}) / 11$$

Here:

- Etti - rationality of the organizational and technical level of public administration.
- $K_1$  – the level of division of labor of workers;
- $K_2$  – level of management rationality;
- $K_3$  – level of control over the execution of management orders;
- $K_4$  – level of employee activity planning;
- $K_5$  – the number of employees whose current results are always evaluated;
- $K_6$  – staff stability level;
- $K_7$  – staff discipline level;
- $K_8$  – the level of providing workers with jobs;
- $K_9$  – level of technical support for employees;
- $K_{10}$  – level of organization of professional training of employees;
- $K_{11}$  – level of work with citizens' applications to state bodies.

Each of these indicators is calculated as follows:

- $K_1 = S_1 / S$ , where  $S_1$  is the number of employees working on the basis of job descriptions;  $S$  is the total number of employees.
- $K_2 = F_1 / F$ , here  $F_1$  is the number of functions with the attached instructions or teaching materials that are mandatory for execution by state bodies or structural units;  $F$  is the total number of functions of a state body or structural unit.
- $K_3 = Q_1 / Q$ , here  $Q_1$  is the number of decisions observed over a certain period;  $Q$  is the total number of decisions for the same period.
- $K_4 = S_p / S$ , here  $S_p$  is the number of employees whose work is planned for a given period;  $S$  - average number of employees
- $K_5 = S_o / S$  here  $S_o$  is the number of employees whose current results are always evaluated;  $S$  is the total number of employees.
- $K_6 = 1 - S_2 / S$ , here  $S_2$  is the number of employees laid off during the year;  $S$  is the total number of employees.
- $K_7 = 1 - S_3 / S$ , here  $S_3$  is the number of employees who received a disciplinary reprimand for the year;  $S$  is the total number of employees.
- $K_8 = 1 - S_4 / S$ , here  $S_4$  is the number of workers whose jobs (working conditions) meet the requirements of the organization's science;  $S$  is the total number of employees.



- $K_9 = 1 - S_5 / S$ , here  $S_5$  is the number of workers using individual computers;  $S$  is the total number of employees.
- $K_{10} = 1 - S_6 / S$ , here  $S_6$  is the number of employees who received vocational training (education) during the year;  $S$  is the total number of employees.
- $K_{11} = 1 - M_1 / M$ , here  $M_1$  is the number of applications (appeals) of citizens for which decisions were made for a certain period;  $M$  - the total number of applications (appeals) of citizens for the same period.

We can improve this formula somewhat. If we take into account that in Azerbaijan when hiring a job for government bodies, job instructions are a document required without fail, we consider it appropriate to make some changes when calculating  $K_1$ . And especially,  $S_1$  should be taken in the value of the number of employees accepted into the civil service as a result of competition and interviews, and working on the basis of job instructions. In addition, when calculating indicators, we need to identify only the impact on the activities of the owners. That is, in making economic decisions, and, in particular, decisions regarding the activities of owners, far from all personnel are involved. Therefore, only employees of departments related to the activities of owners should be considered. That is, it will be much more accurate to refer to special information, such as the level of work carried out with statements (appeals) of the owners; the level of work of employees involved in decision-making regarding the activities of owners. For the analysis we turn to the data of Table 1.

*Table 1: Data for the 2019th year on obligations of an economic orientation in the public service*

	Ministries	Agencies	Committees
Number of government bodies	12	5	7
Number of state bodies of economic orientation	4	2	2
The total number of duties (functions) of the state body	1500	220	630
The number of duties (functions) of an economic orientation in state bodies	303	38	37
Actual number of employees at the beginning of the year	12590	1949	2689
Number of posts (full-time working units) of an economic orientation	1658	110	100
Management positions	117	7	23

*Source: Data were obtained by the author during the study*

According to Table 1, it is clear that responsibilities of an economic orientation make up only 16% of the responsibilities of state bodies of 3 types. Most of the responsibilities (functions) of an economic orientation fall to the share of the Ministries and have already reached 20.2%. If we pay attention to the ratio at the beginning of the year of the number of employees holding economic positions to the total number of employees, we can see that they make up 13.10% for the Ministries, 5.6% for the Agencies and 3.7% for the Committees. That is, it is noticeable that the number of public servants involved in the adoption and implementation of decisions related to the economic development of the country is not large. Let us analyze the data of the Ministry of Economy, which regulates the activities of owners.

*Table following on the next page*

*Table 2: Data for the 2019th year on employees of the Ministry of Economy engaged in the regulation of the activities of owners.*

	2019
The total number of obligations of the state body	105
The number of obligations of state bodies related to the regulation of possessiveness	8
Total number of employees	468
The number of employees planned for the beginning of the year	462
Actual number of employees at the beginning of the year	386
Number of employees (public servants) resigned during the year	136
Number of employees involved in the regulation of owners	28
Including:	
Management positions	7
Executive positions	21

*Source: Data were obtained by the author during the study*

For comparison, we note that from February 2014 to the end of 2019, the number of duties of the Ministry of Economy<sup>1</sup> was 79. According to the new regulation of 2019, the Ministry of Economy began to fulfill 105 duties (after the Ministry of Taxes<sup>2</sup> (24 duties) and the State Committee on Property Issues<sup>3</sup> (95 duties) joined it), which, in turn, is less than the number of duties performed three state bodies before their unification ( $79 + 24 + 95 = 198$ ). Thus, by combining state bodies, it was possible to prevent a repetition of responsibilities (functions). If you pay attention to the actual number of employees of the Ministry and the number of employees directly involved in regulating the activities of owners, you can see that the latter make up 7.2%. However, the number of documents that they accepted for execution and executed regarding the total document flow of the Ministry in 2018 amounted to 24.6% and in 2019 - 22.2% (see: Table 3). And this indicates a large amount of work on the circulation of documents.

*Table 3: The number of documents (including appeals of citizens) submitted for execution to the Department for Development Policy and Regulation of Possessiveness under the Apparatus of the Ministry of Economy for the 2018-2019th years*

	2019	2018
The number of received documents, total	11966	11522
Department for Development Policy and Regulation of Possessiveness	2661	2838
Special weight	22,2%	24,6%

Source: Data were obtained by the author during the study.

P. Paskov proposed a methodology that allows achieving a solution to any problem in the field of human resource management (ABC and PRICE systems). According to the methodology, having appointed the main standards of managers' diligence, and thereby identifying the main problems - activators (A); mandatory behavior for employees (B); activities required as a result of (C) - staff management can be simplified. This process is carried out in 5 steps (PRICE - Pinpoint, Record, Involve, Coach, Evaluate). The noted human resources management mechanism for those under the subordination of the manager implies a set of standard actions: assign duties to employees - monitor the execution process - determine the result of work - carry out management activities.

<sup>1</sup> The Regulation on the Ministry of Economy and Industry of the Republic of Azerbaijan adopted by Decree No. 111 of the President of the Republic of Azerbaijan dated February 20, 2014

<sup>2</sup> The Regulation on the Ministry of Taxes of the Republic of Azerbaijan adopted by Decree No. 454 of the President of the Republic of Azerbaijan dated March 29, 2001

<sup>3</sup> The Regulation on the State Committee on Property Issues of the Republic of Azerbaijan adopted by Decree No. 116 of the President of the Republic of Azerbaijan dated June 24, 2009

At first, it is supposed to choose a goal and convey its essence to the staff, at the second stage, the implementation of management instructions and deficiencies in the behavior of employees are determined, the actions of employees are monitored; and only at the third stage (the most important moment) are employees given instructions on the necessary actions to achieve the main goal. It is assumed that for some time the employees will try to independently fulfill the duties assigned to them by the management [P. Paskov (2004)]. This technique, although it has positive properties, still has little effect on stimulating the creativity of the employee. Because, in a system in which a standard way of behavior is required, the creative approach can be met by no means positively and, as a result, can be limited. At present, in Azerbaijan, the evaluation of the performance of a public servant is carried out according to 7 criteria for executive positions (professional knowledge; attitude to official duties; ability to analyze, solve a problem and make decisions; creativity and initiative; work discipline; work experience and ability to share it, and also the ability to work in a team; sociability; relations with other employees) and according to 11 criteria for management positions (the above 7 criteria, as well as the ability to analyze and prognose; the ability to manage; reputation in the team and the ability to inspire; the ability to build a team). One of the main problems is the presence of similarities and repetitions in the names and description of the evaluation criteria of leading and executing employees. Another problem is the assessment of the ability of senior employees to support the initiative of subordinates. And another problem is related to the particular special weight of the criteria. That is, the absence of minimum and maximum boundaries, and the provision of freedom from this point of view. This, on the one hand, although it allows you to perform certain maneuvers in the evaluation process, on the other hand, can lead to the lack of due attention to the development of various abilities. For example, it is necessary to more broadly describe the issue of creativity assessment. Experience shows that the attitude to this criterion may be different depending on the management style of the political leader of the body. Sometimes direct bosses are unable to give orders to a civil servant regarding creativity, and even have no idea how to do it. In this case, a formal approach to managing and evaluating the criterion of creativity is manifested. Although, it is this criterion that is currently the main indicator directly serving development. Another issue relates to the ability to create a team. An increase in the role of interacting teams in the public service system, as well as the creation of relations with owners, due to the high level of their own creative initiative, responsibility and self-organization skills, can cause the growth of overall economic development. Such teams usually have their own special management style; in other words, the system is based on the separation of formal functions of the leader, that is, on the division of responsibility among employees and on the acceptance by leaders of responsibility for the results of the process together with the team, through the gradual abandonment of control functions.

### **3. POSSIBILITIES OF APPLYING NEW METHODS IN HUMAN RESOURCE MANAGEMENT**

The demand for a management system characterized by urgent decision-making for quick and sometimes emergency situations is associated with the post-industrial stage of development. This is reminiscent of the transfer to a relatively stable system of such skills as building a future strategy, making decisions regarding unexpected processes that are most often encountered in the ownership system. Makes it necessary to draw up the mechanisms of strategic planning and strategic management, which are most often found in the private sector. The implementation of such standard functions as “planning-organization-motivation-control” (Genkin B. M., (2000)), along with the fact that this is a mechanism for managing human resources, is most closely associated with social, not economic, aspects. Of course, when managing human resources such moments are compared as the employee’s expectations regarding wages, the system’s ability to provide material incentives, etc.

In this case, the question arises as to what acceptable means can be applied if the established by law and, regardless of market conditions, non-elastic "salary does not meet the expectations of the employee, and financial opportunities in the horizontal management system are insufficient for material motivation." Rejection of hierarchical vertical control and preference for horizontal control; the correct use of the knowledge of specialists, which is one of the main resources; increase in labor productivity and the number of creative workers - all this in real time should be carried out with great speed. And in the civil service system, career planning of civil servants should be based on what motivation (material or social) they prefer. In this case, for those who prefer material motivation, it is necessary to choose a horizontal form of career planning, and for those who prefer social motivation, it is vertical. Today, ensuring competitiveness, being associated with changes in the processes of human resource management, requires the use of innovations that cause changes in the psychology and activities of workers. While the preference for innovative methods in managing human resources is, on the one hand, associated with a decrease in practice of motivation based on material incentives, on the other hand, with an increase in the demand for a creative approach to work. Because the rewards and bonuses given out as material incentives only contribute to the motivation to perform their immediate duties and reduce the productivity of creative work. The use of innovative management methods leads to an increase in the flexibility of the employee's thinking and encourages him to new ideas about awareness and self-realization through the use of creativity. The ability to conduct organizational activities, innovation, initiative and the ability to stubbornly search for new ways to achieve a goal are especially appreciated. However, at the moment there are no instructions regarding in which cases a public servant should be creative, and in which - only comply with the indicators; therefore, such actions are carried out spontaneously by a very stubborn employee at his own risk and peril. It is also not specifically known in which cases the executing employee is given the opportunity to participate in the decision-making process. At the same time, the question arises: how effective is the assessment in the public service system of an employee who has just submitted a new idea and used his creative abilities? As you can see, at the moment in the management of human resources there is no specific organizational and economic mechanism regarding this topic. Of course, in the civil service system, preference is given to authoritarian and socio-psychological management methods. However, the use of innovation makes it possible in some cases to synthesize various methods. Thus, HR specialists are required to make decisions not only on the basis of their experience and observations, but also on the basis of analysis based on exact norms and standards. In this case, it is highly appreciated that HR specialists give the right advice to management regarding the placement of creative personnel. Now there is a lot of talk about the transition to a single control system: planning, control, accountability, management. To evaluate the results of control, the final goals and main results should be well defined. From the point of view of evaluating the results of participation in the management and regulation of owners, the control is aimed at assessing strategic alternatives, the main long-term results and the degree of their achievement, up to one year. And this is assessed at the level of the state body, structural department and employees in terms of the work performed during the year and the quality of their implementation. With the help of control, we can manage goals, execution, forecasts, processes. However, at the control stage, the leader's managerial behavior should also be analyzed. If this is done using the 360 degree method (evaluation by oneself, employees in their subordination, senior manager and the whole team), it will give a higher effect. It is necessary to take into account the use of stubbornness and flexibility during control, as well as the inadmissibility of aggression and lethargy. Therefore, personal control acts as preliminary planning and integration of coordination, control, optimization. However, in the field of human resources management of the civil service system, there are certain restrictions on the use of personnel control.

These are the inconsistency of the personnel policy of government bodies with strategic goals and priorities (a change in the senior management of a government body is often accompanied by a massive change of staff, and professionalism is not taken into account), the psychological unpreparedness of officials for changes and the failure to accept these changes, the presence of interorganizational barriers to the exchange of information and data. It is necessary to add the criterion "about the level of freedom of the controlled" to the categories of human resources management, and on the basis of this criterion, indicate in the internal rules of management the cases of the use of such management tools as coercion, motivation, and persuasion. However, it is also necessary to take into account some points. For the correct and effective application of coercion, the presence of perfect legislation and the elimination of all voids in it is necessary. In this case, coercion, acting as the unity of ideology, politics and law, will give the necessary effect. Motivation serves to increase the rationality of management. It is built on the optimization and saving of resources spent on the implementation of decisions. During persuasion (and sometimes manipulation), it is necessary to know the psychology and values of a controlled person (Fathuddinov R.A.(2019)). And the most difficult thing is the change of values. It is necessary to inculcate civil servants, along with the ability to control, the ability to detect previously unaccounted problems, the ability to make decisions that positively affect economic development and, at the same time, are not predicted by those who violate economic legislation. All these mechanisms should be aimed at improving the quality of activities of public servants involved in decision-making related to regulation and management, which ultimately will contribute to the development of possessiveness.

#### 4. CONCLUSION

In the course of the study, the following results were obtained:

- At the moment, in most literature, the process of human resource management is considered as a common mechanism of organizational and economical processes of management : “engaging in work - choice - conformity - staff development (training) - termination of working relations.” Therefore, management principles are given in a simplified form.
- Of the currently used regulatory, economic and socio-psychological methods of managing human resources, there is an increase in the role of psychological methods. Therefore, when managing public servants, it is necessary to evaluate, in addition to their potential, their psychological state.

Among management mechanisms, evaluation and monitoring mechanisms should be improved; in the internal rules of management should be indicated cases of the use of such management methods as coercion, motivation, persuasion. In our opinion, in order to promote the effectiveness of creative activity of employees, the evaluation of the manager should be based on the results of the work of the structural unit managed by him. At the same time, in the rules related to evaluation, it is necessary to expand the circle of evaluated entities and amend the assessment of managers by their employees. Increasing the level of knowledge and education of human resources is associated with the development of the information society and the growth of the speed and scale of competition and serves stability. However, the economic justification of the costs of human resources should be carried out in comparison with the costs of education and training of personnel, and be analyzed at specific times.

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## AZERBAIJAN'S EXPORT POTENTIAL AND ITS DEVELOPMENT PROSPECTS

**Amirova Farida Shamil**

*Candidate of Economic Sciences, associate professor,  
Department "Theoretical and Practical Economics",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
f.amirova51@mail.ru*

### ABSTRACT

*Dynamics of economic development of the country, volume of foreign trade turnover, effective trade strategy are an indicator of successful economic activity of our country. Rapid development of the Azerbaijani economy has been observed lately. The rate of economic growth provides an increase in GDP production year after year. This is based on world experience, in addition to the oil sector, which is the main income-generating sector of the economy, and the development of non-oil sectors and stimulation of exports. Azerbaijan's export potential is one of the major economic challenges posed by the Strategic Roadmap. At the heart of this problem is the development of foreign trade relations, economic integration into the world market, and stimulation of exports, which puts the development of entrepreneurship in the country and its state support. It is no coincidence that as a result of this, in 2018, SMEs produced 28.8 billion manat products in the country. In our opinion, one of the main problems of our research is another economic problem for the development of export potential of the country, the development of priority areas with the ability to produce goods and services, such as government support, subsidies, concessional loans and so on. identification. Tax and customs privileges, establishment of logistics centers in potential export markets, determination of export products, harmonization of national standards for export products with European standards, quality etc. Problems such as these should be put to the forefront. Economic integration into the world economy, establishment of decent place in the international social work division, provision of currency flow to the country, diversification of foreign trade turnover, formation of competitive export potential, rationalization of export regulation, improvement and improvement of innovations. The above-mentioned problems show that the prospects for developing the export potential of Azerbaijan are wide and varied, which is a promising priority development of the non-oil sector of the economy, a positive growth in foreign trade turnover, and a national strategy based on export imports. The research will be completed by analyzing the stated problems and summarizing the actual results.*

**Keywords:** *export potential, development prospects, foreign trade turnover, gift balance, foreign trade strategy, export stimulation, competitiveness, diversification, innovative development, investment promotion, logistics center, industrial parks, airports, international organizations, international market*

### 1. INTRODUCTION

The dynamics of economic development of the country, the volume of foreign trade turnover, effective trade strategy are indicators of successful economic activity of our country in modern times. Recently, the dynamics of rapid development of the Azerbaijani economy has been observed. The economic growth rate provides an annual increase in GDP. Based on world experience, this is due to the development of non-oil sectors and the stimulation of exports, along with the oil sector, which is the main income-generating sector of the economy. Improving the country's solvency, ensuring the export-oriented economy and implementing a more flexible exchange rate policy, improving the mechanisms for protecting the rights of international investment surplus investors, focusing on the formation of a working system of



the rule of law, their sustainable and fair application, competitive business environment is to keep in the center. Simplification and improvement of foreign trade procedures, as well as increasing state support for entrepreneurs to increase their competitiveness in foreign markets. Implementation of incentive measures to increase the export capacity of small and medium enterprises, the provision of preferential loans by the state to businesses and the use of international experience in protecting them from unfair competition. Implementation of anti-dumping and other protective measures in this direction, improvement of customs procedures. One of the main challenges is to eliminate the factors that discourage investors from entering local markets. As a result, the implementation of reforms in accordance with the international trade system to join the World Trade Organization (WTO) to open new opportunities for the development of the country's economy as a whole. But at the same time, WTO laws do not ensure the implementation of reforms in the country in accordance with the world trade system. Formation of a fair competitive environment Measures to limit monopolies in the consumer market will be continued, antitrust legislation and its implementation will be improved, practical measures to eliminate non-tariff barriers to trade will be accelerated, consumer protection will be strengthened, effective product quality control mechanisms will be established. standards will be developed and the certification system will be improved. The Minister of Economy S.Mustafayev notes: "There is a significant progress in the production of products that make up the consumer basket, the level of self-sufficiency has increased, dependence on imports has decreased. In the first half of 2019, food production increased by 20%. Until the end of 2019, Azerbaijan participated in 4 international exhibitions with a single country stand, as well as individual participation in 17 international exhibitions. Azerbaijan's growing potential opens up great opportunities for expanding production and exports, diversifying the structure of foreign trade, and developing a competitive and export-oriented non-oil sector. As in all sectors of the economy, the course of development in the foreign trade segment is aimed at the fuller realization of these opportunities"[1]. Comprehensive and consistent measures are being taken to diversify the natural economy, stimulate the production and export of competitive non-oil products, and meet domestic demand through local production. From this point of view, reducing the economy's dependence on oil and sustainable development of the non-oil sector are the main goals. In this regard, the role of the private sector in the economy is of particular importance. In accordance with the strategic line "Development of our country depends on the development of entrepreneurship", important measures are being taken to improve the business and investment climate, the introduction of new business support mechanisms. State support for entrepreneurship is expanding. Relevant licensing has been simplified, inspections in the business sector have been reduced, investments and preferential lending rates have been reduced, which has led to an increase in the share of the private sector in the economy. In 2018, the share of the private sector in industry was 83.2%, in the first half of 2019 - 82.5%. This has given impetus to the development of the non-oil sector. Systematic work in the industrial sector has led to the opening of new industrial enterprises in the country, the increase of existing production capacity, as a result of which Azerbaijani industry has achieved both technological and innovative development and the formation of new industries.

## 2. ANALYSIS

The application of new industrial models, the creation of industrial parks and neighborhoods, innovative enterprises such as agro-parks, the expansion of production of export-oriented products create great opportunities. At present, there are 5 industrial parks in the country. These are Sumgayit-Chemical, Mingachevir, Balakhani, Karabakh and Pirallahi industrial parks. We are Sokar Polymer Company, founded in 2013, which is produced in Sumgayit Chemical Park and exports its products to the world market today. Laid the foundation of dense polyethylene (YSPE) plants.

The PP plant was put into operation on July 18, 2018 with the participation of the Presidents of Azerbaijan and Italy, and the YSPE plant on February 18 of the same year. These plants operate on the basis of technology obtained from the world's leading companies such as Lyondell Basell and INEOS. These plants meet the highest international standards in Azerbaijan. Thus, SOCAR Polymer will produce polypropylene and high-density polyethylene in Azerbaijan. The total cost of the SOCAR Polymer project is \$ 816 million. Revenue is projected at \$ 6.6 billion over the life of the plants, of which 30% will be the company's net profit. At the same time, SOCAR Polymer is expected to pay a total of \$ 600 million in taxes to the state budget. Sumgayit Chemical Industrial Park has been provided with tax benefits and infrastructure support. It should be noted that in 2018, 35.4% of global demand for YSPE fell to the share of Northeast Asian countries, including China, followed by North America (17.4%), 3rd place. Western Europe is 11.3%. Over the next five years, demand is expected to increase by 5.7% per year in the Northeast Asian market, and by 1.6% and 2.9% per year in Western Europe and North America. Global demand for YSPE currently stands at 46 million metric tons, and is projected to grow by about 4.6% annually until 2023. In 2018, Turkey's demand for YSPE was about 920,000 tons. By 2023, these figures are projected to reach "2 million tons in 2041, an increase of about 4% annually" [2]. Regarding the benefits of this enterprise for the country, we can conclude that export revenues will be \$ 6.6 billion, jobs will be 500 people, and tax revenues will be \$ 600 million. The capacity of the YSPE plant of the SOCAR Polymer project is estimated to produce 120,000 tons of YSPE per year in 12 varieties. YSPE pellets have so far been purchased from abroad as raw materials, and local manufacturers will now be able to produce final consumer products by purchasing them from the domestic market. According to preliminary estimates, the revenue from the operation of the YSPE facility will be 6.2% of Azerbaijan's non-oil export earnings. If YSPE used to be imported into the country, now SOCAR's new complex will fully meet the needs of the domestic market and export the surplus to Turkey, Russia and European markets. Thus, it is planned to spend 34% of the annual production to fully satisfy the domestic market, 34% and 4% to be exported to Western and Central European countries, 21% to Turkey and 7% to the Russian Federation, respectively. Methanol production is one of the most worthy candidates for "green" fuel at a time when the search for clean fuel in the energy industry continues. Methanol is in demand in both domestic and foreign markets as a "green" fuel because it is derived from natural gas or alternative energy sources such as biomass. Because methanol is already considered the cleanest type of fuel for vehicles in the world. Due to this feature, the energy sector is the fastest growing market for methanol. Today, this type of fuel is widely used in China, which has a strong economy. In this regard, China is one of the leading countries in the market for the use of methanol. Most of the country's methanol supply comes from domestic production. Very little of the supply comes from the Middle East, Southeast Asia, South America and the United States. In recent years, changing the geography of methanol production, methanol plants have been built in the Middle East, Asia and Latin America, which have a number of cheap raw materials, and the products are exported to the United States, China, Japan and Europe. The Azerbaijani government also invested in methanol in 2008, given the growing demand for it. The low-pressure methanol production technology of the British company ICI was used in the construction of the methanol plant with a daily production capacity of 1962 tons and an annual production capacity of 650,000 tons, located in the Garadagh district of Baku. The plant, which was commissioned in 2013, produced 639.1 thousand tons of methanol, of which 231.2 thousand tons fell to 2018. As methanol produced in Garadagh region meets international standards in terms of quality, more than 95% of the products are intended for export. To date, the company's products have been exported to Turkey, Belgium, Romania, Slovenia, Italy, the Netherlands, Israel, Brazil, Ukraine, Egypt, Greece, Bulgaria, China, Kazakhstan, France and Spain. 208,300 tons of high-quality methanol (99.99% purity) produced in 2019 were sold in foreign markets.

Of the total sales, 205.1 thousand tons were exports. The goal is to increase production from 245,000 tons to 500,000 tons per year in 2017-2022. This, in fact, really gives grounds for expanding Azerbaijan's export potential every year. One of the long-term development strategies of the enterprise is the implementation of natural gas refining, which makes it possible to switch from the production of methanol to the production of fuel additives, household and industrial solvents, paints and varnishes. Starting from 2018, the production of methanol-based analytical methanol under the brand "Made in Azerbaijan" as a SOCAR brand has been launched in the domestic and foreign markets. The above shows that in fact a significant part of the task of diversifying the economy and increasing export potential has been achieved, and thus the growing role of the non-oil industry in economic growth in recent years is an undeniable factor. The role is also undeniable. The "Azerbaijan 2020: Vision for the Future Development Concept" considers it important to form a highly competitive economy and create a globally competitive economic system. This concept also formed strategic views on improving the structure of the economy and the development of the non-oil industry and identified key priorities. In this regard, the Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan, approved by the decree dated December 6, 2016, identifies short-term and long-term strategic goals for the development of various sectors of the national economy on the basis of high technologies. occurs before the eyes. As the largest industry in the non-oil sector in our country - more optimal specification of the development directions of heavy industry and mechanical engineering, the definition of productive practical mechanisms taking into account specific goals is important in this regard. In particular, as mentioned above, the definition of priorities within the strategic goals of the oil and gas industry for the development of the chemical and petrochemical complex is a basic expression of the serious importance attached to the non-oil industry. However, on October 15, 2019, although some progress was made in the non-oil sector in some areas, President Ilham Aliyev noted that the forecasts for this sector did not justify themselves and said: "We must work to ensure that our economic growth does not depend on government spending. . Because the main source of our economic growth is public investment spending. We must admit that the volume of foreign investment in the non-oil sector is small. Now the figures show that half of this year's investment is foreign investment. However, much of this is in the non-oil sector of the non-oil sector"[3]. During 2011-2018, the attraction of foreign investment was not so stable. In these issues, the oil factor, the oil and gas sector remained a priority, and the volume of investments in the non-oil sector was not so high. for example, the figure was \$ 700,000 in 2011, \$ 800,000 in 2017, and \$ 970,000 in 2018. The share of foreign investments in the non-oil sector in 2018 was 11.8%. However, it should be noted that instability in world economic processes has made the development of the non-oil sector a priority. In response to global challenges, investment in this sector, a free competitive environment, and financial support from the state are being implemented. It should be noted that the implementation of major infrastructure projects to support the development of regions, agricultural production, organization of leasing, maintenance of fertilizers, creation of modern warehouses, construction of roads, commissioning of modern agricultural parks, business Allocation of soft loans for projects is considered as a stimulating measure, which has a stimulating effect on entrepreneurs in the non-oil sector. One of the main conditions for increasing the export potential of the non-oil sector is to accelerate the innovation of the national economy as a whole. As we have noted, increasing the export potential of the country's non-oil sector is aimed at accelerating the integration of the regions into world economic processes and increasing their export potential by increasing their economic activity. There is no denying the large-scale state measures taken in this area in the country for 15 years. As part of the development of state programs in the regions, the first state program implemented the construction of a wide network of infrastructure facilities in the regions.

The Four State Programs strengthened the industrial potential for the production of competitive products in the country's regions, created agro-parks and farms, and ensured the urbanization of the regions by implementing social infrastructure in parallel. Thus, especially investment-attractive regions are directly related to increasing the competitiveness of the old economy and strengthening export potential. In our study, we noted that one of the priority areas of the non-oil sector and one of the areas of special attention in regional development, which is in the center of attention today, is agriculture. It should be noted that this area has historically had a special weight and importance in the economy of Azerbaijan, which is why Azerbaijan is also called an "agro-industrial" country. Livestock, cotton, viticulture, tobacco, cocoons, melons and gourds, etc., which are traditional fields of agriculture in the country. The development of areas has come to the fore. As in all sectors of the economy, the products produced in these sectors must be export-oriented, not only to meet the needs of the domestic market. Production of agricultural products from 32 large farms owned by 22 entrepreneurs based on modern equipment and technology in different regions, for example, from "Yalama Agropark" in Khachmaz, "Shamkir Agropark" in Shamkir, "Guneshli Agropark" in Jalilabad and so on. consists of. In general, it is planned to build 45 agro-parks in 28 regions. These quality changes have been sustainable in the last 2019, as a result of which the quality changes in agriculture in 2016, 2017, 2018 and 2019 have entered a new phase, which in turn increases economic performance, increases farmers' incomes, agrarian activity is labor-intensive and profitable for people. turned into a field. The growth rate in agriculture has been stable and the value of gross agricultural output for 9 months of 2019 amounted to 6.7 billion manat, which is 7.1% more than last year. During that period, the share of value added in agriculture, forestry and fisheries in GDP was 6.2%. The country produced 2.97 billion manat worth of livestock products (up 3.1%) and 3.3 billion manat worth of crop products (up 11%). If last year 513.9 tons of wet cocoons were produced, this year this figure reached 647.5 tons. Development in this area has had a positive impact on the export of agricultural products in the country. This has had a positive effect on the growth of the country's foreign exchange earnings. Azerbaijan exported \$ 501.5 million worth of agricultural products to various countries, which is 16.3% more than last year. In 2019, the country will produce \$ 32.3 million worth of vegetables (0.5% more than last year), \$ 202.6 million worth of fruits (31.2% more), and \$ 86.7 million worth of cotton fiber (more than 38.3%). , Cotton yarn worth \$ 22.5 million (up 25.3%) was exported. ICT and the tourism sector also have a special role in the formation of export potential and integration into world economic processes, as well as in the development of the economy. In recent years, hundreds of tourist facilities, modern hotels, recreation centers, tourism and recreation complexes have been built and put into operation in the country. As we have said, expanding access to ICT and communication services is also a key priority. In 2019, Azercosmos earned 87.5% of its total revenue from the export of services, exporting services worth \$ 2.5 million to 18 countries. The countries to which this service is exported are the United States, France and Malaysia. In the tourism sector alone, in 2019, 1410.7 thousand foreign tourists came from 185 countries, or 6.5% more than in 2018. There has been an increase in the spending of these tourists coming to our country through bank cards. These operations amounted to 115.1 million manat, which is 8% more than last year. In general, the value of transactions made by foreigners using bank cards in Azerbaijan in 2019 amounted to 509.8 million manat. According to the Azerport.az portal, export orders worth \$ 303.1 million in 2019 were reported. The most export orders are cotton, tobacco, chicken and eggs, confectionery, onions, tea, wine, motor oil, pomegranate juice, compote, furniture sets, construction materials, naphthalene oil, honey, children's underwear, flowers, etc. entered the goods. In total, the value of export orders in 2019 amounted to \$ 1,292.2 million.

### 3. CONCLUSION

According to the recent analysis, it can be concluded that the non-oil sector is an important condition for balancing the economy. The more high technology is used, the better and more competitive the products will be. Competitive and high-quality products attract more attention in foreign markets. Development in this area leads to an increase in the activity of the regions, the improvement of regional relations with the center, the efficient use of resources in the regions, the elimination of unemployment in the regions and the country, the development of other sectors along with the oil sector. These factors will lead to higher revenues, increase the share of the non-oil sector in the state budget, ensure foreign exchange inflows into the country and eliminate oil dependence on the budget. Unfortunately, in parallel with the economic crisis that has gradually engulfed Europe and the world, the coronavirus crisis, which began to spread from China and officially became known as COVID-19, will also have a negative impact on the Azerbaijani economy, which will probably affect the country's export potential. will show. Because Azerbaijan is a part of the global economy. All the processes and negative trends taking place on a global scale affect our country. These processes, in particular, trade, transport, logistics, tourism and so on. will have a more negative impact on areas such as If not for the coronavirus itself, its psychological and economic effects have already reached the level of a pandemic in the world. According to the Organization for Economic Co-operation and Development (OECD), global economic growth is projected at 2.9% this year, but will be halved to 1.5% due to the coronavirus. The main blow hit China, the source of the virus. According to Morgan Stanley, China's GDP growth by 2020 will range from 5.6 to 5.9%, depending on the flexibility of virus prevention. The negative impact of coronavirus on economic growth is also felt in Japan, Korea, Australia, Europe and the Asia-Pacific region, and North America. Financial markets also saw a sharp drop in prices last week. In total, stocks and bonds of more than 3 trillion developing countries fell by \$ 1.1 trillion. With the decline in demand for oil from China, the world's largest oil importer, there has been a sharp decline in world oil prices. The International Air Transport Association (IATA) predicts a decline in air traffic this year, with a loss of about \$ 29.3 billion. During this period, the European tourism sector was hit by one billion euros. Of course, this process will have macroeconomic effects in Azerbaijan as well. A drop in oil prices of \$ 1 per barrel affects our current account of \$ 250 million a year. It is good that we are already immune to falling oil prices below \$ 30. In 2015, oil prices fell more than three times, I think such a decline is not possible now, the government, business and the population in the country are ready, both institutionally and psychologically, to resist oil price fluctuations. In the current situation, the country can maintain the current account balance, even at \$ 40-45 per barrel. This does not pose a serious threat of inflation or serious concerns about the exchange rate of the manat, probably in January 2020, Azerbaijan's state budget revenues amounted to 1.8 billion manat and expenditures to 1.4 billion manat. As can be seen in the first month, the budget has a surplus of more than 400 million manat. If we take into account that in the first two months of this year (2020) the price of oil was above \$ 60 per barrel, which increased the reserves of the Central Bank by 243 million manat. This will probably help to compensate for the losses in some areas. According to the Central Bank of Azerbaijan, strategic foreign exchange reserves amount to more than 8% of GDP, amounting to \$ 52 billion, which means fiscal stability. The analysis in this area is to assess the readiness of the financial and banking sector, what are the prospects in terms of foreign debt, how the State Oil Fund's revenues and portfolio will react to global shocks, how the global fluctuations caused by the coronavirus will affect trade and respond to it. It would be interesting, but given the page limit, I would like to conclude by briefly assessing only how the coronavirus will affect our non-oil exports, as well as its impact on service exports and the tourism sector. In January 2020, according to [banko.az/ar/news/](http://banko.az/ar/news/), non-oil exports to China amounted to \$ 5.9 million. This is 4.2% of non-oil exports. In January, our exports to this country increased 2.1 times.

This means that even if there are problems in both countries, it will not have a significant impact on our exports in the non-oil sector. I think it will not be difficult to find alternative markets for products exported to China. Negotiations and agreements signed with Turkey to expand trade in this direction open up opportunities. Exports of the coronavirus to China and Iran, as well as world markets, especially fruits and vegetables, will decrease. This will allow Azerbaijan to increase exports of these products at higher prices, in larger quantities and gain new positions in foreign markets. Our country is already receiving new orders for the export of potatoes and fruits and vegetables. This means that Azerbaijan's import substitution will have a positive impact on the current account balance. This problem has also affected the tourism sector around the world. It is said that the losses of the world tourism sector will be measured in billions. As for Azerbaijan, in 2019, 3.2 million foreign tourists visited our country, which is 11.3% more than in the previous year. 8.1% of the visitors were Iranian citizens, while 36.7% of Azerbaijani citizens left for Iran that year. That is, 2 million Azerbaijanis went to Iran that year, and 256,000 people came to Azerbaijan from Iran, and the difference between those who left and those who came is more than 8 times. As a result of the closure of the borders, the number of visitors will decrease. In 2019, the number of visitors from China increased by 62.4%. But last year, only 25,500 people came to Azerbaijan from China. The decline in world tourism reduces the number of tourists leaving Azerbaijan, which will have a positive impact on the country's currency balance. Taking into account the above, we can say that countries with stable energy carriers and cheap labor, developing infrastructure, such as Azerbaijan, will try to use the current situation to reduce losses in value chains and use it effectively.

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## ON IMPROVEMENT OF MODERN SOFTWARE FOR MANAGEMENT OF OIL AND GAS INDUSTRY ENTERPRISES OF THE REPUBLIC OF AZERBAIJAN

**Anvar Allahyar Gasimov**

*Candidate of «Oil and Gas Scientific Research Institute»,  
State Oil Company of Azerbaijan Republic (SOCAR), Azerbaijan  
anver.qasimov@socar.az*

**Galib Bahram Hajiyev**

*Candidate of Economic sciences, associate professor,  
Department of “Economy of enterprise”,  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
galib.haciyev@gmail.com*

### ABSTRACT

*Today, the competitiveness of the oil and gas industry of the Republic of Azerbaijan and the increase in efficiency is depending on the correctness of management decisions. For this case, the article points out the need to improve the management of this sector of the country with modern softwares. The software is perspective in all cases and has been shown to be deficient in the corporate planning of the oil and gas industry while managing in the current economic environment. The article points out that the application of international standards in various fields, advanced management techniques and advanced information technology has enabled SOCAR to optimize its revenues and costs while improving business processes. Thus, SOCAR has been implementing SAP ERP system since 2008 and during this period, the directions for further expansion and successful operation of the system were reflected, as well as the implementation of the management of payments within the specified functionality in several stages. Implementation of management accounting in the oil and gas industry of the country began in 2009 and has been successfully completed. In accordance with this project, cases of monitoring the current situation in the enterprises of the oil and gas industry were identified. Beginning from 2018, the methodology for the development and implementation of the KPI (Key Performance Indicators) system in the country's oil and gas industry Companies has been approved and the Regulation on the Development, Implementation and Implementation of the KPI System has been approved and started. Expected benefits from the implementation of the approved action plan were assessed by enterprises and the results that would be obtained from the up-to-date SOCAR management software.*

**Keywords:** *Republic of Azerbaijan, country, oil and gas industry, enterprise, management, software*

### 1. INTRODUCTION

Considering that Azerbaijan has a multi-faceted structure of the oil and gas industry, the complexity of technological processes and its dependence on natural factors, and the ever-changing economic environment increase the complexity of the management process in this area. In a such economic conditions, the competitiveness of oil and gas industry enterprises and the increase in efficiency depends on the correctness of management decisions. The use of new management techniques in the oil and gas industry, which has been around for more than a century, is needed to clarify the economic situation of the enterprise, to ensure management stability, and to improve the management of the enterprise by providing the conditions for identifying and eliminating «weak» positions. From this points well-designed management process is a key tool for addressing upstream issues.



## 2. THE NECESSITY AND MODERN SITUATION OF SOFTWARE OF SOCAR MANAGEMENT

Looking at the past history of the oil and gas industry of our country, it is clear that future solutions of the existing problems, which are of special relevance, are based on today's requirements. From economic sources and experience it is clear that the management of the oil and gas industry of the Republic of Azerbaijan is carried out in accordance with market principles and has done much in this area [1, 2, 3, 4, 5, 6]. One of the issues that need to be addressed is the fact that oil and gas industry enterprises in our country face many challenges when switching from the administrative principles to market principles. In a market economy, competitive production is at the forefront. To do this, management principles must be properly followed to provide the consumer with a cheaper and better quality product. The modern management software of the oil and gas industry is always promising. In the current economic environment, the corporate planning of the country's oil and gas enterprises has the following shortcomings:

- long-term planning and labor capacity in the planning process;
- inaccuracy of plan data;
- The advantage of the costing mechanism in the planning process, that is, the pricing mechanism that results from the profit margin at the full cost of the product without considering the market prices;
- Lack of important tools for financial analysis;
- Inadequate definition of financing requirements for business activities;
- Lack of scenario analysis and evaluation of the financial sustainability of the enterprise.

Over the past 28 years since the establishment of the State Oil Company of the Republic of Azerbaijan (SOCAR), a lot of success has been achieved, especially since the launch of a new oil strategy in Azerbaijan; new oil and gas fields have been discovered and other important achievements were made. The main goal and direction of SOCAR's future goals and objectives at the Republican Meeting of the President of the Republic of Azerbaijan Ilham Aliyev on 14.11.2007, «State Oil Company of the Republic of Azerbaijan Should Become a Global Company» was. Following this assignment, SOCAR, which has a special role in the development of the Azerbaijani economy, has become a Regional Company with significant steps to transform it into a modern and strong organization that meets international standards. The use of international standards in various areas, modern management techniques and advanced information technologies has enabled the oil and gas industry enterprises of the Republic of Azerbaijan to optimize its revenues and expenditures. Thus, since 2008, SOCAR has begun to implement the International Financial Reporting Standards (IFRS) and SAP ERP system for automation of accounting. During this period, the SAP ERP system in the oil and gas industry of the Republic of Azerbaijan has been successfully upgrading in the following directions:

- FI (main ledger accounts),
- HR (Human Resources Management),
- SD / MM (records of purchase and sale),
- SAP CO (cost accounting for production, works and services);
- BPC and FP modules of the SAP ERP system:
- Consolidation,
- Treasury submodules.

Electronic document management (Opentext) was introduced and three new projects were developed: CPM (Corporate Performance Management-) management accounting, business

planning and budgeting based on BPC (Business Planning and Consolidating), production modules - PP accounting), PM (repair management), PS (project management), QM (quality control management) and UOM (oil and gas operations management, oil and gas transportation, waste management) and the expansion of the treasury module. SOCAR did not stop developments in this area and continues to work in this direction. Currently, efforts are underway to develop the Human Resources Transformation Project (HCM), oil and gas operations, drilling project management, the use of resource management methods, and the construction project management software. In addition, the Unified Regulatory Database is being developed and managed with the support of companies with international experience in this area to provide effective and reliable information on all the modules used. The oil and gas industry of the Republic of Azerbaijan has successfully completed the transition to IFRSs, prepared financial statements for 2008-2019 and in accordance with international practice, and provided the audit of financial statements carried by Ernst & Young International Audit Company for each reporting period. and received positive audit reviews. Since the beginning of oil products export, numerous economic reforms have been implemented in the economic sphere of the Republic of Azerbaijan and laws have been adopted based on best world experience. Thus, according to the Strategic Roadmap for the Future of the National Economy of the Republic of Azerbaijan, approved by the Decree of the President dated December 6, 2016, diversification of the country's economy has been identified as a top priority. Since 2008, SOCAR has been preparing the consolidated financial statements in accordance with International Financial Reporting Standards in our country, and has been continuously working on this. So, SOCAR has received ratings from the world's leading rating companies - Fitch Ratings, Moody's and Standard and Poor's with BB+/Stable, Ba2/Stable, BB-/Stable. At the same time, the management accounting in the oil and gas industry of our country began to be implemented in 2009 and has been successfully completed. According to this project, as a result of monitoring the current situation in the enterprises of oil and gas industry of the country, the following cases were identified:

- Information infrastructure in different enterprises is different;
- reports were presented at different intervals;
- the reports contained extra data;
- various local and external approaches were used in the method of calculation of indicators;
- it was not possible to prepare the necessary information at the time the decision was made;
- The efficiency of the use of the information did not cover the cost of its preparation.

On the other hand, the use of the budget system was also important due to the need to identify internal resources, to justify the optimal level of financial resources, to improve the management system and to increase investment attractiveness to reduce production and sales costs. The budgeting system, which is a management technology tool, allows you to see an overall picture of the enterprise's operating and financial performance, forecast financial results, control for possible risks, optimize costs, achieve cost savings and achieve planned results. Clearly, the budget can be formed in several ways [8, 9, 10, 11, 12, 13]. In the «bottom-up» budget method, the activities of the structural units are planned separately and a summary budget is formed. In such circumstances, although the budget is structured according to the area under which the structural units are responsible, budget reports can be changed by senior executives, and the budgets of the various structural units may not be reconciled. In other «top-down» budget methods, budget reports approved by senior management may not be fully covered by the structural divisions and may not be accepted by department managers, even though they are interconnected with structural units. As we know from international approaches top-down and bottom up budgetary methods are suitable for different companies. Because of high complexity of profiles of SOCAR Group SOCAR uses combinations of both methods.

In other words, the target indicators for SOCAR (product production and sales, well construction, and capital investments) are being planned and submitted to the enterprises, which allows businesses to plan key budget indicators for their activities. In the oil and gas industry of our country, the main budget reports, such as Profit and Loss, Statement of Financial position, Cash Flow Statement (direct and indirect method), are formed from production plans. Profit and Loss report, which is considered one of the main reports in the budget process, shows the expected results of financial and economic activities of the enterprise. It should be noted that for the first time in the oil and gas industry of our country in 2014, the Enterprise Balance Forecast, Budget Payment Schedule, and Cash Flow Statement were prepared directly and indirectly. The Cash Flow Statement presents projected cash flow and expenditure estimates from three areas of operations (operating, investing and financial activities) that enable the business manager to manage assets. Works are underway to improve operational efficiency and cost optimization through the involvement of the Consulting Company in the institutions included in the country's oil and gas industry. Thus, extensive research has been carried out to improve operational efficiency and cost optimization in a number of oil and gas industry entities that have been included in the oil and gas industry since 2012 [14, 15, 16, 17]. These measures include optimization and optimization of operational activities in all areas of economic activities, changes in the scope of investment, contractor work, transportation costs, repairs, procurement, new techniques and technologies, and changes in the workforce. optimization. In 2019, the Azerkimya Production Association, together with the representatives of the Consulting Company, developed a plan of action to increase operational efficiency and cost optimization by SOCAR employees, and the plan of action has already been approved by the president of SOCAR. Experienced SOCAR staff have also developed and implemented an action plan at the Department of Safety and Ecology, Diving Service of the Azneft Production Association. In 2018-2019, they are working on improving efficiency of operations and cost optimization at SOCAR's Information Technology and Communications Department. Regular monitoring is carried out to monitor the implementation of the Action Plan and assess the status of implementation. SOCAR has also begun to implement various modules of SAP ERP systems in other areas of production, including the use of modern information technologies in accounting, economic analysis, human resource management, production planning, project management, quality control, and production. Thus, the implementation of the EHS-Waste Management module of the SAP ERP system was launched as part of the Advanced Logistics and Distribution Project. EHS-Waste Management Records of Waste Management, EHS-Waste Management from 2019, to ensure environmental safety and integrate existing reports with various waste management systems into an automated accounting system» is also running. The project on improvement and implementation of the SAP ERP system PS (Project Systems) module for complex «Integrated Drilling» Trust, launched in August 2019, was launched in oil and gas industry of the Republic of Azerbaijan. Thus, the costs associated with drilling of oil and gas wells, the operational monitoring of production and economic performance of the drilling program are ensured in an integrated system.

### **3. IMPLEMENTATION STAGES OF MODERN SOFTWARE MANAGEMENT OF OIL AND GAS INDUSTRY COMPANIES**

In modern economic conditions, enterprises and organizations of the oil and gas industry of our country are improving budget and treasury activities, which are an integral part of the financial system, in accordance with new technologies. Thus, in order to provide financial sustainability and integrate modern financial and economic software integration into these entities, the Budget Management, Budget Control and Payment Management Project is implementing another project called Treasury SAP ERP. » The (Treasury) module is in use.

This module, which includes cash flow planning, revenue planning and cost control, is designed to keep budget commitments in line with allocated limits, to ensure that budget commitments are systematically implemented and that financing is a priority. is carried out in stages:

- approval of payments for confirmed orders;
- prioritization of payments;
- timely and full implementation of compulsory payments;
- Determining opportunities for raising funds;
- implementation of procedures to create cashback or eliminate cash shortages before deducting costs.

Improvement of budget and treasury activities in accordance with new technologies in the oil and gas enterprises and organizations of the country, determination of financial relations between its separate units, implementation of control over expenditures and revenues, economic and social development of these entities, increase of financial sustainability. This functionality also enables us to collect information about forecasting and actual performance of cash flows related to operational, financial and investment activities of enterprises and organizations in the oil and gas industry of our country, identifying prioritization of payments, and controlling the implementation process.

#### **4. KEY PERFORMANCE INDICATORS IN THE OIL AND GAS INDUSTRY**

Since from 2018, the Oil and Gas Industry of the Republic of Azerbaijan has approved the «Methodology for the Development and Implementation of the KPI System» and the «Regulations on the Development, Implementation and Implementation of the KPI System» and the system has been implemented. The main objective of the development and implementation of the Key Performance Indicators (KPI) system is to integrate structures, integrate them into common objectives, and integrate the goals of the SOCAR leadership into the realities of the Company's strategy and operational activities. Effective use of existing central databases to identify effective directions for achieving strategic goals, defining overall business activities for the next year, assessing performance results, establishing a motivation system for achieving strategic goals, automating data collection and processing, and conducting various types of analyzes. The KPI system, which is responsible for the preparation of relevant reports on the KPI reflecting to the activities of the oil and gas industry of the Republic of Azerbaijan, is focused on SOCAR's strategy and long-term development programs, ensuring continuous improvement of the Company's financial and operating results, ensuring transparency and balancing indicators. At present, strategic priorities, goals and KPI are set at the corporate level for the oil and gas industry enterprises of the Republic of Azerbaijan, and the process of determining the target values of the KPI risk assessment is being carried out. Implementation of the «Transition Plan for Methods of Estimating Cost Estimates for Construction, Installation and Settlement Works by Contract Method» at the Oil and Gas Industry Enterprises of the Republic of Azerbaijan has been launched since 2015. In this regard, the PS module of the SAP ERP system as a pilot project in the Oil and Gas Trust to improve the efficiency and control, improve efficiency, and improve the existing information system and organizational structure in the construction and repair sector. Implementation of the «project management system» was considered important. In addition to the existing state SNB as part of the next stage of the Estimation Regulatory Base (ERB) and Price Survey, 14 SARs and price inquiries have been prepared for major construction and repair activities for 2016-2018 as ordered by SOCAR. These questionnaires cover the consumption of materials and labor resources for all types of construction work specific to the oil and gas industry. In modern conditions, all questionnaires have been approved and adopted by responsible government agencies.

In addition, the current book of resource indicators, including actual prices for materials and services, as well as operating tariffs of SOCAR repair brigades and machinery and machinery, was formed within this phase. The third phase of the project involves automation of resource planning processes using the SAP ERP system, as well as automatic calculation of planned cost based on inputs for resource use. Work on this stage started in 2017 and is now on the eve of finalization. In 2018, the SOCAR wells design and construction process (WDCP) has been identified and redesigned to meet world best practices. This document specifies the stages of design and construction of wells, responsible parties for each stage, workflow for business processes, describes the activities of the specialists involved in the process, including roles and key activities. For the automation of these processes, the implementation of the project for the extension of the PS module on the CPC was launched. This project is implemented by SOCAR CIS (jointly with the IBM). Within the framework of this project, the module module PS, SAP PPM - Project and Portfolio Management, SAP MRS - Resource Planning, SAP IP - Investment Management Modules will also be implemented. As a result of implementation of these modules, drilling projects planning, execution and monitoring with standard drilling plans, optimal allocation and management of drilling projects, cost planning, approval process, contract management, comparative reporting, etc. automation processes. In accordance with the agreement signed with SOCAR and SAP CIS, oil and gas production planning, overhaul and underground repairs, geological and technical measures, maintenance, planning and preventive works, research works in all structural units of Azneft PU. UFAM-SAP - Upstream Field Activity Management System of oil and gas production planning and management is implemented, taking into account business objectives and optimal allocation of resources. As a result of the model calculations of the layout, wells and harvesting systems, an appropriate tool will be created to support the decision-making process in wells and surface equipment. In the oil and gas industry of the Republic of Azerbaijan, a large-scale work is being carried out using the best practices of international companies and legislative opportunities in the organization and normalization of labor as an integral part of the management mechanism. Work on modeling business processes, job analysis, and job standards for SOCAR headquarters and structures are being developed to develop new in-house regulatory documents and to adapt existing documents to international best practices. SOCAR headquarters, Azneft Production Union, Investments Department, Working Conditions norms Department, Gas Export Department, Oil Pipeline Department, H.Aliyev Oil Refinery, Gas Processing Plant, Complex Drilling Trust, Azerikimya The «Working Classification» documents covering the Union, the Office of Geophysics and Geology, as well as the job (professional) standards for these institutions have been developed and implemented. At present, work under the ecology department is underway in this direction. SOCAR has begun to take appropriate measures to improve the Internal Control System in 2014. The main step in establishing an internal control system is to provide a holistic approach to internal control, to identify the current conditions and causes of defects in the company's structures, to identify existing practical and theoretical and legal problems, to address them and to apply best practices. provision of practical and methodological assistance, immediate verification of the correctness of the information about the deficiencies in the activities of the company and taking appropriate measures for its results. Key principles, standards, methodologies and work programs have been developed to improve the Internal Control System, and relevant training has been provided to senior management staff to raise awareness. During the period of 2018-2019, the Company's structural units have been monitored on the internal control system. At the same time, meetings with business process executives were held to update graphic descriptions and risk control schedules for SOCAR enterprises during this period, provided methodological support and achieved objectives. Completion of SOCAR's existing assets through strategic mapping and the use of management accounting that provides the basis for timely decision making, reporting forms and key

performance indicators (KPIs) for executives based on the data collected from a single database has been completed. The SAP BPC (Business Planning and Consolidation) and SAP Business Objects modern software used for this guarantee the quality of work. Following the development of a vertically integrated development strategy, SOCAR-programmatic development and future financial strategies were adopted. In accordance with SOCAR's financial strategy, which sets limits on financial and investment activities, the return on capital for investment projects, the minimum share of private equity in total assets, the maximum annual interest rate, and other indicators are monitored by relevant commissions. In the current economic environment, Ernst & Young together with the Company's employees has developed a strategy for the future development of the Azneft Production Association and SOCAR until 2025. During the preparation of this document, the demand for oil and gas in the world and the Republic of Azerbaijan will be increased by 2025, limited oil and gas resources of SOCAR, energy security of the country, improvement of technologies and management, access to international markets and so on. The future targets were identified taking into account the factors and it was shown that in 2025 Azneft's oil and gas production could be increased by 8.08 million tons and 17.4 billion cubic meters. Organizational audit activities, risk management and internal control systems, which are key elements of corporate governance globally, have been implemented in the projects. So, in order to prevent any possible events or actions that could adversely affect the Company's strategic development goals, SOCAR's risk management system was established in 2008, including risk management, to ensure that the goals and objectives are met. The methodological basis for compliance with legal, organizational and international requirements has been identified. In accordance with the order of the President of SOCAR, since 2012, measures are being taken to "increase the efficiency of operating activities and optimize costs" of the main production facilities included in the structure of the Company. To this end, Ernst & Young has completed its investigations at the Complex Drilling Trust, the Caspian Sea Fleet and the Azneft PU and has been following the relevant orders of the SOCAR president and directed to the execution and the works at the Oil Refinery, Oil Pipelines Department have been completed. Directions for assessing the expected benefits from the implementation of the approved action plan for the oil and gas industry. Expected benefits from the implementation of the approved action plan are evaluated as follows:

- Due to attraction of 30 million manat investments within 30-540 days at Azneft PU it was saved 182.9 million manat and 64.9 million manat had an annual profit of 247.8 million manat, including 605 over three years. , With a reduction of 7 million manats (excluding lump sum profit), the profit was 61 million manat;
- \$ 62.6 million per year due to attraction of 26.4 million manat investments within 90-450 days under the Complex Drilling Trust, and 19.8 million manat due to a reduction of costs by 138.2 million manat over three years. was a one-time benefit.
- The annual profit of \$ 32.1 million at the expense of attracting 7 million manat investment within 90-360 days on the Caspian Sea Fleet and a 76.7 million manat decrease over three years (excluding disposable profit) of 4.5 million manats.

Taking into consideration optimizing the Azneft PU and other oil and gas industry enterprises, domestic regulated prices and their structure analysis were conducted, considering that the main source of funding was sales in the domestic market. To optimize business activities at SOCAR, Ernst & Young analyzes the impact of domestic price and tariff policies on its revenues and compares domestic retail prices of oil products in the neighboring countries where the company invests. Studies have shown that oil products prices are 40% lower than those in the Russian Federation, 50% from the Republic of Georgia, and many times lower than in Ukraine, Turkey

and Switzerland. At the same time, it was emphasized that the specific weight of excise tax in the regulated prices of oil products is higher than in the above countries.

## 5. CONCLUSION

Provision of modern management programs of enterprises involved in the oil and gas industry of our country can help to achieve a number of positive results in the activities of the enterprise:

- Efficiency in resource management and distribution processes is achieved through the proper identification of business processes;
- control over expenditure as a result of the proper financial structure;
- The costs of products, works and services produced as a result of improving the resource allocation process are properly defined;
- Planning ethics are being developed as a result of regulation of processes;
- analysis of actual deviations from the plan allows managers to make the right management decisions;
- Optimal forecasting of cash flow and timely payment;
- control of free cash flow helps to avoid excessive costs;
- The effectiveness of management decisions is enhanced by forecasting the company's liquidity.

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## ENSURING GLOBAL FOOD SAFETY

**Ilaha Tagiyeva**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*ilahavaliyeva@mail.ru*

### ABSTRACT

*Food safety means that the country pursues an independent policy, to claim their rights as spokesmen, a common position in solving any problem. In this regard, Azerbaijan is among the countries with the highest position. So, very important steps are being taken in our country to ensure food security, which is a key element of economic, political and environmental security. A key element of food security is the economic independence of the country's national food system. Today, important steps are being taken to increase grain production, which is an important strategic product to ensure food security. First of all, large grain farms are being established to increase productivity. Of course, all this has a serious impact on both the self-sufficiency of our country and the reduction of financial expenditures on imports. The steps taken in this area once again confirm that the main policy of the state is aimed at reducing dependence on imports, creating favorable conditions for export potential by creating food abundance. Of course, food security does not mean a complete cessation of food imports into the country. This is impossible. Thus, no country in the world can be fully self-sufficient in food through local production. Just as it is impossible to move without imports, it is also unrealistic to supply the domestic market with all kinds of food without importing one or another type of food. It is enough to look at the markets of developed countries, as well as those that specialize in the export of most food products. Large-scale measures taken in the Republic of Azerbaijan to more fully and sustainably meet the needs of the population in quality and safe food products are yielding positive results. At the same time, conditions such as increasing the production and import-export of food and agricultural products in the country, protection of consumer health and protection of rights make it necessary to improve the system of state regulation and control in the field of food safety. Conceptual changes have recently taken place in the implementation of management and control measures in the field of food security in the world. Some developed countries focus resources on high-risk areas and specific problems to regulate food security. Consistent and purposeful reforms implemented in the direction of developing the food security system in the Republic of Azerbaijan have created ample opportunities for improving the existing normative legal acts and material and technical base, and achieving significant achievements. The strategic vision of the "State Program on Ensuring Food Security in the Republic of Azerbaijan for 2019-2025" envisages achieving full provision of the population with healthy and safe food and thus significantly reducing food-borne diseases. The article clarifies the socio-economic nature of food security and explores ways to ensure security. Thus, attention was paid to the development of horticulture and animal husbandry, which are key factors in strengthening food security. The steps taken in this area were discussed.*

**Keywords:** *Food, Food safety, global problems*

### 1. INTRODUCTION

Food security is one of the most serious problems facing the world at a time of growing global threats. One of the important tasks facing the world is to solve this problem. Ensuring food security at the global level, increasing the activity of countries around the world, including Azerbaijan in these processes, improving public policy to expand food production and strengthen processing areas, the application of incentive mechanisms are important conditions.

It is important to consider the social aspect of food security, address the problems of unemployment and poverty, improve food regimes, and eliminate social inequality in food access. Careful monitoring and consideration of modern challenges in ensuring food security, strengthening cooperation between the countries of the world in connection with climate change, the effective mechanisms of modern technologies to ensure the efficient use of land, water and other resources should be expanded. The role of urbanization in food accessibility policy should be specifically investigated and adequate measures taken in a comprehensive manner. Special attention should be paid to the importance of the business-science-education triangle in strengthening food accessibility

## **2. FOOD SECURITY AS A PART OF ECONOMIC SECURITY**

The problem of food security attracts a lot of attention as one of the most global problems of world civilization. Ensuring food security is an important part of the economic security of any country. Food security is about providing the population with essential and essential foods for a healthy life. Food security is based on four main components. These include reality - food demand, supply and trade turnover, accessibility - gross income, unemployment, economic growth and poverty levels, consumption - health, education levels, infrastructure network and stability - physical and economic access to relevant food. Food security is commensurate with the growth and level of economic development of each country. Building an economy with strong potential and economic development is an important factor in ensuring sustainable food and food security. As the level of poverty increases, their incomes are not enough to supply such food in the domestic market, and in this case, the resources to strengthen the food supply through imports from abroad are significantly weakened. Lack of optimal definition of strategic goals of economic development slows down economic development, complicates economic growth and does not allow the formation of resources to improve the welfare of the population. Acting as an integral part of economic security, food security must form reliable sources and resources to provide the country's population with important types of food. At the same time, food security reflects health and service factors that are directly related to the country's environmental and socio-economic factors. While health determines the total food consumption in the country at any time, the service ensures the timely delivery of appropriate and required food to "vulnerable groups" - infants, children, the elderly and the disabled. If these two important factors are not taken into account, non-standard medical services, environmental pollution, poor quality services will become more widespread, and the population's food security problems will increase.

## **3. TRADE AND FOOD SECURITY**

Trade is one of the key factors of economic development and has a positive impact on food security, along with every sector of the economy. Since food security and food insecurity are relatively closely linked to poverty and unemployment, significant work can be done to address these issues through international trade. In this regard, the development of trade is characterized as one of the important strategic economic activities of each country. In this regard, one of the important conditions is the development and implementation by the state of an optimal trade policy and, in particular, the concept of foreign trade. On the other hand, ensuring a positive balance in foreign trade, developing sectors of the national economy with export potential, organizing the production of a wider range of export-oriented products and increasing their competitiveness are considered important and strategic economic goals by governments. In the twentieth century, with the development of interstate trade, the food problem has become a means of political pressure on one group of states over another. Such countries are constantly studying the food problem in other countries.

At the same time, they are trying to expand their market share in other countries by maintaining a high level of food supply in their own countries. This allows exporting countries to apply soft measures (customs barriers, price policy, export subsidies, etc.) in their relations with importing countries, as well as tough measures (embargoes, import bans, economic sabotage, etc.). At the same time, food-importing countries are pursuing a foreign economic policy aimed at protecting the domestic food market, domestic producers and exporters from foreign competition, as well as completely closing the domestic markets for imports by increasing food self-sufficiency. As can be seen, food security is a key condition for the sovereignty of the state, its domestic policy and, at the same time, its sovereignty in the field of international relations for all countries of the world.

#### **4. FOOD SECURITY IN AZERBAIJAN**

After the collapse of the former USSR, in the early 1990s, Azerbaijan began to rebuild its economy, create state attributes and form its own model of independent economic development. However, there were serious problems in the country at that time. Thus, previously large centralized enterprises were shut down, and the country did not have sufficient financial resources to begin economic reforms. On the other hand, as a result of Armenia's occupation policy, 20% of the lands were lost and about 1 million refugees were settled in difficult conditions. There was no economic and political stability, hyperinflation paralyzed the financial and credit and monetary systems, and poverty and unemployment increased everywhere. However, within the framework of the "Contract of the Century" it was possible to restore the stability of the country's economy. Beginning in the mid-1990s, economic reforms accelerated. Everywhere in the country, economic mechanisms began to be built at the level of market economy requirements, the introduction of new technologies and the application of management methods were given priority. For the first time in the history of the former USSR, land and agrarian reforms were carried out in Azerbaijan. Conditions were created for people living in rural areas to be engaged in agriculture and animal livestock. Additional measures were taken to develop farms. In particular, long-term programs to increase the production of important food products have been developed and implemented. As a result of measures to expand food production, favorable conditions have been created in the country to create food abundance and ensure food availability. Azerbaijan has formed an improved state economic policy for the provision of important food and food products, a comprehensive solution to food security problems. The creation of stocks of important food products, including the creation of stocks of food wheat in particular, is ensured under the strict control of the state, and in this regard, the relevant state control body has been established. It is noteworthy that consistent measures are being taken against the artificial increase in food prices, and in general, important measures are being taken to ensure food availability in the country. The current situation is aimed at the modern food security policy and concept of Azerbaijan, primarily the reliable provision of the population with important food products for a long time. In connection with this, a systematized and balanced economic policy is being pursued on a regular basis, and important measures are being taken. In particular, strategies, government programs and development concepts are being developed and implemented to reduce unemployment and poverty. . During the UN Secretary-General's visit to Azerbaijan in May 2015, \$ 10 million was allocated to support the cooperative development of agriculture under the CSTO-Azerbaijan Cooperation Program signed between the CSTO and the Government of Azerbaijan. As a result of this program, the modernization of Azerbaijan's agricultural sector will be strengthened, the activities of high-yielding agricultural sectors will be expanded, and in the near future our country will be strengthened as the largest producer of agricultural products in the region.

Under the Country Programming Agreement for 2016-2020, the CSTO has identified priority areas for the development of Azerbaijan's agricultural and food industries as a priority:

1. Strengthening the health of animals and livestock, as well as plant protection, including the prevention of situations dangerous to human health, increasing the effectiveness of measures to protect animals and plants from various dangerous diseases;
2. Increase investment in the development of agricultural areas and increase the range and volume of important food products, protection of food safety criteria, strengthening measures to address the problems of socio-economic development in rural areas, where food is mainly produced;
3. Ensuring the development of human resources, including raising the level of development of agrarian science, strengthening the educational process in the agrarian field, expanding research work on agrarian problems, increasing scientific activity in these fields;
4. Strengthening the state economic policy to balance the economic development of agricultural areas and regions and the development and implementation of new economic development programs;
5. Cultivation of high-yielding cereal varieties, expansion of adaptation to local conditions, creation of a strong production and processing network of fishery and livestock products;
6. Ensuring the efficient use of existing forest, land and water resources in the country, provided that the society and the national economy are balanced, sustainable and sustainable, as well as the protection of national economic interests.

In view of the above, it will be possible to accelerate the development of economic processes, including agriculture, and create favorable conditions for making a worthy contribution to strengthening food security, if the states continue to work and pursue policies to ensure food security and food security will be created.

## **5. THE STATE OF MEETING THE DEMAND FOR FOOD PRODUCTS IN THE WORLD**

In the decades since the war, mankind has not been able to solve the problem of food security for the majority of the world's population. The slowdown in the arms race in all parts of the world would allow some of the money spent on unproductive purposes to be spent on ending hunger and solving other vital problems of mankind. According to experts, only 3% of the world's defense spending is enough to make developing countries self-sufficient in food. However, experience has shown that the existence of objective preconditions alone is not enough to solve the global problem of food security of the peoples of developing countries. Food security cannot be ensured simply by increasing food production. Investments in agriculture should be complemented by social protection measures that will help alleviate hunger among the most vulnerable. For example, in many developing countries, women play an important role in food production, nutrition, and family income. That is why issues related to women's health, education and employment are becoming a key factor in the development and implementation of food security programs. In the poorest countries, hunger is often associated not with food shortages but with the inability to obtain them. This situation is the result of the interaction of complex factors. In addition to depriving the poor of access to food, many types of agricultural and food products cannot be exchanged between countries due to high customs tariffs or the lack of infrastructure and transport systems. Due to the lack of clear definition of property rights, they are deprived of the opportunity to use the land as collateral for loans (small farms need these loans), so the struggling villagers are unable to move beyond the boundaries of subsistence farming.

Many countries are unable to sell the rest of their goods due to inadequate food security systems. Deforestation, pollution of lakes and rivers, and the ruthless exploitation of arable land reduce soil fertility and increase the burden on the population in the face of rapid population growth.

## **6. THE MAIN PROBLEMS OF WORLD FOOD PRODUCTION AND WAYS TO REDUCE THEM**

Beginning in the second half of the twentieth century, the world's nations faced the task of taking urgent measures to address global problems in human and environmental relations, such as the depletion of ecological, food, energy and raw material resources. In the 1970s, a group led by the American scientist and biophysicist Donella Meadows (1941-2001) developed a generally accepted definition of a "global problem" in a report entitled "Growth Limits" for the Club of Rome. Although the range of global problems is wide, there are more serious ones. Among these problems, the problem of food security is acute. According to the Food and Agriculture Organization (FAO), the founder of the United Nations, the number of hungry people has exceeded 1 billion in the last 40 years and is now slightly higher. The vast majority of these people, of course, live in developing countries. As a result, famine-related uprisings have been reported in more than 60 such countries over the past four to five years. While food shortages continue to exacerbate global food insecurity, there is a demographic problem at the other end of the spectrum. The world's population is growing and food demand is rising accordingly. Food security of the population is one of the main goals of the state's agrarian and economic policy. It forms the vector of action for the idealization of any national food system. Therefore, the achievement of food security is a continuous process, which in turn changes the development priorities and implementation mechanisms of food policy in the country, including the implementation of the agrarian strategy. The food security of the population is assessed primarily by the macroeconomic situation, the efficiency of social production and income. His condition is characterized by a number of indicators. This includes: - the share of food expenditures in the total expenditures of different groups of the population; - territorial access to food (measured by comparing the retail prices of the same goods in different regions of the country); - level of "comfort" of food (the share of consumption of modern foods that reduce household losses and save time); - level of "naturalness" and quality of the product; the impact of product quality on health and life expectancy (as well as products obtained with the help of engineering genetics and biotechnological methods, which began mass commercialization in 1995); The main criterion of food security of the population is also the creation of 75-80% of the total volume of basic food products by national producers. The state of food security of the population is defined in the generalized assessment as follows: - physical availability of food (availability of food at all times and in the required range throughout the country); - economic opportunity to grow food (the level of income, regardless of the social status and place of residence of the citizen, which allows the consumption of food in the minimum amount); food security for consumption (production, sale and elimination of consumption of low-quality food products that may harm the health of the population); There are two extensive and intensive ways to solve the food problem. The extensive path involves the development of new agricultural and fishing complexes. This requires appropriate technical costs and rational software development. The intensive way is the development of agro-technical culture, the introduction of high-yielding plant species, high-yielding domestic animals and birds, mechanization, chemicalization, land reclamation, etc. combines elements of productivity growth such as. As emphasized, the agricultural sector is the main object of food security of the population. Therefore, the state care, which focuses on the center of gravity of the problem, is necessary. In order to ensure food security of the population, the major oil exporters of the Middle East have special strategic plans. In addition, a number of states have adopted food security doctrines to strengthen and ensure food security.

The document states that the country's food security is an integral part of national security, combining important elements of statehood and sovereignty, an important segment of demographic policy, the welfare system, the necessary conditions for health, physical activity, longevity and high quality of life. Its strategic goal is to provide the population of the country with safe and quality agricultural and fish products, raw materials and food. The doctrine also sets forth the relevant tasks and mechanisms for their realization based on this goal. It is obvious that at the present time, food security is the basis of state and national life and development. The study of food security problems shows that our country also needs to develop a new strategy and a relevant doctrine in this direction in accordance with modern global challenges. It should be noted that the process of large-scale agrarian reforms has been and is being carried out in the country. A new phase of reforms in the relevant sector has now begun. In connection with this transition, the structure and management network of the agricultural sector is being restructured in accordance with the methods of regulation of the market economy. Examples include the allocation of loans and subsidies to households, economic incentives, the provision of seeds, fertilizers and machinery, and the construction of storage facilities. Construction and commissioning of new modern grain storage facilities highly appreciated in strengthening food security of the country. At the same time, the adoption of world best practices in ensuring food security, restructuring the cooperation system, freeing the food supply system from imports, establishing foreign trade relations of local producers, stimulating export orientation of products should be included in the system of important state measures. World experience shows that large cooperatives are more efficient than farms. In the United States, the share of cooperatives in agricultural production is more than 90%. From an economic point of view, the success of farms depends more on individual entrepreneurial talent and support for sustainable government. The state must support the widespread formation of large farms in the agricultural sector based on joint-stock cooperation. This view of the siener effect is somewhat in line with the thesis of the classic economist A. Smith in the theory of absolute advantages, "Abundance is more closely linked to the level of development of production on the basis of cooperation and division of labor." However, the development of individual advanced farms should be constantly stimulated. In particular, the development of an appropriate food security doctrine that provides a new economic and institutional basis for ensuring food security for the country's population should be initiated.

## 7. CONCLUSION

The role of international organizations and relevant conventions in ensuring food security is great. The FAO, WHO, the Codex Alimentarius Commission, the International Plant Protection Convention, and the World Organization for Animal Health work with national food safety authorities to help bring food safety programs into line with internationally accepted decisions and recommendations, as well as international food standards. Consistent and purposeful reforms implemented in the direction of developing the food security system in the Republic of Azerbaijan have created ample opportunities for improving the existing normative legal acts and material and technical base, and achieving significant achievements.

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## CURRENT STATE OF MECHANIZATION AND AUTOMATION OF WEAVING WORKSHOPS

**Mezahir Farzaliyev**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*mezahir-ferzeliyev@yandex.ru*

**Nurlana Karimova**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*kerimova-nurlana@mail.ru*

### ABSTRACT

*This article explores the current state of mechanization and automation of technological processes in textile workshops. Here we have been analyzing the process of carriage of wicker washers, remizzes, berdones, lamellers from weaving preparation to the weaving machines and car placement. It has been established that special carpets have been constructed to be brought from weaving machines to weaving machines. Moving these cars is done manually. Here, the current state of mechanization and automation of the weaving process should be studied. Weaving machines are equipped with auto-detectors when the hinges and the handle are broken. A number of protective mechanisms have been installed on the weaving machines to ensure that the parts are not flawed, safe work is done and the knitting work is easier. Depending on the purpose, the protective mechanisms include: welding guards, protective helmets and protective equipment that prevents the outflow of the machine from getting out of the car or when it comes out. Implementation of protective mechanisms provides information about breakage of the handle and wrap, and removal of these breaks is manually eliminated by the handkerchief. These processes must be mechanized and automated for the creation of automatic weaving factories. The article explores the current state of the process of transporting goods. Studies show that for this purpose, various types of designer cars have been created. The process of placing the goods on the mechanism of disposal, the removal of the goods from the machine and the transport of the goods are carried out by the workers manually.*  
**Keywords:** *wrap, weft, technological process, shuttle, rapier, mechanization, automation*

### 1. INTRODUCTION

We need to know the latest operations of mechanization and automation of technological processes in the textile training departments to study the state of mechanization and automation of technological processes and machinery in weaving workshops. We consider that the technological process of knotting, that is, the ends of the wicker sticks left, the joining of the ends of the handlebars in the new type is carried out in the special department of the weaving factory. When we produce new types of fabric in the weaving workshop, the technological process is being carried out instead of knotting. During the stacking process, the handle can be removed from the lamellae, the lugs, and the goggles of berdones, consisting of removable members of the weaving machine. We assume that the combustion process is carried out in the special department of the weaving mill. In special departments of weaving factories, the welding process should be mechanized by bringing knotted or stacked wormwood to the weaving machines, mounting the navoiun, lamel mechanism, steering mechanism, mounting the gear glasses on the sinking mechanism of the berthing sieve, and the handling of the handle stems through the valves. We are pleased to note that the weaving process is being carried out at the weaving preparation department in preparation for knitting process.



The process of mechanization and automation of weaving workshops will be focused on the process of transporting the weeds and wicker staples prepared from the preparation process to the weaving workshops. The high-performance knitting machine is equipped with a large number of spinning machines and a large number of ready-made parts each day. For example, if we construct a 100 knitting machine in a weaving workshop, it is necessary to remove 2,000 weft closures, and  $75 \div 100$  roll pieces in a weaving shop in three shifts. When creating automated weaving factories we need to mechanize and automate all these works.

## **2. SUMMARY OF LITERATURE AND PROBLEM SOLVING**

Problems with the installation of complete mechanized and automated weaving factories have been set in the twentieth century. (4, 5) Until now, some technological machines have been automated in the saddle trim. Certain work has also been done to create automated weaving machines, and there is no complete automated weaving machine yet. Technological processes that require mechanization and automation on the weaving machines have been identified to create complex mechanized and automated weaving workshops. The current situation is being analyzed to fully mechanize and automate weaving machines and weaving machines as a whole, and the problems that need to be solved have been identified. Here we have been analyzing the mechanisms of mechanization, the mechanisms used for the removal of crushing and trapping stems of machine tools, crank washers, weaving guides and merchandisers, removal of raw parts, and problems of mechanization and automation.

## **3. PURPOSE AND TASKS OF THE RESEARCH**

In order to investigate the current state of mechanization and automation of weaving workshops, it is necessary to define the work required by the workers to analyze and analyze the work of the mechanization tools employed during the knitting process. For this purpose the tasks of the main and protective mechanisms applied on weaving machines will be determined by the current state of the process of wagging, wicker navigation and transportation of goods and removal from the machine, and the mechanization and automation of weaving workshops.

## **4. CONDITION OF MECHANIZATION AND AUTOMATION OF KNITTING PROCESS ON WEAVING MACHINES**

Weaving process is carried out in the machine after the weaving machines are loaded with the wrap and weft. In this case, the handlebars can be cut both at the length of the constructive loading line of the weaving machine and at any point along its width. Weaving machines are equipped with machine-holders when the handle hinges are broken and the machine is automatically disconnected when the threads are broken. The handle can be broken at any point along the width of the machine when the weft machine is pulled from one side to another. The machine is automatically disconnected when the articulated staples are broken or the pitch fire does not reach the spaceship box. Nowadays, when the hinges and wefts branches are broken, the ends of the stems and the machine's re-launch are hand-made. During the technological process, both systems should be mechanized and automated with the knitting of the broken branches. The raw material produced on the machine is also processed manually by handing the end of the piece to the axis of the winding mechanism to remove and wrap. The process of transporting the raw material removed from the machine to the warehouse or painting plant is also performed manually. A number of protective mechanisms have been installed on the knitting machines to minimize defects in the unit, ensure safe operation and facilitate the weaving work. Depending on the purpose, the protective mechanisms are divided into the following groups.

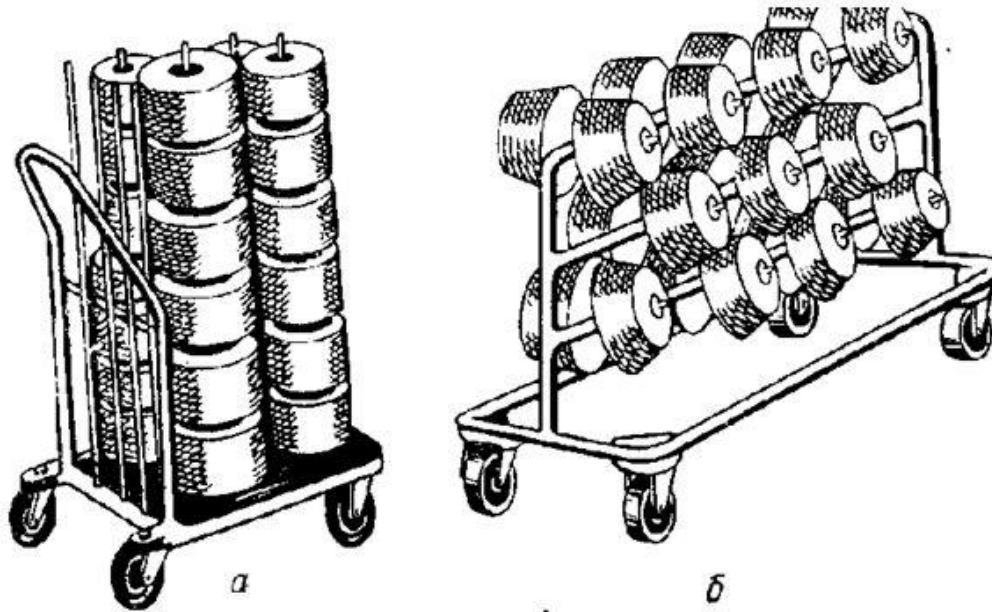
1. Trapezoidal fuse-mechanisms, warns when the knee is broken. These include knitting machine tools with various construction weft hinges, weft knitting machines, and callers at once.
2. The wrap-protecting mechanisms warn that the defects in the part can be avoided when a handle is broken or when the stem is replaced. These mechanisms are divided into two groups.
  - a) mechanisms for causing defects in the fabric to break down the stems. Various construction designers are used here for mounting on a wide variety of weaving machines, which are fabricated, split and smooth.
  - b) mechanisms that warn of massive breaking of the stalk when replacing the stomach. The barrel, the locks or the combined mechanism that opens them. These mechanisms alert you to the damage or destruction of the details of the body shell and bush boxes, but are only mounted on meshes weaving machines.
3. A design protector that prevents shuttle from getting out of the car or swallows it after leaving it.

Trapezoidal fencing keeps the machine unattended when sliding and knocking controllers with different designs are slipped on the machine and the shuttle sliding on the floor and sliding from the non-invasive washers on the machine. Defects such as broken stems and slippers are eliminated manually by the help of the weaver. For mesh weaving machines, side and center crankshafts are used for mechanical and electrical impact crankshafts. When a handle is broken, mechanisms that store the weaving machine are called call holders. The presence of these mechanisms will prevent the defects in the fabric and will improve the quality of the product. All existing designs can be distinguished from lamellae and lamellas, as well as mechanical and electromagnetic impacts. Wrenches of massive splitting of wicker stalks. As a result of the various defects in the loading scheme and mechanisms of the machine, the trowel can not reach the spatial box and remains intact. In this case, the batter causes the splitting of the stacked stems in the group during the movement of the part to the worker's head, breaking the individual details of the car and the machine. To avoid this, weave machines have special protective mechanisms. There are three types of them: a drop berthing mechanism, a lock mechanism, and an integrated mechanism. The opened berdo mechanism is applied to narrow high-speed mechanical knitting machines. Berdo is turning swiftly in the opening barrel mechanism. In a lock mechanism, the berdo is unstable, where it is fastened between the head and the brush. The lock mechanism is used when producing high density cuttings on wire mesh machines. The combined principle of the combustion engineer is based on the combination of the operating principles of the berdone and locksmith. This mechanism is applied to machines that produce high-density and high density fabric. The analysis shows that the use of protective mechanisms provides information on the destruction of the handle stems and is eliminated by the breaking knitting device. In the case of protective mechanisms, the wicker does not indicate where the handle is broken in the technological loading scheme. Thus, a mechanism should be established to define the area of the technological loading scheme of the handlebars in the weaving machines, and then the removal process should be mechanized. Studies show that all weaving processes in knitting machines require the creation of facilities operating on mechanical, electromechanical, optical, magnetic, electromagnetic principles that define breaking areas of broken carpets and wire rods in different areas of the machine and eliminate these breaks.

## **5. ANALYSIS OF THE CURRENT STATE OF THE PROCESS OF TRANSPORTING WEFT WASHERS**

Weft washers are usually transported from the training department to the knitting shop by hand-driven cars, which move in the passage between the machines. Cross-coated wrappers for mesh

and non-woven weaving machines are transported by means of the first shown cargos. In this case, the wounded surfaces of the wash should not touch each other. The slot machine shown in Figure 1 (b) is applied to the Czech textile factories. Its height should not exceed the height of the weaving machine and ensure durability. The carcass released by Zultar has been shown in the variable washer at  $20 \div 24$ , shown in Figure 1 (a). It holds very few areas. There are also holders for rollers along with the catchers.



*Figure 1: Cars for transposing cross-bedding*

The process of transporting wagon washers by hand-driven workers must be replaced by the process of handling the transport equipment. For this purpose, the design of a promising transmitter should be selected. When using a weft machine in the weaving workshop, the mechanically rolling roller coil to mechanize and automate the weaving process should be mechanized in the process of collecting these valves and removing the treated rollers from the work area. It is necessary to mechanize and automate the process of trapping the handle of the handle with non-invulnerable washers with micro-sockets, rails, pneumatic, hydraulic and pneumatic conveying machines on unstable pillars and keeping the ends of the handle through different devices and loader squeezers. To mechanize and automate the fabrication process, we need to mechanize and automate the technological processes, such as bringing the washing machine to the washing machine and placing it in order to replace washers. Thus, the wash-shifting mechanism loading processes are mechanized and automated to make changes to the technological loading line and the handle of the handle with the sewing machine's handles.

## **6. ANALYSIS OF THE CURRENT STATE OF THE PROCESS OF TRANSPORTATION OF WEAVERS**

The weaver's diameter gradually increases up to 500 mm, then 800 mm and finally up to 1000mm. At present, the working width of the weaving machine is increasing in sequence. In the past, the majority of the widths were changed in the range of 0.9-1.1 meters, and now the width varies from 1.6 to 2.2 meters. Some new weaving machines have a working width of 3.3 to 5.4 meters. The weavers used in modern production range from 600 to 2000kg and are transported to special carriers equipped with loading and unloading equipment. An improved car picture used to convey weaver is shown in Figure 2, a. Here, weaver's flans are located on rotating rollers 1 and 2 so that it can be turned to a steady state.

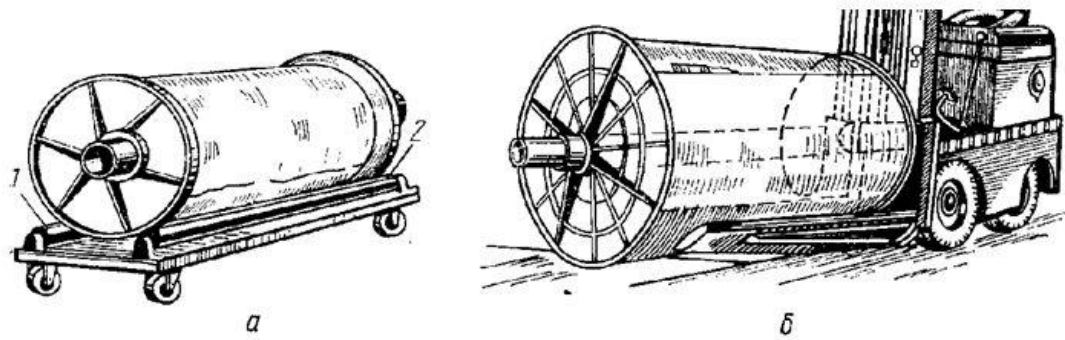


Figure 2: Improved cars used to convey weavers

Another method of weaver transporters is shown in Figure 2, b. Both of the edges of this crankcase are located above the bottom of the navel, allowing the weavers to be pulled directly from the floor. Transportation of weavers in the direction of movement is advantageous for carrying out warehousing operations, as the car can pass through the narrow corridor. It is not recommended to carry the weavers of vehicles with a width of more than 2.2 meters in order to ensure that the depot is not disturbed. Cotton textile factories can be positioned so that its reading is perpendicular to the direction of movement. The cars shown in Figure 2 are not designed to accommodate the navigator weaving machine. For this purpose, there are special cars, with the help of which the weaver is transported from a carrier to a weaving machine. For a cradle-type weaver installer, the cars are fitted on the weaver coating surface (Fig. 3, a).

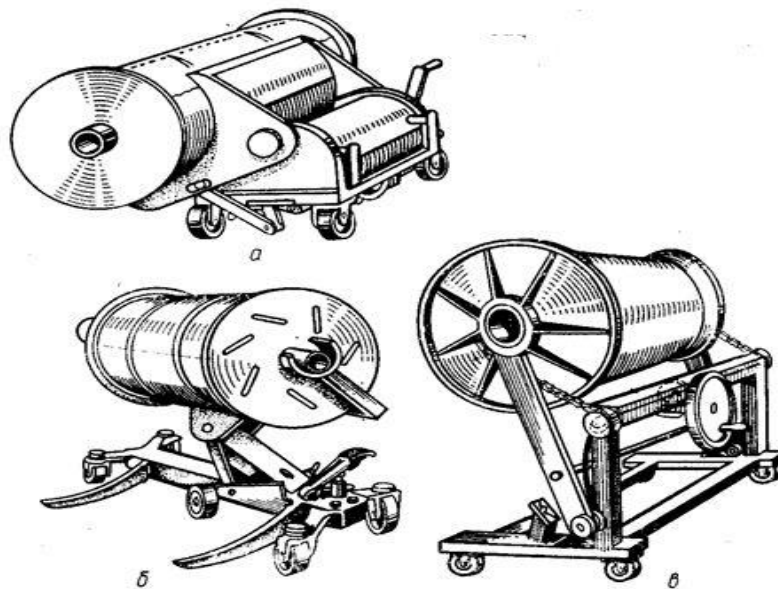


Figure 3: Carriers for a cradle-type weaver installer

Figure 3, b shows the car playing its pipe reading role for the weaver. All types of interfaces are equipped with a hydraulic lift mechanism to install weaver. The auto-dialing line uses special drives that transport the navigation to the next operation. But at the end of the line, the weaver goes along with rings, berdoes and lamellas, with an extra stabilizer to put the weavers on. This type of car is shown in Figure 4.

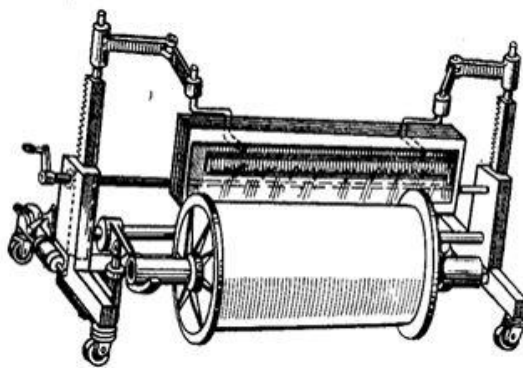


Figure 4: Car with additional support for weaver, remiz, berdo and lamella

The routes of ordinary carriages are not sufficient for installing the weaver on the Czech porcupines, so the special cars shown in Figure 3, b are applied. For weavers, the carriages are driven by smaller distances manually, and distances are driven by an electric motor tractor. When carrying out the load-lifting and transporting operations of the tailor's weaver, two basic rules must be followed: weaver should not be driven from the car to the car; it should not be transported from a fleet of vehicles to another carrier, so simple cars with no lifting devices can only be used in a mechanized car complex. Blank weavers are brought from the weaving machines to the cars by the cars shown in Figure 2, a. Thus, using the cars shown in Figure 4, weaver, remiz, berdo and lamella are brought to the weaving machine. Cars, berths and lamellas are placed manually. Car's weaving training to the weaving machine must be carried out automatically with transponders and the weaver, luggage, berbo and lamellae should be loaded into the automatic dishwasher.

## 7. ANALYSIS OF THE CURRENT STATE OF THE PROCESS OF TRANSPORTING GOODS

Previously, the merchandise wrapped one or two pieces of cloth. In narrow weaving machines, the cutting piece cuts, and the assistant worker transmits it. In today's weaving machines, the roller coil has a diameter of  $400 \div 600$  mm. The weight of this roll varies from 150 to 200kg in machines with a large working width and its removal is mechanized. The width of 65 cm should be smaller than the width of the car to ensure the safety of movement. In this method, during transport, there is no need to put pitch on the crossings between machines, and instead use wrapped rubber strips. The design of the carriage to remove the valve depends on the design of the winding device. The bottom contour of the goods valve stands at a constant distance from the floor, so it is possible to use a simple carrier, which can be easily traversed on the carriage of the goods mounted on the arrows. Flat (picture 5, a) and flat (picture 5, b) should be equipped with car lifting device for effective winding installations.

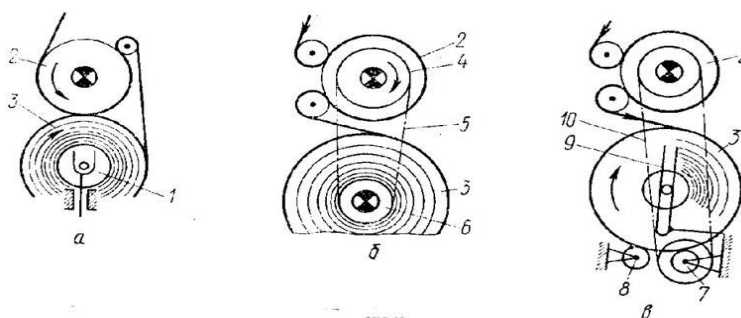


Figure 5: Flat and uneven winding fixtures

The hydraulic carrier is shown in Figure 6 a, to remove the goods used in Czech enterprises. Frame 2 is mounted on rotating rollers 1. In order to facilitate the management, six five rollers have been integrated into the wheels with wheels. The novelist for the merchant of the merchandise forms a quadrilateral rolling mechanism with 5 chambers 3 and a frame 2 together with the hydraulic actuator 8.

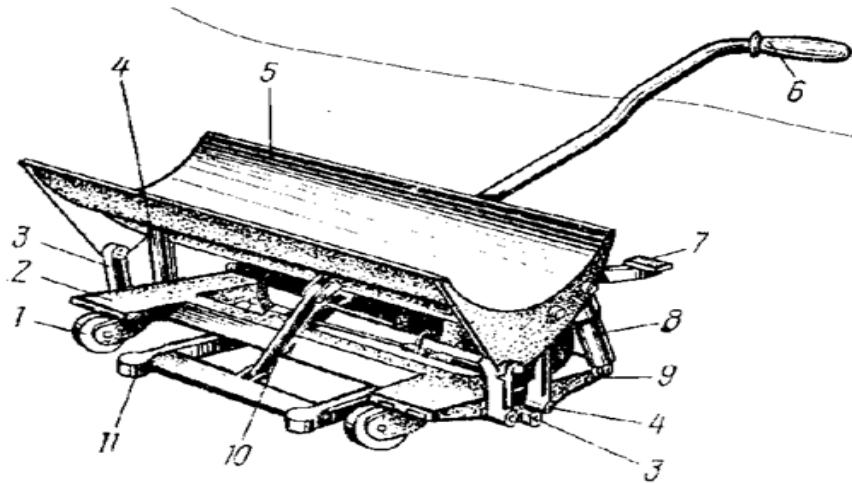


Figure 6: Hydraulic cartridge for removal of goods

Because the sliding arms 3 and 4 have different lengths, they are able to move with a profitable trajectory to pull and move the valve. The slider bar 4 is joined to the connecting rod 9, and the stabilizer 10 is formed by a stabilizing arm 11. It protects it from overcoming the carriage. The lifting hydraulic unit is operated by the foot pedal 7. To remove, the carrier passes from the carrier to the conveyor belts, which is distinguished by the way the valves are collected in the form of trees (Figure 7, a) and stars (figure 7, b). Star-shaped magazine of merchandise is a revolver, and the goods can be collected from the carrier to remove it from the machine directly without additional mechanical machining.

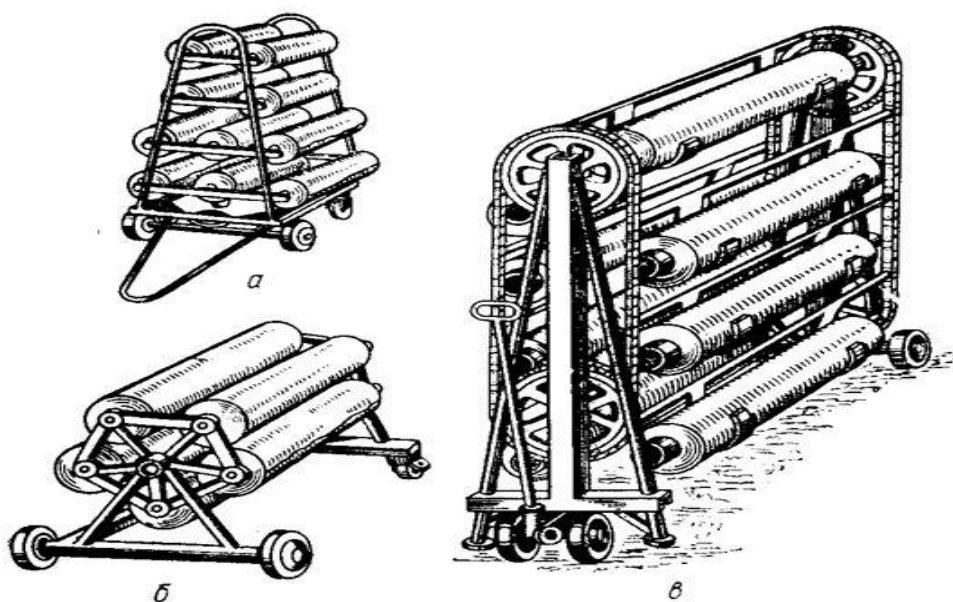


Figure 7: Star-shaped magazine of goods valuables

The Revolver Magazine is also designed to carry the goods to the dyeing and decoration products and wrap around it in the dyeing-machine tool. In the case of a chain conveyor, in the carrier (photo 7, b), it is advantageous that it occupies less than ten rows of valleys on the floor. The flat-mounted battery chargers are brought to the carpets in the carpets or in the carpets in the carpets. Mechanisms must be mechanized to process raw materials welded on weaving machines, transport and warehouse transport and placement there.

## **8. CONCLUSION**

It has been established that during the weaving process elimination of knitting and knitting stems is manually carried out so that mechanization and automation of these processes are required for the creation of automated knitting shops. Mechanization and automation of the structures of transport equipment used for the transport of wagon wash, weavers, remiz, berdon lamella, and cargo valves were analyzed and it was determined that the processes were carried out manually. In order to create mechanical and automated knitting machines, the automated process of mechanization and automation of technological processes should be mechanized and automated during the weaving process.

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## FINANCIAL SUPPORT FOR INNOVATION AND ITS IMPACT ON SUSTAINABLE ECONOMIC DEVELOPMENT

**Sarvinaz M. Khanlarzadeh**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*sxanlarzade@rambler.ru*

### **ABSTRACT**

*The article proves that in modern conditions and in the long term, maximizing innovative activities becomes a decisive condition for sustainable development of modern economic systems. Analysis of innovative activities of different companies showed that unacceptable credit conditions, a lack of financial resources constrain innovative activity in this direction. Financial institutions are not always investing in the real economy. Therefore, the most important source of financing of innovative activity are budgetary funds, which are used to Finance research and development in the defense industries, and also for carrying out fundamental and applied research in academic and University organizations. The difficult financial situation of innovative enterprises is an inevitable consequence of changes in the fundamental basis of the functioning of the economy. Change existing organizational structures will facilitate the formation of an adequate economy innovation. Therefore, in the modern period, the role of the state. It should be noted that a particularly significant should be the role of the state in the creation of technoparks, technopolises, innovation centers, the main investor of which must be that of the public sector. Initial financial support from the state in the process of formation of these institutions can be replaced by other forms of support and above all, tax exemptions, given the risk of investments and their long-lasting nature and also the benefits on the capital invested in innovative businesses to stimulate technological developments and innovative. Enhancing innovation should be considered as the most important means of achieving the ultimate outcomes that improve the country out of the crisis, stabilizing the economy and its subsequent growth.*

**Keywords:** *budget funds, innovative activity, financial support*

### **1. INTRODUCTION**

The main role in supporting innovation is played by the state. In turn, the priority in the scope of innovations, undoubtedly, belongs to science - since it is thanks to it that discoveries occur that move human progress forward. Considering the above factors, we will consider the process of developing innovation support programs by the example of financing the innovation sphere by the state. Speaking about the modern economy, it is necessary to take into account its transitional nature. This affects the state financing processes of the innovation sphere. This process of change is caused by a number of factors. Among them, one cannot fail to mention the gradual increase with the beginning of the policy of liberalizing the prices of cash shortages for commodity producers, the growth of mutual non-payments, which led to a decrease in revenues to innovative enterprises of a sectoral profile. The difficult financial situation of innovative enterprises is an inevitable consequence of a change in the fundamental principles of the functioning of the economy. Changes in existing organizational structures will contribute to the formation of an adequate innovation economy. Therefore, in the modern period, the role of the state is growing.



## 2. BUDGETARY FUNDS AS THE MOST IMPORTANT SOURCE OF FINANCING INNOVATIVE ACTIVITY

Budget funds are used primarily to finance research and development in the defense industries, as well as to finance budget organizations and conduct basic and applied research in academic and university organizations. Fundamental research is important and necessary to finance, since it creates the basis for economic development, stimulates international partnerships, and therefore the transfer of knowledge goes in two directions - not only from the country, but also to the country conducting basic research. Finally, recent studies by American scientists have shown that basic research stimulates the development of innovation, thus contributing to economic growth<sup>1</sup>. The main measures of state stimulation of innovative activity in priority areas in the field of finance are:

- the financing of investments at the expense of the budget of the scientific research and experimental development at a level that ensures the implementation of goals and objectives;
- direction of annual increase in appropriations for basic research and providing scientific support to major innovative projects of national importance;
- ensuring the efficient use of state budget funds allocated for financing of investments for basic research and assistance to scientific and technical progress;
- targeted allocation of budget funds for implementation of scientific support of the most important innovative projects of state value, the concentration of budget resources for implementation of priority directions of development of science and technology, critical technologies of regional importance;
- search and effective use of extra budgetary resources for financing research and development work carried out by orders of state executive bodies and authorities of subjects of the republic, as well as for involving in economic circulation of scientific and scientific-technical results obtained at the expense of budgets of all levels;
- stimulating the activities of charitable organizations and other entities aimed at financing investments for basic research;
- providing state support of research grants at the expense of budgets of all levels;
- stimulating the development of scientific, technical and innovative activities, including support from budgets of all levels of small business infrastructure, stimulating the development of venture investment, leasing, lending and risk insurance of science-intensive projects for the training of specialists in innovative management, as well as competitive support of scientific and technical and innovation projects.

One of the important tools of state assistance to the development of innovative activity is direct funding which is carried out in the form of grants (subsidies), loans (providing financing on a repayable basis), parity (share) financing. At the same time, a state contract is concluded, which is applied if the state's acquisition of the results of research and development work brings him direct profit or benefit (Dezhina, I. G., 2006, p. 48). In addition to the methods of direct (through the conclusion of contracts, the issuance of subsidies, etc.) state financing of research and development, it is necessary to actively use the so-called indirect financing of scientific and technical measures, stimulating an increase in the costs of enterprises. Initial financial support by the state for innovation activity can be replaced by such forms of indirect support as tax incentives, as well as capital benefits to stimulate technical development of an innovative nature (Petukh T.V., 2014, p. 93.).

<sup>1</sup> Audretsch D., Aldridge T., Oettl A. The Knowledge Filter and Economic Growth: The Role of Scientists Entrepreneurship. Preliminary draft. Prepared for the Ewing Marion Kauffman Foundation. March 29, 2006. [http://www.kauffman.org/pdf/scientist\\_entrepreneurs\\_audretsch.pdf](http://www.kauffman.org/pdf/scientist_entrepreneurs_audretsch.pdf)

It should be noted that the role of the state in creating technoparks, technopolises, innovation centers should be especially significant, that is, we are talking about creating an infrastructure to support the innovation sphere, the main investor of which should be the public sector.

### **3. INFRASTRUCTURE OF SUPPORT OF INNOVATIVE SPHERE**

A significant role in supporting innovative enterprises is played by funds from commercial and financial institutions. Support for innovation is growing at the expense of funds and grants from local and foreign charitable foundations. While innovative enterprises themselves can develop to one degree or another at the expense of their own funds and support from the private sector, the creation of infrastructural institutions to support the innovation sector requires state investment. The interest of private firms in technical improvement has only an indirect effect on the infrastructure supporting innovation. It can be expressed in a tangible measure only after the creation of such an infrastructure. The developed system of crediting of the innovation sector in the Western countries involves various sources and institutions of financing:

- innovative banks;
- insurance company;
- pension funds;
- innovation funds (subsidies for high-tech projects);
- companies of venture capital.
- regional commercial departments of institutional structures for promoting small business;
- regional grants.

Innovative banks serving small enterprises, the purpose of which is the effective use of the latest economic methods to accelerate the introduction of highly profitable inventions and innovations. They search for promising scientific research and development, inventions, organize their examination, finance and credit innovations in the field of science and technology, and can also provide the following services:

- acquisition of scientific and technical developments for the organization of production and marketing of machinery and technology;
- leasing - acquisition by a bank and leasing of fixed assets with subsequent transfer of ownership of them to tenants. Throughout the world, financial leasing is widely used on economic grounds similar to long-term bank lending of capital investments. A number of authors note that leasing is an effective form of venture financing and indicates the need for its application;
- intermediary services related to marketing in the field of innovative activities;
- consultation on increasing the efficiency of use of financial resources, etc.

It is possible to create interregional and regional agencies to support innovative sectors and business cooperation. According to the same scheme should create insurance schemes that would enhance economic and legal protection of performers and customers of scientific-technical products, especially in venture funding. Noteworthy is the proposal for the creation of "banks of technical ideas" functions, which include the purchase of ready-made designs and even ideas with their subsequent possible resale organizations that will be engaged in the commercial implementation of developments to the state, as well as for export. Important functions of the "bank of technical ideas" should be the search, selection, financing and various types of consulting assistance for those projects that may have practical application, both at present and in the future. There are many forms of innovation management at various levels: from corporate units to the state, in general, designed to implement a special economic policy in modern conditions aimed at stimulating innovative activity and developing scientific and technological potential.

A high degree of state involvement in stimulating the innovation sphere is determined by the specifics of innovation processes (significant capital intensity of scientific research and a high degree of risk, dependence on the degree of development of the general scientific environment and information infrastructure, specificity of personnel qualification requirements, the need to protect intellectual property, etc.). Thus, the state acts, firstly, as a partner with significant resources, and secondly, as an organizer of development of innovative entrepreneurship, thirdly, the regulator of the infrastructure of innovative sphere (Kalinina N. M. 2017, p.82). It should be noted that the adaptation generated by the system of financing the innovation sector to the realities of the modern economy is the active state innovative policy:

1. focused on direct funding of specific research and development projects, as well as individual scientific organizations, the existence and development of which the state concerned;
2. establishing clear funding priorities.

#### **4. INNOVATIVE SPHERE FINANCING SYSTEM**

The system of financing innovation sector in recent years has changed significantly. Many innovative enterprises retain the status of a state only because their founders are state-owned enterprises. Public funding of such enterprises is constantly decreasing. Accordingly, the role of other sources of investment financing is growing. The most important source of financial resources are funds from the sale of finished products and products manufactured specifically on behalf of other enterprises and organizations. The system of financing the innovation sphere should include, first of all, tax benefits. Given the risk of investments and their long-term nature, it is necessary to exempt part of the capital invested in venture companies and funds from income tax, reduce the tax rate on dividends received by investors on the capital invested in this case, and allow the creation of reserves from tax-free profit. It is also necessary to establish similar incentives for capital invested in innovative enterprises, as part of attracting investment in the innovative sphere. This is especially important for innovative enterprises, the scientific and technological development of which is associated with a certain risk, and especially for companies that are not subject to the investment tax by their nature of activity, as well as for the sphere of scientific and consulting services. It should be noted that the introduction of intangible assets into the tax base reduces the acquisition of intellectual property, leads to a decrease in the scientific and technical level of innovative developments. Withdrawal of tax privileges on property of newly created enterprises will inevitably worsen the financial situation of innovative enterprises, as they usually work on leased equipment and in the initial period of their activity, often without substantial incomes and need financial support.

#### **5. TAX POLICY AS ONE OF THE INSTRUMENTS FOR STIMULING INNOVATIVE ACTIVITY**

The tax policy in the sphere of innovation should orient the participants of the innovation process towards carrying out work that implements the priority areas of scientific and technological progress, and the creation of new generation equipment developed in accordance with the state order. For innovative enterprises it is necessary to envisage the possibility of exemption from taxation of the funds having a special purpose, including appropriations for carrying out search and research initiatives, the development of the experimental base, reproduction of scientific and intellectual potential, etc. In addition, lowered costs must be established for them. tax rates on income and funds used. Along with this, economic warning measures should be taken in the form of various sanctions for non-compliance with contractual obligations, low quality of scientific and technical products, their non-compliance with environmental requirements, etc. However, in each specific case the selection of economic instruments of influence and boundaries of their use should take into account the content of the

tasks and the specifics of stimulation objects. The tax burden experienced by innovative enterprises has especially affected enterprises with a long production cycle, including high-tech production, where the material and time costs of research and development work make up a very significant share in the cycle covering development, implementation, production and delivery of finished products to the consumer. Therefore, in modern conditions, the state should purposefully stimulate innovative activity in the economy by introducing a variety of tax benefits and special business conditions for innovative enterprises.

## **6. TAX BENEFITS AS A FACTOR OF INCREASING THE ACTIVITY OF INNOVATIVE ENTERPRISES IN AZERBAIJAN**

The international experience of carrying out tax reforms in the field of innovation shows that, through the revaluation policy of granting tax exemptions over the past twenty years passed almost all industrial countries. Today in world practice, the most applicable forms of tax incentives (tax remission) are as follows:

- full exemption;
- tax rate allowance;
- deductions from the tax base;
- tax allowance;
- tax loans (tax credits);
- investment tax credits;
- deferrals;
- the return of the amount of tax paid (refund)

Irretrievable and uncompensated forms of tax incentives are deductions, exemption, tax refunds and lowering rates. The reflexive nature of loans and deferment, implying the possibility of temporary use of the funds. In countries with developed economies, most of the benefits (mainly investment) are in the form of a tax credit, which reflects the return nature of the benefits. This is not true for economies with high inflation and uncertainty. The strengthening of credit relations in the financing of the real sector occurs by the stabilization of market conditions and reduce risks of economic activities (Zhuravleva N. A. 2013, p. 68). The use of tax incentives will increase interest in innovative activities in the Republic. To improve the tax legislation of the Republic of Azerbaijan on stimulation of innovative activity of small enterprises it is necessary to provide:

1. The simplification of the tax system for innovative enterprises. The introduction of a special taxation regimes for innovative enterprises (single tax payment in the form of "imputed tax"), as a guarantee against administrative arbitrariness at the local level.
2. The interaction mechanism of the tax credit policy, interest rates, in the framework of the provision of certain financial benefits, credit institutions and enterprises that use long-term loans for investing by innovative enterprises.
3. Equalization of the tax burden on various categories of taxpayers by reducing the number of tax benefits that are not related to research and innovation, activities, and involvement in the payment of taxes of enterprises operating with huge unaccounted cash turnover.
4. The introduction of incentives or exemptions from income tax, sales tax, value added tax, taxes levied on road funds if the funds are invested in innovative enterprises. Withholding from taxation of profits invested in the development of real production, its modernization and in innovative activity and credited to investment accounts
5. The depreciation allowance is a one-time inclusion in the expenses of the current period of capital expenditure in the amount of 10-30% (depending on the depreciation group). The mechanism of granting exemptions - a deduction from the tax base. As a result, the amount of income tax in the period of eligibility is temporarily reduced and is payable within the

entire period of operation (Goncharenko L. I., Vishnevskaya N. G., 2019, p 127).

6. Creating the most favorable taxation regime for manufacturers to free production from unused equipment, which will help to save production costs and revive domestic demand, which requires:
  - 6.1. development of a simplified procedure for the conservation of unloaded capacities with the exemption of such assets from taxation and depreciation charges;
  - 6.2. stimulation of the withdrawal of unused capacities from the assets of the enterprise for exemption from value added tax on gratuitously transferred illiquid and fixed assets and inventory items that are not involved in the production activity (exemption from profit tax from the receiving party);
  - 6.3. the introduction of an “illiquid vacation” regime for unnecessary and unused types of production equipment lasting over 1-2 years, which implies the sale of illiquid assets and unused equipment, if necessary, at prices lower than their book value, backed up by incentive tax support measures;
  - 6.4. making changes to the taxation procedure for the sale of fixed assets below the book value so that, without undermining tax discipline, enable enterprises to get rid of illiquid assets, sell unused equipment, and eliminate the artificial overpricing created due to the use of barter and cash surrogates.
7. The inclusion of the funds allocated by innovative enterprises on replenishment of working capital in the calculation of the tax base as an element of production costs.
8. The elimination of “excess” taxation on the costs of training personnel for innovative enterprises, and especially the training of innovation managers.
9. Exemption from taxation of income and profits of innovative enterprises exporting at least 50% of goods manufactured using Azerbaijani intellectual property for the period of return on investment.
10. Exemption in order to stimulate the organization of joint production for a certain period from all types of taxes (followed by 50% taxation), provided that innovative enterprises produce import-substituting products and sell them domestically.
11. Preparation and adoption of regulations and tax benefits for franchising.

In general, these measures can be considered as a fairly balanced step on the way to developing incentives for innovative activity in the republic through tax incentives.

## 7. CONCLUSION

Revitalization of innovation should be considered as the most important means of achieving final results, ensuring the country's exit from the crisis, stabilization of the economy and its subsequent growth. Therefore, despite the difficult economic situation, an active state innovation policy is required today, based on a rigid choice of goals, in a comprehensive justification of priorities, allocation of resources, new methods of its implementation. First of all, it is necessary to select priority innovations that have a great influence on the pace and proportions of economic development. Such innovations should be the object of state protectionism. Created within the framework of these priorities the technology of the new generations is to ensure competitiveness of domestic products on the world market, to solve urgent social and economic problems, a qualitatively new level of resource saving and a multiple increase in labor productivity. Despite the efforts made in the domestic economy, innovative activity will increase when they start to act intrinsic motivation to the development of highly efficient technology and structural change of production, adequate market demand. Therefore, the initial condition for the emergence of an innovative market is the stable functioning of the chain: "market demand - production growth - demand for innovations". In addition, the development of innovative enterprises contributes to the efficient use of qualified

scientific and technical personnel, and more than a full realization of the scientific and production infrastructure due to the commercialization of completed development, rent, lease, and other market tools. A feature of the modern economy is the transition to an innovative development path. At the same time, the key role belongs to innovation processes, which are the driving force behind high-quality economic growth, the introduction of technological innovations, ensuring employment and structural changes in the economy, as well as the main generators of new economic knowledge. The specificity of innovation is that the use of the results of research and development leads to technological and technical updates, which, in turn, provide increased economic efficiency of functioning and changes in all areas of society. An analysis of foreign experience showed that the intensity of innovation is a serious factor in accelerating scientific and technological progress and determines the level of economic development due to the creation of real competition in the innovation sphere.

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## THE PROBLEMS OF FINANCIAL PROVISION OF THE REAL SECTOR OF THE ECONOMY

**Leyla Mehdiyeva**

*Associate Professor at Azerbaijan State University of Economics (UNEC), Azerbaijan  
leyla.mehdiyeva@unec.edu.az*

### **ABSTRACT**

*The real sector of the economy is a combination or an aggregate of the different sectors producing material and non-material goods and services. The real sector of the economy, where a significant part of the value added is being created, is the basis of the competitiveness of the national economy, and financial support is at its core. The development and functioning of the parameters of the real sector depends on the leading features of the economic security of the state. A characteristic feature of recent years is that globalization has a direct and powerful impact on the financial system, the real sector of the economy, and their interrelated systems. It is impossible to formulate and develop an effective economic policy based on the modeling of economic processes and interrelated events, ensuring economic development in modern conditions. For example, the character and effectiveness of the interaction between the real and financial sectors of the economy are one of the factors of successful innovation and technological development in the conditions of the modern economic practice. The effectiveness of real sector development programs, to a greater extent, is determined by the condition of its transmission mechanism, which is largely dependent on the success of the financial sector and the economic policies pursued by the state.*

**Keywords:** *the real sector, financial stability, bank, taxes*

### **1. INTRODUCTION**

In the modern conditions, ensuring economic development is impossible without forming and development of the effective economic policy that is based on the modeling of the economic processes and interrelated events. The nature and effectiveness of the interaction between the real and financial sectors of the economy are one of the factors of successful innovation and technological development in the context of modern economic practice. Real sector's development largely depends on the state's economic policies and how financial sector is successful. Improving the interaction between the real and financial sectors of the economy and identifying priority areas for their development are central to the economic, political and social life of the country. The stabilization of industrial enterprises, the recent increase in the volume of emerging industrial production, and the continued reliability of the process, largely depend on the financial capacity and quality of the process. The main criterion of economic growth and the possibility of extensive re-production is the provision of sufficient investments in the economy.

### **2. ORGANIZATION OF THE CONSTRUCTIVE INTERACTION BETWEEN THE REAL SECTOR AND CREDIT-BANKING SECTOR OF THE ECONOMY**

One of the most important problems of the rapid development of the economy is the organization of constructive interaction between the real and credit-banking sectors of the economy. Different approaches to solving this problem have been developed in world and national theories. The change in theoretical ideas about the role of credit institutions in the development of production is associated with the name of Y. Schumpeter. He attributed a crucial role to credit institutions in his model of the transition of the economy from a "sustainable to a developing" state. However, the role of credit institutions should be considered in the light of the Kondratyev waves and the economic situation, depending on whether the

economy goes through more or less stages of development. At the stage of economic development, the functions of credit institutions play a subordinate role, because industrial enterprises use the income from the previous turnover of their capital in the process of development; "... the entrepreneur finances himself from the profits of the previous business or uses the means of production of his former "static enterprise" ". In the conditions of transition from stagnation to economic growth, the functions of credit institutions are fundamentally changing, as there is an acute need for additional funds to fund innovation and gain new production factors. According to Schumpeter, "the banker makes it possible to implement new combinations and authorizes their implementation on behalf of the national economy." Thus, the credit institutions play the role of the economic development process as a structure that facilitates market financing, that is, the financial system's investment in innovation. Schumpeter notes that "making long-term investments in a rapidly changing environment is not only a bad looking thing, but also a risky endeavor like a shooting at a moving and self-propelled mark." Let's consider another assessment of the conditions of interaction between the financial and real sectors of the economy in the context of stabilization of development in the light of the Keynes's "General Theory of Employment, Interest, and Money". These are as the following: "psychological propensity to consume, psychological probability of future income from capital investments, and psychological perception of liquidity" and proposes to substantiate the role of financial institutions in the economic system on the basis of a trio of fundamental psychological factors. C. Keynes used the first factor to justify the role of investment, and the last two factors depending on the dynamics of investment in the financial system. According to C. Keynes, the emergence of these factors is explained by the uncertainty of knowledge about the future. It is in the context of the extremely unstable state of the wealth accumulation process that credit institutions are beginning to play a decisive role. At the present stage of economic development, theories of information asymmetry, which study the mechanism of interaction between the real and financial sectors of the economy, are of great interest. This theory was founded by J. Akerlof and J. Stiglich. They prove that it is impossible to distribute information equally between buyers (credit institutions) and sellers (enterprises interested in obtaining financial resources). This asymmetry of information is related to the fact that, businesses, in comparison with credit institutions, have extensive prior information on the probability of repayment, which is an advantage. The credit organization, in its turn, is skeptical of the information presented in the loan applications, trying to exceed the asymmetry of information and understanding the entrepreneurs' efforts. As a result, net income-earning investment projects have to pay at increased market interest rates, and in some cases may not have access to financial resources at all. The problem of asymmetry of information in real sector financing run in the specifics of the financial system. The interaction of the real and financial sectors of the economy depends on how successful the institutional system is collecting the information needed for market financing, ensuring the protection and correctness of the information. Thus, despite a variety of theoretical approaches to the study of the relationship between the real and financial sectors of the economy, there is still no consensus in this term. The mechanism of interaction between the changes in the financial system and the real sector, i.e. the role of institutional and financial conditions of the investment process in the transition to innovative development, remains unknown. To do this, it is necessary to evaluate the possible and necessary economic and social costs of moving to a new innovative phase of development, since it is impossible to ignore the fact that transition to a qualitatively new stage of development is possible when loading capacity and improving production quality. The financial market plays an extremely important role in the modern economy; because its specific subject is a highly liquid commodity - cash capital, which is the key to the pricing mechanism of exchange-sharing processes in the economy. It consists of a system that functions as a function of cash capital, which is essential for society - value, exchange, collection, payment, world money.



Among the indicators of society development, market indicators in many respects determine the overall economic conditions both in individual countries and in the global space. Currently, the financial market plays an important role in the development of the real sector of the economy. Recently, we often hear about the development of the real sector of the economy. And this development is impossible without the financial market.

### **3. EFFECTIVE ASSESSMENT OF THE INTERACTION BETWEEN THE REAL AND FINANCIAL SECTORS OF THE ECONOMY**

According to the results of the study of foreign practices, each economic system has its own features of the real and financial sectors. Before justifying the implementation of these or other measures, it is necessary to take into account all the factors and principles of their interrelationship, determined by objective conditions of economic entities. In our view, the current situation in macroeconomic regulation requires a change in approaches to the principles of state intervention and economic policy development in these areas. In the world economy as a whole and in each country in particular, there is a gap and an inadequate situation between the real sector of the economy and the financial market. The disparity has always been available and has been everywhere, but now it is threatening to deepen systemic crises and uncontrolled socio-economic spheres. Identifying true conflicts between real and fictitious capital is the most effective way to identify the causes of this instability. In the two sets of capital, the priority belongs to real capital as it represents the productive sector of the economy. This is where foundation for development and decline, the welfare or poverty of the population are laid. It is this area that plays a crucial role in the economy, and determines its scale and its relationship with other forms of capital and, consequently, other sectors of the economy. The urgent tasks of economic policy are to increase the competitiveness of the national industry, and to involve the financial sector in solving the problem of increasing the efficiency of the real sector of the economy. In this regard, the objective of economic policy lies in the development of an active industrial strategy and redirecting the financial market to addressing the interests of the real sector of the economy. One of the promising ways to restore the broken relationship is the development of financial-industrial groups, the consolidation of industry, finance, trade, insurance, intellectual capital, which are operating today in an isolated way. The priority of strengthening the functional interaction between the real and financial sectors of the economy is to increase the importance of public administration and the role of the state. It is clear that the financial sector should ensure that the savings are transformed into investments and that they flow through the real sector of the economy. At this time, there are several options for the flow of capital between the real and financial sectors:

1. Allocation of resources in the real sector of the economy as allotment of resources in various areas and types of economic activity;
2. Redistribution of resources, such as the free cash flow process, to provide the necessary means to ensure the process of distribution of production factors in the financial sector of the real economy and, ultimately, in accordance with market criteria;
3. Redistribution of resources in the financial sector, such as the redistribution of monetary capital between financial institutions and speculators, which is not related to the movement of factors of production and the production of new value.

Distribution and redistribution of resources is a process of allocation of limited free resources in the economy. The flow of resources between the real and financial sectors of the economy is a qualitative factor when exploring alternative options for redistribution of capital. In this interrelationship, the financial sector acts as a mechanism for the interaction of the studied sectors of the economy. The financial sector of the economy realizes its investment position through the accumulation and mobilization of discrete free financial resources to address the

long-term development objectives of the real sector entities. According to market criteria, capital flows through the stock exchange and credit sub-sector to the corporate sub-sector and non-financial services sub-sector optimize the structure of the economy through flows between the financial and real sectors of the economy, inter-sectoral and intra-sectoral redistribution of capital. As subjects of the real sector of the economy, firms seek to maximize profits. Their ultimate wishes are the result of the production of goods and services and their sale to consumers. In the financial sector, they may try to place their securities (derivatives) on free cash flow, either on the offer of securities or on demand. In the first case, their behavior and efforts are focused on debt borrowing in the financial sector. In the second case, it is aimed at getting rent. Their behavior can be seen as a way to gain profit from other resources in the future. Thus, subjects of the real sector of the economy, on the one hand, direct money into the sub-sector in the form of savings and deposits, which, on the one hand, are the source of the loan sub-sector's capital formation, and, on the other hand, buy and sell securities in the stock subsector. Among the incentives for the allocation of free cash resources of the subjects of the real sector of the economy are: maximizing profits, increasing sales, horizontal growth and diversification of real sector enterprises, minimizing business risk, the availability of attractive assets in terms of lending. In turn, the incentives for the allocation of free cash in the financial sector of the economy are as the follows: maximizing income, raising the price of securities, exchange rate, credit and currency operations, creating economic impact through securities transactions in the financial sector, investment, credit, currency risk minimization, securities, diversification of the portfolio of valuables, currency, credit instruments, maintaining the liquidity of financial assets. The next step is focusing on the real sector of the economy, not only for the preservation and survival of the national economy, but also for the sub-sectors of the financial sector; transition to a free cash flow mechanism to provide the capital needed for extensive reproduction through credit and stock subsectors. The credit and exchange sub-sectors of the real sector of the economy are the main source of free cash flow from the financial sector, because it is their mechanisms that ensure the flow of free cash to the real sphere of production and the main flow of free capital in the real and financial sectors. identify mechanisms. They are:

- Loans for financing the expansion and renewal of the production unit, which will increase not only the current expenditures but also the output of the real sector;
- Trading of securities within the life cycle of the real sector enterprises of the economy. Firms either try to place their securities in free cash, either on the offer of securities or on demand;
- Issuance of securities to attract additional capital, as well as to expand and diversify the production of real sector enterprises;
- Acquisition of control securities to increase the degree of economic power and management through mergers and acquisitions of real and financial sector entities;
- Portfolio investments to create joint ventures.

Financial institutions exchange money with the promise of their repayment under certain conditions, that is, the choice of investing facility is based on the highest expected return. Entrepreneurs implementing innovations are characterized by the highest level of information asymmetry due to the lack of general information for innovators, as many of them are characterized by lack of experience and uncertainty about its long-term economic effectiveness. Financial institutions with sufficient resources in the investment process can formulate a risk-based investment strategy and experiment with high-income projects based on the market risk system. Most of the investment resources are formed by the financial system, coming from the current system of estimating future income. In this way, financial institutions can both stimulate and prevent capital investment processes.

Thus, in order to obtain an effective assessment of the interaction between the real and financial sectors of the economy, the phenomenon of market financing should be involved from the outset (very beginning) and should be widely considered, rather than merely as a supporting mechanism.

#### **4. IMPACT OF THE PUBLIC-PRIVATE PARTNERSHIP ON THE RELATION BETWEEN THE FINANCE AND REAL SECTORS**

Today, the task of systematically incorporating public-private partnership tools and mechanisms into the relationship between the banking and the real sector is as relevant as ever. In essence, public-private cooperation is a form of strategic interaction between the state and the banking and real sector, which stimulates investment and innovative development of priority sectors of the economy and provides for the efficient allocation of resources and risk optimization. If we analyze the world practice of using public-private partnership in recent years, it is impossible not to pay attention to one important feature: at least 60% of the world's examples of profitable public-private partnership projects involve mandatory participation of monetary institutions. For example, in China these are state-owned banks, state-owned infrastructure banks in the US and the UK, banks with privatized state-owned banks in Germany and France, and development banks in Japan. Significantly that the presence of a well-developed institutional environment in the OECD countries has allowed a significant improvement in public-private partnerships with banks, which has significantly changed the role of the state in the process of interaction with the real sector of the economy. In industrialized countries, the state today plays a leading role in projects built on the principles of public-private partnerships. Despite the existing peculiarities of the mechanism of interaction between the real and banking sectors of the economy on the basis of public-private partnerships in different countries of the world, they share a common principle: cooperation with the help and assistance of any government body with the help of special financial and tax instruments. In addition, international experience shows that public-private partnership projects involve more serious cooperation than just government participation in the implementation of significant economic projects. We are talking about the full coverage of specific needs of national and regional economies in the process of investment and innovative development. If we look at the stages of economic cycles in public-private partnerships, then we can identify three areas of public-private partnerships as forms of interaction between the banking and real sectors of the economy: anti-crisis, infrastructure and innovative directions. The first direction of public-private cooperation - anti-crisis - is a standard, legally strengthened direction of public-private cooperation, which takes place during the crisis. In this case, the state is obliged to provide simultaneous assistance to the banking and real sectors of the economy. The main areas of support are: import substitution and policies to stimulate exports of goods, lower interest rates for the leading enterprises of the economy, increase the sustainability and security of the national banking system, promote small and medium-sized businesses, reduce social tension, and promote employment. The second area of public-private partnership - infrastructure - traditionally consists of financing the operation of social infrastructure, as well as housing (residential facilities) financing. At this stage of the economic period - these are the periods of severe recession and subsequent depression of the economy - the task of stimulating domestic demand and employment in order to create the basis for further stabilization and economic growth is addressed.

#### **5. CONCLUSION**

Seems, it is advisable to form a three-level management system of interaction between the banking and real sectors.

1. At the micro level - the task of effective implementation of external and internal audit, risk management and marketing policies;
2. Intermediate level - unconditional control over the targeted use of financing, including pension and budgetary resources placed in bank accounts;
3. At the macro level - monitoring and control over the implementation of innovative forms of interaction between banks and the real sector.

The key to a sustainable financial system development is the development of the real sector of the economy and vice-versa. It is possible to stabilize financial market institutions and increase the results of the real sector of the economy in five key steps.

1. The first is the need for regulators to monitor the activities of financial institutions in order to ensure the timely detection of problems in the current activities and the timely response to threats.
2. The second step is the reorganization or liquidation of insolvent financial institutions.
3. Third - financial system improvement. This can be achieved through state support, as well as the support of homeowners, and the introduction of mechanisms to convert deposits into banks' shares.
4. The fourth step is stabilization, which requires the establishment of an effective oversight system aimed at preventing threats and strengthening investors and consumers' rights. Relevant schemes of protection of individuals in insurance and stock markets should be developed from scratch and the appropriate legislative framework for this is necessary.
5. Finally, the fifth step is efficiency.

Its implementation should focus on raising the level of literacy of the population, diversification of risks, including the creation of a network of financial institutions to ensure the joint distribution of large risks in the implementation of various activities, co-financing of large-scale projects, risk management systems and stock market settlements. The application of guarantees for this should be done by increasing the efficiency of management. Thus, summarizing the above, we can conclude that the financial market plays an extremely important role in the development of the real sector of the economy, since the subject of its activity is a highly liquid commodity, which is a crucial factor in the exchange mechanism of exchange-division processes.

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## THE STATE REGULATION OF THE HEALTH CARE SYSTEM: CROSS-COUNTRY COMPARATIVE ANALYSIS

**Rasmiyya Abdullayeva**

*Institute of Economics, ANAS, Azerbaijan  
resmiyyesabir@gmail.com*

**Allahyar Muradov**

*Institute of Economics, ANAS, Azerbaijan  
allahyarmurad@gmail.com*

**Ayten Kuliyeve**

*Institute of Economics, ANAS, Azerbaijan  
aytenkuliyeve@gmail.com*

**Samir Mahmudov**

*Institute of Economics, ANAS, Azerbaijan  
smmahmudov@mail.ru*

### ABSTRACT

*Public health service is one of the most important factors in formation of human capital, which is the most significant indicator of economic development. Because, development of science and education, as well as increase in labor productivity largely depend on formation of physically and mentally healthy population, which, in its turn, depend on development of public health service, quality of services in this sphere and increase in economic efficiency of public spending. From this viewpoint, issues as role of the public health service in formation of healthy population, development of public health system, funding of health care system, importance of coverage of social-health insurance and etc. have been analyzed and evaluated in the article. Generally, the effectiveness of the health care system depends on the level of the state regulation. "Is it possible to measure the level of the state regulation of the health care system?" Unfortunately, our researches prove that there is no such a methodology which gives us to measure the level of the state regulation of the health care system in the world. For the first time, the methodology has been created by us. It is called Index of Liberalism (Dirigisme) of Health care system. In the article, Index of Liberalism (Dirigisme) of Health care system has been calculated based on the methodology of Index of Leftness (Rightness) of Economy. The calculations are based on Public Health Spending, total, as % of health carespending, Value Added Taxes on drug purchase, and Health mandatory insurance rates for employers. Our calculations showed that the most liberal (rightest) health care system existed in Azerbaijan and the most dirigiste (leftist) is Norway. The study proved that the more state regulation of the health care system the best healthy population. In other words, in which countries, the state regulation is more, in those countries the level of health of population is high.*

**Keywords:** *Healthcare, Index of Leftness (Rightness) of Economy, Liberalism (Dirigisme) Index of the Health System, Liberalization, Dirigisme, State regulation, Social-health insurance, Financing*

### 1. INTRODUCTION

In modern age, the health care system is developing as a field of both social and economic sphere. Opinions on the effectiveness of the health care system and its funding mechanism are ambiguous. In our opinion, the effectiveness of the health care system is important for building a "healthy society", as well as its important to develop it as a profitable economic activity.

Because a healthy society is the base of socio-economic development. In this regard, increasing the efficiency of health care regulation and protecting human health is of particular importance. However, the level of development of the countries should not be omitted in the regulation of the health care system. When we talk about the regulation of the health care system, mean its management, especially the methods of financing (direct and indirect regulation by the state) and so on. The COVID-19 pandemic has once again demonstrated the importance of effective regulation in the health care system. Even the most widely promoted models of developed countries have faced serious problems as a result of the coronavirus pandemic. As a result, COVID-19 pandemic has created actual and pressing crisis in the world economy, especially in developed countries. All this appeared in the strategic importance of regulating the health care system, protecting the health of people, and easy access to whole services. Of course, health is one of the basic and main human rights. In recent years, as a result of rapid technical and technological development and innovations in the field of health, it has become possible to treat many diseases. The most complex operations can now be performed using modern technology. As a result, the number of deaths per 100,000 people from 20 diseases in the world has decreased in recent years. Thus, if in 2000 the number of deaths per 100,000 people in the world was 45.8 thousand, in 2016 this number fell to 35.7 thousand (WHO, 2017). We believe that technical and technological development has played an important role in this reduction. Along with technical and technological developments, new diseases are emerging. According to experts, as a result of technical and technological development, environmental pollution, and climate change 250,000 new diseases will appear in the world between 2030 and 2050 (Infectious diseases, 2017). In this regard, the importance of the health care system, the building of an effective regulatory mechanism in this field will be even more relevant in the future. It is no coincidence that in recent years, research has been conducted on various aspects (medical, social, economic, legal, psychological, etc.) related to the effectiveness of reforms in the health care system, the funding mechanism, more active state intervention in the health care system. WHO conducts research on targeted policies and the fight against various diseases, as well as creating a comprehensive statistical base that allows assessing the state of the country's health care system. As known, a new examination and operating equipment have been produced in the world for the last 20 years. Of course, the health services provided with this equipment are very high. This is not available to everyone. From this point of view, access to health services for all citizens is one of the issues of strategic importance. Because of the protection of human health, the formation of physically and mentally healthy people is the basis of economic development for the present and future. This depends on the effectiveness of the regulation of the health care system, the level of government intervention in this sector. In this case, it is necessary for the state to intervene in the health care system in various ways (prices, depreciation, financing, subsidies, etc.). Of course, countries cannot afford to treat the entire population at public expense. Serious problems can and do arise in the health care system of countries that want to do so. Till today, the political-economic, socio-psychological significance of the health care system, the availability of easy access to services and as well as despite numerous studies on the regulation of this area, level of regulation (including intervention) of the health care system has not been measured. In this study, the level of state regulation of the health care system will be measured, and a cross-country comparative analysis will be conducted.

## **2. LITERATURE SUMMARY**

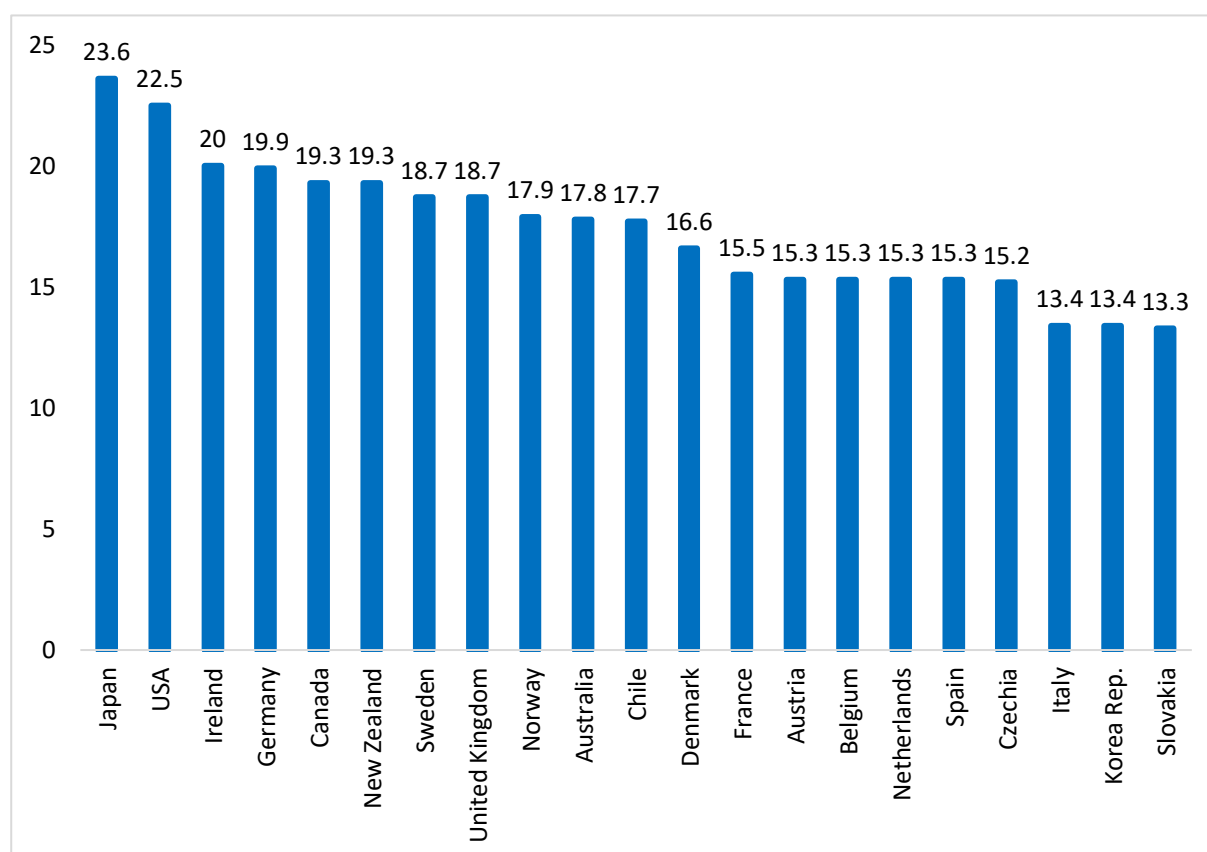
Numerous studies have been conducted in recent years to assess health care reforms (Brown and others, 2003; Lakeh and others, 2015; Allen, 2009; Si and others, 2017; Bahadori and others, 2015; Sturmberg and others, 2010; Farell and others, 2007). Also related to the state regulation (including liberalization) of the health care system (Hoof and others, 2007; Gill and others, 2016; Auerbach and others, 2003; Cremer and Pestieau, 2003; Volintiru, 2018) on

payment methods in the health care system (Babashahy and others, 2017) and others have conducted research. In most of these studies, the idea that the health care system is more state-regulated is more or less justified. Our assessments also show that the health care system is good, especially in countries under state protection. However, it would be wrong to say that the health care system is effectively managed in all cases. It is believed that it depends more on the political and economic ideology of governments and the mentality of the population. According to Fattore and Tediosi (Fattore and Tediosi, 2013), “good government management of the health system is one of the key conditions for effective universal health care” (Fattore and Tediosi, 2013). In recent years, as in a number of areas, liberal reforms are being carried out in the health care system. The aim is to increase the economic efficiency of health care services, improve the quality of medical services, ensure the availability of primary care and inpatient care, redistribute financial resources and use available funds, attract additional financial resources and optimize the health care system (Liberalization of the economy, 2020). Over the past 20 years, international organizations (the World Bank, the International Monetary Fund) have had a significant impact on the privatization of the health care system in Latin America (Lakeh and Moghaddam, 2015). Liberal reforms in the health care system are also typical of “welfare state” countries. “The crises of the ‘welfare states’ in the 1980s’ created ‘a neoliberal model of the health care system in Europe (Infectious diseases, 2017). Liberal reforms in the health care system are based on the creation or privatization of private health facilities. At present, due to the lack of a statistical database on the ratio of public and private health facilities, it is not possible to group countries by level of liberalization. One of the main factors necessitating the liberalization of the health care system is the limited ability of states to assume full funding for health care. On the one hand, the growth of the population and the number of diseases, on the other hand, the high cost of modern technologies and medical equipment motivates states to form and expand private health care. Davis and Erixon justify the application of a new mechanism in the financing of the health care system in some European countries with the problems they face in the application of new technologies and innovations (Davis and Erixon, 2008). Liberal reforms in the German health sector began in the 1990s (Schulten, 2006). The privatization of hospitals in this country was due to a large budget deficit (Muzaffarli, 2014). The Netherlands began the process of liberalization of the health care system faster (Sauter, 2010). There are rules for regulating the competitive environment in the country's health care system, both in general and in particular sectors (Sauter, 2010). In the UK, the process of health care system liberalization has intensified since 2012 (Flippon and others, 2016). Numerous studies can be found on the positive and negative socio-economic effects of health care system liberalization. In his study, Simon Lester notes that the deliberate liberalization process in the United States has brought great economic benefits (Lester, 2017). Mixon and Roseman note that health care system liberalization has had a positive effect on people's health indicators (especially life expectancy at birth) (Mixon and Roseman, 2003). Some researchers try to scientifically substantiate that the liberalization of the health care system has eliminated monopolistic tendencies in this area (Dietrich, 1999). In addition to trying to justify the benefits of health care system liberalization, there are researchers who oppose this process (Sebastián and others, 2006; Lakeh and Moghaddam, 2015). According to research of Simon Lester, Canadians believe that there is a need for a high level of government intervention in the health care system in this country. They oppose the transfer of medical services to the market and take it as a public service (Lester, 2017). We believe that the level of state intervention in the health care system should be high. The working mechanism of the system should be set up so that people can receive high quality medical services and this services are accessible to everyone. To do this, it is important to assess the relationship between the liberalization of the health care system or, vice versa, the increase in government intervention and human health. It should be noted that to date, research in this area has not assessed the high, medium, and low level of state

regulation of the health care system. In this study, we will measure the level of state regulation of the health care system using available statistics and the methodology of the Economic Leftness (Rightness) Index (Muzaffarli, 2014). To this end, we consider the expedience in assessing the relationship between a number of health indicators and the regulation of the health care system in some developed and developing countries of the world.

### 3. THE RELATIONSHIP BETWEEN HUMAN HEALTH AND THE REGULATION OF THE HEALTH CARE SYSTEM

In our opinion, the protection of human health, the availability of very expensive health services today depends on the level of state regulation in this area. As we have noted, states regulate the health care system in a number of ways. These include direct financing, indirect financing (eg, social health insurance), tariffs for health insurance, pricing of services, drugs, licensing of health services and enterprises, subsidies for expensive equipment, etc. can be entered. One of the main methods of state regulation of the health care system is direct state funding. In 2017, the share of health expenditures in public spending in developed and developing countries was over 10%. Of course, there are poor countries with more than 10%. However, there is almost no developed country with a rate below 10% (WHO, 2020). This figure may give us reason to say that more than 10% of public spending on health is important for the health of the population.



*Figure 1: Domestic general government health expenditure as percentage of general government expenditure (GGE) (%)*  
(Source: WHO, 2017)

The ratio of public health expenditures to GDP in 2017 also includes countries with good health in the top 20. Japan is first in the ranking with 9.2% (Figure 2).



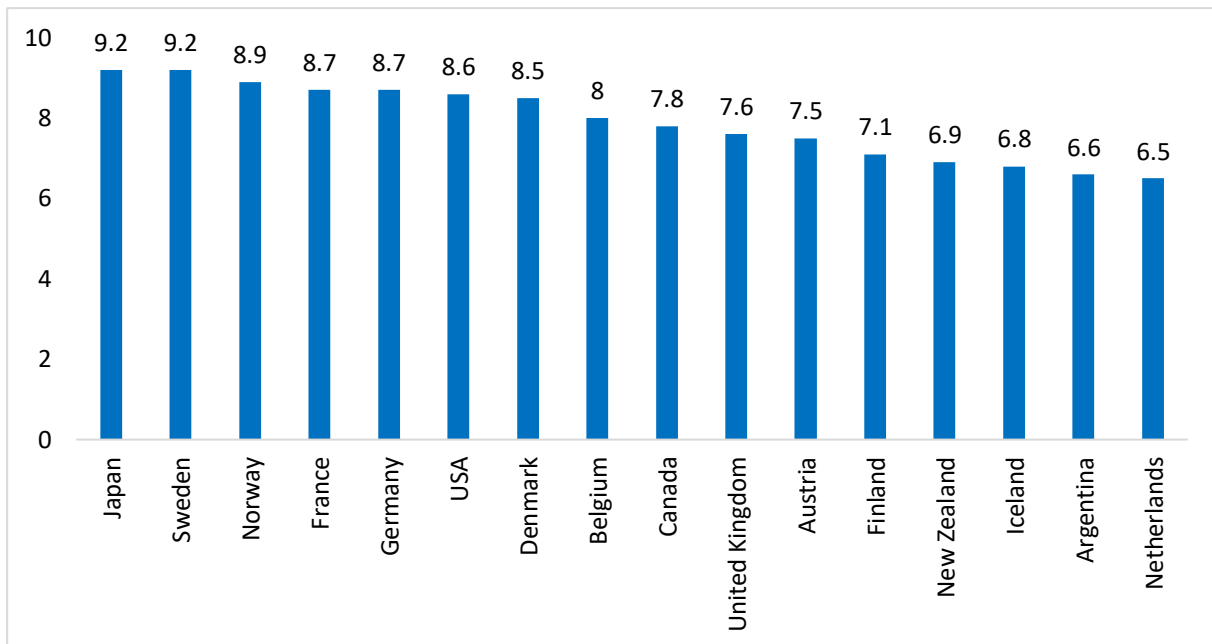


Figure 2: Domestic general government health expenditure (GGHE-D) as percentage of gross domestic product (GDP) (%), 2016  
(Source: WHO, 2016)

Analysis of WHO statistics indicators reveals that between 2000 and 2017 (190 countries) there is an upward trend in public health expenditures relative to GDP. The COVID-19 pandemic shows that, this figure will increase in 2020 and beyond. If we compare several key health indicators such as life expectancy at birth, infant mortality rates (per 1000 live births) maternal mortality (per 100 000) we can say that the situation is satisfactory in countries with a high share of the state in total expenditures. Of course, there are some exceptions, which, in our opinion, depends on the political system of countries, the level of socio-economic development (Figure 3).

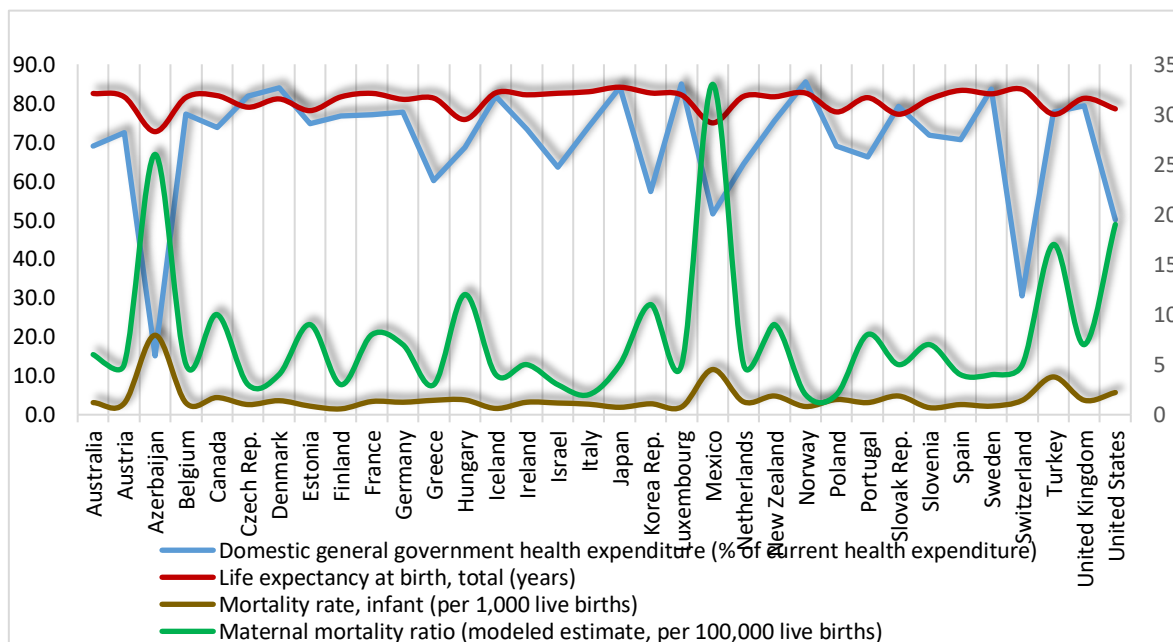


Figure 3: Health indicators of OECD countries and the Republic of Azerbaijan  
(Source: World Bank, 2017)

In countries with low government intervention in the health system, it is possible to observe unsatisfactory health indicators of the population. Thus in 2017, maternal mortality in Mexico was 4.6 times higher, and infant mortality was 3.1 times higher than the average of OECD countries. In Mexico, the share of public spending on total health expenditure in the corresponding year was 51.5%. Due to the very low share of public expenditures in total health expenditures in Azerbaijan in the relevant year -15.1%, both maternal and infant mortality rates are several times higher than the OECD average. In contrast, life expectancy at birth is lower than average. Studies have shown that it is necessary to have at least 60% of the state's burden on health financing. It is no coincidence that in countries with less than 60% of the state burden, at least one of the health indicators studied (maternal and infant mortality) is above average, and life expectancy at birth is low. We believe that the increase in the state's burden on health care system is important for improving health indicators. WHO General Director Tedros Adhanom Gebreyesus noted that “but health spending is not a cost, it’s an investment in poverty reduction, jobs, productivity, inclusive economic growth, and healthier, safer, fairer societies” (WHO News, 2019). In our opinion, one of the ways to regulate the health sector is to introduce a social health insurance system. The state regulates this area by determining the rates of health insurance premiums for employers. The chart below shows the health insurance premium rates studied for employers by country (Figure 4).

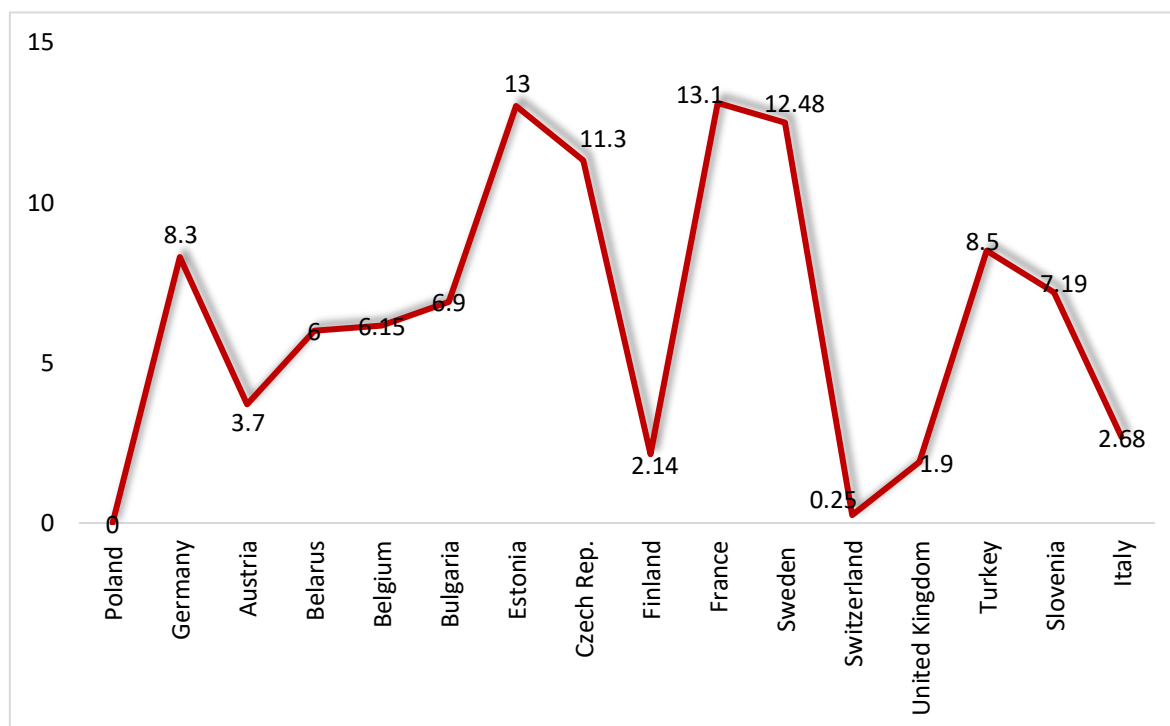


Figure 4: Compulsory health insurance premium rates for employers (in relation to salary)  
(Source: Social Security Programs Throughout the World, 2019)

As seen in the figure, the countries with the lowest health insurance rates for employers in 2019 include Poland (0) and Switzerland (0.25). In some countries this figure is very low, for example, in the UK it is 1.9%. However, health insurance rates are very high in some countries. Thus, this figure was 13.1% in France and 12.48% in Sweden. One of the important tools in regulating the health care system is the supply of drugs. The supply of drugs in some countries is carried out by the state, and in some countries by the private sector. The state regulates the purchase and sale of drugs by various means such as price tariffs, application of value-added tax (VAT), and etc.

№	Countries	VAT on drug purchasing	VAT	№	Countries	VAT on drug purchasing	VAT
1	Australia	0	10	19	Nederland	6	21
2	Austria	10	20	20	New Zealand	12,5	15
3	Belgium	6	21	21	Poland	8	23
4	Canada	0	5	22	Portugal	6	23
5	Czech Republic	10	21	23	Slovak	10	20
6	Denmark	25	25	24	Spain	4	21
7	Finland	10	24	25	Sweden	0	25
8	France	2,1	20	26	Switzerland	2,5	7,7
9	Germany	19	19	27	Turkey	8	18
10	Greece	6	24	28	Azerbaijan	18	18
11	Hungary	5	27	29	United Kingdom	0	20
12	Iceland	14	24	30	Estonia	9	20
13	Ireland	23	23	31	USA	0	0
14	Italy	10	22	32	Lithuania	5	21
15	Japan	5	8	33	Russia	10	18
16	South Korea	10	10	34	Slovenia	9,5	22
17	Luxembourg	3	17	35	Latvia	12	21
18	Mexico	0	16	36	Average	8,1	19,2

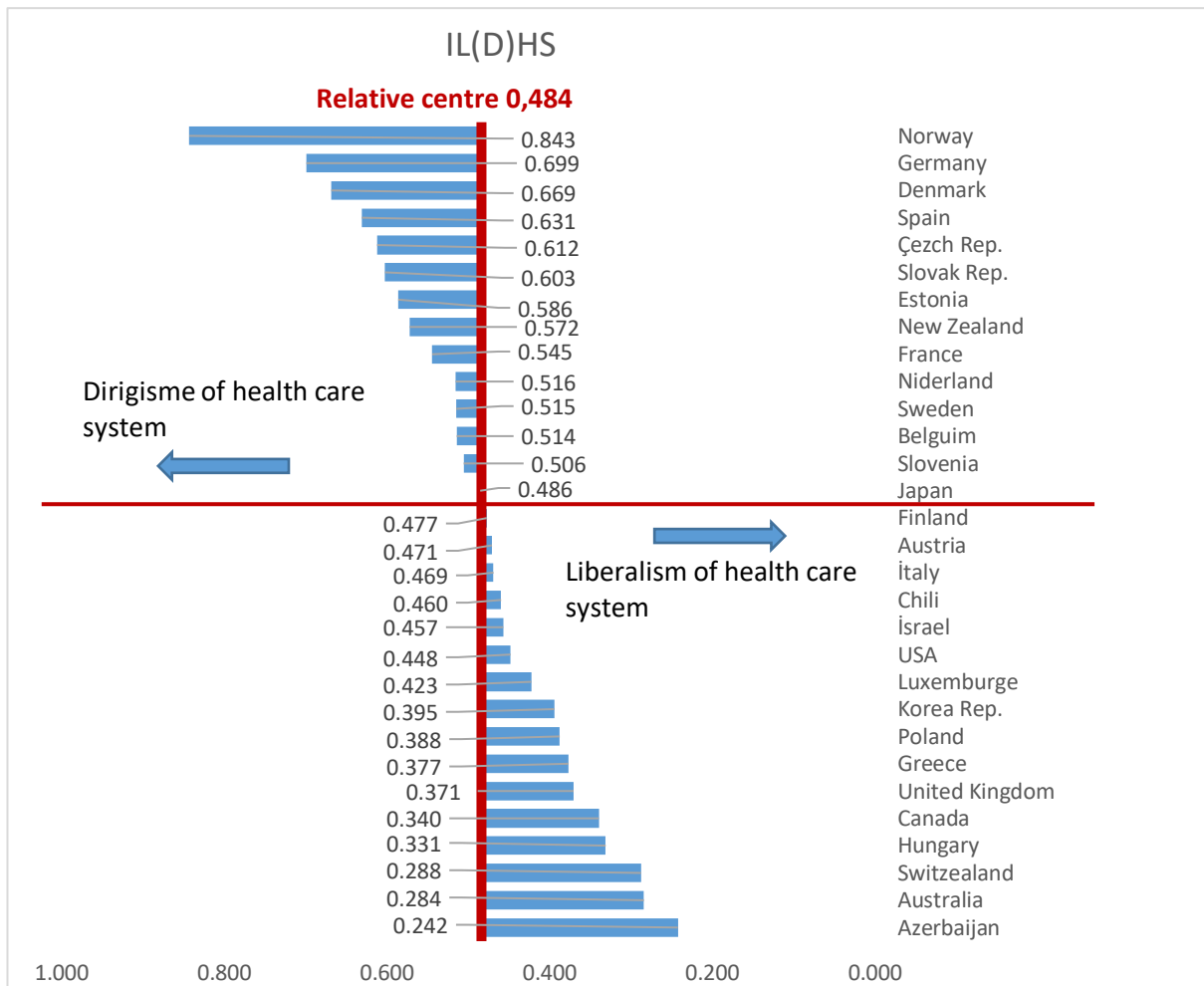
*Table 1: VAT applied on purchasing drugs, 2016, (%)*

*(Source: Statista, 2016)*

In some countries, the VAT applied on purchasing drugs is less than the standard VAT. As seen in the table, there are significant differences between the standard VAT in most countries and the VAT applied on purchasing drugs. In a number of countries, such as the United Kingdom, Australia, Canada, Sweden, Mexico, and others. Although VAT is applied in many countries, it is zero at the time of drug purchase. This serves to strengthen the social protection of the population. VAT on drugs is four times less than the standard VAT in Greece, two times in Slovakia, and six times in Luxembourg. In Azerbaijan, this figure is 18% and no differentiation is applied when buying drugs.

### 3.1. Methodology for measuring state regulation of the health care system

The question arises as to what extent the state should regulate the health care system, in general, is it possible to measure the level of state regulation of the health care system? Our research has shown that there is no methodology in the world to measure the level of state regulation of the health care system. The first time, we have developed such a methodology, which is called Index of Liberalism (Dirigisme) of Health (care) System IL(D)HS. This methodology has been developed in accordance with the methodology of the Index of Leftness (Rightness) of the Economy (Muzaffarli, 2014). At the initial stage, IL(D)HS is calculated on the basis of indicator 3 (Public Health Spending, total, as % of health care spending, Value Added Taxes on drug purchase and health insurance rates for employers). The aim consists of measuring the extent to which the state regulates the health care system. IL(D)HS varies in the range 0-1: "0" - indicates "absolute rightness" of the health care system (no state interference in the health care system), "1" - "absolute leftness" (complete state regulation of the health care system). Indicators are indexed by the formula  $(V_i - V_{\min}) / (V_{\max} - V_{\min})$ . The statistical source is the OECD and World Bank database for 2016 (WB, 2016). Initially, IL(D)HS was calculated for 30 countries (Figure 5).



*Figure 5: IL(D)HS (30 countries), 2016*  
*(Source: World Bank, 2016)*

According to IL(D)HS, the most liberal (rightest) countries are Azerbaijan (0.240), Australia (0.284), and Switzerland (0.288). The share of public health expenditures in among total health expenditures in these countries is relatively low compared to other countries. Compulsory health insurance rates for employers in Azerbaijan and Australia are zero, and in Switzerland, it is very low with approximately 0.25%. The fact that Azerbaijan is the most liberal country in terms of the health care system is due to the fact that the share of public health expenditures in the structure of health expenditures in our country is the lowest compared to the surveyed countries, as well as the lack of social health insurance. The 30 countries which we investigated, Norway (0.843), Germany (0.699) and Denmark (0.669) had the most dirigiste health care systems. Compulsory health insurance premiums for employers are high in Norway and Germany. Thus, this figure is 14.1% in Norway and 8.3% in Germany. In these countries, the share of the state in total health expenditures is quite high.

#### 4. CONCLUSION

Research has shown that health care is better in countries where the health care system is more state governed. There is a close relationship between government spending on health and health indicators. In the current situation of the health care system, it is necessary to increase the level of state regulation of the health care system in a number of countries, including Azerbaijan.

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## SOME ISSUES OF INNOVATIVE DEVELOPMENT OF INDUSTRIAL ENTERPRISES IN AZERBAIJAN

**Ashurov Ali Sari Oglu**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*rustamovasx@gmail.com*

### **ABSTRACT**

*Nowadays, new features of economic development are emerging in the world, the globalization process is deepening, and scientific and technical progress, especially information and communication technologies, is rapidly developing, competition in the markets of goods and services is getting worse, financial institutions' influence on commodity markets is increasing, large corporations markets tend to take over the economy as a whole, and this in turn makes it necessary for businesses to take into account the impact of these factors, strengthen market positions, maintain and maintain competitiveness, and necessitate the use of innovative development categories for this purpose. One of the main conditions for ensuring the overall development of the enterprise is the presence of competition in the market and, therefore, its competitiveness. One of the most important factors influencing the formation and maintenance of competitiveness is the implementation of innovative development strategies. Innovative development of enterprises is ensured in accordance with the general development strategies, taking into account the impact of environmental factors, marketing principles. There are many alternatives to the innovation strategies they employ, and depending on the type of innovation, these strategies have a different impact on the competitiveness and innovation of the enterprise. Therefore, the selection and implementation of innovation strategies is a very difficult and complex process. Innovative development of industrial enterprises in Azerbaijan is accompanied by a number of problems and has several features. The contradictions of the transition period to a market economy in the country also showed its influence on their appearance. Research and scientific study of specific features and existing problems of innovative development of enterprises is of great importance for ensuring the innovative development of the economy and the country as a whole.*

**Keywords:** *Enterprise, Development, Innovation, Competitiveness, Strategy*

### **1. INTRODUCTION**

In modern times, new features of economic development are being formed, the process of globalization of the world economy is intensifying, scientific and technological progress, especially information and communication technologies are rapidly developing, competition in product and service markets is becoming more acute, the influence of financial institutions on commodity markets is growing, the process of concentrating markets in the hands of large corporations is increasingly expanding. All this, in turn, creates the need for the implementation of innovative development strategies by the enterprises enabling them to operate under the influence of the above-mentioned processes, be competitive and maintain their competitiveness. Among the above, the factor of the increased competition in commodity markets is just one of the main conditions which make necessary the implementation of the innovation strategies by the enterprises. All strategies implemented by enterprises are aimed at expanding their market opportunities, using them in a balanced way, more effectively. The choice and implementation of any strategy are carried out in response to changes in the environment. Enterprises operate in a competitive market and their competitiveness and market behaviors are shaped, in general, on the basis of the strategies that they implement.



## **2. FACTORS AFFECTING THE COMPETITIVENESS OF ENTERPRISES**

The ability of manufacturing enterprises to compete in commodity markets and ensure their overall development is shaped under the influence of factors having different characteristics and degrees of influence. One of the main conditions for ensuring the overall development of the enterprise is its competitiveness. The formation and maintenance of competitiveness are influenced by a large number of factors, one of the most important of which is the implementation of innovative development strategies. Depending on their essences and natures, innovations created by the enterprises are implemented mainly in three directions - product, technological and organizational-management. Each of them has its specific features, distinctive features, difficulties and advantages, different forms and methods of process implementation:

- Product innovation is attributed to a completely newly created original products, new or improved products that have different consumer characteristics than their analogues, which can meet the new requirements of consumers;
- Technological innovations include innovations related to giving new features to the product, the development of new production processes, the use of new raw materials, the creation of new, complex systems and technological processes. This type of innovation mainly requires large financial resources and conducting the applied scientific research works, usually in the scientific-research laboratories and experimental-design offices of large companies. First of all, it is created in technopolises. Technological innovations and product innovations are considered as two sides of the same process having interaction;
- Organizational-management innovations involve the use of new management systems, information and communication technologies, as well as new organizational, sales and communication methods by the enterprise in the process of commercialization of innovation.

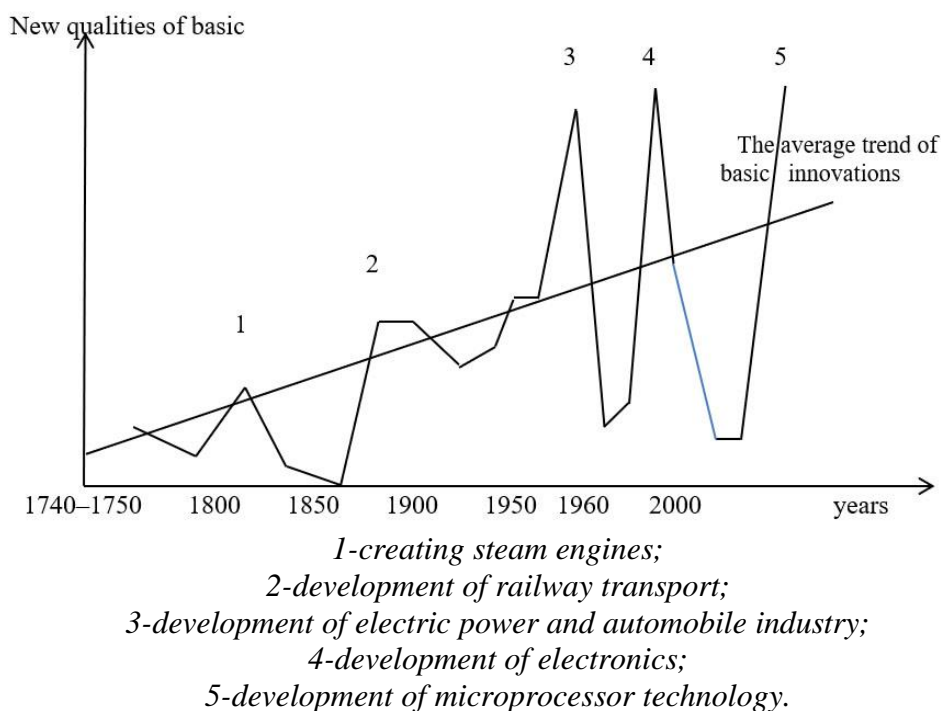
In the present period of economic development, innovation processes on products, technologies, management methods newly created under the influence of scientific and technical progress and other factors mentioned above, are carried out simultaneously and in parallel by individual enterprises. This, in its turn, justifies the rapid economic development and high level of risk in the innovative activities of enterprises.

### **2.1. Relationship of economic development with innovation processes**

N.V.Kalenskaya emphasized the close relationship between the stages of social development and the emergence of innovations and showed the periodic dynamics of the emergence of radical innovations in 1740 - 2000 as in the following Figure [5. page.9].

*Figure following on the next page*

Figure 1: The periodic dynamics of the emergence of radical innovations between 1740-2000.



As can be seen from the figure, one can say that economic development depends not only on investments in the labor force and capital assets. It also depends on investment in the creation and commercialization of new production technologies, new products and knowledge. Modern economists tend to believe that information, science and high technology are the main factors for maintaining the competitiveness of products in the world market, in a globalized economy [5 page.10].

## 2.2. Stages and models of the development of innovation processes

The development of innovative processes on a global scale has gone through a number of successive stages over the periods, five different models of innovative development have been applied under these stages:

1. The first-generation model covers 1950-1960s. In this model, the main focus was on scientific research, the innovation process received a “boost” from new ideas and was accordingly called a “technological boost”;
2. The second-generation model covers the 1960s-1970s. It was more and more focused on meeting the demand of the market. Such innovation processes were called "Call for demand";
3. The third-generation model covers the 1970s -1985s. Innovation processes were more complex by providing a combination of technological development and consideration of the market demand;
4. The fourth-generation model covers 1985-2000s. It is a Japanese model of advanced experience. In this model, the main focus is on the parallel activity of the combined groups, external horizontal and vertical relations;
5. The fifth-generation model covers 2000-2020s. It is a model of strategic networks. It is the establishment of strategic integration and relations. It includes the creation and use of large-scale knowledge, technologies, products and services, nanotechnologies [4, page.56].

It seems that innovative development models are a process that goes from simple to complex, over successive periods. The use of any of these models primarily depends on the level of economic development of the country, its scientific and technical potential and the state of its integration into the world economic system. Currently, the last two models are mainly used by developed countries, the third-generation innovation model is applied more and more by the developing countries. In general, the industrialized countries have consistently passed these stages, have developed their economies at a high level by implementing innovative development strategies under the latest models, and have a leading position in the commodity markets. The implementation of innovative development strategies by enterprises is provided under general development strategies, based on marketing principles, taking into account the impact of environmental factors. As a result of the rapid development of scientific and technical progress and an impact of other environmental factors, the science of production is rising, production processes are becoming complicated, modifications have been occurring in a competitive environment and market behaviors of the enterprises under all these factors. To carry out effective innovation activities, an enterprise must first select the appropriate innovation strategy, develop and apply an effective innovation management system. The introduction of such a system, in its turn, makes it necessary to modify and improve a general management system of the enterprise, its tactics and methods.

### **3. SELECTION AND IMPLEMENTATION OF INNOVATION STRATEGIES**

The implementation of innovation activities by enterprises and the selection of appropriate innovation strategy depend more and more on the directions of activities, specifics, level of production-technological development, scientific and technical potential of enterprises, experience accumulated by enterprises in the previous periods, financial opportunities and innovation potentials of enterprises. There are different types of innovation strategies implemented by an enterprise. Depending on a type of innovation, these strategies affect differently the competitiveness of the enterprise and its innovative development. The choice and implementation of innovative strategies are not only complex by their nature, but they also require high risks. Therefore, they should be approached in a complex way. When choosing an innovative development strategy, the enterprises shall evaluate their innovation potentials based on a general development strategy, shall determine the purposes of their innovation activities and determine the basic innovation strategies based on an analysis of environmental factors, resources and innovation budget, and after that shall formulate innovative development strategies by analyzing their alternative innovation strategies. Innovation strategies implemented by enterprises have certain characteristics. One of the most important characteristics is that the nature of planning in an innovation process is individual. And this manifests itself in three directions:

- Determination of time and quantity measurements;
- Distribution of the resources of an enterprise by stages of an innovation process;
- The use of appropriate methods in the process of creation and commercialization of innovative products.

Another characteristic feature of innovation strategies is that they are implemented in a situation of finance regulating. This manifests itself more evidently in the process of assessing the effectiveness of innovation programs, distribution of financial resources between separate stages and executors of the innovation process and assessing the effectiveness of their use. One of the main characteristics of the implementation of innovative development strategies is that an arrangement of innovation activity and stimulation of the staff dealing with this work has a specific feature. This manifests itself more evidently in the direction of providing continuity and efficiency of the innovation process, increasing the creative capacity of employees

individually and collectively. Since various methods are used in the implementation of the innovation process, each of them has individual and specific features. At the same time, it should be noted that the stimulating nature of a wage system of employees who create innovations also acts as one of the characteristic features of the implementation of innovation strategies. Innovation strategies are mainly implemented in two directions: - Defensive and Offensive forms. Defensive Innovation Strategy has a passive and adaptive type. Offensive Innovation Strategy has an active and moderate type. The selection of any of these strategies is carried out depending on a market position and opportunities of the enterprise, as well as on who created the innovative product. The enterprise that creates and applies innovation may implement one of its destructive, active or moderate offensive strategies. In this case, other competing enterprises choose and use one of the strategies of imitation, expectation and defensive nature. An active offensive strategy is implemented based on innovative products created due to scientific-research and experimental-design works. However, when a new product is a market-oriented, it allows achieving more efficient results when it meets the needs of the market and consumers. The innovative product is essentially created for two reasons:

1. When there is a demand for a new product in the market;
2. When a new product is created based on scientific and technical progress.

The innovative product created based on scientific and technical progress has a high value when it is accepted by the market and consumers. In the market, it is not an enterprise that creates the product of innovation. An enterprise, which carries out a commercial realization and sale of innovation product, acquires a more competitive advantage in the market. The complexity and difficulty of implementation of effective innovation strategy by enterprises are explained by a diversity of innovation and innovative development strategies, as well as a high level of uncertainty and risk of decisions adopted in this area. If an enterprise decides to choose and implement an innovation strategy, in this case, innovation strategy shall have a key role in comparison with other strategies of the enterprise. Other strategies (production, technology, marketing, finance, management, etc.) shall be implemented through adaptation to the innovation strategy. In this respect, effective innovation activity is considered as one of the main factors providing a general development of the enterprise. There is no unified innovation strategy implemented by all enterprises. In a market of specific products, each enterprise shall choose and implement a differentiated innovation strategy depending on its market position, opportunities and the impacts of environmental factors. Even in relation to the enterprise applying innovation in the specific product market, the two competitive enterprises implementing the same strategy differ from each other for their market opportunities, approaches, the methods that they apply, the methods of managing innovation processes, market behaviors, as a whole. A systematic approach and situational analysis, the use of methods of the business portfolio analysis are of great importance when selecting innovative strategies and implementing innovative activities based on the marketing principles. The application of these methods allows to more effectively solve the issues of individual directions of business activity of the enterprise, evaluation of innovation potential, identification of the goals and objectives of innovation programs, coordination of stages of innovation processes, proper selection of financing and executors.

#### **4. PROBLEMS OF INNOVATIVE DEVELOPMENT OF ENTERPRISES**

Certain problems are observed in the innovative development of industrial enterprises in Azerbaijan and these problems have some characteristic features. The study and scientific investigation of the existing problems are of great importance for providing innovative development of the country's economy. As it is a case with other countries, the overall development of the economy in Azerbaijan depends on the development of industrial

enterprises. Industrial enterprises in Azerbaijan since the beginning of the 1990s had experienced a transition to the market economy and a period of transformation. The contrasts of that period had a very serious impact on the activities of enterprises. During that period, the economic relations of most of the enterprises had been disrupted, the possibility of reconstruction and refurbishment of production and technological equipment in the face of financial shortages was very limited, as a result of which most of the enterprises were in a state of crisis. The oil and machine-building industries, which are an important and one of the priority areas of the country's economy, are still in a state of crisis. Nevertheless, many industrial enterprises had recovered from the crisis in the mentioned period, had carried out the reconstruction works, managed to establish and develop their activities based on the market principles. New enterprises and companies have emerged in the country, and today they have the opportunity to successfully operate in the commodity and service markets. At the same time, it should be noted that the level of innovative development of industrial enterprises of Azerbaijan is very low. This can be seen from the indicators related to new products produced by industrial enterprises. In 2010-2018, the industrial enterprises of Azerbaijan produced products that underwent significant modifications or products with newly applied innovations amounted to a total of 144.9 million manats. The average index per year is 16.1 million mantas. This is a quite low index for the whole industry. Thus, the impacts of innovation factors on the economic development of industrial enterprises in Azerbaijan had been weak in the mentioned period. There were also some objective and subjective reasons for it. First of all, difficulties and challenges arising in connection with the transition to a market economy in Azerbaijan should be mentioned as one of the objective factors in this. Thus, the Azerbaijani economy has experienced the transition from one economic system - the planned socialist system of the economy to another economic system - the system of the capitalist economy which is based on the market principles. The transition is much time consuming, difficult and complicated process. It has also led to a disruption of the economic relations of enterprises, deterioration of their financial capacity, and consequently, it had resulted in degradation of the enterprises. For this reason, not only the innovation potentials of the enterprises but also their opportunities to implement scientific research and experimental-design works have become a null. Even the opportunities of enterprises for carrying out production and sales processes at a proper level and ensuring their stay in the market have been significantly limited. The lack of managers, marketers and other specialists with a high ability to work at the disposal of enterprises during the transition to a market economy can be noted as another very important factor. This is one of the serious problems facing the country's economy at the macro and micro levels. To eliminate this problem, measures taken by the state towards the preparation of students studying in public and private higher education institutions as highly qualified specialists should be improved. Also, integration into the international education system should be strengthened. One of the main features of the global economy is just the formation and development of the knowledge economy. Providing economy of Azerbaijan with such a feature is one of the main conditions of the development, particularly an innovative development of the Azerbaijani economy. Until 1990, Azerbaijan was considered one of the strongest industrialized republics of the Soviet Union. However, even in the Soviet period, the products produced in the country were not meeting the international standards, they were mainly selling within the USSR and on the territory of the socialist states. After the collapse of the USSR, the Republic of Azerbaijan regained its independence and integration into the world economic system. The markets of Azerbaijan were opened for international trade. All these and other factors made it necessary for Azerbaijan to replace old-fashioned equipment and machinery in its enterprises with the modern ones, to carry out reconstruction works in enterprises and start to produce high quality products meeting the international standards. All these works were requiring a large number of funds.

Due to the lack of the funds, conducting the scientific- research and experimental-design works, innovation activity, as a whole has been receded into the background and underwent a serious degradation. Today, the industrial enterprises of Azerbaijan, rather than to implement innovative development strategies, are seeking to purchase and apply technologies in the developed countries, to produce competitive products and to take them to domestic and international markets. In this way, the industrial enterprises of Azerbaijan endeavor to form and maintain their market positions.

#### **4.1. Monopoly in the commodity markets of Azerbaijan**

As already mentioned, one of the main conditions making necessary the implementation of innovative development strategies by enterprises is the existence of competition in the commodity markets. The level of competition in the commodity markets of Azerbaijan is low. Besides, the formation of competition in the commodity markets has its specific features as well. Thus, most of the commodity markets have become monopolistic markets. The economic entities in these markets stand on monopolist positions and they have an opportunity to create artificial barriers on import for others, to control import operations and the sales network, to set high prices for products. This, in its turn, weakens the competition, negatively affects the social life of the population, leads to a decrease of a real income of the population. To eliminate a monopoly in the commodity market of the country, the Azerbaijani government is taking certain measures within the framework of the country's antimonopoly policy. However, these measures do not yield the expected results. The implementation mechanisms of such measures and legislative acts shall be improved at all times and they shall be applied more rigorously and efficiently. The competitive environment in individual areas of the industry of the country is characterized with poor competition among enterprises operating in that area. Thus, at the same time, one or two enterprises are engaged in the production of the same product in the Republic. Local production enterprises are patronized by the state. Either artificial barriers are created in the import to the country of products produced by them or high import duties are imposed or a volume of import is limited. This, in its turn, creates certain competition advantages for enterprises. Since production enterprises do not pay customs and tax duties on the products that they produce, do not allow themselves transportation costs, they acquire a certain competitive advantage compared to the importers of the same products. When these production enterprises receive additional patronage from the state, this not only weakens the competition but also does not comply with market principles. Such cases weaken the innovation activity of industrial enterprises and reduce the necessity of implementation by them of innovative development strategies. One of the specific characteristics of formation of competition in the commodity markets of Azerbaijan is that the entrepreneurship structures of the country have close relationships with a county's high-ranking officials. This factor also acts as one of the factors negatively affecting the formation of a healthy competitive environment in the markets and innovative development of the enterprises. This creates a condition for the formation of "Official entrepreneurship" in the country.

#### **4.2. Development of science in Azerbaijan**

Insufficient level of science development, scientific-research and experimental-design works, scientific applied researches can be shown as one of the main factors affecting innovation development of industrial enterprises in Azerbaijan and resulting in a low-level formation of their innovation potential. The development of science in each country depends on the number of funds allocated by the state to that sphere and the policy implemented by the state. Even adoption of the National Strategy for the development of Science in the Republic of Azerbaijan in 2009-2015 and the State Program related to its implementation did not cause serious changes in the development of science in the country.

Nevertheless, it may be noted that the care and attention of the state to the development of science have increased considerably in recent years. In 2018, the number of funds allocated from the state budget to scientific-research works and developments in Azerbaijan was 101.3 million manats, which is 4.8 times more than in comparison with the year of 2005. However, if we draw attention to the fact that the cost for scientific-research works and developments was made of 1.3% of a general expenditure of a state budget in 2005, 0.8% in 2010 and 0.6% in 2018, in this case, the mentioned high growth cannot be considered as satisfactory. To ensure the development of science in the country, to raise the level of scientific- research works and the developments, effective and purposeful state policy must be implemented, the activities of employees, enterprises and agencies dealing with science, fundamental scientific researches must be built in compliance with the market principles. The practices, strategies and mechanisms of the developed countries in this area must be broadly used.

#### **4.3. Formation of the national innovation system and innovation infrastructure in Azerbaijan**

One of the main conditions of ensuring innovative development in Azerbaijan is a creation and continuous improvement of innovation infrastructure and its operating mechanisms. The innovation infrastructure is characterized as a set of enterprises and agencies operating independently based on market principles. It assists enterprises with the implementation of their innovation activities and processes. It is a complex system that combines enterprises and agencies operating in many areas, including an area of finance, information, legal consulting service, techno-parks, venture financing, etc. It is impossible to carry out effective innovation activities in the country without creating such a system and its operating mechanisms. The current state of the innovation infrastructure in Azerbaijan cannot be considered as satisfactory. Current enterprises and the newly emerged innovation enterprises do not have an opportunity to be grouped in incubators, techno-parks, to receive the necessary information and financial assistance, to use consulting services and the most important is that to benefit from a venture financing. All this weakens innovation activity of enterprises, reduces their interest in implementing innovation strategies. Therefore, as it is a case in the developed countries, to transit into innovative development model in Azerbaijan, first of all, innovation infrastructure must be formed, relevant legislative acts on innovation activity and venture activity must be adopted, a legal base on them must be formed, their efficient operation mechanisms must be applied. Availability of the national innovation system plays an important role in ensuring the innovative development of enterprises. This system combines the enterprises and agencies implementing commercialization of innovations, including innovation infrastructure, innovation development mechanisms and is formed based on innovation policy of the state. Innovation development mechanisms are applied at different stages of the creation of innovation, in the form of group mechanisms for individual directions. Along with ensuring the arrangement of organizational aspects of the innovation process, creation and commercialization of innovations, financing and stimulation processes, implementation of technological transfer, management of intellectual property, this type of mechanisms also provides the implementation of other specific subgroup tasks, plays a very important role in implementing effective innovation activities. Although innovation development mechanisms are of great importance in innovative development of enterprises and implementation of innovation strategies, the level of formulating and the issues of application of such mechanisms in Azerbaijan, current problems in this area, the ways of their solution have not been sufficiently studied scientifically and practically. When such studies are carried out within the framework of a special public policy, then it is possible to achieve more effective results. One of the main problems of the innovative development of industrial enterprises in Azerbaijan is the low level of formation of the market demand for innovative products.

Weak competition in the commodity markets of the Republic reduces the demand of the markets for innovation products, weakens the necessity of issuing orders by industrial enterprises for the creation of innovations, carrying out independently scientific-research works and developments in order to create innovations by the innovation enterprises. This, in its turn, leads to a decrease in the innovation activity of enterprises. The limited scientific and technical potential of industrial enterprises and poor competition in the markets in which the industrial enterprises operate also reduce the interest of industrial enterprises in implementing innovative development strategies. This becomes one of the main problems of the innovative development of microeconomics. Currently, “Azsun Holding”, “Pasha Holding”, “Ata Holding”, “Gilan Holding” and a number of other large companies are successfully operating in Azerbaijan. Along with possessing broad financial capabilities, they also have the opportunity to form their scientific and technical potential and to implement innovative development strategies. However, the country must have the necessary conditions for carrying out innovation activities and these companies must be interested in implementing its innovative development strategies. In this respect, a healthy competitive environment should be formed in the markets in which the above-mentioned companies are operating.

## 5. CONCLUSION

Thus, it can be noted that there are a number of problems of innovative development of industrial enterprises in Azerbaijan. In order to eliminate such problems and carry out effective innovation activities by enterprises, first of all, the state must implement a purposeful innovation policy, formulate the national innovation system. Effective innovation infrastructure and mechanisms for its operation shall be available in the country. At the same time, a healthy competitive environment should be created in commodity markets, necessary state measures should be taken to eliminate monopolism and effectiveness of the state measures should be improved. In addition, the appropriate legal base should be established for the implementation of innovation activities. The activities of the innovation enterprises and state aid to innovation enterprises must comply with the market principles.

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## INNOVATIVE ENTREPRENEURSHIP AS AN IMPORTANT FACTOR OF SUSTAINABLE ECONOMIC DEVELOPMENT

**Alijan Abbasov**

*Azerbaijan State Economic University (UNEC)  
Baku, Abbas Sahhat 45 A, Az 1007, Azerbaijan  
alican.abbasov@gmail.com*

**Samira Rustamova**

*Azerbaijan State Economic University (UNEC)  
Baku, Abbas Sahhat 45 A, Az 1007, Azerbaijan  
rustamovasx@gmail.com*

### ABSTRACT

*Nowadays, the role of innovation in improving the competitiveness of countries is growing. Implementation of innovation policy plays an important role in the sustainable development of the country, in the integration of production and science. The article reveals the essence, sources of financing and tools of innovative entrepreneurship. For the development of innovative entrepreneurship, firms and companies should have free financial resources, which can be obtained by increasing the stimulating role of taxation and reducing the tax burden. Companies that carry out innovative activities based on the experience of countries with developed market economies should be allowed to deduct research and development costs from the tax base, to increase the tax on profits received from the sale of high-tech goods and services by 50 percent, and to apply a social taxation regime. The results of studies confirming the important role of demand and tax incentives in the development of innovative entrepreneurship are considered. The main principle of the modern approach to stimulating demand, which is a source of innovation, has become more widespread and successfully implemented in strategic documents and political measures. Venture capital can be described as a source of long-term investments, usually provided for five years to companies that are in the early stages of their formation, existing enterprises for their expansion and modernization, as well as to finance individual enterprises belonging to large corporations or private firms. As a result of the study of the mechanism of venture financing of innovative entrepreneurs, organizational, economic and legal problems that hinder venture investment were identified.*

**Keywords:** *Innovation entrepreneurship, Innovation activity, Tax system, Venture investment, Innovation management*

### 1. INTRODUCTION

In a market economy, firms and companies are engaged in innovative activities aimed at expanding the range of products, increasing its competitiveness and creating a market segment. Innovation comes from the word “innovation” in the English language. Innovation is the result of intellectual activity, which has some consumer properties in the form of goods or services and has a market demand. At the microeconomic level, innovation plays an important role in improving production efficiency, product quality and competitiveness, as well as reducing costs. At the macroeconomic level, there is a process of transition from the type of resource to the type of innovation of economic growth, an innovative model of the economy is being formed. Innovation is the most promising form of entrepreneurship and involves a high degree of risk. The most characteristic features of innovative entrepreneurship are the development of high-tech production, increasing the role of intellectual property, strengthening the human factor and the transition to an intensive type of reproduction. Today, the role and importance of innovation in the socio-economic development of the country is growing.

Thus, scientific and technological progress, high technologies provide a solid basis for sustainable, spiritual, intellectual and socio-economic development of society and the country. Innovation is such a powerful tool that industrialized countries not only prevent the economic downturn, but also provide structural modernization of the economy, enriching the consumer market with a wide range of products and competitive products through innovation.

## **2. FINANCING OF INNOVATIVE ENTREPRENEURSHIP**

Creating new industries, using innovative products or generating entrepreneurial income from diffusion is called innovative entrepreneurship. The subjects of innovative entrepreneurship are enterprises and organizations engaged in innovative activities. Innovations in the modern economy are the results of research and development (innovation), the process of applying new scientific or technical achievements in new or improved products, as well as new or improved technological processes used in practice. The basis of innovative entrepreneurship is a small innovative company—a technological leader that creates new industries, opens new market segments, expands the production of high-tech and competitive products and contributes to the creation of high-tech systems. Innovative entrepreneurship is based on:

- The search for new ideas and their evaluation;
- Search for the necessary resources;
- Creation and management of an innovative company;
- Profit and sufficient results.

In a market economy, the level of innovative entrepreneurship depends on consumer demand for innovations, the level of development of the scientific and technical potential of the national economy, as well as the scale of venture companies and investors investing in risky innovations. The sources of funding innovation activity are divided into two groups: centralized (budget and state) and non-centralized (off-budget or commercial). Centralized funding sources include in particular budget funds. The state provides financial support for innovation activities both through centralized funds and by attracting cash flows, as well as creates favorable conditions using market mechanisms. It is particularly important that the state provides financial support to small innovative firms rather than spending money on research and development, since the creation of new products and technologies, inventions and patents by small enterprises is more cost-effective. Non-centralized sources of financing are direct and indirect. The most common forms of direct financing of innovative projects are bank loans, funds from issued securities, from the sale or leasing of free assets, from special funds of an enterprise (profit, depreciation fund), etc. Indirect sources of financing include providing innovative projects with the necessary material, machine, labor and information resources, as well as the use of leasing. The problem of finding the best tool for financing innovation and business operations is very important. Thus, the volume and nature of the resources that an innovative firm possesses is one of the most important factors determining its innovative strategy. The level of progressive, technical and technological trends in the implementation of investment projects directly depends on the level of profit received by firms at the micro level, and at the macro level - on increasing the country's competitiveness in international markets.[1, p. 67-68]. Strategic government support for innovative entrepreneurship includes stimulating demand for the products of small innovative firms, creating conditions for increasing productivity, improving access to financial resources, improving tax policy and government regulation, as well as strengthening the potential of personnel and entrepreneurship.

## **3. DEMAND-ORIENTED INNOVATION POLICY**

The role of demand as a driving force and source of innovation has always been a hot topic in the economics. In the nineteenth century, Marshall and many economists argue that the supply

of new technologies stimulates demand, and that economic value is created solely by the interaction of supply and demand. American economist Jacob Schmuckler in his work showed that demand plays an important role in determining the direction and intensity of innovation. After analyzing patent statistics, he showed that high-tech industries (chemical industry, electronics, and mechanical engineering) have a relative advantage in terms of access to scientific and technical knowledge and in the introduction of innovations. Researchers of the 1960s drew attention to the impact of demand for innovation. Studies show that economic factors, especially demand, are critical to innovation. The US Department of Defense, analyzing the history of the creation of the arms system, showed that demand is a key incentive for the innovation process: 25% of innovations in the arms industry are created by accurately forecasting the demand for defense. A clearly defined demand that can be paid is important in the implementation of innovations [2, p. 787]. Some measures to stimulate demand, such as public procurement, have been known since the 1970s. But they took special measures as part of industrial policy to solve specific problems. For many years, innovation policy in Europe and beyond has focused on supplies supporting the production of new products and services. But recently, an approach to innovation policy has begun to develop in the direction of supporting demand. For example, developed countries such as Finland and Austria, and developing countries such as Brazil and China, deliberately expand their innovative activities to meet demand. Current demand stimulation policies are an important potential source of innovation. There are two types of interactions between demand and innovation: demand can create innovation, and demand accepts innovation. Stimulating demand for creating innovation is one of the key areas of innovation policy. Supporting innovations that can be used is a priority for business activity, because the creation of customer-initiated innovations often leads to the creation of new markets. Stimulating innovations that can be used allows to increase the socio-economic efficiency of innovations by increasing customer satisfaction, expanding existing markets for products and services and creating new ones, sharing knowledge and reducing transaction costs. The state can stimulate innovation, acting as consumers of new goods and services. The state can become the guarantor of new investments and the application of innovative solutions, forming its own demand for innovative products. The public sector plays an important role in the innovation process, acting as an important consumer of new products and services, as well as influencing innovation through regulatory mechanisms and standards. Demand-oriented innovation policy is a set of public policy measures aimed at creating an enabling environment for innovation or creating demand for innovation in order to regulate innovation and make wider use of its results. These measures serve to remove potential barriers that limit the ability or desire of potential consumers to meet innovative needs and apply the results of innovations, as well as to establish a connection between supply and demand. Political provisions on the policy of regulating the demand for innovation are divided into four groups: public procurement; stimulating new product lines, rules, private sector support and systematic policies. Studies show that demand is considered a source of innovation. Deepening knowledge about the nature of the innovation process, understanding its non-linear nature, will lead to changes in innovation policy that cover the entire volume of the innovation system and cycle. The basic principle of the modern approach to stimulating demand is more widespread and is successfully implemented in strategic documents and political measures.

#### **4. IMPROVING THE MECHANISM OF VENTURE FINANCING OF INNOVATIVE ENTREPRENEURSHIP**

In the development of innovative entrepreneurship venture capital acts as one of the elements of the infrastructure of innovation and is a financial chain that unites the carrier of science and technology with the carrier of capital. That is why venture capital is successfully used in the modern economy to solve the problems of financial support of innovative projects.

In recent years, enterprises and organizations have gradually increased their venture capital in innovation. Currently, the most attractive areas for venture capital are the consumer market, the market of financial services, telecommunications, computers and construction. Despite the positive trends in the development of venture capital financing, the venture capital market is still in its infancy, and there are still potential barriers that hinder its further development and expansion. As a result of studying the mechanisms of venture financing of innovative entrepreneurship in the context of the formation of an innovative economy, the following organizational, economic and legal problems were identified: [3, p. 91-95]:

- Lack of qualified personnel for innovative companies;
- Inefficient use of the innovative potential of the education and training system;
- Lack of regulatory framework for venture financing;
- Poor development of the institute for the protection of intellectual property;
- Lack of infrastructure for venture capital and lack of venture capital fund.

## **5. TAX STIMULATION OF INNOVATIVE ENTREPRENEURSHIP**

Features of the innovative economy associated with the creation, implementation and use of innovation, as well as improving the organizational and economic mechanisms of the economy, are reflected more in innovative entrepreneurship. In Azerbaijan, innovative entrepreneurship is developing at a slow pace. Realization of the existing innovative potential, scientific and technological achievements, in particular in the field of creating and applying new equipment and technologies, is unsatisfactory. All financial instruments, primarily tax incentives, should be used to overcome this situation. From an economic point of view, tax incentives imply comprehensive measures to provide tax incentives and other benefits to subjects of economic relations, which create favorable conditions for the implementation of innovative activities. The role of tax incentives in the tax system in the development of innovative entrepreneurship is to create favorable conditions for the demand for innovative products and modernization, that is, to create favorable conditions for investment in new technologies. The tax system should not prevent taxpayers from participating in innovation, that is, introducing research and development results into the production process. The simplicity and attractiveness of tax incentive instruments lies in the fact that state bodies and self-government bodies exempt scientific and innovative organizations from paying taxes to state and local budgets. These funds remain at the disposal of these organizations for research, development and implementation of design work, innovation, expansion and modernization of production. Thus, they receive indirect financial support, that is, the fiscal function of taxation turns into an incentivisation function [4, p.17]. Enterprises and organizations need free financial resources for innovative activities that can be created by reducing the tax burden. This explains the effect of tax benefits. In recent years, Azerbaijan has gradually improved its tax policy in this direction. Tax incentives are widely used in the financial policies of developed countries with market economies. Companies are allowed to deduct funds spent on research and development from the tax base. For example, Australian companies are entitled to deduct 150% of their research and development costs from the tax base. In countries such as Ireland, India, China, Israel and Taiwan, the practice of reducing income tax by 50% from the sale of high-tech goods and services is widely used [5, p. 76]. There are thoughts about the need to introduce a new regime of social taxation as one of the measures of tax incentives for innovation. It can help enterprises and organizations comprehensively address taxation issues, as well as regulate tax accounting, reporting and tax administration issues. The social tax regime provides for the exemption of science and innovation organizations from income tax, single social tax, value added tax, property tax and land tax.

Thus, tax incentives for innovative entrepreneurship, which are widely used in foreign countries and have not yet been introduced in Azerbaijan, include:

- The introduction of a special tax regime for innovative companies;
- Stimulating the participation of industrial enterprises in the formation of research units for the implementation of joint innovation through tax incentives;
- Application of tax benefits for a certain period of time (5-10 years) and the subsequent use of experience in assessing their effectiveness.

Given the global experience, support for innovation through tax policy mechanisms in Azerbaijan should be supported in two ways:

1. Encouraging companies to support the demand for innovation (modernization and innovation) and the application of scientific developments;
2. Support for the proposal of innovations (creating incentives for the effective activity of companies forming the proposal of an innovative product).

The refore, the purpose of tax policy is to remove existing barriers to modernization and innovation, both in terms of tax obligations and the complexity of their implementation.

## **6. EFFECTIVE MANAGEMENT OF INNOVATIVE ENTREPRENEUR-SHIP**

Effective management of innovative entrepreneurship in a rapidly changing environment is a prerequisite not only for increasing the competitiveness of products, but also for the sustainable development of the company. Innovation management is crucial for the future success of enterprises and organizations involved in innovative entrepreneurship. Innovation management is a set of tools that allow entrepreneurs and investors to work effectively to achieve the goals of business processes. The main focus is on creating tools and conditions within the company that can quickly respond to changes in the external environment and effectively use internal opportunities to promote new ideas, processes and products. The main principles of innovation management are:

- A focused search for key ideas for specific innovations;
- Organization of the innovation process for specific know-how, which provides comprehensive organizational and technical measures to turn any ordinary idea into a final product;
- The process of implementing and promoting new ideas on the market.

Each of these areas should reflect specific strategies and tactics on itself. The economic management of innovations is divided into two main subsystems: subject management and object management. The interaction of these two subsystems is carried out in the field of information flows, which is called the process of direct management. Innovation management is a priority direction of strategic management, which is closely related to the development of the economic relations management system, which is reflected in the innovation management process. The main purpose of this management system is:

- Determination of the main directions of scientific, technical and organizational-economic development;
- Modernization and improvement of new products, services and technologies, long-term development of traditional types of products;
- Removing obsolete products from production.

In many foreign countries, the state invests heavily in various research and innovative activities. In Germany, for example, 2.7% of GDP is spent on research and development, which is 2.8% in the United States, 3.5% in Japan and about 1% in Azerbaijan.

Currently, despite the introduction of various technologies in the development of innovative entrepreneurship in Azerbaijan, the question of the direct participation of enterprises and organizations or the state in innovation remains open. On the one hand, the state supports, encourages and promotes the development of innovations, that is, it adopts legislative acts and creates innovation centers. On the other hand, enterprises and organizations face a number of problems in the implementation of innovative activities. Thus, the main problem is the timely and inadequate financing of innovation in small and medium-sized businesses. In our opinion, it would be advisable to allocate funds from the "Entrepreneurship Development Fund" to finance innovative entrepreneurship.

## 7. CONCLUSION

- 1) An activity that allows you to use innovative products and services, create new market segments and generate entrepreneurial profits is called innovative entrepreneurship. A characteristic feature of innovative entrepreneurship is the development of high-tech production, the increasing role of intellectual property and the human factor, the transition to intensive reproduction;
- 2) To develop innovative entrepreneurship in a market economy, it is important to stimulate demand for innovations, efficient use of existing scientific and technical potential, improving venture financing of risky innovative activities, introducing a system of preferential taxation and strengthening state support;
- 3) The demand for innovation as a driving force and source of innovation plays an important role in the development and improvement of the effectiveness of innovative entrepreneurship. Thus, the introduction of new technologies stimulates the demand for innovation, and economic value is created in the relationship of supply and demand. Stimulating demand for innovations can significantly increase the social and economic efficiency of innovative entrepreneurship by fully satisfying the needs of consumers, expanding the market for goods and services, creating new market segments, disseminating knowledge and reducing transaction costs;
- 4) Enterprises and organizations should have free financial resources for the development of innovative entrepreneurship, which can be achieved by increasing the incentive role of taxation and reducing the tax burden. Based on the experience of developed market economies, companies engaged in innovative activities should be allowed to deduct funds for research and development from the tax base, reduce 50% of income tax on high-tech goods and services, and apply social tax;
- 5) In the development of innovative entrepreneurship, venture capital acts as an element of the infrastructure of innovative activity. Despite the positive trends in the venture capital financing of innovations in Azerbaijan in recent years, a number of organizational, economic and legal problems in this area remain unresolved. In order to improve the mechanism of venture investments in innovative entrepreneurship, it is necessary to take the following measures:
  - Creating a perfect regulatory framework for venture capital investments;
  - Expanding the activities of venture investors in the field of innovative technologies;
  - Development and improvement of partnerships between the public and private sectors (business) based on venture capital;
  - Introduction of a system of preferential taxation for venture investors throughout the life cycle of innovative companies;
  - Improving the system of training innovative companies.

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## DETERMINATION OF OPPORTUNITIES FOR THE PROVISION OF TAX BENEFITS TO ENSURE EFFICIENT EMPLOYMENT

**Alirza Israfil Mammadov**

*Associate professor at Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str. 6, AZ1001, Azerbaijan  
alirza.mammadov@unec.edu.az*

**Javid Alirza Mammadov**

*Student at Azerbaijan State University of Economics (UNEC)  
Baku, 6, Istiqlaliyyat str. AZ1001, Azerbaijan  
jd.mammadov@gmail.com*

### ABSTRACT

*Employment and unemployment are one of the major socio-economic problems of any country. Unemployment does not only bring disadvantage to the most important strata of the population, but also makes people suffer religious, spiritual and psychological stress. The level of unemployment depends on social tension, crime rates, migration processes. These problems cannot be solved without effective government regulation of employment, which requires in-depth analysis and extensive use of foreign experience in this field. The aim of the study is to explore the practical issues of applying and supporting tax incentives by the state in ensuring effective employment based on the experience of economically developed countries and to reveal the possibilities of its application in Azerbaijan. The methodology of the study includes empirical analysis and synthesis methods. The article provides a general approach to state stimulation of employment, examines the essence and significance of measures to stimulate demand for the workforce, and examines trends in employment programs in economically developed countries. The importance of taxation in ensuring effective employment is assessed and the status of application of measures to stimulate demand and retain jobs in different countries is analyzed and evaluated. The article analyzes and evaluates the current employment situation in the country and the possibility of applying tax deductions for its provision. The originality and scientific novelty of the research is that practical research has been carried out by examining the foreign experience of using the basic instruments and mechanisms of government support for ensuring effective employment, stimulating job creation and retention. practical analysis has been The originality and scientific novelty of the research is that practical research has been carried out, by examining the foreign experience of using the basic instruments and mechanisms of government support for ensuring effective employment, stimulating job creation and as a result, relevant recommendations have been made on the application of tax incentives in this area in Azerbaijan.*

**Keywords:** *Tax, Employment, Tax discount, Government support, Jobs, Incentives*

### 1. INTRODUCTION

Employment policy in the country is an important tool in the hands of the state as a leading social sector, which is possible through favorable population growth and regulation of production and consumption in line with market-type development. Employment is used as a key criterion for global and regional development. Demographic growth forms the labor force. The demand for labor resources in the country necessitates the organization and management of vocational education and vocational training, which is important for the development of production and services in modern conditions [1, p.220]. Solving the problem of unemployment not only reduces the level of poverty, but also raises their moral and spirits. Reducing the level of unemployment depends to a large extent on an effective tax policy and a mechanism for



applying successful tax incentives. To do this, it is necessary to achieve effective state regulation of employment by taking advantage of fair tax incentives. Therefore, in-depth analysis and extensive use of foreign experience in this area is required. The main directions of the employment strategy in Azerbaijan are related to the mobilization of socio-economic resources of its border regions and the production of goods and services necessary for the security and welfare of the population in these regions, as well as the development of commercially profitable areas and improvement of tax incentives.

## **2. THE ROLE OF TAX POLICY IN STIMULATING EMPLOYMENT POLICY**

One of the most important components of public finance is the finance of the economic entities of the Republic of Azerbaijan. The use of methods of tax regulation and the development of finance of the economic entities of the Republic of Azerbaijan is based on the concept of economic policy of the country. Among the threats to economic security at the current stage of the Republic of Azerbaijan should be noted the growing inequality of socio-economic development of the country and its regions, the existence of depressed, crisis and economically backward regions against the background of structural changes in industrial production. Some economists argue for the need to formulate a new state policy for the development of the country and its regions, which may be based on the principle of polar development of individual leading regions (supporting regions) instead of the principle of equalizing the level of regional development. It is proposed to divide the remaining regions into backward and depressed regions. It is expected that the lagging regions will receive social transfers, and selective budget (grant) support will be provided for initiatives aimed at economic growth and increasing the tax base in relation to depressed regions. It is easy to calculate the possible risks of the practical implementation of this theory in relation to the regions, which for objective reasons differ significantly in their natural production and resource potentials. In addition, the regions began to enter the market from different starting positions, as the principle of division of labor, applied in the Soviet years, ensured the creation of infrastructure in those sectors of the economy with favorable conditions in the region. Therefore, for instance, Lankaran-Astara, Ganja-Gazakh and Guba-Khachmaz economic regions, which play the role of suppliers of fruits, vegetables, wine and other products to other regions of the country, first of all, appropriate opportunities were created for their production. This is a favorable competitive advantage of these areas in market conditions. During the formation and development of market reforms, there was a further increase in the polarization of the regions in socio-economic development. Thus, the ratio of the value of fixed assets per capita in the sectors of the economy between the leading regions and the lagging regions is 3.5 or more. We see the same picture while analyzing the gross regional product per capita. The ratio of per capita fixed capital investment is higher among the leading and lagging regions. In order to strengthen public-private partnership and the integrity of the state, it is extremely important to ensure a fair balance of interests of the center and the economic entities of the Republic of Azerbaijan. At this stage, it is too early to abandon the concept of regulating the level of socio-economic development of the regions, and it is unreasonable to use the state's resources to eliminate imbalances in regional development and create equal opportunities for people regardless of who and where they live. Taking advantage of the decentralization of the budget system is hampered by sharp inter-regional differences. Chronic imbalances in highly subsidized regions reduce budgetary responsibilities. For natural reasons, relatively well-provided regions continue to gain a competitive advantage for economic activity. Territorial social differences are growing, and it leads to the collapse of the economic space, and so on. At the same time, the decentralization of tax revenues is still high. At this stage, one of the ways to increase the economic activity of the regions may be a tax policy aimed at stimulating employment policy. As a result of market changes and the negative effects of the global economic crisis, employment in the regions of the Republic of Azerbaijan

has changed significantly. Due to the statistical nature, there have been significant changes in the dynamics of the employed population. In accordance with the methodological provisions on statistics based on the recommendations of the ILO, since 1999, the economic entities engaged in the economy of the Republic of Azerbaijan include engaged people in the production of goods and services. Institutional changes in the property structure show that 76.3% of the employed population work in enterprises and organizations in the form of private property: employers themselves, employees, self-employed, helpers, relatives in family businesses, members of production cooperatives [2]. Regional development programs promoting employment in Azerbaijan and their implementation have helped reduce the overall unemployment rate. Thus, the unemployment rate in the Republic of Azerbaijan from 2005 to 2018 decreased from 7.3% to 4.9% [2]. At the same time, about 254,000 citizens of the country are still officially recognized as unemployed, there is a tendency to increase hidden, unregistered unemployment, which indicates the ineffectiveness of the package of measures aimed at increasing the employment (including taxes). The consequences and causes of unemployment, their structure is extremely complex and diverse. Studying this problem, it is necessary to distinguish the economic consequences of unemployment at the individual, enterprise and national levels as a whole. According to the ILO methodology, the unemployment rate is the ratio of the economically active population between the ages of 15 and 72 to the total number of economically active people who did not do any research during the survey and are willing to seek it out. Unemployment at the national level, above all, leads to a decline in GDP. The interrelationship of these events is reflected in Okun's law. According to the law, "if the actual unemployment rate exceeds the natural level by 1%, the decline in GDP is 2.5%." In assessing this fact, special attention should be paid to the term "natural unemployment rate" [3, p. 7-12]. In economic theory, the "natural rate of unemployment" is considered normal if there is an appropriate balance between supply and demand for goods, i.e. the number of vacancies corresponds to the number of job seekers. The natural level of unemployment is determined by many conditions of socio-economic direction: employment policy, public investment policy, living standards in the country, employment services system, unemployment benefits, property and savings of citizens, maturity, advanced training and retraining, the development of a network of educational institutions, their accessibility to the population, the readiness of citizens to work and acquire new knowledge, etc. Real unemployment is represented by large-scale economic reforms or technological development, cyclical unemployment associated with economic crises and hidden unemployment, and unemployment that is virtually unnoticed by statistical services. Unemployment reduces the country's GDP and reduces tax revenues to the state budget. On the one hand, this is due to the reduction of the tax base of taxpayers (legal entities and individuals) [4, p. 10-14]. As unemployment rises, so government spending also rises. At the same time, most of the costs fall on the employment fund. Its sources of replenishment are both compulsory insurance premiums of employers, deductions from employees' earnings and funds allocated from the budgets of the Republic of Azerbaijan at various levels, as well as voluntary transfers of individuals and legal entities. According to the State Statistical Committee of the Republic of Azerbaijan, by the end of 2018, the number of economically active population in Azerbaijan was 5,133,100, of which 4,879,300 were employed. According to the committee, during the reporting period, 31.8% of the employed population or 1,551,700 people were employed. Thus, it should be indicated that in 2018, 68.8 percent of the employed population belong to the self-employed population. The number of unemployed in that year was 253,800. This is equivalent to 4.9% of the economically active population [2]. One of the main problems observed in the labor market of the Republic of Azerbaijan is the high share of women and youth among the existing unemployed. Researches show that over the past decade, the unemployment rate among young people aged 15-24 has decreased to 12.9 percent in 2017 (14.9 percent among

women), which is 2.6 times higher than the national average. Among young people aged 15-29, this figure was 9.2 percent in 2017 (11.0 percent among women), i.e. 1.8 times higher than the national average [2]. In modern conditions, increase of budget allocations for financing measures in order to promote self-employment in the country's labor market is objective. It is no coincidence that the Order No. 602 of October 30, 2018 "On approval of the Employment Strategy of the Republic of Azerbaijan for 2019-2030" states that the high level of unemployment causes economic losses in the country [5]:

- This is the need of the rest of society to support the able-bodied population;
- Reduction of wages, as it forces the unemployed to work in low-paid, unproductive jobs;
- Use of specialists not at the level of their specialization and direction;
- Corruption of officials in government personnel services.

### **3. THE EFFECT OF TAX BENEFITS ON EMPLOYMENT**

Research by the authors has shown that concessions at the national and regional levels sometimes do not yield significant results. According to the authors, it is not enough to meet one criterion (sector of the economy) in the process of making concessions to economic entities at the national and regional levels. Reduction of tax arrears to the budget, use of local raw materials in the production process, development of local natural resources, limitation of prices for manufactured products, implementation of regional programs, creation of additional jobs, etc. special conditions should be implemented. The purpose and conditions of granting benefits should be specifically stated and specified in the decision of the state body or local government that provides the tax benefit. In case of breach of the tax agreement, the entire amount of tax calculated without taking into account the benefits, as well as 100% of this amount in the form of fines must be collected in the regional budget. This will be a good incentive for the targeted use of preferential amounts and the taxpayer's compliance with the norms established by law. A fair tax system cannot take into account the tax opportunities of all legal entities and enterprises and newly established enterprises that have been operating for several years. In this regard, in the first period of activity (2-3 years) it is recommended to exempt organizations from new forms of management from property tax, profit tax and land tax. This exemption, of course, should not apply to enterprises established on the basis of liquidated enterprises. Such a policy would have helped to create additional jobs and reduce unemployment as a result of increased economic activity in the regions. The issuance of estate tax benefits should be linked to the investment activity of market participants. A characteristic feature of the depressed regions is the impossibility of overcoming socio-economic backwardness and access to a sustainable economic development trajectory and improving the welfare of the population through its (interregional) resources and self-regulatory market mechanisms. Lack of own resources and funds requires the mandatory participation of the state in the system of regulating the economy of the depressed region with a low investment rating. Depressed regions include the economic entities of the Republic of Azerbaijan with a tense situation in the labor market, according to the authors, it is advisable to divide them into a special category with a tense situation in the labor market - depressed regions. The content of the system of regulation of the economy of such regions is determined by the goals, means and tools in government agencies (state and regional levels) and has self-regulatory market mechanisms. A feature of the mechanisms for regulating the depressed regions, which are in a tense situation in the labor market, is the binding of interconnected state and regional programs to support small business and promote employment. The measures provided by law, within the framework of regional employment promotion programs are carried out, including the promotion of self-employment (self-employment) for unemployed citizens, organizing their own work. For this purpose, the unemployed registered in the territorial bodies of the Republican Employment Service are provided with advice, methodological assistance, as well as financial support in the form of

subsidies and compensation. Subsidies are provided in the form of a lump sum payment in lieu of 12-month unemployment benefits. Compensation is provided in the form of partial or full reimbursement of expenses related to the registration of a small business or as an individual entrepreneur. According to paragraph 1 of the document, financial assistance to the unemployed is not taxed with personal income tax. It is known that tax breaks lead to a significant reduction in budget revenues. However, in some cases, budget losses may be greater because they are not. In order to stimulate the development of economically backward regions in our country, preferential taxation of profits is not used. According to the authors, in terms of budget, economically backward regions that want GDP growth (at comparable prices) are recommended to be exempt from paying income tax for several years (5-6 years) if accompanied by adequate employment growth. This concession, along with other methods of state regulation, may have the most favorable effect on regions with high unemployment. It is indicated that 4.9% of the economically active population in Azerbaijan was officially registered as unemployed in the employment service in 01.01.2019, and 22.8% of the economically active population was registered as unemployed in accordance with the ILO methodology (no profession, but actively looking for). Annual unemployment growth in the country varies around 1-3%. With an increase in unemployment of 1% (compared to the previous year), the real GDP growth rate decreases by 2% (Oukn's law). Thus, a reduction in the unemployment rate by at least half can provide an increase in GDP of the Republic of Azerbaijan by about 20-25%, which will lead to a proportional increase in tax revenues. It is no coincidence that the results of lost jobs are carefully studied when establishing a tax regime in foreign countries (Germany, USA, Sweden). International experience allows to study the technology of creating effective jobs. Among the basic directions of state support for this process, the following can be distinguished (Table 1).

State support direction	Realization mechanisms	Main stimulating tools
Stimulation of investment activity	Expansion of existing capacities and creation of new enterprises. It should be aimed at local and foreign investors	Among the tax incentives, the most important - the income tax rate, among the financial incentives - investment subsidies
Targeted attraction of foreign investments	Creating favorable conditions for technology leaders to open their production in specific industries and high-tech services in the country	Reduction and simplification of tax administration procedures  Reducing the tax rate

*Table 1: Main tools and mechanisms for stimulating jobs*

*(Source: Maiburov I.A, Ivanov Y.B. Tax benefits. Theory and practice of application. M.: UNITI-DANA, 2015. p. 411.)*

A more effective employment policy focuses on ensuring maximum mobility of the workforce. In this regard, the governments of developed countries are supporting the creation of a flexible vocational training system that has the ability to train the unemployed quickly and effectively. In most countries, state-owned enterprises provide direct funding for the establishment and operation of vocational training and retraining centers. Even the practice of state subsidies is widespread in the amount of 50-80% of the costs associated with the establishment of vocational training centers in enterprises. In addition, there is a practice of providing special state subsidies to the salaries of employed youth, the unemployed or retirees. In developed countries, financial penalties are imposed for the use of such administrative measures as job quotas for the disabled and other competitive categories of workers. This happens when the creation of special jobs is refused, while the state entrusts the creation of these jobs to

entrepreneurs. Fines are also applied in case of violation of social and labor legislation. Losses of the expanded budget (consolidated budget of the Republic of Azerbaijan and extra-budgetary social funds) can be compensated:

- Reduction of government spending on unemployment benefits in connection with the creation of additional jobs;
- Increase in indirect tax and non-tax revenues (VAT, excise taxes and customs duties) due to the expansion of the tax base and the increase in consumption of goods and services by the population; (the highest propensity to consume among the population is equal to 3/4 and the ultimate propensity to save is 1/4);
- Increasing individual income tax due to the increase in the employed population and their income level;
- Increased allocations of insurance premiums to socially oriented extra-budgetary funds (social and health insurance funds).

#### **4. INTERNATIONAL EXPERIENCE OF THE APPLICATION OF TAX BENEFITS IN STIMULATION OF EMPLOYMENT IN NEW INDUSTRIALIZATION PERIOD**

New industrialization is associated with dramatic structural changes in the economy resulting from advances in technology such as the Internet, big data, cloud computing, artificial intelligence, robotics, additive technologies, new materials, augmented reality, nanotechnology and biotechnology. Due to the modernization of technology and means of production, the structure of the workforce is changing. Along with the growing demand for highly qualified personnel in modernized production processes and business models, there is also a mass release of low-skilled personnel, such as those working in unskilled occupations in the new industrialization. Unemployment is rising among vulnerable groups (youth, the disabled, IDPs, migrants, ex-servicemen, criminals, etc.) [6]. In order to adapt the labor market to the requirements of the new industrial reality and prevent social upheaval, it is necessary to train the labor force and create high-tech jobs in both traditional and new sectors of the economy. A self-sustaining business without the help of the state does not carry such a financial burden. In this regard, tax incentives by employers to expand the demand for labor of socially vulnerable groups of the population, to create high-tech jobs and to invest in personnel, especially in problem areas, are very relevant [7]. Economic entities of the Republic of Azerbaijan apply taxation of property of organizations depending on the number of newly created jobs. However, it should be noted that there is a certain contradiction between the goals and means. Modern production technologies can be associated with a relatively small amount of property in the tax base, a high need for personnel and vice versa. In both cases, the employer does not receive adequate compensation from the state in the form of tax collection. In addition, the main function of the property tax – stimulation of the efficient use of the payer is carried out in this case. Tax collection from benefits related to the creation of new jobs will also be reduced. This concession, in our opinion, can be turned into a subsidy for the maintenance of inefficiently used property. The only benefits that directly affect employment in the Republic of Azerbaijan are: reduction of bonus rates for certain types of payers, including production, technology, tourism and recreation, residents of special economic zones, priority areas of development. In the scientific literature, there are proposals to completely exempt organizations from property tax, profit tax and land tax in order to create additional jobs and reduce unemployment as a result of increasing economic activity in the initial period of operation of newly established enterprises (2-3 years), [8, p. 20]. However, in this situation, the cause-and-effect relationships established in an unstable economy with a high shadow sector are not clear. The increase in economic activity may be accompanied by an increase in shadow employment and wages in envelopes to save on insurance premiums. They are also applied within the special economic zones (SEZ), which are considered to be a factor of stimulating employment in Azerbaijan, full

tax exemption for a certain period from the moment of registration of the resident [9, p. 18; 10, pp. 13-19]. At the same time, in our opinion, neither the SEZs nor the tax breaks established by the Tax Code of the Republic of Azerbaijan play a direct stimulating role in employment. The increase in employment is an inevitable result of the creation of new productive forces and the increase in the number of economic entities in the zones. At the same time, each employer will seriously plan staffing costs, because they fall entirely on their budget. The main means of tax benefits for employment in foreign countries is provided to the taxpayer - the employer in connection with the creation of additional jobs in the amount of part of the cost of social insurance of employees and other mandatory payments. Thus, in the United States, tax credits aimed at stimulating employment are used both at the federal and state levels. At the federal level, this is primarily Work Opportunity Tax Credit, which aims to encourage employers to hire workers from certain minority groups with higher unemployment rates than the national level (some veteran groups; criminals; food coupon buyers; those hired during the summer holidays) young people; people unemployed for more than 27 weeks, etc.). The second is the Indian Employment Credit provided when hiring a local resident of the Indian reservation. Third, the payroll tax reduction for research costs is provided to small research businesses instead of the corporate income tax by reducing social security contributions from the employer to \$ 250,000. Fourth, the so-called entrepreneurial communities or zones are renewing communities that differ in some details but have common goals and means within the so-called expansion zones [11], and since 1994 Empowerment Zone Credit (EZC) has been in place. Its main function is to stimulate the creation of new jobs in depressed (problematic) areas with high unemployment. Employers in the zone have the right to receive credit for an unlimited number of zone specialists they employ, i.e. in the expansion zone, firstly, for any employee who has worked for at least 90 days during the tax period, and secondly, they have the main place of residence. The amount of EZC is calculated as 20% of the employer's expenses for the payment of wages, but not more than the first \$ 15,000. That is, the maximum loan amount per employee can be \$ 3,000. EZC does not apply if the employer uses loans for this employee on other grounds [12]. Residents of special economic zones in Poland are entitled to a partial exemption from income tax, which currently has a base rate of 19%. The maximum amount of exemption is calculated from the two-year labor costs, depending on the characteristics, when a certain part of the investment cost is reduced by the amount of VAT and excise tax for a particular investment project or exceeds the investment. The exemption share is determined depending on the location and size of the enterprise. For large enterprises - from 15% to 50% of the corresponding costs, for small enterprises - an additional 10% to 20%. Thus, the maximum amount of exemptions for benefits related to the creation of new jobs is calculated as the amount of the product of the above share and the amount of expenses for two years to reward new employees, including all mandatory payments from the salary fund. The taxpayer calculates, but does not pay corporate income tax until the limit calculated in this way is exhausted. If the amount of tax payable for the current tax period is less than the amount of exemption, it can be used in subsequent tax periods. In addition, it undertakes to maintain the newly created jobs for a certain period of time [13]. The effectiveness of incentive employment has been recognized by international policy-making organizations. Thus, the Organization for Economic Co-operation and Development offers participating countries incentives to support the employment of at least three groups of the population, which are generally underrepresented in the world's labor markets, when the budget system has the resources to reduce tax revenues. Low-income workers in the family are mostly women and older workers [14]. Thus, the creation of jobs and tax incentives for employment are actively implemented in developed and developing countries, both within special economic zones and outside their territories. These concessions are, of course, especially relevant in developing countries, where the rapid development of recent decades in most countries has led to an increase in labor costs to almost

the level of developed countries. In most countries, the benefits are provided by a corporate income tax credit, the amount of which depends on the employer's salary costs, including mandatory calculations, or only the amount of social taxes and payments they pay. A different mechanism is used in South Africa. The state finances the salary and keeps part of the personal income tax or social assistance paid by the employee to the employer. The list of low-level tax zones in Azerbaijan has expanded significantly in recent years. The practice of providing a tax holiday against the background of a relatively low base rate for corporate income tax has already developed. Against the background of the high basic tariff of insurance premiums paid in full by the employer - the practice of determining its reduced level. The incentive potential of the benefits used by the regions is small. In condition of new industrialization, it is necessary to strengthen the role of taxation in stimulating the creation of new high-tech jobs and adapting the labor market to changing requirements.

## **5. IMPROVEMENT OF THE MECHANISMS OF IMPLEMENTATION OF TAX BENEFITS IN INCREASING THE SELF-EMPLOYMENT OF THE POPULATION**

In modern conditions, the role of small and medium enterprises in solving the employment problem cannot be underestimated. The contribution of small and medium enterprises in GDP production and employment in most economic entities of the Republic of Azerbaijan is small. The authors propose a tax support mechanism for small and medium enterprises that ensures the stability of tax revenues to both national and local budgets. The economic essence of the proposed mechanism is the payment of part of the tax paid for the increase in profits as a result of increased production efficiency from the regional budget to businesses. Any investment project aimed at reducing the material capacity of production and ensuring profit growth inevitably leads to an increase in value added in the sales structure of product prices. The described state regulatory mechanism provides for the use of an increasing regression scale to tax the current income of small and medium-sized enterprises that are operating effectively. This creates additional incentives to increase investment activity and encourages the introduction of an investment multiplier mechanism by overcoming investment needs through possible channels of intersectoral interaction. The use of such a mechanism implies a reduction in the share of taxable profit in the case of effective investment activities in small and medium enterprises with the active support of the state. Tax incentives for small and medium enterprises can be reduced by reducing unemployment benefits (for self-employment and providing additional jobs), reducing investment in infrastructure (due to proximity to relocation zones and reducing the average distance of transport), more efficient use of local resources, etc. justified by budget savings. The development of individual entrepreneurship plays an important role in increasing the self-employment of the population. From this point of view, the state support of individual entrepreneurs through tax regulation of income from economic activity is important for the economy of the Republic of Azerbaijan and its regions. By stimulating the growth of economic activity, the state helps not only to develop business, but also to create new jobs and improve the living standards of the population. Therefore, at this stage, it is important to identify the priorities of tax policy in the field of income taxation of individual entrepreneurs, which contributes to the growth of economic activity. While determining the direction of improving the personal income tax system, it is necessary to carefully consider the possible options for changing the tax rate on personal income, taking into account the impact on the economic activity of individual entrepreneurs. In this case, it is necessary to take into account the most effective methods of tax regulation, which should have a positive impact on the solution of fiscal obligations of the state. The ongoing analysis of tax control over the identification of dishonest taxpayers requires special attention. Since the tax rate is the most effective lever of tax regulation, much attention should be paid to determining the optimal tax rate for individual

income, which will not only be fiscal, but will be a stimulus to increase the economic activity of taxpayers while helping to replenish budget revenues.

## 6. CONCLUSION

Due to rising unemployment, labor resources are being redistributed intensively from the legal sector to the shadow sector. Small businesses are able to solve the problem of creating new jobs quickly, efficiently and on a large scale. Therefore, the introduction of an alternative taxation system, tax support through the creation of priority development areas are more effective tools to ensure a high level of employment. Possible ways to increase the economic activity of individual entrepreneurs include the introduction of new technologies and preferential taxation of loans for the modernization of equipment. This concession should help increase the competitiveness of products and revenue. Strict penalties for repeated violations or intentional tax evasion should create a sense of responsibility among taxpayers for the full and correct calculation of taxes and their timely transfer to the budget. However, at the same time, the fulfillment of tax obligations should not adversely affect the economic activity of individual entrepreneurs. In this regard, great attention should be paid to the explanatory work of the tax authorities with taxpayers in connection with the changes taking place at the current stage in the field of tax legislation. Thus, carried out research of the authors conclude that the economic entities of the Republic of Azerbaijan need to increase the efficiency of tax regulation and economic activity. Ongoing changes in the implementation of the tax policy of the Republic of Azerbaijan should improve the means, forms and methods of taxation both at the national and regional levels. As a result, the role of the state in stimulating the economic activity of economic entities will increase, and the economic activity and employment of the population will increase.

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## **CORPORATE GOVERNANCE PROBLEMS IN AZERBAIJANI INDUSTRY AND ITS DEVELOPMENT**

**Huseynov Arzuman**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*arzuman-huseynov@unec.edu.az*

### **ABSTRACT**

*Since the beginning of the 1990s, competition for investment resources has sharply increased in the world, and the need for new sources of financing has been satisfied. At the same time, corporate scandals that occurred in companies in developed countries with a strong international reputation (Enron, Citigroup, Tyco, Worldcom, Exxon, etc.) made it necessary to develop effective corporate governance. From this point of view, corporate governance began to be discussed all over the world and in international organizations, and countries, enterprises and all organizations began to search for themselves the best and most suitable form of corporate governance. The article is devoted to the scientific study of the problems of development of corporate governance in the industry of Azerbaijan. The article discusses the economic importance of using corporate governance in the country's industry, the role of corporate governance in the development of industrial enterprises, as well as the problems of developing corporate governance in Azerbaijani industry. The aim of the study is to study the development of corporate governance in the Azerbaijani industry and develop recommendations and recommendations for their solution. Studies show that in the field of corporate governance in the country there are serious problems. The results of the study show that in order to develop corporate governance in the economy of Azerbaijan and its leading industry, a number of measures need to be taken: to create and develop areas of market infrastructure that serve this area, to create an improved legal framework for corporate governance and corporate relations. Achieving a corporate governance code consisting of a set of regulatory standards and internal regulations, etc.*

**Keywords:** corporate governance, joint-stock company, industry, shareholder

### **1. INTRODUCTION**

In the current period of globalization and dynamic international competition in the world economy and the development of modern information technologies, each country's place in the international division of labor and share in the world economy depends on the state of industry, the level of effective use of industrial potential. The experience of Southeast Asian countries (South Korea, Malaysia, Singapore, etc.) in the late twentieth and early twenty-first centuries has proved that rapid and diversified industrial development plays crucial role while ensuring competitive economy and sustainable development in the country. One of the priority issues facing our republic today is integration into the globalizing world economy effectively and taking its special place there. This, first of all, makes it necessary to use the existing industrial potential of our country correctly and efficiently. In recent years, Azerbaijan's economy has been developing rapidly. Thus, the country's gross domestic product (GDP) in 2003 was 7.1 billion manat, while in 2019 it was 81.7 billion manat. However, this rapid growth has been largely due to the country's successfully implemented oil strategy and the oil sector. In 2019, 38.3% of the country's GDP was created in the oil sector, and 69.9% of industrial products fell to the oil industry. Constant fluctuations of prices in the world oil market, mainly declines, and global crises have a negative impact on the Azerbaijani economy. Many years of experience of industrialized countries of the world show that in such conditions, the development of the country's economy, especially its leading field, industry, depends on the level of development

of implemented corporate governance in this area. In modern times, the widespread use of this form of governance in the world is associated with the development of productive forces, the expansion of production and the limitation of individual capital. In joint-stock companies, the individual form of capital is abandoned, collective property is formed on the basis of general management, economic decisions are made, and income is distributed. As a result of the application of corporate governance, it is possible for individual capital to come together and carry out certain economic activities. Effective corporate governance gives industrial enterprises the following advantages:

- 1) to increase the efficiency of activities of the enterprise. Improving the quality of corporate governance ensures the improvement of the reporting system, minimizing the risks that may harm their performance while concluding transactions.
- 2) facilitate access to capital markets. When an enterprise is more "transparent", investors are given a better idea of the enterprise's commercial performance and financial indicators.
- 3) reduce the cost of raising capital, because the value of capital depends on the investment risk in the enterprise: the higher the risk, the higher the cost of raising capital. If the rights of investors are adequately protected, the cost of attracting capital investment and borrowing can be reduced.
- 4) Improving the image and reputation of the enterprise, which in turn plays crucial role while assessing its value.

A research report by McKinsey, which included individual and institutional investors from around the world, found that the majority of participants were willing to pay more to companies with effective corporate governance. (McKinsey, June 2000).

## **2. REFERENCE REVIEW**

"Don't expect the attention and care of people who manage other people's money, as same as when they manage their money. For this reason, negligence, carelessness and waste of resources in the management of any company will be the subject of discussion". Although he was not aware of the concept of corporate governance at the time, the famous economist Adam Smith emphasized the philosophical and logic of corporate governance, which is the basis of the corporate governance, two hundred and fifty years ago. There are different approaches to the essence of corporate governance in the economic literature. There is no universally accepted definition of corporate governance. Corporate governance is described in different ways depending on where, for what purpose and by whom it is used, or by which institution and organization the related principles are published. These definitions can be grouped into three main classes according to the elements they focus on:

- Definitions based on the regulation of the relationship between the company and the company's shareholders.
- Definitions that take into account what results they want to achieve with corporate governance
- Definitions based on the concept of governance based on certain goals and principles,

As an example of a definition based on the regulation of the relationship between a company and its shareholders, the Cadbury Report (1992) described corporate governance as a system in which companies are managed and controlled, and this was one of the first definitions of corporate governance. As an example of a definition that take into account what results they want to achieve with corporate governance, Gregory and Lillien (2000) described corporate governance as an arrangement that protects the interests of shareholders and other stakeholders and increases the value of the firm. Among the definitions based on the concept of governance based on certain goals and principles, Gill (2002) stated that corporate governance is the

emergence of self-discipline, independence, truthfulness and honesty, transparency, equality, accountability and public consciousness. In addition to the above mentioned approaches, Kochel (2014) described corporate governance in the form of accurate information and transparency of enterprises to the state, shareholders, customers, creditors and employees. According to another approach, corporate governance incorporates laws, regulations, and private sector practices that address the legal obligations and social expectations of enterprises in attracting capital and human resources, operating efficiently and effectively, and achieving their goals. (TKYD, 2010: 12). Morin and Jarrell (2001) linked it to a situation in which the interests of different players in the market are protected and controlled. Mathiesen (2002) described it as sector of the economy, which uses incentives, such as contract, organizational structure applied by the management of the enterprise. In this context, corporate governance is a set of systems that aims to ensure the use of assets and values transferred to the use of partners and business leaders in a productive way and that managers are in a position to report to partners on the results obtained with this form of use. With this feature, it is possible to explain corporate governance in two ways - narrow and broad. Thus, in a narrow sense, corporate governance is a set of rules governing the relationship between the company's management and shareholders and stakeholders. In other words, it is a form of governance in any company aimed at protecting the rights of all beneficiaries (stakeholders) including shareholders, who are directly or indirectly related to the company's activities, and reveal the responsibilities and obligations of the company's management. In a broad sense, corporate governance is a system that increases the value and productivity of the enterprise, seeks to achieve its pre-planned goals for partners, shareholders and employees, and works with the parties in accordance with the law and moral values by recognizing the responsibilities of enterprises to the parties. One of the main goals of corporate governance is to protect the interests of shareholders. Corporate governance deals with ways to guarantee the return on investment of people who provide capital inflows to enterprises (Shleifer & Vishny, 1997). Investors feel secure when the return on investment is guaranteed and protected by law. Thus, enterprises will be able to influence the country's economy and contribute to the country's economic development through their low-cost investments from confident investors. (Claessens vø Fan, 2002). According to the Organization for Economic Co-operation and Development (OECD), corporate governance is the internal mechanisms used to manage and control a company, which implies the relationship between the company's management, board of directors, shareholders and other stakeholders (3). Corporate governance is the structure used to define the company's goals and the means to achieve those goals, and to exercise control over this process. Corporate governance reflects the system of organizational, economic, legal and managerial relations between the entities interested in the activities of the enterprise. The development of such a system of relations depends on the level of consideration of the interests of the owners of the enterprise and the stakeholders in its activities. In general, we can list the main objectives of corporate governance as follows:

- Prevention of inefficient use of power and authority of the company's top management;
- Protection of investor rights;
- Ensuring fair and equitable treatment of the company's shareholders;
- Protecting and ensuring the rights of stakeholders in real relations with the company;
- To provide public clarity and transparency on the company's activities and financial condition;
- Clarify the responsibilities of the board;
- Report to shareholders and stakeholders on the decisions and actions of the company's top management;
- Reduction of labor costs

### 3. THE CURRENT STATE OF CORPORATE GOVERNANCE IN THE AZERBAIJANI INDUSTRY AND THE PROBLEMS IN THIS AREA

In recent times, the number of enterprises (joint stock companies) based on corporate governance in the Azerbaijani economy is growing. This is due to the transformation of state-owned enterprises into joint-stock companies, as well as the creation of new joint-stock companies. Most of the joint stock companies operate in industry. It should be noted that the vast majority of joint stock companies established in the country since the beginning of economic reforms have been formed as a result of the transformation of medium and large state-owned enterprises into joint stock companies. Thus, during 1996-2018, 1607 medium and large state enterprises were transformed into joint stock companies. So, 346 or 21.5 percent of these joint-stock companies fell to the share of industry. Undoubtedly, the increase in the influence of joint-stock companies in the development of the country's industry, among other issues, is directly depending on the development of corporate governance in the country. Carried out research shows that there are serious problems in the field of corporate governance in our country. As we know, the effective operation of economic entities based on corporate governance depends, among other things, on the level of formation and development of market infrastructure that serves this area. Thus, the placement and circulation of securities of joint-stock companies is one of the necessary conditions for their development. In this regard, the creation and development of stock exchanges is of particular importance for the development of corporate governance in the country. In our country, only the Baku Stock Exchange operates in this field. This stock exchange mainly includes government securities and securities issued by commercial banks. Thus, the total volume of transactions on all instruments on the Baku Stock Exchange (BSE) amounted to 14,033,797,038 AZN in January-December, 2019. About 84% of all this fell to government securities.

*Table1: Annual trade turnover of the Baku Stock Exchange (BSE) in 2019 and its structure*

Markets / Operations	Volume of transactions (in manats)	Number of transactions
1. Government securities	<b>11,781,968,963</b>	<b>2,177</b>
2. Corporate securities	<b>1,129,248,340</b>	<b>2,665</b>
2.1. Primary market	<b>167,095,367</b>	<b>59</b>
2.1.1. Shares	700,000	3
2.1.2. Bonds	166,395,367	56
- Mortgage bonds	151,007,578	25
- Other bonds	15,387,789	31
2.2. Secondary market	<b>962,152,973</b>	<b>2,606</b>
2.2.1. Shares	3,360,103	2,069
2.2.2. Bonds	958,792,870	537
- Mortgage bonds	916,068,096	47
- Other bonds	42,724,774	490
3. Repo transactions	<b>1,122,579,735</b>	<b>618</b>
On the government bonds	737,173,415	545
On the securities of National Bank of Azerbaijan	375,410,922	55
On the corporate securities	9,995,398	18
<b>Total (1+2+3)</b>	<b>14,033,797,038</b>	<b>5,460</b>

*Source: <https://bfb.az/wp-content/uploads/2015/07/Statistika-2019-.pdf>*

As it can be seen from the table, in 2019, about 8.04% of the annual trade turnover of the Baku Stock Exchange fell to corporate securities, and about 0.36% to shares. One of the infrastructure units of the market is the provision of services for the maintenance of the register of

shareholders of joint-stock companies. Collection, registration, processing, storage and issuance of indicators that make up the system of maintaining the register of shareholders is considered to be the activity of maintaining the register of shareholders. At present, the National Depository Center provides services to joint-stock companies in this area in the country. The existing problems in this area have a serious impact on the exercising the rights of shareholders in joint stock companies, the efficiency of the corporate securities market. At present, the register of shareholders of most joint-stock companies is maintained by the National Depository Center, a state-owned enterprise. The existing monopoly in this area limits the provision of quality and affordable services to shareholders. On the other hand, the lack of branches of the National Depository Center in different regions of the country limits the opportunities for holders of securities from these regions to exercise their rights. In our opinion, it is necessary to eliminate the existing monopoly in this area, in order to create an improved mechanism for building effective relations between professional participants in the securities market, to stimulate the development of competition. One of the current problems in corporate governance in our country is the failure of joint-stock companies to present annual reports on their economic activities to public. The Civil Code of the Republic of Azerbaijan (Article 99.2) states that open joint-stock company is obliged to publish "Annual report and balance sheet of the company, as well as financial indicators for the reporting period; transactions concluded with related parties and of special importance; attracted financial resources; governing bodies and officials, their main and additional jobs; management structure; development policy; return on equity and dividend policy; payments to members of governing bodies; volume and source of investments; turnover and profitability of the company's securities; public projects every year for public access. At the same time, the fifth principle of corporate governance developed by the OECD states that "the corporate governance structure must ensure the timely and accurate disclosure of all important information about the company, including the company's financial position, operations, ownership and management." Other serious problems arise in our country due to the fact that the reports mentioned by the joint-stock companies are not presented to the public in an accurate form. Thus, the failure to submit reports on the activities of the joint-stock company leads to a lack of information for potential investors. It is known that the development of corporate governance in the country, among other things, depends on the level of legislation in this area. Thus, one of the "Principles of Corporate Governance" prepared by the OECD states that "the corporate governance structure must protect the rights of shareholders and allow them to exercise their rights." However, the existing legislation in the field of corporate governance in our country has limited opportunities to assist in addressing these issues. In this regard, there is a great need for the development of new and improved legislation in this area in our country. Improving corporate governance legislation requires taking into account international experience and the recommendations of international organizations (especially the OECD), which will ensure the development of mechanisms for the protection of property rights. In terms of improving the quality of corporate governance, one of the key issues in our country, as in developed countries, is the creation of a corporate governance code, which consists of a set of standards and internal norms governing corporate relations in firms. Corporate governance codes are already being implemented in various countries around the world. These include the Cadbury Code produced in 1991 by the committee consisting of UK Financial Intelligence Unit, the London Stock Exchange and the Trade Union of Accountants, "Basic Principles and Directions of Corporate Governance in the United States," developed in 1998 by the California Public Employees' Retirement System, the world's largest pension fund, "Principles of Corporate Governance in Greece", developed by the Financial Markets Committee in 1999, "Best Practices for the German Corporate Governance System" code developed by the German Working Group on Corporate Governance in January 2000.

#### 4. CONCLUSION

Our research shows that corporate governance in the country's economy and its leading industry does not meet the principles adopted by the world community and the Organization for Economic Cooperation and Development. All this limits the opportunities to attract investment through the placement of securities in corporate-based economic entities operating in the country's industry, and as a result, the efficiency of industrial enterprises decreases. The successful implementation of the corporate governance approach is primarily the responsibility of the companies. It is impossible to achieve successful results in a company that does not believe in and resolutely apply the philosophy of corporate governance. However, the state has some duties and responsibilities. The responsibilities of the state towards the creation of a legal framework for effective corporate governance can be summarized as follows:

- The state should create an effective legal infrastructure to protect property rights.
- A legal framework should be established to protect and ensure the freedom of contract and provide its effective operation.
- There must be a sound banking sector for effective corporate governance and capital markets. The banking sector is the institution that provides financing to companies. A poorly managed banking sector is always a risk for companies and causes crises. Minimum capital required to operate in the banking sector, effective supervision and control, transparency, etc. principles are extremely important in this regard.
- There should be a legal infrastructure that will make it easier for companies to exit the market in difficult situations and in condition of bankruptcy. In this context, enforcement and bankruptcy law should be well organized in order to protect the rights of all stakeholders.
- In order to achieve the desired result from corporate governance, the regulating rules of capital markets are of great importance. For the implementation of these rules the responsible institutions should effectively operate.
- Effective and functional competition in markets is important. Competition allows companies to use their resources efficiently. Corporate governance solitarily cannot guarantee efficiently and productively operating companies. The existence of competitive markets is extremely important. From this point of view, the establishment of a "Competition Code" is an important condition for the creation of a competitive environment in the domestic market in Azerbaijan.
- There should be a legal framework for mergers or acquisitions of troubled companies with other local or foreign companies before they go bankrupt.
- It is important to increase the efficiency of justice and judicial services in our country in order to achieve the desired results from corporate governance. The independence and fast operation of the judicial system must be ensured.
- For the success of corporate governance, it is important for the state to establish rules and institutions to combat corruption.
- The service capacity of government agencies and organizations should be improved, and bureaucracy and paperwork should be reduced.

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# THE DEVELOPMENT PROCESS OF DISTANCE EDUCATION IN AZERBAIJAN

**Aybaniz Huseinova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
 aybaniz\_huseynova@unec.edu.az

## ABSTRACT

*The widespread use of distance education in accordance with the requirements of modern times allows more people to be involved in education. Thanks to distance education, people living in remote villages, people with disabilities, or those who for some reason cannot continue their education, also get a comfortable education. Distance education is widely used in many higher education institutions of the world. For the last 10 years distance education in Azerbaijan is developing. Although distance education did not receive much attention in the early years, demand for this type of education has been growing over the past five years. A number of steps have been taken in this direction. Since 2010, the Ministry of Education has launched a distance learning project called "e-Learning Systems". The main goal of the project is to involve children with disabilities in distance education, to support their integration in society, to improve their educational opportunities, to create Internet access by improving their ability to use computer and electronic resources. Distance education programs are implemented at UNEC, ADA, West Caspian University and other universities. There are regularly organized trainings for professors-teachers of distance education with the participation of foreign experts. In the trainings there are provided information on a specially created platform, the methods and technologies used in distance education are considered. We can positively assess the activity of the Distance Learning Center in the Training-Innovation Center of the Institute of Information Technologies of ANAS, as the most successful step in distance education. The distance education center conducts computer science classes for doctoral students and dissertators from different regions of Azerbaijan. The article discusses the steps taken in the field of distance education, the work done, as well as the experiences of leading world scientific centers and their application in educational institutions of Azerbaijan.*

**Keywords:** Azerbaijan, distance, education, school, university

## 1. INTRODUCTION

The distance education system is a more modern and online form of the studying process. Today, most of the universities in the world that offer to students distance education operates under the names "open university", "virtual university". Some of such educational institutions are: Canadian Open University, Dutch Open University, Fern University (Germany), British Open University. As distance education has great benefits, the leading universities of the world attach great importance to this type of education. For example, the number of distance learning students at Anadolu University in Turkey alone is close to 100 million. There are preparing extensive programs about distance education in all countries of the world. Distance education classes are not much different from the syllabus that is taught in ordinary universities. The only difference is that in distance education, communication between the student and the teacher is not face-to-face, but virtually remote. Distance education is based on the principle of self-dependent student learning. The training area is set up in such a way that the student is separated from the teacher by time or distance, and at the same time they can also communicate by telecommunications at any time. Any educational program can be implemented remotely. In Azerbaijan, the form of distance education was officially confirmed on June 19, 2009 in the Law of the Republic of Azerbaijan "On Education". According to 13th article of this Law, in Azerbaijan along with full-time, part-time, free (external) forms of education, there is also a

distance education [2]. But in first years this education form was not applied. In subsequent years, the development of distance education came to the fore. So that, admission to part-time education in many specialties in higher education institutions of Azerbaijan suspended since 2015. There were no changes in legislation about this and applying of distance education. The pandemic period necessitated the inclusion of provisions on the application of distance education in the Law on Higher Education.

## **2. POSITIVE ASPECTS OF DISTANCE EDUCATION FOR AZERBAIJAN**

In higher and secondary schools of Azerbaijan there are preferred traditional teaching methods. There are many reasons for this. The first reason is that internet resources are limited in many areas. But there are many positive aspects of distance education that provide the basis for solving these problems. The form of distance education is divided into a separate system because of its advantages compared to the classical form of part-time education: In distance education form there is established an intensive communication between the student and the teacher; Textbooks designed for distance education strengthen the foundations of the scientific activities of education; With the help of new communication information on the basis of adequate teaching materials, there is implemented an effective management through the educational process. The using of distance education form increases the individual lesson component compared to traditional frontal learning. In the distance education form students work together: conferences, seminars and discussions, corporative projects and etc. Distance education form allows any student to study at any educational institution, to learn from any teacher regardless of place of residence.

### **2.1. Reduction of education expenses**

The benefits of distance learning are many. The distance education allows you to study with lower costs. That is, if someone have low incomes and do not have home in the cities where the universities are located, these problems will not be a barrier. Students living in different regions of Azerbaijan will not have to leave to Baku or other cities where the universities are located – Ganja, Mingachevir, etc. and thus, they will be exempt from rental payments. Besides, at the same time, educational institutions, in turn, save on rent, electricity and expensive equipment, because separate rooms and computers are not needed for education. In addition, most of the time students work independently, which means that teachers can teach more students at the same time. It makes the cost of distance education more affordable.

### **2.2. Accessible higher education**

Thanks to distance education, young people living in the most remote villages of Azerbaijan will also have the opportunity to get higher education. Distance education will open wide horizons for those who stay away from education because of their physical disabilities and certain complexes. Young people will be able to choose any university and study there. Suppose people work during the day, they cannot come to classes on time. But distance education allows you to get an education even where you work. It is believed that distance learning is the only possible way for people who spend most of their time at work, with children or with their families, to acquire new knowledge and skills. Everyone gets the opportunity to improve their skills or gain new knowledge without fear of losing their jobs.

## **3. DISTANCE EDUCATION AND PROBLEMS IN AZERBAIJAN**

Distance education in Azerbaijan is not relevant for higher and secondary schools. Shortly after distance learning became legal, private training courses benefited from this practice. One of the first web sites "<https://ilkaddimlar.com/dersler>" [6] was created for the development of distance education in Azerbaijan.

Until the last two months, distance education was not relevant in Azerbaijan, and many higher education institutions did not have the infrastructure for this. This program was established in recent years at the Azerbaijan State University of Economics (UNEC), the Azerbaijan Diplomatic Academy, also at private secondary schools. The high-level infrastructure created at the UNEC EXTERN Center that meets European standards, as well as the professionalism of the teaching staff create the conditions for a high level of distance learning. Recently, in the context of the pandemic, a new form of education has become relevant in the Azerbaijani educational space. Unexpectedly the distance education gained popularity and everyone used it voluntarily. All secondary and higher schools, preparatory courses began to teach subjects remotely. At present, lectures on theoretical subjects and online classes on specialty subjects in all classes of schools and all levels of universities are held through Skype, WhatsApp and Microsoft Teams, and video lessons are shown on official YouTube channels and Facebook pages for teachers, students and the general public. The Ministry of Education teaches secondary school subjects through television lessons. As a continuation of the project of television lessons, there was created the "virtual school". Besides, the website "<http://mesafedenmekteb.edu.az>" [5], created by the Ministry of Education, is the best tool. Students try to master their subjects through these portals. Today, all secondary and higher educational institutions successfully broadcast online classes through distance education, which is adopted as an alternative to full-time education in order to keep up with the program.

### 3.1. Mechanism of the distance education

In principle, this system looks very simple: with the help of a computer network, the student receives educational materials intended for self-dependent study. The student carries out assignments for mastering the subject, based on materials, sends answers to the teacher and receives new materials. Thus, the lesson continues on this principle until the end of the course. But, the mechanism of distance education is not as simple as we think. This form of education allows the teacher to behave appropriately on the topic. Besides, in distance education it's not advisable to conduct lectures or programs for students only in electronic form. In the modern world, there are used various options in distance education. For example, the time is set in advance, the lecture is given on Skype, and several students listen to the lecture. You can also organize a dialogue, a round table on Skype. The intensity of the student's communication with the teacher on the network is higher than the standard rules, the teaching process is individual, and all the possibilities of computer technology can be used in educational materials. Thus, the possibilities of intensive communication between the student and the teacher, the individuality of the teaching materials and the temp of teaching bring this form of education to a new qualitative stage in the educational system. The form of distance education does not allow comprehensive practical support of the student in the educational process as in other forms of education. In addition, in the form of distance education there are no opportunities for practical and laboratory work in the specialty of the student, as is done in full-time education. No studying material can replace practical training, especially in specialties related to calculations. Therefore, there come out certain limitations for distance education. It is possible to fill in the gaps by getting an internship in a specialty from specialists in the nearest enterprises for a certain period of time. There are several models of distance learning that present it as a system of interconnected elements. The first model shown in Michael Moore's book "Distance Education. A Systems View", can also be described as in table 1 (*Alizada, 2019, p.125*).

*Table following on the next page*

*Table 1: The first model shown in Michael Moore's book "Distance Education. A Systems View"*

<i>Sources</i>	<i>Design</i>	<i>Delivery</i>	<i>Communication</i>	<i>Learning environment</i>
The needs of students and organizations; Theory; History; Philosophy	Preparation of the teaching process; Environment; Program; Mark.	Printing materials; Audio / video recordings; Radio / television Computers and software; Audio conferencing; Video Conference	Teachers; Tutors; Consultants; Experts; Administrators; Other students.	Workplace; Home; Class; Education Center.

### 3.2. Application of distance learning in the education system of Azerbaijan

It is necessary to include provisions on the application of distance education in the Law on Higher Education. It should be considered that, this is also important for the profitability of our universities and the influx of students from abroad to Azerbaijani universities. Nowadays, it is not easy for students to move to another country to study and live there. At the same time, most of our universities do not have dormitories, so it is difficult to attract students. In this regard, the use of distance education is of great importance. In order for the distance education system to be effectively applied to educational practice in Azerbaijan, it is important to implement the following measures: 1. Focus on distance learning systems in developed countries; 2. Develop a state program for distance education; 3. To create a technical base for distance education; 4. To develop educational-methodical, scientific-methodical and software-technical support: video recording of the lectures of leading teachers, creation of a video bank, CD bank, CD copies of the literature used in the educational process, a bank of computer tester-simulators on educational subjects to be studied on the basis of distance learning technologies; 5. Training personnel and specialists for distance education; 6. Development of normative-legal, informational-analytical and marketing support of distance education; 7. Establishment of both traditional - current and final control mechanisms, and specific electronic control mechanisms for the distance education system; 8. Improving the communication infrastructure for the realization of information and educational technologies of distance education; 9. Development of international cooperation in this field, intensification of participation in international educational projects. "The "Program of ICT provision of secondary schools" covering 2005-2007 years, approved by the decree of the President of Azerbaijan Republic Ilham Aliyev, should be assessed as a historic achievement in the development of general education" (Mahmudov, 2014, p. 450). The main aspect for distance education is to provide training centers with communication tools.

### 4. CONCLUSION

Distance education is also a citizen's right. The introduction of this type of education in Azerbaijan will also lead to the popularization of higher education. There is no need to be afraid of this. In the 90 years of XX century, a large number of private universities were opened in Azerbaijan. But, due to low quality of education, after a while they were disregarded by enrollees and closed. Quality control and protection is also an important issue in distance education. If the distance education will be open to all, the majority of the population will receive education, which, in turn, will create conditions for raising the cultural level of society.

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## INNOVATIVE DIRECTIONS OF HRM IN THE BUSINESS ENVIRONMENT OF AZERBAIJAN

**Hamid Hamidov**

*Professor at Azerbaijan State University of Economics, Azerbaijan  
hamidh@mail.ru*

**C. Aygun Abdulova**

*Azerbaijan State University of Economics, Azerbaijan  
Sabah.aygun2015@gmail.com*

### ABSTRACT

*In modern conditions, multi-purpose, mixed, complex structure, multifunctional production enterprises and business structures have been formed. Such structures require the formation and improvement of innovative management functions. As a result, all values in the market sphere change and new systems emerge. Concepts such as human resource management, personnel management are closely relate to the concept of "labor economy". The labor economy is the basis of human resource management and the source of demographic potential as a whole. Therefore, human resource management actualizes staff training, personnel selection, personnel risks, the system of organizational behavior and similar socio-psychological problems. For this reason, issues related to the person and his character and behavior, as well as professional specialization in the field are also relevant. Human resource management requires professional innovation and innovative methods that affect the formation and specialization of personnel, which makes it necessary to conduct with organizational, economic and strategic research. It stimulates and increases the activity of personnel. As my research that the cause of the unemployment problem is not only the lack of jobs, but also the fact that the vocational education and work skills of the unemployed and job seekers do not meet the requirements of the modern labor market. Stimulation of human capital development are ensure the development of vocational education and training in the Republic of Azerbaijan and increase of labor productivity in the Strategic Roadmaps. It is aim for the prospects of the national economy, application of performance-based incentives and creation of model enterprises for small and medium enterprises and promotion of entrepreneurial thinking. The main priorities are the organization of the activities of education and training institutions. Taking into account the above, we can summarize that the study of changes in recent years and in individual enterprises, the identification of existing shortcomings and the development and implementation of an innovative human resources model is important and very relevant in terms of efficiency.*

**Keywords:** *human resources, innovative management, motivation*

### 1. INTRODUCTION

Considering the globalized rivalry situation, public and state government organizations have not realized pressure to innovate due to having monopolistic power of providing services [1]. Employees are also reluctant to perform innovatively due to poor reward and incentive systems. However, in the past decade, the need for innovation has been raised in state-owned organizations around the world. Organizations have been confronted to perform efficiently and effectively just like private organizations. In this scenario, governments are also trying to develop strategies to promote innovation within organizations through hiring skilled staff, improving operating systems, or selling tradition infrastructure and properties [2]. Innovation has become a hot topic in public and governmental organizations. Since it is evident that the traditional methods to operate the organization are less effective in the motivation and

development of employees' creativity, which contributes in the modern era by facing rapid changes and uncertainty, those organizations need to transform their methods and techniques to perform innovatively [3]. Organizations are reshaping their ways of doing business, making it more creative, motivational, competitive, and unbeatable due to the growth of global change. These rapid growths in technologies are also dramatically changing the organizational climate in some countries, such as Pakistan. This country is facing instability, complexity, and unpredictability in its business scenario. Indeed, the competitive climate is needed to reorganize strategies, innovation, flexibilities, and climate uncertainties [4]. The Global Innovation Index (GII) reported that in innovative orientation and output, Pakistan stands at position 119 of 128 countries [5]. Thus, researchers pointed out that organizations in Pakistan are struggling to cope with their innovation and advancement [6], and the basic reasons behind deprived organization innovation is the lack of new technology, lack of knowledge, and competitive skills [7]. A semi-government organization is defined as an institution by the meaning of both public and private perspectives that combines the elements of government bureaucracy as well as a private company. The government owned more than 50% of an organization in most of the cases. Government directly has the power to handle its operations and appoints a permanent or semi-permanent commission who utilize the machinery of government and are responsible for the administration issues and oversight of specific functions in the organization [8,9]. Although, the demand for innovation was increased in the public sector organizations, some of the semi-government sector organizations' employees experimented with innovative ideas. Mostly government sector organizations have their hierarchical structure reliance on strict rules that are not supported to address new trends and challenges [10]. Moreover, these organizations tend to implement past practices rather than experience new ideas due to risk aversion [11]. It has enlightened that the demand for innovation in government organizations has increased and the government bodies are no longer allowed to remain unchanged. The Pakistani government is stepping forward to rebuild their organizations by organizing several creative programs and promoting their semi-government organizational innovative proficiencies, skills, technologies, and capabilities [7,12]. Human resource management practices are the most important source to consider for the organization, and they have significant effects in achieving the realization of any organization. Organizations enriched with motivated, innovative, and committed employees can achieve any competitive goals and challenges. In the modern century, the success of managers entirely depends on the effective managing of human resources [13]. Additionally, researchers have increased their emphasis on both organizational strategies and strategic positioning, which have affected the selection of a set of HRM practices. The era of cutthroat competition indicated that effective human resource management (HRM) is no longer content and is executed with a conventional set of practices [14,15] as different researchers indicated the lack of evolutionary research on HRM practices, such as the development of an evolutionary HRM practices-based framework [16], economic evolutionary perspective [17], and lack of integration of national and international HRM standards [18]. Hence, to remain competitive globally, it is important to establish new human resource practices (NHRM). There are prevailing universal assumptions that maintain that some activities of HRM practices are better than others. Therefore, organizations must adopt the new and innovative practices of HRM. Organizations have to develop and create such HR practices that are flexible and innovative which can adopt the possible changes of the organizational climate [15,19]. Pakistan's economy is also reforming day by day, and their organizations are transforming from conventional administration to new HRM practices [20,21]. Therefore, the new HRM scenario must be established and implemented to cope with new global competition and challenges. NHRM practices are shifting entire scenarios, such as E-recruitment and selection, training and development, reward systems, and teamwork and employee involvement in decision-making which are linked strongly with organization performance and HR outcomes [22].

Moreover, particular HRM practices are more valuable and significant in terms of relevance, but, on the other hand, HRM theorists have emphasized the bundles of HRM practices that focus on the same goals [23]. Effective HRM practices can increase and can contribute to enhancing the innovation performance by innovation, quality, and HR performance [24]. However, there is very little research addressing the link between NHRM and organizational innovation. The literature claims that organizations need to cop the innovation activities by making better utilization of NHRM practices that can enhance the employees' involvement towards new knowledge and novelty. Moreover, earlier research discussed that organizational innovation could perform as a facilitator to improve the innovative climate. Organizational outcomes can be optimized to change in organization systems, which required these changes to be operational and administrative. However, the link-related innovation in the semi-government organization has hardly been examined and discussed. Recently, scholars have been very passionate to know the effect of the innovative climate in semi-government organizations. Since the innovative climate encourages creative work approaches, influences risk-taking performance, provides new technologies, and creates a challenging work climate at organization [31], the adoption of a technological process that can build the base for taking challenging decisions is very important. Thus, it is better to study the adoption of technological information seriously [19] because it provides information related to the strength of the conceptualization of a theoretical framework and the interaction of specific factors. While the rational frameworks promote change resistance, environmental factors affect the decision in the selection of technology and the level of satisfaction maximization; the predictability of process rather than the creativity of people and flexibility has been emphasized by modern theorists [19]. To justify the relationships between NHRM, innovation performance (IP), and organizational innovation (OI) in the semi-government organization, in previous studies, scholars used diverse theories such as human capital theory, the knowledge-based view, and the resource-based view (RBV). Furthermore, researchers claimed that technology-organizational-environment (TOE) theory largely applied in innovation performance supports on overall organization's competence, proficiency, working efficiencies, and practices. TOE theory is also useful for NHRM practices and it provides sustainable competitive benefits. NHRM can be distinctive, precious, unique, and unremarkable due to achieving sustainable implementation of TOE theory in an organization, such as semi-government organizations attaining competitive advantage. Hence, this study is applying technology-organization-environment theory to empirically test the framework that links organizational innovation and innovation performance. Moreover, it examines the relationship between NHRM and directly and indirectly creates effects of organizational innovation on innovation performance. While it has well established the link that NHRM has significantly affected innovation performance, especially in the context of semi-government organizations, this positive influence raised a question to determine how NHRM has positive effects in the context of semi-government organizations [42]. Organizations should require constructing a supportive climate for members that sustains encouraging behavior and reshapes the organizational climate for further inquiry. An organizational climate can be reformed by supportive innovative behavior that is labeled as the innovative climate. NHRM practices can be effective in motivating those climates in semi-government organizations and can construct a significant work climate. However, little of the literature has discussed such topics, particularly in the semi-government organizational scenario. Researchers emphasized that future studies are required for the exploration of more interactive paths between NHRM practices and innovative climate. Moreover, organizational innovation and NHRM have also been discussed very little. Thus, it is considered a burning issue, and has entitled the research gap that needs to be addressed. Hence, the present investigation empirically explored the role of organization innovation as a mediator among



NHRM and innovation performance and innovative climate moderation among NHRM and organization innovation.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **2.1. New HRM Practices**

The attention of scholars who belonged to a diversity of disciplines and fields has increased due to the on-going re-shaping design of management and organization practices to manage the complexity and rapid changing of the knowledge-based economy [13]. Such rapid change also stresses re-structuring human resource management (HRM) practices as a form of employment relations and encouraged the rising of a new dynamic work environment [15]. These new HRM (NHRM) practices are applied in various kinds of organizational practices, such as team or team-based organizations, their constant knowledge, transformation in composition, rewards, performance, appraisal system, recruitment process, and quality improvement. While many NHRM practices may not be entirely novel, some of these new practices have broad generalization which has tended to appear rather recently. Researchers have emphasized that both types of strategies, the organization strategy, and strategy orientation should affect the choice of the set of HRM practices. Some have emphasized that organizations must developed such human resource practices which have flexibility and inventiveness in order to adopt the complexity and rapid changes of the environment [22,23]. Therefore, every organization of developed and developing countries have great concern related to their productivity. HRM practices can contribute directly to achieve the objective by finding effective and better ways towards productivity. Thus, the new HR strategies are helping to create the innovative setup in which NHRM practices are significantly recognized by the employees and management. Such NHRM practices' adoption would help the organizations to take on rights devolution, empowerment, teamwork, and democracy in decision-making. Previous literature has advocated that HRM be deemed as an essential part of production and growth. Each organization is using HR practices in its management department widely. Thus, the process of HRM practices are very common globally, but some countries' organizations have re-built their HR department with innovating HR practices, and Pakistan is one of them. Over the past decades, Pakistan has re-constructed its economy and has simultaneously transformed the conventional management system into NHRM and these NHRM practices include E-recruitment and selection methods, training and development processes, reward systems, and teamwork and employee involvement in the decision-making process, which directly have links with HR input and outputs that lead towards organizational success [24]. Thus, advancement in new HRM (NHRM) has connoted concern with organizational productivity.

### **2.2. Organizational Innovation**

The term organizational innovation or innovation in organization is defined in the Oslo Manual as a new idea implementation for product improvement, and a new organizational process or method applies in organizations, groups, workplaces, and operations. These innovations technically and non-technically indicate the continuation of different kinds of organizational innovation. Moreover, organizational innovation is mainly related to four activities, including new product development, new production process, creative strategy, and economic organization, by considering all economic actors. Organizational innovation is considered a multi-tasks process containing newly emerged digital techniques, advanced processes, practical implementations, more complex structure, more advanced technological strategies, and creative product production. However, previous literature more frequent discussed a conventional manner of organizational innovation. Advancement in organizations influences the implementation of the business process, responsibilities of employees are more specified, internal and external decision making processes are also identified, and interpersonal

relationships with other organizations are more defined. On the other hand, according to the different studies' results regarding innovational organizations, if the organization is not willing to adopt innovation in its business, its internal and external descriptive power would be less than the innovative organization and it has less chance of organizational success. Thus, in this cutthroat organizational competition, each organization should develop a dynamic organizational scenario in which it will be cope within the market competition. Furthermore, organizations are trying to adopt practical implementations to maintain their market performance. They are also learning from their past performances, skills, and experiences, and are trying to adopt new innovational environments. This innovational development requires continuity in the progressive work environment, expansion in employees' knowledge, skills, implementation of new technological equipment, innovative ideas thinking, and innovative solutions. (6)

### **2.3. Innovative Climate**

A supportive organizational climate has been considered as a significant aspect of organizational policies as it leads employees to utilize their potential in a free manner. The innovative climate has been divided into two categories: (1) the internal innovative climate, and (2) the external innovative climate. However, the internal innovative climate is more important in organizational strategy as it promotes a free-style thinking in employees. Earlier studies found that a supportive organizational climate embrace new concepts triggered by employees. Organizations set a work environment for employees to encourage the perception of accepting challenges, provide the adequate technologies to compete for the risk factor, and assign challenging work for the utilization of innovative working approach. Such a creative working environment is called an innovative climate. The term innovative climate opens up a new plan for thinking behavior, mental cognition, and perception. This innovative approach can be helpful for institutes to boost their organizational progress. Employees have an essential part in the modern environment because their creative perception builds up an innovative climate. Moreover, innovative climate positively involves with organizations and expressed employees' challenging work behavior with the distribution of work. Furthermore, Khan, et al. [60] explained that organization supports employees to provide a safe, calm, impulsive, and motivational innovative climate but, in previous findings, researchers argued that employees' innovative behavior has significantly built the innovative climate in an organization and their innovative ideas generate active contributions in the innovative climate process, whereas the organization also takes part to provide an innovative climate. Masterson et al. argued that organizations develop opportunities for employees to polish their skill by challenging risk-taking work and satisfy them by providing innovative skills which are the basic demand of the competitive climate. The innovative climate should be represented by liveness, adaptation, and adjustment and flexibility. The organization should develop a supportive innovative climate which supports employees to provide organizational innovation. Thus, such organizational supportive behavior (time, resources, and innovative climate) encourage employees to perform stunning work (6).

### **2.4. Innovation Performance**

The adoption of the idea of "innovation" is relatively new in semi-government organizations. Researchers implemented innovation as a new thought of development, procedure, and process. The concept of innovation considers either an adoption process or the process of new practices and information. Studies described that innovation adoption leads to the creation of new idea competency and organizations can apply these ideas to their latest products, HR processes, and re-structuring their procedures and customers' services. The innovation is defined as a process that can develop various methods of organizations, re-structured new products, creative ways

of production, technological methods and techniques, customers' fresh services, and adoption of new structures and information resources. Information resources can vary between the different terms of innovation because innovation considers not only what is fundamentally revolutionary, but also incremental, that is a slight expansion in existing products, HR processes, re-structured procedures, and customers' services. Incremental innovations essentially define the augmentation of existing products' services, technologies, and HRM practices. Organization by avoiding the bad habits and external sources which affect the performance can be improved and enhance innovation performance by identifying and introducing new knowledge. Furthermore, innovation is connoted as a multi-talented practice of organizations that are proven, as well as profitable market shares and performances. Scholars encouraged the innovation with industrial competency because, according to them, industrial competency encourages innovation performance and both of them have discerned relationships. Semi-government organizations have competitive edges derived from industrialists and innovational change in technologies. Organizations with calculated risks have developed industrial competencies as a special process of new product development, technologies, new management practices, and providers of efficient services. The present work describes innovation performance as a process of improvement in HR practices, processes, and procedures and it provides an aid to enhance the legacy of performance, implication, and worth of the administration, services, and operational processes. Moreover, innovation performance is taken as an important indicator of organizational effectiveness in semi-government organizations more specifically in IT firms, as IT firms need to be involved in the continuous process of innovating new products, ideas, services, and processes. In Pakistan, the semi-government sector is progressing at a slow pace and the IT industry is not contributing enormously. Therefore, it is necessary to conduct scientific research to determine the factors affecting innovation performance. (1)

### 3. METHODS

Different data sources have limited the problems associated with common method variance. The validity of the questionnaire was ensured through informal interviews taken from the top or middle-level managers of HR departments before the questionnaire was distributed in the organizations. During the informal interview, a request was made to officials to point out the ambiguous, imprecise, unaware terms and assimilated their responses to improve the questionnaire's readability and relevance. Based on these suggestions, the questionnaire was improved, and after obtaining approval from headquarters, questionnaires were distributed to all targeted organizations' employees through an official e-mail. PSEB, PCB, NITB, and NADRA are semi-government IT-based organizations which are working under the Ministry of Interior, Government of Pakistan. They provide the cornerstone of IT development nationwide. Due to security and confidential issues, this study could not obtain permission to utilize a local server network of targeted semi-government organizations to collect our survey responses—a structured questionnaire developed on Google forms and a survey link was distributed between employees through an official e-mail sent by the HR department. Online data collection is recommended due to its faster speed and is error-free as well as convenient for both the respondent and researcher. However, employees are enabled to respond to the questionnaire during duty hour because of the nature of their job. Therefore, after mutual understanding among authors, one of the co-authors participated in the data collection by visiting different offices and registration centers. Moreover, respective HR departments of selected organizations provided support for administering communications with respondents through official contact and e-mail as well. The questionnaires were distributed for more than six months amongst the 1100 employees from which 632 completely valid responses were collected against the distributed questionnaire.

While conducting interviews of deputy HR directors, a request was made to identify the senior HR executives and core knowledge employees from their research and development (R and D) department. Moreover, the core knowledge employees' roles were defined as the most critical in terms of introducing new knowledge and creating innovation in the organization. Scholars primarily focus on core knowledge employees during the examination of employee innovativeness because these are the most important employees for innovation processes in the organization and, thus, play an important role for study. There were two parts to the questionnaires. One part included demographic questions (gender, marital status, age group, semi-government organizations, education, managerial level, and tenure in current organization) and the second part contained questions of key variables of NHRM practices, organizational innovation, innovative climate, and innovation performance of the study.

#### 4. ANALYSIS AND RESULTS

All the key variables, such as NHRM practices, innovative climate, organizational innovation, and innovation performance of this research were analyzed by the statistical software of IBM Statistical Package of Social Science (SPSS) version 21.0. Hierarchical regression analysis was used to obtain results. The mean-centers of all the pertinent antecedent variables were removed as a preconditioning requirement, then the interaction terms were created by multiplying them together. Cronbach's alpha was used in this study to test the reliability of the questionnaire; the greater value of Cronbach's alpha means the higher the reliability of the tested factor which signifies the internal consistency of the questionnaire. Cronbach's alpha value was higher than 0.8, which indicates the internal consistency was favorable. The factor loading technique was utilized to assess convergent validity. The convergent validity was shown to be significant because the composite reliability (CR) and value of average variance extracted (AVE) were more than 0.5. The ratios of 0.6 and 0.5 are based on better convergent validity. Discriminant validity of the variables was examined through the confirmatory factor analyses (CFA). The software IBM AMOS 20 was used for CFA and construct validity. The findings of model fitness indicated the model fit the data reasonably well, as explained in Table 2. Moreover, model fitness indices examined the comparison between several measurement models (SMM). Compared with other models, the four-factor measurement models are even more superior and it shows the high discriminate. CFA was conducted to test the common bias method. All the variables of the model that were linked by a single factor were tested, but the model has not fitted the data, although a common bias method was checked by Harman's single-factor test. Results show that the four common factors, whose trait values were higher than 1, account for 69.50% of the total variance. Moreover, the common bias method investigation shows the maximum variance of a variable as 14.07% (1). One of the most important issues related to career management is whether career promotion criteria is known by everyone. This question has emerged as the average 2.95. The level of this value's being also lower proves the fact that career promotion criteria are not known by employees in businesses in Azerbaijan. The level of average point of the statement whether the company supports employees' career plans was also low. This result shows that employee career-related plans are not supported. In order to define what kind of relationship between career management and organizational commitment of employees, a question asked about whether career support increases the organizational commitment or not. The average value was 4.22 in a high level. This result has shown that the organizational commitments can be increased if employees were supported in career in business in Azerbaijan. The average for the question on whether the career promotion based on employees' performance was low, 2.61. The results once more shows the fact that employee are not aware of career promotion criteria. To the question about promotion in your business career carried out in accordance with the experience of employees the average for responses was low of 2.77.

This result again shows that the employees did not have concrete information about career promotion criteria. When we examine the table fair career management in enterprises in Azerbaijan is seen that the total average was 3:01 on the lower level. This shows that HR managers are hesitant about justice career management. When we look at the results on the career management more than 50% of businesses reported that they have a career management system functioning. But the average level for the questions whether the career promotion criteria is known by everyone, were employees' suggestions taken into account, whether the care promotion based on employees' performance and whether the career promotion takes place according to the gained experience marked as low. What this means is that career management practices have shortcomings in many aspects.

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## PROTECTION FROM THE EFFECTS OF GLOBAL FINANCIAL CRISES AND WAYS OUT OF THEM

**Aynur Zeynalova**

*Teacher at Azerbaijan State University of Economics UNEC, Azerbaijan*  
ayn.zeynalova@gmail.com

### ABSTRACT

*Today, globalization is increasing the instability of national economies and the likelihood of crises. During this period, financial crises become more persistent. Accelerated integration as a result of changes in world markets is exacerbating the impact of the crisis in one region on another. Although we note this in general, we must take into account that there is no consensus in the assessment of economic, including financial crises. Because this crisis covers social, environmental, geopolitical processes, in short, all areas of global development. The above does not preclude the study of the causes and negative effects of the global financial crisis. To this end, economic relations between countries during financial crises should be analyzed, their destructive effects should be reduced and ways out should be identified. Many scientific theories have been written and researched on appropriate regulation and solutions. It is also important to study the funding mechanisms and policies of international organizations in times of crisis. Thus, the program of structural reforms implemented with their financial support creates the basis for ensuring the balance of payments and economic stability of individual countries. Observations show that the frequency and duration of financial crises have recently increased. Although periodic financial crises are considered by many researchers to be the product of capitalism, they must be seen as real economic events. It also requires the identification of solutions rather than the search for "causes". We believe that the measures taken should be in line with the crisis and the current situation in the country where it took place. These measures should include the development of science and technology, support for domestic production, prevention of monopolies, implementation of programs to reduce poverty and unemployment. The Republic of Azerbaijan has experienced a period of financial crises twice, in 2008 and 2015. As a result, the country has already gained some experience in mitigating the effects of financial crises and ways out. We are living in a pandemic that is dragging the economies of most countries into a deeper financial crisis. Therefore, in determining the way out of this crisis, it is necessary to monitor the dynamics of the world economy in recent months, identify key trends and make sound forecasts.*

**Keywords:** *finance, crisis, reform, regulation, poverty, employment, development*

### 1. INTRODUCTION

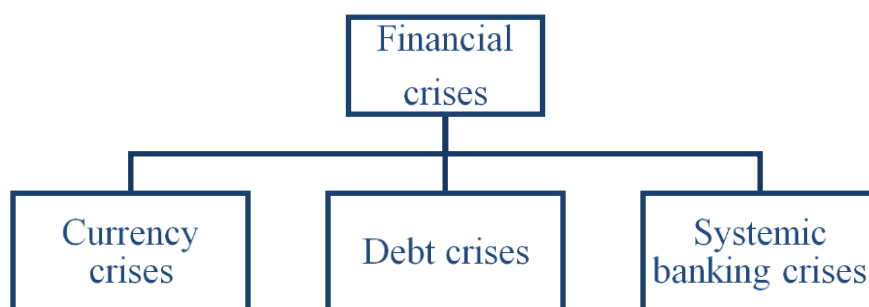
Regardless of the industry it happens crises leave their negative traces in the history. In this regard global financial crises negatively affecting on the level of living and economic power of the states are not exceptional. Following such crises the world changes its political, economic appearance. Until recently global financial crises happen as a result of hesitations in the world economy, unhealthy competition of the economic centers of power. Recently COVID-19 pandemic severely testing the world countries in all directions once again proves that global economic crises occur as a result of not only economic matters, but also conflict of political interests. If we look at the financial crises resulting in serious economic problems from the political perspective, it shall be obvious that international organizations, as well as any disciplines are formed after strong conflicts, wars and serious losses. More precisely, now it is needed such serious losses for the creation of a new international legal community. Otherwise, it will be impossible to establish any new structured organization meeting modern standards.

At the present time such serious threats can be put by terrorist organizations, subsequently regional and international wars and economic crises. After too great and serious losses the international community could think of establishing much advanced operational international organization and take more effective measures in the solution of crises. It is known from the researches that global financial crises appear as if they are requirements of the time. Their occurrence paves the objective way for making fundamental changes. Also if we refer to the opinion “financial crisis is a main characteristics of the capitalism and it must happen periodically” of outstanding economists, we can say that in order to eliminate the mistakes of the capitalist system we need to create a worldwide economic system.

## 2. GENESIS OF GLOBAL FINANCIAL CRISES: INTERRELATIONS, INTERACTIONS AND INTERDEPENDENCES

Starting point of economic crises is mainly financial sphere. Covering various segments of the financial market of such crises defines its initial types. In this regard, we can divide financial crises into three main types.

*Figure 1: Types of financial crises*



*Source: Drafted by the author*

Currency crises happen when the demand for foreign currency increases more than the domestic currency in the country. However, in all cases increasing of the demand does not mean a crisis. For occurrence of the currency crisis at least one of the followings should happen:

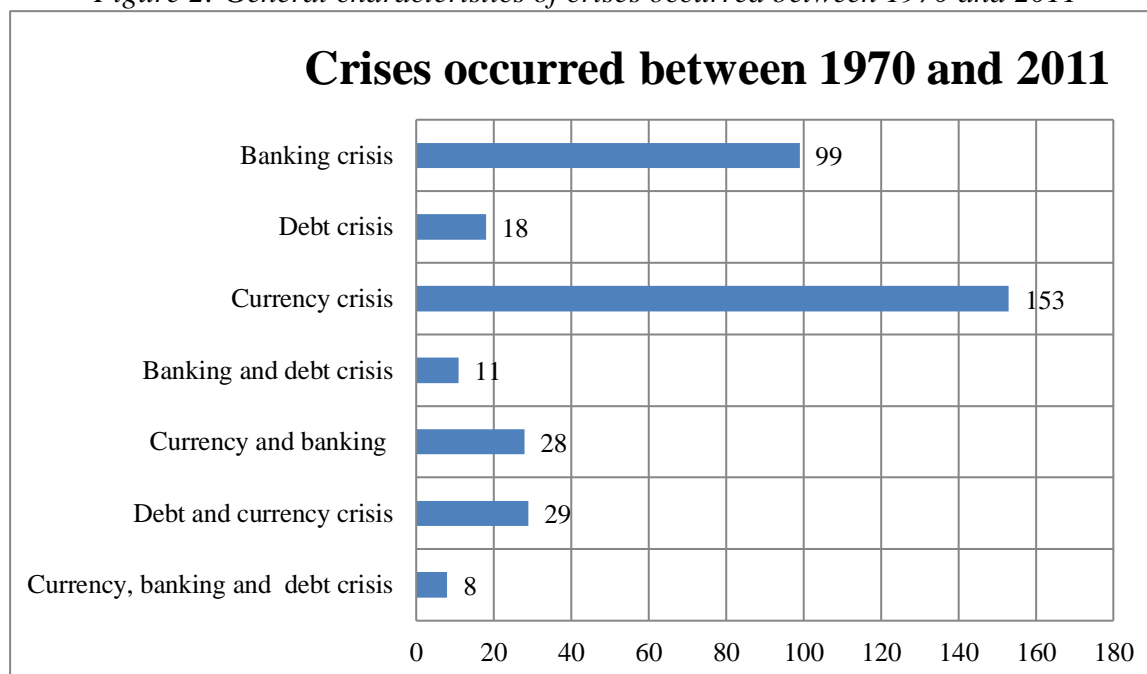
- 1) Devaluation of the domestic currency in the country, depreciation of the domestic currency;
- 2) Use of gold or currency reserves of the country to ensure the exchange rate stability;
- 3) Increasing of interest rates of the Central Bank;
- 4) Restriction of capital outflow;

Debt crises happen when the country is not able to pay its debts. Then it may be domestic and foreign debt crises that investors begin to worry and demand higher interest rates for bonds or other securities issued by the government when debts of the country to the foreign residents increase. Domestic debt crises could happen when government taxes and other incomes are less than its expenses. In case of banking crises the financial sector of the country faces bankruptcy and losses. As the trust of people to banks is high, there would not be any problem in banks, however solvency issues for non-performing loans lead to bank crises. It happens when people withdraw their deposits from banks collectively. Some other cases occurred in the economic sphere may lead to bank crises afterwards. “Sudden stops” may be an example for it happening in the economy and leading to a crisis. Its main reason is a sudden stop taking place in international capital inflows. Here we speak about direct negative effects of sudden stops on financial markets, real sector, domestic currency. It is clear that in case of a sudden stop the first effect on the domestic currency of the country is accepted as a financial crisis. Sudden stops seriously affect the real sector and financial markets of the country in the economy. It should be noted that if foreign investments are made to the country by money, then the first



effect will be on the currency. As financial markets and organizations are interrelated and interdependent, in case of sudden stops the domestic currency depreciation negatively affect on the banking sector of the country, also lead to a banking crisis and on the other hand, debt crisis due to the increase of the government's debts. In this case effects of each three crises are observed in the country.

*Figure 2: General characteristics of crises occurred between 1970 and 2011*



*Source: [www.imf.org](http://www.imf.org). Official website of the International Monetary Fund*

As it is known from the figure, 153 currency crises, 29 debt crises, 28 banking crises occurred between 1970 and 2011. The second frequently happening type is a bank crisis, so 99 banking crises occurred, 11 debt crises took place with banking crises. Occurrence of currency and banking crises, that is, one of them prompts the other one, enables the more frequent happening of these crises. Mentioned crises caused to serious losses in the economies of world countries. Crisis losses occurred between the years of 1979 and 2011 consisted of 23% of GDP in the countries they included. Effect of losses on developed countries is evaluated in the rate of 32%, on developing countries in the rate of 1.6%. In the countries with different development levels various monetary policy strategies are applied on coming out of the banking crises. Thus, in developed countries it is adjusted mostly due to the monetary expansion, and in developing countries due to the fiscal costs. Furthermore, in case of crises in different country groups there was a variety in liquidity support to banks. So it was observed that during the economic crisis allocated liquidity support to banks was more in developing countries than developed countries. In case of the economic crisis companies get less profit (or loss), then companies pay less dividend, because of the decrease in demand of stocks their prices begin to decline. However, anti-crisis strategy is carried out as a result of further policy and company stocks start to rise. During the crisis substantial changes happen in the bond market in addition to the stock market. Especially, due to the high probability of reduction, even bankruptcy in company profits during crises investors could prefer government bonds, because bankruptcy probability of the government is too low. In this case stock prices, as well as demand for government bonds increase. Consequently, during financial crises different strategies in various economies are implemented. Then in developed countries a monetary policy especially based on reserve or actively traded currency, and in developing countries monetary policy based on foreign

currency, is carried out. When financial crises occurred in developing countries demand for other currencies increases and consequently, demand for domestic currency decreases. As we know, one aspect of the anti-crisis policy in case of crises is adjustment by money supply. Adjustment strategy is applied by intervening exchange and inflation rate through money supply. If the economy of the country starts to decline from its peak point, financial crises could happen in the country. During the crisis central banks usually tend to decrease the interest rates, because hereby they intend to increase investment costs and decrease credit resources. Mentioned relations and dependencies can be visually explained in Azerbaijani example. If we look at the main crisis forming factors in Azerbaijan, we should note that here movement of oil prices has important share. Let's consider how oil prices affect on the manat by reviewing oil prices and real effective exchange rate of the manat and using available data base:

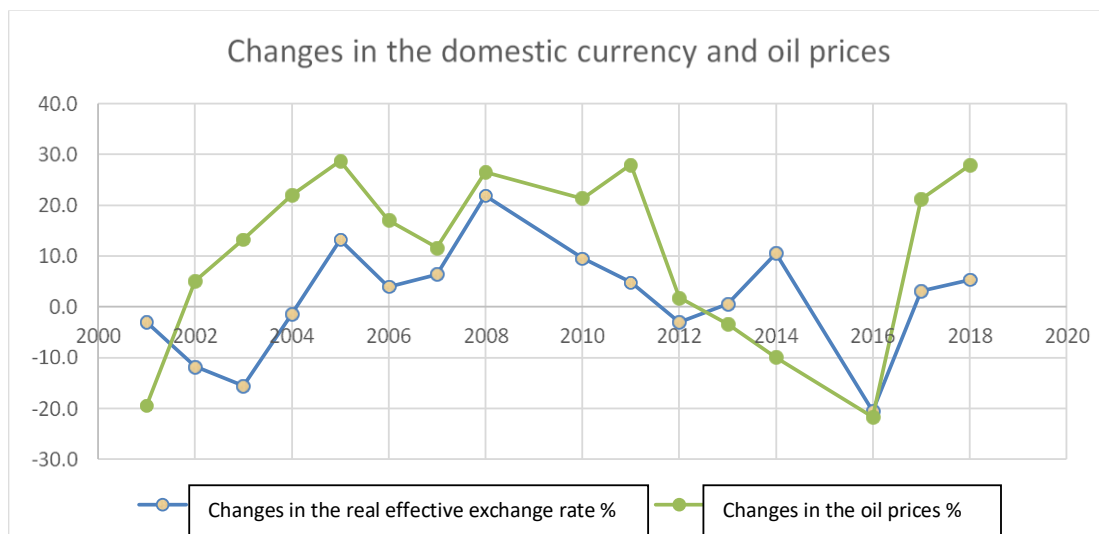
*Table 1: Oil prices affect on the manat by reviewing oil prices and real effective exchange rate of the manat*

<i>Years</i>	<i>Changes in the real effective exchange rate of the manat %</i>	<i>Changes in oil prices %</i>
<b>2005</b>	<b>13.2</b>	<b>28.7</b>
<b>2010</b>	<b>9.6</b>	<b>21.3</b>
<b>2015</b>	<b>-33.3</b>	<b>-94.6</b>
<b>2016</b>	<b>-20.5</b>	<b>-21.7</b>
<b>2017</b>	<b>3.1</b>	<b>21.2</b>
<b>2018</b>	<b>5.3</b>	<b>27.9</b>

*Source: www.cbar.gov.az.*

You can clearly get from the chart that changes in oil prices in the global market lead to the changes in the real effective exchange rate of the manat. As we know, decline in crude oil prices in 2015 caused to negative events for Azerbaijan and above all, the real effective exchange rate decreased. As Azerbaijan depends on oil, decrease or increase in oil prices also affect the country's economy. As a result of decrease in oil prices price increase has been observed in the country with the increase in import. If we consider the most developed countries, decrease in interest rates happens during economic difficulties. However, during the decrease in oil prices in Azerbaijan as depreciation of the manat against the dollar increases the import prices, inflation level has been high. Interest rates have been increased by the Central Bank for the struggle with high inflation. However, after 2017 interest rates have been decreased due to the decline in the inflation level and predictions about low inflation level in Azerbaijan by international organizations.

*Chart following on the next page*

*Chart 1: Dynamics of the real effective exchange rate of the manat and oil prices*

Source: [www.cbar.gov.az](http://www.cbar.gov.az). and [www.economy.gov.az](http://www.economy.gov.az).

As it is shown, changes per years in the real effective exchange rate and oil prices between 2001 and 2018 are provided in this figure. If we consider the simple regression analysis and correlation, we will see that oil prices and domestic currency exchange rate are closely interrelated.

### 3. PREVENTION CONCEPT AND SOLUTIONS FOR GLOBAL FINANCIAL CRISES

While global financial crises occur after all investigation of “guilties” begins. It is looked for answers of questions like “What are causes of this crisis?”, “Which leading country’s economy was it originated from?” and “Which gaps are there in adjustment strategies of international organizations?”. Firstly, we would like to consider these issues from well-known economists’ point of view. E.Stiglitz wrote in his book “Globalization and its discontents” that: “It is too difficult to be aware of economies of all countries in the world even for a middle organization such as IMF”. [5, page 2] He noted that credits and programs provided by international financial institutions do not bring to a successful conclusion. Financial institutions’ foregrounding their own interests was shown as its main result. Actually we could blame financial institutions on inappropriate organization of the control system. [3, page 132-133]. In 80-90s of XX century advices of the Washington Consensus were made in three main directions – financial rigidity, privatization and trade liberalization. [7, page 2.53] The Washington Consensus policy was formed for solution of present issues of Latin America and it was rather a reasonable step. Here execution of those recommendations is very important issue. It should not be overlooked that all recommendations provided by the IMF are not performed at the same level by the governments of developing countries. Main attention and issue should be focused in the execution performance. [6, page 59]. Persons who are against the privatization, especially rapid privatization suggestion by the IMF tried to prove that the most important issue of the privatization is the corruption. Opinions on the market fundamentalism claim that it will weaken the privatization and the performance of government officials taking over the revenues of state-owned enterprises and transfer contracts and jobs to their friends. If the government is addicted to the corruption, probability to solve the problem by privatization is too low. Moreover, that government managing institutions improperly will control the privatization. [8, page 63-64]. It should be considered that no international organization has capability to take drastic measures against nation states in order to prevent abovementioned cases. Additionally it can be shown that Western countries are willing to the trade liberalization for exported products and continue

to protect the economies of developing countries from risky competition. Let's consider two matters here. European countries reject developing countries because of the low quality of their products or because they can be a source of health hazards. Secondly, if the livelihood of the poor is truly protected, monopolism will end in nation-states during the trade liberalization, and as a result, the ordinary citizen of that nation will be able to get better and cheaper products. It would be a step against the interests of the big monopolists in the developing countries. He previously criticized this issue as follows: "When foreign businesses come in they often destroy local competitors, quashing the ambitions of the small businessmen who had hoped to develop homegrown industry. Soft drinks manufacturers around the world have been overwhelmed by the entrance of Coca-Cola and Pepsi into their home markets. Local ice cream manufacturers find they are unable to compete with Unilever's ice cream products. [8, page 75-76]. However, some economists oppose the attraction of foreign investment and note that it destroys the national economy instead of reviving it. Again, we are facing contradictory opinions. The IMF's proposals not only maintain global financial stability, but also contribute to the development of national economies. The focus is again on how governments of developing countries implement these programs. [4, page 74]. In many of his writings, S. Edwards criticized the lack of society transformation, i.e. the lack of time for developing countries to transition to this process. However, the matter of giving time is an abstract concept. Stiglitz had to realize how much time should be given to nation states. How long do we have to wait for this transformation to happen in nation states? Asking for time for transformation is nothing more than a matter of failing to implement IMF measures or simply gaining time and thus protecting their power by nation states. In many of his paperworks, Stiglitz accuses the IMF of failing to take any measures on elimination of poverty and unemployment. [7, page 255]. But he forgets that the goal of the IMF is not to fight against poverty and reduce unemployment, as stated in its charter. The fight against poverty and reducing unemployment should be the main goal of the nation-state. Therefore, one of the reasons for economic and political crises occurred in the international arena is the lack of trust between international actors (states). [1, page 101 – 109]. In addition to their public consent, they always take measures to defend themselves in the background from their eternal rival and even from a state they consider a friend, and these measures are often accompanied by more offensive measures than self-defense. For example, although the two countries have signed an agreement to jointly fight against terrorists, they secretly support terrorists behind the scenes in order to defend themselves and shoot their rivals. These examples can be applied to cooperation in economic industries. Subsequently, a lack of trust between the IMF and governments of developing countries can be shown. This is due to the lack of trust in the officials of developing countries who directly create a monopoly, and economic indicators provided by them. Due to the lack of mutual trust between them, the expected result is not obtained in the end. The parties do not perform the contract terms completely, but want the withdrawal of "requirements" (terms) to create trust that is impossible. It is normal to put requirements as full indemnity for refund. The IMF's loan agreements with South Korea during the East Asian crises also included amendments to the Charter of the Central Bank. Stiglitz was against this amendment. This amendment aimed to ensure independency of the Central Bank on political processes in order to have more transparency. Stiglitz erroneously noted the aggravation of financial crises in these countries after the intervention of the IMF, because the crisis had just started and was intensifying. Recently observations show that frequency and duration of financial crises have increased. Historical legitimacy proves that financial crises also will increase gradually and the world will plunge into the financial crisis. It shows that the capitalist system is no longer justified and there is a need for a new economic system. It can be concluded from the abovementioned opinions that the main causes of financial and economic crises, whether occurred internationally, regionally or in any country, are not only nation states, but also international organizations.

Note that if a crisis has already occurred in any country, in addition to these actions, measures specific to the crisis in that country should be taken. Nation states must constantly monitor the following activities in order to prevent a crisis or to recover from a crisis with less damage:

- Rapid growth of scientific technology requires to flexible, operational and considered decision making on the economy (currency, finance and trade);
- Competitive products should be manufactured to prevent the recession of domestic production (in order to meet a domestic demand and export). For instance, if a country is an oil-producing nation, petroleum should not be imported, petroleum refineries should be founded in the country. (Azerbaijani example):
- Execution mechanisms of government's decisions and IMF's recommendations should be specially paid attention:
- The IMF should not be limited to making recommendations to states, the execution mechanism should have the power to take directly controlled measures:
- During the implementation of an economic policy it is needed a complex approach to the economic condition of the state, all industries are interrelatedly balanced:
- Governments of developing countries constantly monitor the active and operation intervention to the economy. Otherwise, it may be taken by strong and great monopolists;
- During the trade liberalization support measures to production should be taken that it can stand against the competition with foreign markets.

Depending on the scope, depth and characteristics of the financial crisis, reduction of its effects and solutions could be different. Though, measures to prevent all crises are possible by finding out its causes and eliminating them. As we can make generalizations about the causes of financial crises, we can also do this about the ways out of them. The following suggestions can be made to reduce the effect of the already existing financial crises and ways out of them:

1. For financial shortages and debt crises in private and banking sectors:
  - a) Allocation of temporary financial support to banks by the government;
  - b) Strengthening measures can be taken for banks and other participants of the financial market. (e.g. demand to increase the charter capital, taking out licenses of noneligible banks, etc.);
  - c) Preparation of cooperation program for bank stockholders and financial regulatory authorities;
  - d) Imposing restrictions for stockholders in taking dividends and other similar administrative processes;
  - e) Making amendments in currency-credit and fiscal policies.
2. For currency and debt crises in the country:
  - a) Preparation and implementation of a single crisis program or all industries of the economy;
  - b) Use of all facilities replacing import and enabling the production of export-oriented products;
  - c) In case of a critical crisis getting credit from the IMF and other international financial institutions. It would be better to encourage international investors and companies for making investments by changing the legislation instead of getting a loan;
  - d) Approving laws and other legislative acts encouraging the mobilization of financial and human resources;
  - e) Taking measures in strengthening the anti-corruption actions and ensuring transparency.

Provided suggestions and recommendations should not be accepted as an advanced "recipe" for overcoming financial crises and mitigating their effects. Because the date, economic and political conditions of crises changes the relevant set of measures completely.

Now it is impossible to find out the analogue of the crisis that the world economy is facing as a result of the pandemic. Up to date no financial crisis has led to the “zeroisation” in the industries such as tourism, aviation, car manufacturing and sales of all world countries. Therefore global financial crisis recovery programs should be prepared considering the current realities, time and space factors.

#### 4. CONCLUSION

The studies show that globalization process starting from the second half of the XIX century is being rapidly spreading in modern age. The core directions of economic globalization are trade liberalization, free movement of capital and internationalization of production. The globalization of the economy has positive and negative aspects. Indeed there may be more negative consequences for countries being against the process of globalization. On the contrary, the countries reforming to integrate into globalization get more positive results by accepting globalization as a development tendency of the modern world. Sometimes governments say these problems are the result of globalization to protect their internal reputation when they face economic problems. It is impossible to stand against globalization permanently, because globalization became independent by crossing all state borders as a result of scientific-technological innovations. The globalization leads to financial crises negatively. The crisis in the financial system paves the way for great recession and additional costs, bankrupt and increasing unemployment rates. Thus, it is important to pay attention to changes being reducing the risk of its occurrence and lead to a serious financial crisis. A group of economist reports that the requirements for the bank liquidity are not wrong, but the authorized capital while they propose for the reduction of financial crises. Bank failure led to the financial crises according to them. Firstly, further increasing the minimum amount of authorized capitals is suggested to eliminate these reasons. Banks may pave the way better for the stability of their activity without running in debt. The second approach envisages the liquidity doesn't cause for the financial crisis, rather it is best way for emerging from crisis. Firstly, supply and demand should be determined for establishment of robust banking system by taking into account participation of bank in all stages of the financial crisis and depending crisis resilience on banks. So, the following proposal may be accepted for reduction occurrence risk of the financial crises:

- Establishment of state body implementing more integrated financial market regulation;
- Paying more attention to bank management and transparency;
- Constantly monitoring and analyzing the financial system;
- Preventing threats against the financial stability by informing and giving a notice on risks to the participants of financial market, recommending on preventing of risks if necessary.
- Cooperating of organization monitoring the financial markets with other relevant state and international bodies;
- Regularly organizing training and seminars among the participants of financial market related to the crisis management;
- Delivering on majority of structures bringing country foreign currency;
- Maintaining development balance between real and financial sector.

As can be seen, the state is responsible for mobilizing exit opportunities from financial crises, making relevant legislative acts, guidelines and recommendations. Some researchers states countries as casual for occurrence of the financial crises. Undoubtedly, the number and impacts of crises may decrease if there is no unjustified mutual economic claims, efforts for being known as “power centers” among the countries. In conclusion, it would be better to remind of thoughts by Henry Paulson, American economist: “I believe that the core reason of every financial crisis is defects of state policy”.

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# LABOR PRODUCTIVITY AND SALARIES IN THE AZERBAIJAN REPUBLIC

**Gulanbar Azizova**

*Department of Economics, Russian School of Economics,  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
gulanbar\_azizova@unec.edu.az*

## ABSTRACT

*One of the leading indicators of economic development is labor productivity. An effective combination of factors of production is the basis for increasing labor productivity. The human factor has a significant impact on the growth of production because human drives every other factor. Employees need to be motivated to work effectively. The main incentive for the effective work of staff is the salary. Thus, salary affects labor productivity and can stimulate its growth. At the same time, an increase in labor productivity affects the probability of an increase in salaries. So, there is a mutual influence between labor productivity and salary. The purpose of this research is to determine the mutual influence between labor productivity and salary in Azerbaijan. In line with the objective, the task is to assess labor productivity and salary in Azerbaijan and their impact on each other. The article analyzes the dynamics of labor productivity and salary in Azerbaijan at the macro level and industry service. Current trends in these indicators were identified both in the economy as a whole and in individual sectors: agriculture, industry, construction, and service sector. A comparative analysis of changes in labor productivity and salary in Azerbaijan is provided. Using the regression model, the mutual influence of labor productivity and salary in the economy as a whole and its main sectors are calculated. The article uses the methods of comparative analysis, logical generalization and synthesis, regression analysis.*

**Keywords:** salary, labor productivity

## 1. INTRODUCTION

Labor productivity is a measure of the effectiveness of human labor. The pace of economic development, the possibility of reducing the prime production cost, the growth of income and wages depend on the level of development of labor productivity. Labor productivity shows the efficiency of the economy as a whole at the macro level, the efficiency of industries and regions at the meso-level and efficiency of enterprises at the micro-level. On the one hand, the introduction of engineering and technology into production influences the growth of labor productivity, and on the other, the human factor has its own effect. A person combines with the ability to work, intellect, the desire to cooperate and provide benefit in a particular workplace and society as a whole. To activate human capital, financial and nonfinancial incentives are used. In recent years, the role of nonfinancial incentives has been increasing. The ability to show initiative, creativity, leadership skills, as well as collective forms of labor organization, significantly affect labor productivity. At the same time, the role of salary as an essential financial incentive does not lose its relevance. The ratio between the growth rates of labor productivity and salary is one of the crucial macroeconomic proportions. The problems of labor productivity and wages were studied in the works of the classics A. Smith, D. Ricardo, K. Marx, T. Malthus, J. M. Keynes, D.B. Clark, V.V. Leontiev, R. Slow, G. Buchanan and others. The analysis of salary and its relationship with macroeconomic factors is reflected in the works of academic economists in post-Soviet countries: I.M. Aliev, Mustafaeva N.M., N.V. Beketov, V.E. Gimpelson, E.V. Gontmakher, S.S. Gubanov, R.I. Kapelyushnikov, D.Y. Sorokin, B.Y. Titov and others.



There are 3 models that characterize the ratio of the growth rates of labor productivity and wages in the economics literature [Mammadov O.Y., p. 104]:

- 1) Wages growth corresponds to an increase in labor productivity. This situation is most favorable for economic development. This model does not cause inflation on a national scale, and for the enterprise is an incentive to increase the productivity of workers.
- 2) The growth of labor productivity outstrips wages growth (regressive model). The advantage of this model is that it does not cause inflation at the macro-level, and the disadvantage is that it does not stimulate the growth of labor productivity.
- 3) Wages growth outstrips labor productivity growth (progressive model).

The pros of this model is that it stimulates the growth of labor productivity, and the cons is that it contributes to inflation. It should be noted that if the growth rates of wages are very high, the relationship between labor costs and its remuneration is disrupted that in the future can lead to a decrease in labor productivity. Thus, wages and labor productivity are related and affect each other. The growth of labor productivity increases the number of goods and services, being an objective prerequisite for wage growth. In turn, wages are an incentive for the growth of labor productivity. At the initial stage, raising wages to a certain point, it will contribute to the growth of labor productivity and profits. Then, the employer's expenses for raising wages will begin to exceed the benefits received. For this reason, the link to the growth of labor productivity with marginal productivity of labor is vital. And paramount role in the development of wage policy should be given to the need to take into account the ratio of wage growth rates to labor productivity [V. N. Kabanov].

## 2. ANALYSIS OF LABOR PRODUCTIVITY AND SALARY IN THE AZERBAIJAN REPUBLIC

### 2.1. Analysis of labor productivity

The labor productivity indicator is one of the key indicators of economic development, the higher it is, the more effective is the system of social and production relations. Analysis of real labor productivity in Azerbaijan for 2001-2015 showed a significant increase in this indicator i.e. 3.3 times in the whole economy. In the primary sector of the economy, labor productivity over the same period increased by 3.5 times; in the secondary - by 4.1 times; in the tertiary - by 2.9 times. Despite significant growth rates, the level of labor productivity in the country is much lower than in developed countries. [Azizova G.A. 1. 250-252.] This situation makes urgent an increase in labor productivity in Azerbaijan. It should be observed that labor productivity in Azerbaijan from the 90s of the XX century to 2003 was unsustainable. This fact was affected by the lack of modern technology. [Mustafayeva N. M., p. 164]. Let us consider how labor productivity has changed in the whole economy and its sectors. For 2006-2017, the nominal labor productivity in the economy as a whole increased by 3.1 times. The most substantial increase in labor productivity took place in the service sector - by 5.1 times. Moreover, in descending order are: construction, where labor productivity has increased by 2.9 times; industry and agriculture, where this indicator was 2.7 times.

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
In general, in the economy	147,7	140,2	85,1	119,1	122,5	103,1	104,0	98,8	89,4	110,0	116,2
In agriculture	141,7	117,1	93,4	108,8	112,6	105,4	110,7	99,3	105,1	99,5	115,4
In industry	153,0	136,2	75,5	127,9	127,4	94,6	94,4	91,5	82,1	125,0	125,9
In construction	123,2	151,0	85,1	113,4	112,0	127,7	121,2	107,5	86,6	95,4	105,2
Average for service	138,8	151,2	112,2	111,3	118,7	110,6	109,5	104,5	108,1	106,2	112,3

*Table 1: Annual growth rates of labor productivity for 2007-2017 (in %)*

*(Source: <https://www.stat.gov.az/>)*

It can be seen from table 1 that at the beginning of the study period, both in the economy as a whole and its main sectors, there is a significant increase in labor productivity. The largest increase in labor productivity in 2007 was observed in the industry. This was the only industry where the growth rate of labor productivity was ahead of the average index for the economy. In 2008, a high level of productivity was observed in the construction and services sectors. The growth rates of labor productivity in the construction and services sectors were higher than the average of the economy. In 2009, there was a decrease in productivity growth compared to the previous year. This slowdown in labor productivity was associated with the global economic crisis and falling oil prices. The only industry where labor productivity increased was the service sector. In construction, the decline in labor productivity in 2009 corresponded to the average for the economy; in agriculture, the decrease of this indicator was less than the average for the economy. The most significant reducing the rates of labor productivity was indicated in the industry, which once again confirms the dependence of the economy on oil prices. After 2014, labor productivity increased, but not at such a high rate as before. Thus, the fall in oil prices once again affected macroeconomic indicators, including labor productivity. In this regard, in 2015, the average productivity in industries decreased by 10.6%, in the industry this indicator decreased by 17.9%, in construction - by 13.4%. With the reduction in productivity in the economy as a whole and the above sectors in 2015, labor productivity increased in agriculture by 5.1%, and in the service sector - by 8.1%. In subsequent years, labor productivity increased again, however in 2016, there was a slight decrease in agriculture by 0.5% and in construction - by 4.6%. Summarizing the foregoing, it should be recognized that during 2007-2017, labor productivity declined twice, and this coincided with the global crisis and falling oil prices. The decline in labor productivity in different years was observed in all sectors of the economy except for the service sector. The greatest increase in productivity was seen in 2007. The enormous fluctuations in labor productivity were observed in the industry, where the highest growth was 53.0% (2007), and the substantial decrease was 24.5% (2009).

## 2.2. Analysis of salary

Salary is one of the most important tools of macroeconomic regulation. Social and economic development showed that "... low-paid labor is unproductive, and you should not expect good quality from it, and it is also uncompetitive in world markets" [P. F. Drucker, p. 217]. Being an important incentive for workers, salary can have a significant impact on increasing labor productivity. The analysis of salary for the years of independence in Azerbaijan showed that at high growth rates, its level remained low in comparison with other countries. In industries such as agriculture, education, health care, and in some others, salary did not fulfill their reproductive function [G. A. Azizova, p. 199-220]. In 2007-2017, the average nominal wage in the Azerbaijani economy increased by 3.5 times, i.e. it corresponded to the nominal labor productivity. The highest wage growth took place in agriculture - by 5.0 times. This is due to the fact that in 2006 salary in agriculture were the lowest and amounted to 35.2% of the average monthly salary in the economics, or, in other words, was lower by 2.8 times than the average. In the reporting period, the level of nominal salary in agriculture increased, reaching 50.0% of the average. In the industry, in 2006-2017, the nominal wage increased by 4.4 times, outstripping the national average. In construction, nominal wage growth was by 2.7 times, and in the service sector - by 3.0 times. Let us consider the annual growth rate of salary in Azerbaijan for 2007-2017.

*Table following on the next page*

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Average for economics	144,8	127,2	108,6	111,2	109,9	109,4	106,7	104,6	105,0	107,0	105,7
Agriculture	165,1	132,1	117,3	119,4	122,5	102,4	108,4	110,7	101,9	103,3	103,0
Average for industry	137,3	125,2	100,9	105,6	116,4	115,6	109,1	111,7	115,5	117,8	107,7
Building	127,0	107,0	110,6	114,8	102,7	113,1	106,5	100,2	108,1	119,9	96,4
Average for service	135,2	118,5	108,4	110,9	107,7	106,7	105,9	104,1	103,1	105,6	111,4

*Table 2: Annual growth rates of nominal salary in the AR for 2007-2017 (%).*

*(Source: <https://www.stat.gov.az/>)*

As can be seen in table 2, during the study period, the highest growth rate of the average annual nominal wage was observed in 2007, and the lowest in 2014. This trend is observed in all sectors of the economy. As for the lowest growth rates of nominal salary, this indicator amounted to 100.9% and fell on 2009 for industry, for agriculture and the services sector on 2015 - 101.9 and 103.1%, respectively, and for construction in 2014 - 100.2%. Comparing the growth rates of nominal labor productivity and salary, it should be noted that the rates of decline in these indicators although they coincide and fall on the crisis years - 2009, 2014-2015, there is an increase in the annual rate of nominal salary in the economy as a whole and in all sectors.

### **3. COMPARATIVE ANALYSIS OF THE RATES OF LABOR PRODUCTIVITY AND SALARY AND THEIR MUTUAL INFLUENCE IN AZERBAIJAN**

#### **3.1. Analysis of labor productivity and salary**

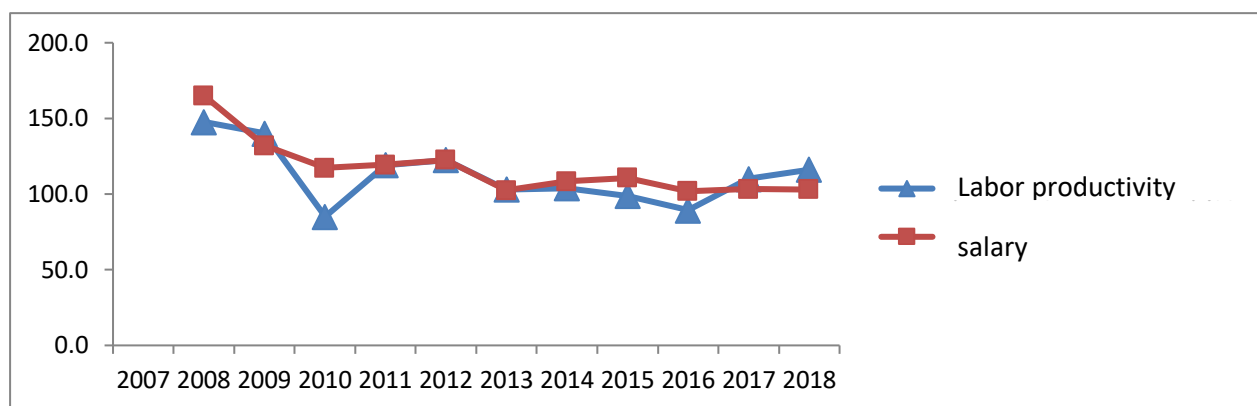
	Totally	agriculture	industry	construction	service sector
2007	1,02	0,86	1,11	0,97	1,15
2008	1,10	0,89	1,09	1,41	0,77
2009	0,78	0,80	0,75	0,77	0,97
2010	1,07	0,91	1,21	0,99	1,23
2011	1,11	0,92	1,09	1,09	1,00
2012	0,94	1,03	0,82	1,13	0,72
2013	0,97	1,02	0,87	1,14	0,76
2014	0,94	0,90	0,82	1,07	0,76
2015	0,85	1,05	0,65	0,80	0,81
2016	1,03	0,96	1,01	0,80	1,27
2017	1,10	1,12	1,15	1,09	1,05

*Table 3: Index of the ratio of growth rates of labor productivity and salary in Azerbaijan for 2007-2017*

*(Source: <https://www.stat.gov.az/>)*

As shown in table 3 in the whole economy, the ratio of labor productivity and salary are close in their indicators. A noticeable difference in the growth rates between these indicators is observed in 2009 - 0.22 and in 2015 - 0.15. With regard to the industry, the ratio of labor productivity and salaries are exposed to the fluctuations.

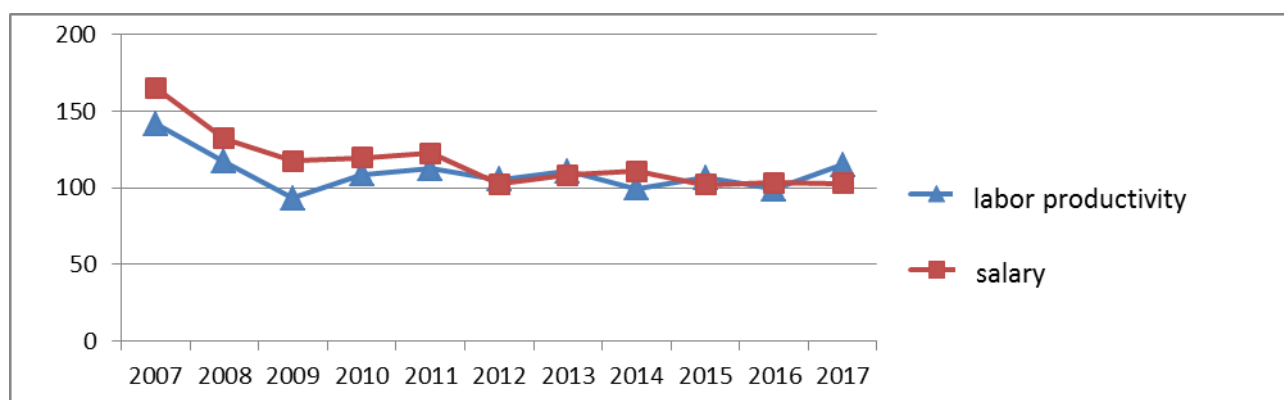
*Chart following on the next page*



*Chart 1: Annual rates of changes in labor productivity and salary in the economy of Azerbaijan for 2007-2017.*

*(Source: <https://www.stat.gov.az/>)*

As can be seen from chart 1 for 2007-2017, the annual rates of labor productivity and salary basically coincided. Except for 2009-2011, when with a significant reducing labor productivity, the decline in annual wage rates was low. In addition, the decline in labor productivity from 2013 to 2016 was associated by an increase in the rate of nominal salary. It means that in the economy as a whole, the annual growth rates of salary corresponded or outstripped the growth rates of labor productivity. With the regard to the industry, the ratio of the ratio of labor productivity and salary are subject to large fluctuations. These fluctuations are clearly visible in the graphs presented below. Let us compare the annual growth rates of labor productivity and salary in agriculture.



*Chart 2: Annual rates of changes in labor productivity and salary in agriculture in Azerbaijan for 2007-2017. <https://www.stat.gov.az/>*

As can be seen from chart 2, mainly from 2007 to 2012 and in 2014, the growth rate of salaries in agriculture is ahead of the growth rate of labor productivity, except for indicators in 2017, when the situation was reversed. For the other years, these indicators correspond to each other. Let us consider the annual rate of change in average salary and productivity in industry.

*Chart following on the next page*

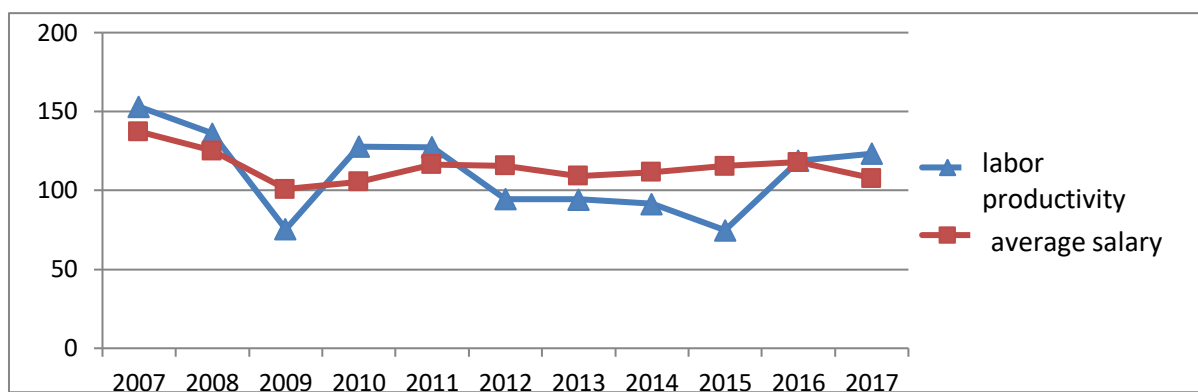


Chart 3: Annual rates of changes in labor productivity and salary in the industry of Azerbaijan for 2007-2017. <https://www.stat.gov.az/>

A comparative analysis of the growth rates of average salary and labor productivity in the industry showed that from 2007 to 2011, with the exception of 2009, labor productivity growth rates were higher than salaries. The opposite trend has been observed in subsequent years. The rate of change in average salary was higher, except for 2017. Let us consider the annual rate of change in average salary and labor productivity in construction.

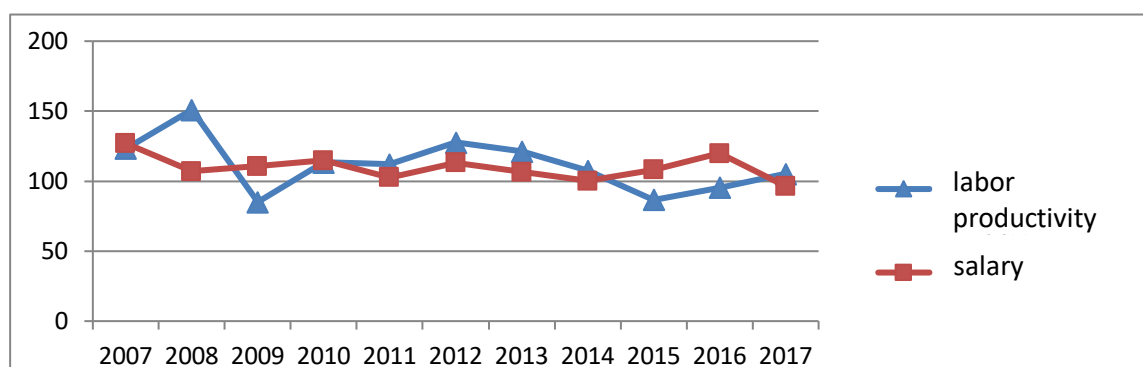


Chart 4: Annual rates of changes in labor productivity and salary in the construction of Azerbaijan for 2007-2017. <https://www.stat.gov.az/>

Compared to other industries, the dynamics of growth in labor productivity and salary in construction are subject to strong fluctuations. In 2008, the highest rate of growth in labor productivity corresponded to a rather low rate of growth in salary. There is a moderate growth rate of salary in 2009, with a significant reduction in the rate of labor productivity in construction. In subsequent years (2010-2014), the annual growth rate of labor productivity was ahead of the annual growth rate of salaries. And in 2015-2017, the opposite situation was observed. Let us consider the annual changes in average salary and labor productivity in the service sector.

*Chart following on the next page*

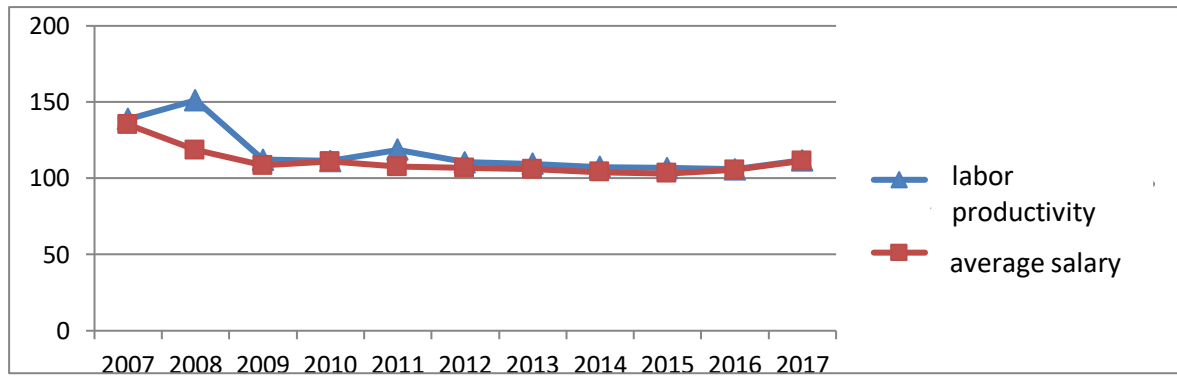


Chart 5: The annual rate of change in labor productivity and salary in the service sector for 2007-2017. <https://www.stat.gov.az/>

In the service sector, the growth rates of labor productivity and salary almost coincide, with the exception of 2008 and 2011, when labor productivity significantly outstrips wage indicators.

### 3.2. Analysis of the mutual influence of labor productivity and salary in Azerbaijan

The analysis of the mutual influence of labor productivity and salary was carried out using the regression model. The R and R<sup>2</sup> indicators in economy and sectors in the whole, excluding industry, show the adequacy of the models. In the industry, there is a weak connection between indicators of labor productivity and salary, due to fluctuations in oil prices.

	The effect of productivity on salary	The effect of salary on labor productivity	
In economy, in the whole	$Y = -53,4 + 0,05x$	$Y = 245,4 + 1,6x$	R=0,904 R <sup>2</sup> =0,817
In agriculture	$Y = -105,7 + 2,1x$	$Y = 57,7 + 0,42x$ $Y = 57,7 + 0,42x$	R=0,953 R <sup>2</sup> =0,908
In industry	$Y = 7,499 + 0,10x$	$Y = 4844,94 + 2,08x$	R =0,472 R <sup>2</sup> =0,221
In construction	$Y = 172,6 + 0,3x$	$Y = 60,9 + 2,18x$	R=0,818 R <sup>2</sup> =0,668
In the service sector	$Y = 151,8 + 0,48x$	$Y = 311,07 + 2,067x$	R=0,998 R <sup>2</sup> =0,995

Table 4: The mutual influence of salary and productivity  
(Source: <https://www.stat.gov.az/>)

This analysis showed that the country's average wage growth by 1 manat<sup>1</sup> contributes to an increase in labor productivity by 1.6 thousand manats. The multiplicative effect of wage growth by 1 manat in the industry leads to an increase in labor productivity by 2.1 thousand manats; in construction by 2.2 thousand manats, in the service sector by 2.1 thousand manats. The smallest effect of wage growth on labor productivity was observed in agriculture and amounted to 0.4 thousand manats on wage growth by 1 manat. It should be noted that the growth of labor productivity affects the growth of salary to a lesser extent than salary effect on labor productivity. On average, in the economy, an increase in labor productivity by 1,000 manats contributed to an increase in salary by 0.05 manats. An increase in labor productivity in the industry by 1000 manats leads to an increase in salary by 0.10 manats; in construction -- by 0.31 manat; in the service sector - by 0.48 manat. The highest multiplicative effect of labor productivity growth on salary is observed in agriculture - 2.1 manats.

<sup>1</sup> 1 manat=0,59 USD dollars

#### 4. CONCLUSIONS

The analysis showed that in the whole economy of Azerbaijan, the growth rates of salary and labor productivity are mostly consistent with each other and deviations are observed during periods of lower oil prices (2009 and 2015). This fact shows the dependence of the main economic indicators on the oil industry. With significant slowdowns in labor productivity in these years, although not a significant increase in wage rates has persisted. In agriculture and the service sector, the annual rate of change in labor productivity and salary mostly coincide or are close to each other. In the industry and construction, these indicators are less consistent with each other and were subject to large fluctuations. Analysis of the mutual influence of these indicators as a whole in the economy of Azerbaijan, as well as in the industry, construction and the service sector, showed that wage growth affects labor productivity more than labor productivity on salary. The only industry where the opposite is observed is agriculture. Outpacing wage growth is an important condition for further growth in labor productivity in Azerbaijan.. It is important to strengthen the mutual influence of labor productivity and salary in order to raise these indicators to the level of developed countries. Since in Azerbaijan the effect of salary on labor productivity is stronger, this mechanism can be used to increase labor productivity. Wage growth implies an expansion of consumer demand, which is also an incentive to increase production and increase labor productivity in the country.

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# OPPORTUNITIES AND PERSPECTIVES OF BIG DATA FOR THE DEVELOPMENT OF BUSINESS

**Bahruz Samadov**

*Department of “Mathematics and Statistics”,  
Azerbaijan State University of Economics, AZ-1001, Baku, Azerbaijan  
Bahruz\_Samadov@unec.edu.az*

## ABSTRACT

*As a result of the worldwide use of electronic devices and the ubiquitous generation and availability of digital information, the nature of the data that is now being generated constantly and in huge quantities and which we call big data has changed dramatically. These data have important distinctive properties that distinguish them from data obtained from traditional sources. The data obtained from these innovative sources have an exceptionally wide range of distribution, an unorganized structure, a huge amount and often arrive in real time. Big data is a source of data that can be described as follows: “data of enormous size, growth rate and diversity, requiring cost-effective innovative types of processing and intended for in-depth analytical research and decision-making” [Big data and modernization of statistical systems, 2014]. The use of “big data” in an organization leads to a significant change in various areas of activity. “Big data” creates a new paradigm of data analysis, changing the fundamental principles of collecting, storing, processing and transmitting data. Such substantial, paradigmatic shifts affect many basic processes of purposeful, organized activity, including decision-making processes. The issues of the influence of “big data” on the adoption of investment, organizational decisions and corporate culture are considered. Building management models with regard to “big data” in all their versatility leads to the need to solve new problems: to determine the inclusiveness and flexibility of data. As organizational decisions are increasingly becoming more data-oriented, top managers must ensure that decision-making rights are also data-oriented. This explains why so many organizations have made managing this strategic and organizational priority. “Big data” affects not only the technological infrastructure of the company, but also changes in the field of corporate culture and the entire management system. In the article, the presentation of technology big data at the present stage of economic development, the necessity and prospects of using these technologies to create a competitive advantage of the company and improve business efficiency. The importance of technology big data in the innovative development of the digital economy has been formulated, and its features have been determined.*

**Keywords:** *Big data, Business, Information Technologies, Business Performance, Competitive advantages, Big data analysis methods*

## 1. INTRODUCTION

The development of information technology, which over the past ten years has led, on the one hand, to an explosive increase in computing power and a multiple decrease in the cost of data storage facilities and, on the other hand, to an ever-increasing flow of digital data in all aspects of human life, including economic, social and cultural, caused the emergence of a new concept - “big data”. The use of the mathematical apparatus as applied to large arrays of semistructured data formed by the daily activity of users of network resources and services, such as search and commercial services, makes it possible to identify hidden patterns that are implicitly present in the multidimensionality of aspects of people's informational behavior. The term “big data” is understood, firstly, the data arrays themselves, secondly, the mathematical methods for analyzing them and, thirdly, the implicit regularities that can be used as an economic resource to justify the adoption solutions in the area of improving the efficiency of business processes,



and the formation of innovations. Big data today is one of the key drivers (incentives) for the development of information and communication technologies. Big data is a big success. In other words, large-scale thinking brings great victories. Companies are aware of the importance of big data for a wide range of strategic corporate goals, ranging from finding new sources of income and entering new markets to improving the quality of customer service and enterprise efficiency in general. The purpose of the research is to review big data technologies at the present stage of economic development. The article discusses the areas and problems of applying big data in business, and substantiates the need and prospects for using these technologies to create competitive advantages for the company and improve business efficiency. The significance of big data technologies in the innovative development of the digital economy is formulated.

## 2. THEORETICAL AND METHODOLOGICAL BASIS

Studies in the literature on the use of Big Data in business are rather scattered. This concept is very extensive and has many interpretations. Application of big data in business is the basis of competitive advantage and growth of companies [Analytical review of the Big Data market, 2017]. Information flows become more complex dynamically, as well as market relations, technologies and their application [V.S Yakovlev. 2015]. Big data is one of the key incentives for the development of information and communication technologies [Kord Davis, Doug Patterson, 2012]. Big data is a hardware and software technology that integrates, organizes, manages and analyzes data characterized by the “four V” [Hopkins B., Evelson B. 2011]. Big data implies processing information of diverse composition and huge volume, very quickly updated, located in various sources to increase work efficiency, create new products and increase competitive ability [Franks B., 2014, Mikhnev I.P., 2018]. A new information and communication culture is associated with the possibilities of storage, processing, use and accessibility of information and therefore the consequences of its implementation highlight the problems of public safety, privacy, ethics and morality, legal and economic relations associated with the almost absolute transparency of human actions as his personal environment, and for the activities of various administrative, commercial and other services [World Bank Report, 2003]. Currently, the big data global technologies are the key technologies of the future [Izmalkova S.A., 2015]. A.N. Maloletko considers “big data” from the standpoint of ensuring the information security of the enterprise [Maloletko A.N., 2014]. Big data “as” a complex concept combining: 1) data itself (a set of coded information); 2) a set of technologies for working with this data; 3) a new look, a new paradigm in data science (data science) [Gusev A.A, 2016]. The American Association of Public Opinion Researchers, representing the “big data” as a paradigm shift in research, which is determined by fundamental changes in the development of new data types, their availability, methods of collecting and disseminating, indicates the fundamental and systemic nature of “big data” [Japek L., Crater F., Berg M. et al., 2015]. Big data changes decision making processes. The fastest growing distribution of decision-making rights focuses on digitalization, data and analytics [Schrage M, 2016]. Today, big data is becoming the language of communication for educational organizations that seek to improve their strategic and tactical decision-making technologies [Liebowitz J. 2016]. Farokhmer M., Fatemi S. O. describe the requirement for Big Data according to the formula 3V: large volume, processing speed and a variety of parameters [Farokhmehr M., Fatemi S. O., 2016]. Big data is one of the main drivers for the formation of information and communication technologies in modern conditions of high-tech production [Abstracts of the conference “Big Data in the National Economy, 2013]. Often, big data technology is used to extract information that is still unknown, but necessary for the company [Avdeeva I.L., 2016]. Currently, the development of Big Data technology in business is described through a variety of approaches and models that hinder the systematic accumulation of big data data for the development of

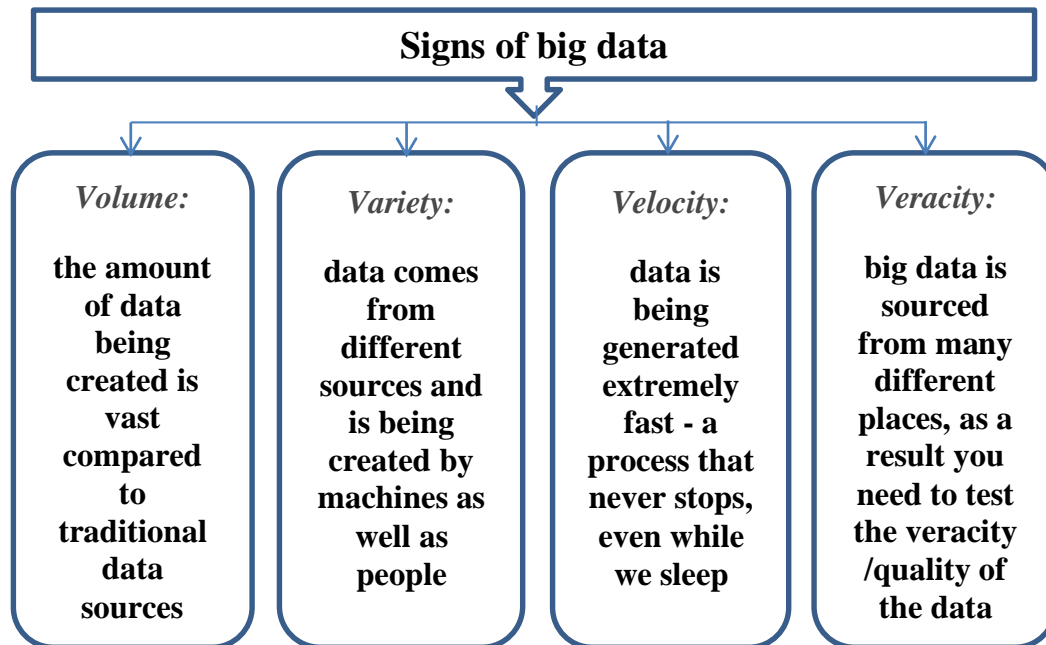
business processes. Large-scale thinking brings great victories. Most of us, being users of modern information, at least once heard the catch phrases: "Who owns information, he owns the world" and "Who controls information, that controls the whole world." Received earlier than others, up-to-date information, at one time, enabled the Rothschilds to play a win-win game on the exchange. The Rothschilds not only came up with the aforementioned phrase, they did everything to get the necessary information to them in the first place. Global information has always been extremely important. With the help of the necessary information, many became billionaires, overthrew objectionable governments and turned over whole states, i.e. global information has always had massive strength and power. In the modern world, global volumes of information are increasing exponentially. In order to reflect on modern changes as quickly as possible, gain advantages over competitors and increase production efficiency, it is necessary to collect, analyze and process a huge amount of unstructured data. The phenomenon of big data, generated by the logic of processes in all areas of production and the achievements of digital technologies, has recently been simply discussing a trend that has been sufficiently distracted from the immediate needs of a business, which is quickly and steadily turning before our eyes into a big problem for this business itself. There is so much data that today has to be processed by enterprises and organizations, they are so complex and diverse and arrive so fast that existing hardware and software storage infrastructures are unable to effectively solve the main goal of data storage - extracting valuable information from the business. Meanwhile, big data implies tremendous opportunities for solving both current tasks and implementing large-scale business strategies. To exploit the full potential of big data analysis capabilities, new approaches to storage and processing technologies are required. The task of storing huge amounts of unstructured data with the possibility of rapid access to them places the highest demands on the architecture and performance of data warehouses. In modern situations, big data is used in the customer service area, operational efficiency is the second most popular area, and in the risk management field, big data is the least used today. Big data technologies can be useful for solving the main ones: marketing and sales increase; forecasting the market situation; effective customer segmentation; improvement of products and services; the adoption of more informed management and operational decisions based on the analysis of big data; increasing productivity levels; effective logistics; optimization of the investment portfolio; monitoring of the state of fixed assets of tasks [Analytical review of the big data market, 2017]. The constantly growing ability to analyze a large amount of information is currently significantly changing the business environment and business processes occurring in it. The use of big data technologies can play a significant role in the innovative development of the digital economy in the near future.

### 3. RESULTS AND DISCUSSION

The term "Big Data" was introduced into terminology in the mid 1990s. John Mashey - head of the research division of Silicon Graphics [Kupriyanovskiy V.P, Ishmuratov A.R, Namiot D.E., Yartsev D.I., Utkin N.A., Nikolaev D.E., 2016]. At the first stage, this term was not taken seriously by the scientific community, but at the beginning of this decade, many faced problems not only with collecting and storing data, but also processing it. This term is used to "denote the widespread use of data-oriented socio-technical infrastructures in everyday life. This term came into wide use thanks to Clifford Lynch, the editor of Nature magazine, who published a special issue of the magazine with a topic about new opportunities for working with large amounts of data in 2008. "Big data" is distinguished by the complexity of data transformation in their replication from a variety of systems, data cleansing and consolidation. The concept of "big data" should be correlated primarily not with the volume, but with the speed of data growth. In this regard, "bigdata" can be represented as data of large sizes and diverse composition, which are frequently updated and located in different sources, for which high

processing speed and non-standard technologies are required. When considering “big data” as a technology for processing large amounts of data, it should be noted that this innovation includes more sophisticated information processing tools that have the potential for more efficient management and analysis of large information flows. Thus, organizations using big data technologies have a competitive advantage over peer companies focused on traditional methods of information processing, as well as the potential for dynamic development and improvement of analytical processes. Big data refers to the dynamic, large and disparate volumes of data being created by people, tools and machines; it requires new, innovative and scalable technology to collect, host and analytically process the vast amount of data gathered in order to derive real-time business insights that relate to consumers, risk, profit, performance, productivity management and enhanced shareholder value. Big data includes information garnered from social media, data from internet-enabled devices (including smartphones and tablets), machine data, video and voice recordings, and the continued preservation and logging of structured and unstructured data. It is typically characterized by the four “V’s”:

*Figure 1: Signs of big data (four “V’s”)*

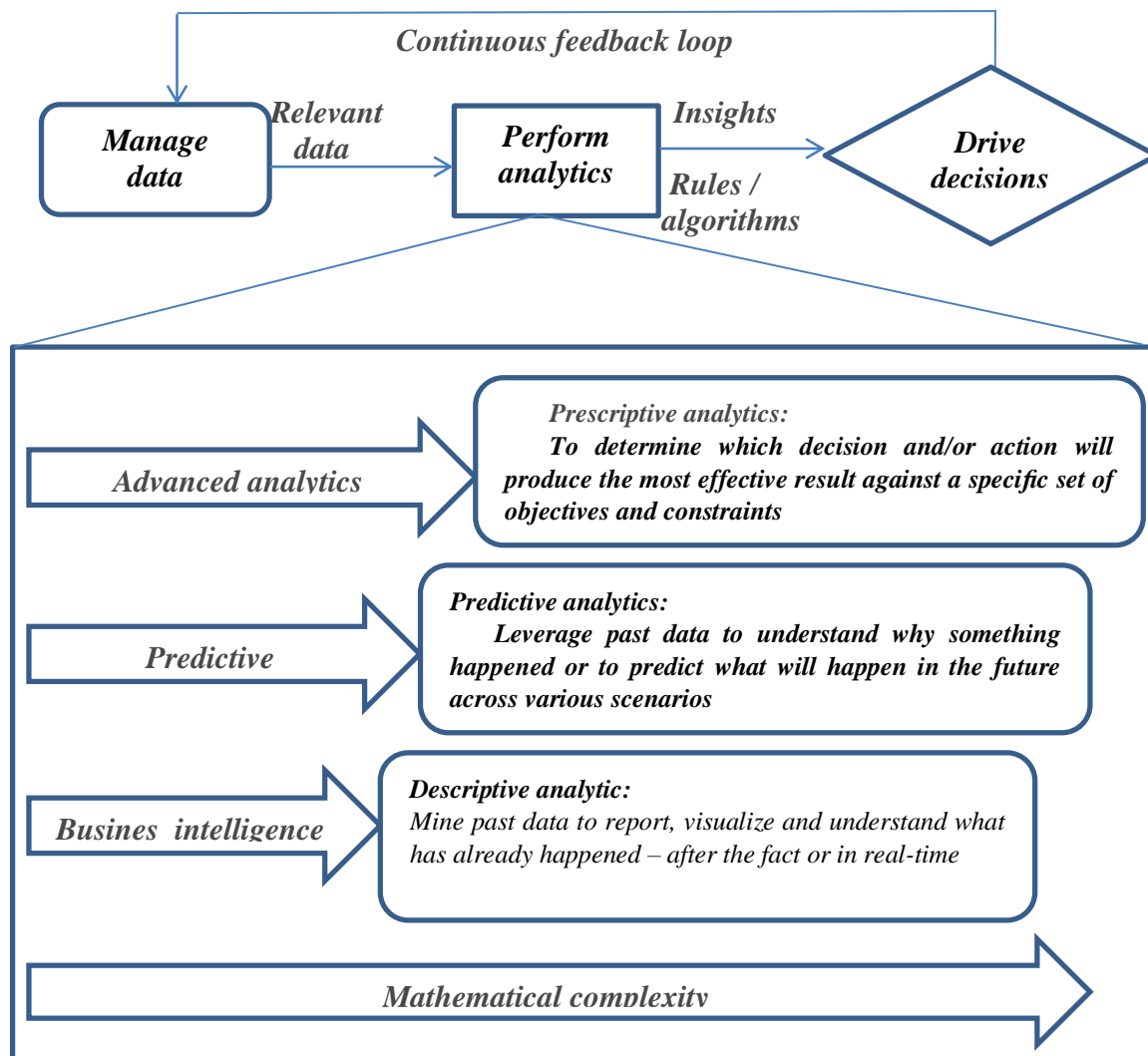


Organizations must understand what insights they need in order to make good strategic and operational decisions. The first part of the challenge is sorting through all of the available data to identify trends and correlations that will drive beneficial changes in business behavior. The next step is enriching this organizational information with that from sources outside the enterprise; this will include familiar big data sources, such as those created and stored online. In a business environment that constantly and rapidly changes, future prediction becomes more important than the simple visualization of historical or current perspectives. For effective future prediction, data analysis using statistical and predictive modeling techniques may be applied to enhance and support the organization’s business strategy. The collection and aggregation of big data, and other information from outside the enterprise, enables the business to develop their own analytic capacity and capability, which for many years has only been available to a few larger organizations. With the help of big data, you can learn about customer preferences, the effectiveness of marketing campaigns or conduct a risk analysis. The impact of big data analysis technologies on the business process results is multifaceted.

It allows minimization of costs and revenue growth. The primary areas of practical application of “big data” are their use in the context of improving business processes of working with clients. For those focused on optimizing operations, “big data” allows you to collect and quickly analyze global volumes of technological information coming in real time, identify areas of possible optimization, understand the reasons, predict system behavior, model it when these or other changes in environmental parameters or organization resources. Big data poses both opportunities and challenges for businesses. By pure definition, analytics is the discovery and communication of meaningful patterns in data - but for business, analytics should be viewed as the extensive use of data, statistical and quantitative analysis, using explanatory and predictive models to drive fact-based business management decisions and actions. Analytics helps to optimize key processes, functions and roles. It can be leveraged to aggregate both internal and external data. It enables organizations to meet stakeholder reporting demands, manage massive data volumes, create market advantages, manage risk, improve controls and, ultimately, enhance organizational performance by turning information into intelligence.

Figure 2: Big data analytics

**Big data and analytics**



The goal is to use analytics to improve the efficiency and effectiveness of every decision and/or action.

#### 4. CONCLUSION

According to the results of the analysis, it is possible to single out the features of big data technologies: work with information of a large amount and diverse composition; information is often updated and is in different sources; a qualitatively different analytics method for identifying practical knowledge that, in turn, is monetized into profit; visual display of reports and the possibility of scenario analysis (“what if ...”); The goal of using big data technologies is to increase work efficiency, create innovation, and increase competitiveness. In practical aspects, there are some problems in the implementation and application of big data in the business process. One of the key problems is the evaluation of the effectiveness of the big data project. Firstly, these technologies allow drastically reducing the costs and time of analyzing a large amount of information and in the shortest possible time preparing information for making operational and management decisions. Secondly, the use of big data provides individualization and personification of services in the B2B and B2C markets [Maltseva S., Lazarev V. 2015]. The second problem is related to the education and training of qualified marketers who are able to apply and manage big data technologies. Big data - great success and require deep knowledge. In other words, data Science is a set of concepts and methods that make it possible to give meaning and a clear view to huge amounts of data. In our opinion, negative factors that prevent businesses from getting the desired view of the market and consumers can be attributed - a variety of information, too many disparate data sources, a large amount of information, lack of data standardization, non-static market and customer behavior and control over data dissemination and inaccessibility. In general, despite the enormous effect of the use of technology, there are a number of problems that hamper its widespread implementation in various fields. First, the high cost, secondly, the problem of determining the data that you really need to collect, process and store. It does not take into account those that are not needed, thirdly, this technology is considered as one of the ways to control the personality by collecting detailed information about it, which in turn causes a negative reaction from the public. Big data not only poses complex tasks for businesses, but also opens up new opportunities. If the company correctly organizes the processing of large amounts of information, it can effectively develop and withstand competition. And in order to extract valuable knowledge from big data, companies must implement the best tools for their industry and data analysis. The term big data refers to approaches and methods for processing structured, weakly structured and unstructured data, used to identify information from large data arrays that support and develop various types of human activity. Those. We do not consider the accumulated volumes of information separately from the mechanisms of their transformation into knowledge. This interpretation of the term allows us to identify two global areas related to big data: data collection, storage and transformation technologies, and data processing methods for generating new knowledge. According to McKinsey's report “Global Institute for Big Data: The Next Frontier for Innovation, Competition, and Productivity,” information has become an important factor in modern production along with capital and labor resources [Wikipedia: Big Data, 2017].

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## ECONOMIC AND ENERGY COOPERATION OF THE CASPIAN COUNTRIES

**Mansur Barxudarov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
mansur\_ib@yahoo.com*

**Konstantin Markelov**

*Astrakhan State University  
Astrakhan, Tatischev str. 20a, 414056, Russia  
practic2016@mail.ru*

**Elena Matsuy**

*Astrakhan State University  
Astrakhan, Tatischev str. 20a, 414056, Russia  
elena-matsuy@mail.ru*

### ABSTRACT

*The article considers the issues of energy and economic cooperation of the Caspian countries. The relevance of energy cooperation is determined by the instability of the world economic system and crises in the system of international relations. Today, the Caspian region is a "global trade crossroads." This opens up the possibility of goods moving along the North-South and West-East corridors. The Caspian has great political and economic potential. Intensive development of the Central Asian region is pushing countries to search for new trade routes and build global infrastructure projects. The countries of the Caspian basin are actively participating in them. All this requires new rules of communication and regulation between all interested parties. The signed convention on the legal status of the Caspian Sea, as well as the signed agreements on trade and economic activities of the Caspian littoral states, made it possible to concentrate on further joint development of the region and opened a new milestone in cooperation. Nevertheless, there are a number of problems in the Caspian region. One of these problems is logistics and transport corridors, not only regarding freight, but also in the field of passenger transportation. This requires the intensification of humanitarian projects in the region. Also, the region is located at the indirect intersection of several security spaces, which affects the picture of its long-term socio-economic development and poses the corresponding tasks for Russia to strengthen its influence. The main key areas of cooperation between the Caspian littoral countries are: the development of transport and logistics, the modernization of railways, highways, seaports, airports, the creation of electronic trading platforms for goods and raw materials, the development of industrial and innovative zones, and the development of the electric power industry. Today, the prospects for this cooperation are being determined.*

**Keywords:** *Energy cooperation, economic cooperation, oil and gas revenues, logistics, prospects*

### 1. INTRODUCTION

Recent decades have been marked by significant changes in the energy and economic cooperation of the countries of the Caspian region. Significant carbon reserves and growing demand for them, the development of technologies in the oil and gas industry and geopolitical processes have identified the Caspian region as one of the most promising oil and gas producing world centers. On August 12, 2018, the Convention on the Legal Status of the Caspian Sea was signed, which "... establishes the exclusive right and responsibility of the Caspian littoral states

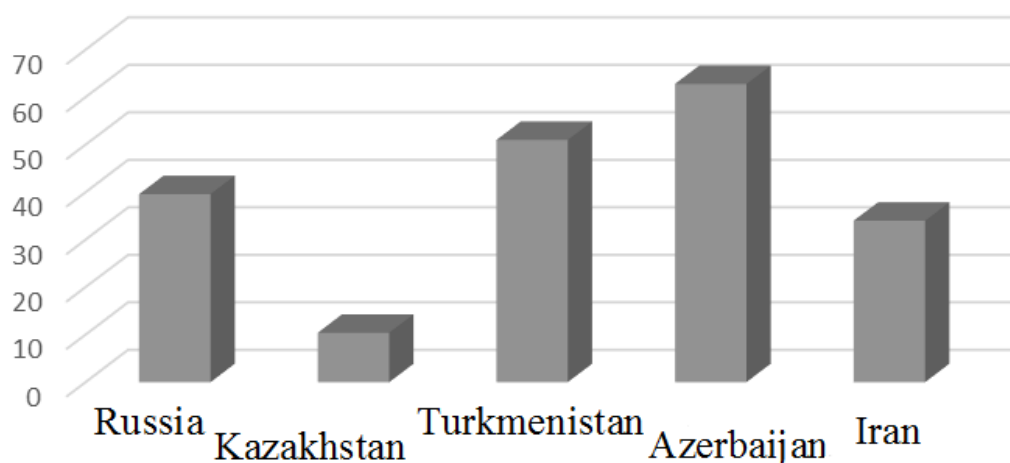
for the fate of the Caspian Sea, establishes clear rules for its collective use" [1]. Economic and energy cooperation between the countries of the Caspian region is due to the close relationships between these countries. The particular relevance of this cooperation determines the instability of the world economic system and crises in the system of international relations. The Caspian region includes the territory of five coastal states: the Russian Federation (Astrakhan region, Kalmykia and the Republic of Dagestan), the Republic of Kazakhstan (Atyrau region and Mangistau region), Turkmenistan (western part of the country), Azerbaijan and Iran.

## 2. ENERGY POTENTIAL OF THE STATES OF THE CASPIAN REGION

To date, the states of the Caspian region have significant reserves of oil and gas. According to rough estimates, the potential oil reserves of the Caspian littoral countries can total about 200 billion barrels, taking into account promising fields - more than 250-280 billion barrels (approximately 20% of world reserves). The gas reserves of the Caspian littoral states are approximately more than 85 trillion. cbm (more than 50% of world reserves). In addition, the Caspian states, except the Russian Federation, have a significant share of oil and gas reserves, at least 20% of the state's total reserves, are located in the Caspian Sea (table 1).

Country	Proved oil reserves, billion barrels	Share of world oil reserves, %	Proved gas reserves, trillion cubic meters	Share of world gas reserves, %
Russia	102,4	6	32,3	17,3
Turkmenistan	0.6	<0,1	17,5	9,4
Kazakhstan	30	1,8	0,9	0,5
Iran	157,8	9,3	34	18,2
Azerbaijan	7	0,4	1,1	0,6

*Table 1: Proven oil and gas reserves of the Caspian littoral states*



*Figure 1: The share of the oil and gas complex, billion in GDP in 2019, %*

The analysis showed that the oil reserve in the Islamic Republic of Iran is about a tenth of the world's reserves, and gas is about 20%. In the Republic of Turkmenistan, the natural gas reserve is approximately 33 trillion. cbm (about 18% of world reserves [9]). The republic ranks fourth in the world in terms of natural gas reserves. Oil reserves in the country are small by world standards (approximately 0.5% of the world).



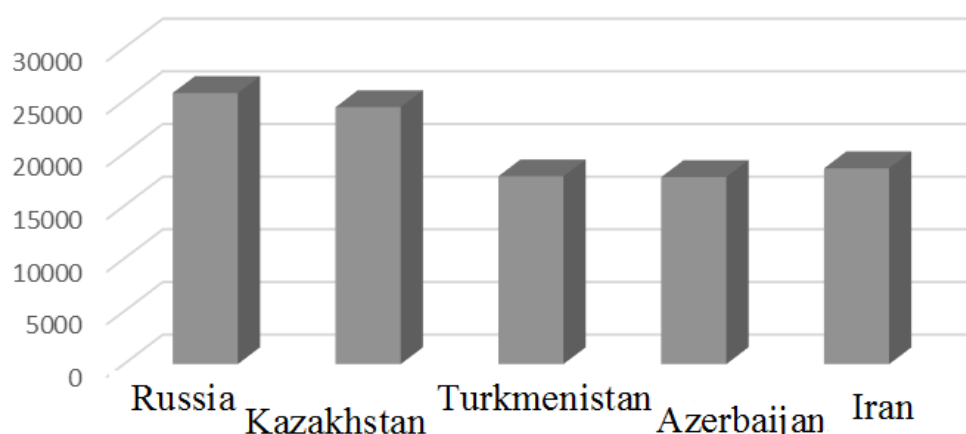


Figure 2: PPP GDP in 2019, billion US dollars

The Republic of Azerbaijan has oil reserves of 7.0 billion barrels, and gas reserves of 1.2 trillion cubic meters, which in comparison with world reserves is small. Nevertheless, the country has an efficient transport system that allows it to transport hydrocarbons to Turkey and Europe and thereby stably export hydrocarbons to these markets on favorable terms. The Republic of Kazakhstan has significant oil reserves, which, according to some estimates, is 30 billion barrels (about 2% of the world). Russia occupies a leading position in the world in reserves of most types of natural resources, and is also the largest country in the world in terms of area. According to experts, the proven oil reserves in Russia are 15 billion tons (6.4% of the world's reserves), the proved gas reserves are 32.3 trillion cubic meters (17.3% of the world's reserves), and coal is 160.3 billion tons (14.1% of world reserves), uranium for nuclear fuel - 507.8 thousand tons (9% of world reserves). According to the Ministry of Natural Resources of the Russian Federation, the total hydrocarbon reserves on the shelf of the Caspian Sea and in adjacent areas, including potential and undiscovered fields, may be at least 1 billion tons of standard fuel.

### 3. ECONOMIC COOPERATION

A characteristic feature of Russia's trade with the countries of the Caspian region (Azerbaijan, Iran, Kazakhstan, Turkmenistan) for the period 2008–2018, there is a difference in the growth rate of foreign trade turnover (Figure 3). The leader in terms of turnover is Kazakhstan. Since 2012, Azerbaijan has become the second most important trading partner of Russia, ahead of Iran. Over the past five years, negative trends have been observed in the volume of trade in goods of Russia with Iran and Turkmenistan.

*Figure following on the next page*

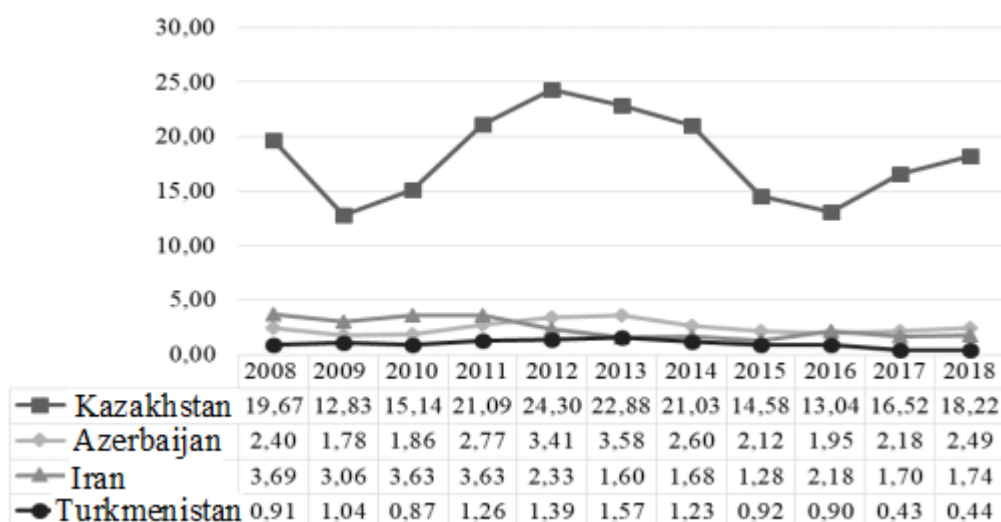


Figure 3: Dynamics of Russian trade with the countries of the Caspian region, 2008–2018, billion US dollars

The dynamics of commodity circulation between Russia and Turkmenistan is an alternation of growth and reduction of its volumes. At the same time, Russia remains one of the main foreign trade partners for Turkmenistan. In 2017, the Economic Cooperation Program [6] was signed between the Government of the Russian Federation and the Government of Turkmenistan, including activities and projects in trade and economic cooperation. It should be noted that the dynamics in the indicators of foreign trade between countries in 2018 changed: the volume of imports in value terms from Turkmenistan to Russia increased by 1.8 times, while the volume of exports from Russia decreased by 16.0%, foreign trade turnover amounted to 0.44 billion US dollars. Over the past three years, there has been a positive trend in the foreign trade of Russia with Kazakhstan. In 2018, the volume of exports from Russia to Kazakhstan reached \$ 12.92 billion, in value terms it increased by 37.1% compared to 2016, the volume of imports increased by 46.6% and amounted to 5.3 billion US \$. In 2018, the growth of Russian exports of goods to Azerbaijan was recorded - by 13.6% compared with 2016, the supply of goods to Iran and Turkmenistan decreased slightly, while import volumes increased at the same time compared to the previous year (from Iran - by 36.9 %, from Turkmenistan - by 83.9%). From 2008 to 2018, the countries of the Caspian region on average account for 4.14% of Russian exports of goods, the share of countries in the import of goods is 2.65%. Over the reporting period, the percentage of participation of trading partners in Russia's foreign trade among the countries of the Caspian region as a percentage is unstable and unevenly distributed. On average, the share of Kazakhstan is 2.97% of exports and 2.23% of imports, the share of Turkmenistan is only 0.2% of exports and 0.06% of imports. At the same time, a gradual change in the geographic structure of export of goods in the context of countries in the region is recorded. For the period 2016–2018 there is a general decrease in the share of the countries of the Caspian region in the export of goods from Russia with a simultaneous slight increase in their share in the import of goods to Russia. Since 2012, the dominant factor in reducing trade and economic relations between Russia and Iran has become the sanctions regime, which is gradually being formed with respect to Iran, which has most affected the increase in the distance between Russia's geopolitical interests in cooperation with Iran and the economic benefits from it. Volumes according to the main indicators of the foreign trade of Russia with Iran since 2012 have declined in dynamics. According to the Federal Customs Service of Russia, as of 2018, Kazakhstan ranks 10th in import and 9th in Russian export, Azerbaijan occupies 45th position in import and 42th in export, Iran and Turkmenistan - 54th and 77th in import, 48 and 84 places in exports, respectively [2].

The strength of Russia's economic ties with the countries of the Caspian region can be estimated on the basis of calculating the coefficient of trade intensity, which “allows us to determine how much the volume of mutual trade between the two countries corresponds to their participation in world trade. Russia and the countries of the Caspian region are characterized by a high level of intensity of commodity flows against the background of relatively low rates of participation of the countries of the region in world trade.

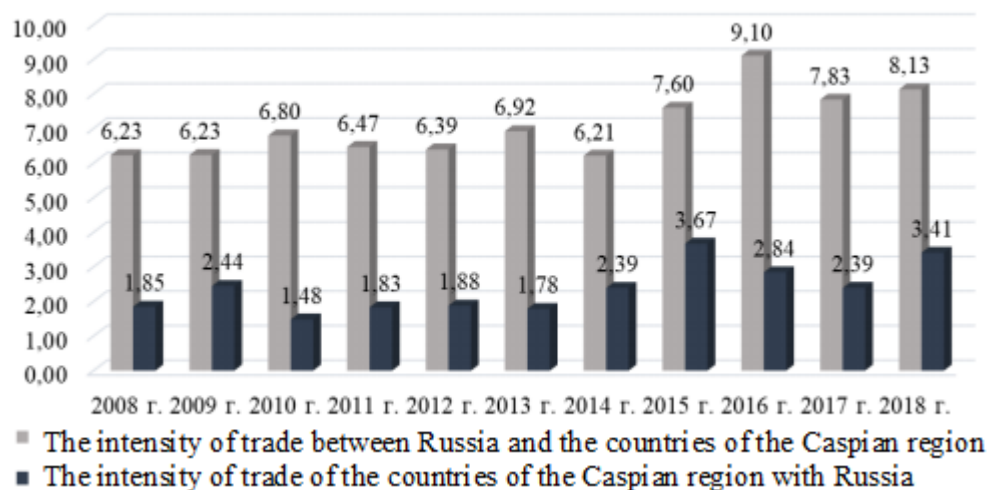


Figure 4: The intensity factor of mutual trade in goods of Russia and the countries of the Caspian region

The coefficient of intensity of trade between Russia and the countries of the Caspian region is much higher than between the countries of the Caspian region with Russia. In bilateral relations, Russia is a more interested party. High rates of the intensity of mutual trade between Russia and the countries of the Caspian region may indicate the preservation of the potential for the development of economic relations in the framework of the implementation of common projects for the development of a network of transport corridors, the expansion of port capacities, and the conclusion of preferential trade agreements. In 2016, the maximum gap between the values of the coefficients of intensity of mutual trade between countries was recorded. Decrease in the coefficient of intensity of trade between the countries of the Caspian region with Russia in 2015–2017. It is explained by the fact that Russia's share in the total export of goods of the countries of the Caspian region decreased at a faster pace than its participation in world trade. In 2018, there is an increase in the indicator for all participants in mutual trade due to the signing in August 2018 of the Convention on the Legal Status of the Caspian Sea, which is the basis for enhancing trade and economic ties and developing mutually beneficial cooperation within the regional geoeconomic space.

#### 4. PROSPECTS FOR COOPERATION OF THE CASPIAN COUNTRIES

The Caspian region is one of the unique regions with rich natural resources. It is the connecting logistic link between the Caspian territories and the Persian Gulf countries. Against the backdrop of the active development of world maritime trade, the potential for cooperation in the Caspian region is currently not being fully utilized, and the volume of cargo transportation through Russian ports is declining annually. For the Russian Federation, an increase in the intensity of trade turnover will increase the economic potential of the regions adjacent to this territory. Successful competition of the Russian Federation in increasing cargo through the Caspian will strengthen the geopolitical and political presence of the Russian Federation in the

Caspian region, and develop sustainable economic and cultural ties with the Caspian states. The importance of the Caspian region can hardly be overestimated; we can rightly say that this is a “world trade crossroads” that opens up the possibility of goods moving along the North-South and West-East corridors. The Caspian has great political and economic potential. The total population of countries adjacent to the Caspian Sea is more than 270 million people, which makes it possible to create conditions not only for trade, but also for industrial projects [7]. The countries of the Caspian basin in recent years have been actively building up their economic potential, which contributes to their desire to build an effective trade infrastructure. At the same time, the intensive development of the Central Asian region is pushing countries to search for new trade routes and build global infrastructure projects in which the countries of the Caspian basin are actively involved, this requires new rules of communication and regulation between all interested parties. The signing of the convention on the legal status of the Caspian Sea and agreements on trade and economic activities of the Caspian littoral states made it possible to concentrate on further joint development of the region and opened a new milestone in cooperation. The cooperation between Russia and Azerbaijan in recent years is characterized by "growing dynamics." An active dialogue between the leaders of the two states confirms the mutual desire of the parties to expand strategic partnership, creates an atmosphere of trust and favorable conditions for deepening economic and humanitarian cooperation. The growing dynamics of cooperation between Moscow and Baku is confirmed by statistics of economic indicators: in 2018, trade between the two countries grew by 20% compared to the previous year. At the same time, the export of Azerbaijani goods to Russia increased by 13.2%, the export of Russian goods to Azerbaijan - by more than 21%. A capacious resource for strengthening the trend lies in expanding the North-South transport corridor, which ensures the integration of Russia, Azerbaijan, Iran and India. We are talking about the construction of the Astana – Rasht – Qazvin railway. Of strategic importance is also the opening of the railway connection on the route "Baku - Tbilisi - Kars", whose potential is 17 million tons of cargo per year. Also, one of the main factors is the signing of an interim agreement on the creation of a free trade zone between the Eurasian Economic Union and Iran. Azerbaijan is a key link in boosting trade between Iran and Russia. The issues of logistics and transport corridors are acute in the Caspian region, not only regarding freight, but also in the field of passenger transportation. So, for example, from Baku to Astrakhan it takes 8 hours to fly with a transfer in Moscow. Intensification of humanitarian projects in the region is necessary. From a political point of view, the Caspian region is not homogeneous - a separate geopolitical unit. He is influenced by Russia and China, as major investors. Extra-regional players play a significant role in its formation. EU countries (Germany, Italy) are the main trading partners of Kazakhstan, Azerbaijan. France is one of the key investors in Iran. The United States extends the infrastructure of a military operation in Afghanistan to Central Asia and the Caspian. Thus, the region is located at the indirect intersection of several security spaces, which affects the picture of its long-term socio-economic development and poses the corresponding tasks for Russia to increase influence. The main key areas, some of which are already indicated in the Decree of President Putin "On national goals and strategic objectives of the development of the Russian Federation for the period until 2024" are [10]:

1. Development of transport and logistics areas

To increase the efficiency of regional transport communications, it is important to create a single logistics company that will combine the processes of delivery and transportation of goods with local stevedore companies in ports. Moreover, it is necessary to formulate a unified tariff policy (auction rates have not been developed for a number of regional areas). To solve this problem, it is necessary to carry out a comprehensive modernization of the transport system (road and rail communications and port infrastructure).

## 2. Modernization of railways

Rail transport delivers 48% of the goods that arrive at the ports of the Caspian Sea (excluding pipelines). The three ports of the Caspian Sea (Astrakhan, Olya, Makhachkala) mainly export goods delivered by rail. Today, Russian Railways implements a number of projects that are aimed at increasing the throughput and carrying capacities to the ports of the Caspian basin, calculated until 2020.

## 3. Highway modernization

In 2017, the volume of freight transport by road to the three ports of the Caspian Sea amounted to 791.2 thousand tons, which is 10 percent lower than the previous year. At the same time, 150.7 thousand tons of various cargoes were sent from ports along the roads. Despite the fact that the capacity of major roads has potential for growth, there are nevertheless problem areas that impede traffic in the Caspian region.

## 4. Modernization of seaports, airports

The total cargo turnover of Russian sea ports in 2019 increased by 2.9% compared to the same period in 2018 and amounted to 840.3 million tons. The main direction of cargo transportation through the port of Astrakhan is export (75.4%). A significant amount of cargo was accounted for by dry cargo carriers (grain, ferrous metals, timber and lumber). The expected increase in container trade with India and other countries through Iran was hindered by restrictions on the length and depth of container ships, which impose the characteristics of locks on the internal river routes of Russia. It is important to modernize investment attraction mechanisms that will contribute to the development of the infrastructure of airlines, Caspian airports, airfield equipment, and the increase of entry / exit points into the airspace of the countries of the region.

## 5. Creation of platforms for electronic trade in goods and raw materials

Taking into account the development of electronic communication systems, it is necessary to develop an integrated information system for mutual and foreign trade of the Caspian region, taking into account all global markets. This platform can be created through the integration of information systems in Kazakhstan, Russia, Uzbekistan, Belarus, Azerbaijan.

## 6. Industrial and innovation zones

Within the framework of this direction, the creation of a number of industrial parks in the Caspian region is considered, which have associated production facilities that are part of a single technological chain. It is believed that the implementation of joint projects of the RF-EAEU-Caspian countries will be able to bring taxes from 7 to 10 billion rubles a year.

## 7. Electricity development

In order to form a common EAEU electricity market, it is necessary to develop an algorithm for the development of an integrated network of the electricity market around the Caspian Sea, including a pricing mechanism for interstate electricity transmission, which will facilitate the conditions of cross-border electricity trade, taking into account the peculiarities of specific subjects of domestic markets located in the Caspian territories.

## 5. CONCLUSION

To develop the commercial and industrial potential of the Caspian region, the importance of building a modern nuclear power plant should be assessed. This project will contribute to the development of the entire region and will increase its importance for the Russian economy as a whole. In addition to implementing joint projects in the field of hydrocarbon production in the Caspian region, new forms of cooperation for the states of the Caspian Sea region will be the creation of a gas hub and 4 gas chemical clusters that are aimed at exporting products to promising markets of India, China and other Asia-Pacific countries. Since today these forms of cooperation are absent or not fully developed.

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## FINANCIAL SECURITY AS A GUARANTEE OF NATIONAL ECONOMIC SECURITY

**Durdane Eyvazova**

*Student at Azerbaijan State Economic University (UNEC), Azerbaijan  
durdane.eyvazova@gmail.com*

### **ABSTRACT**

*Economic security is considered as a set of internal and external conditions that create favorable conditions for the effective dynamic growth of the national economy and its ability to meet the needs of society, state, individual, competitiveness in foreign markets, protection from various threats and losses. Usually, a direct threat to economic interests is created by economic threats that disrupt the normal course of social reproduction. They can be most commonly classified as both internal and external threats. External factors include geopolitical and external economic factors, as well as global environmental processes. Analytical indicators characterizing almost all aspects of the country's socio-economic development should be used in the process of monitoring threats to the country's economic security. Thus, financial security is considered as a part of economic and national security as a whole. Financial security is the position of financial and financial institutions which makes them able to create the necessary financial conditions to ensure the socio-economic and financial stability of the country, while maintaining the integrity of the financial system, including the monetary, budgetary, credit, tax and currency systems. It helps to be able to successfully eliminate internal and external threats in the field, coordinate the overall financial relations in the country and direct all opportunities to the development of a healthy national economy.*

**Keywords:** *National economy, state, indicators of economic security, mechanism*

### **1. INTRODUCTION**

In today's economic environment, access to sustainable economic growth is possible only on the basis of public sector enterprises that have sufficient resources and support the creative initiatives of people working in enterprises. In order to ensure quality economic growth, radical changes must be made in both economic policy and the ideology of economic reforms. The state, as the main subject of the market, must solve the problems and thus create conditions for national security and, most importantly, for economic development. If there is a tendency and ability to create a threat to each other between nature and society, nations and states, then it is important for the state to prevent them, that is, to take security measures. There are many common and tried and tested methods for determining a country's economic security. One of them is an important macroeconomic indicator, which is more important than other economic indicators. The other is a method of expert assessment of quantitative and qualitative indicators of the studied event and process. An expert group is formed from people who are well versed in the problems of any field, and they come to a certain opinion after a thorough study and research of the main indicators. The level of economic security of the country is assessed by a points system. Based on the identified results, the level of economic security of the country as a whole, as well as in various areas, is analyzed, and on this basis, the country's economic security strategy is determined.

### **2. ECONOMIC SECURITY AND NATIONAL ECONOMY**

For the first time, the concept of "economic security" has been in demand since the beginning of active reforms in the economy. Analysis of world experience shows that the concept of economic security is well known in the practice of governing structures. At the same time, economic security is generally seen as an integral part of national security.

The complexity of the phenomenon of economic activity itself allows it to be defined in a generalized way through the system method, with concrete expression of the most important elements of this system. Due to the fact that the concept of economic security has recently become the object of scientific research, the range of different approaches to the interpretation of this term in international practice is very wide:

- A qualitatively defined state of the country's economy, which, in the opinion of society, should either be maintained or developed on an increasing scale.
- Ensuring decent conditions for the life and development of the economy, socio-economic and military-political stability of society and the state, the ability and readiness to withstand the effects of internal and external threats.
- The most important qualitative characteristic that determines the ability of the economic system to maintain normal conditions for the life of the population, to ensure the sustainable development of the national economy with resources, as well as the consistent implementation of national-state interests.
- The level of development of the economy that ensures economic, socio-political and military stability under the influence of unfavorable factors.
- A set of conditions and factors that ensure the independence of the national economy, its stability and resilience, the ability to constantly renew and improve itself.
- Characterization of the national economy and its components in terms of their ability to develop through sustainable development of all segments of the population, effective international cooperation aimed at positive solutions to domestic and foreign problems that threaten the social and economic stability and vital interests of society.

In our opinion, it is expedient to take into account the following factors that become more active when there is a threat of financial and economic crisis in the country:

- Threats increase the contradiction between economic interests and the need to protect them by the strength and means of the economic security system, which, on the one hand, is an additional burden on the state budget, on the other hand becomes a source for future economic development.
- Threats to economic interests make it necessary to make changes and adjustments to the economic development strategy, to clarify its priorities for the development of the individual, society and the state.
- Threats, in addition to playing a destructive role in relation to economic interests and economic security of the state, are also a kind of signal of failure in one or another area of the economy, social life.
- Threats create conditions for the formation of additional internal preparedness in economic entities to predict, block and neutralize various types of risks, cataclysms, factors that could damage the country's economy.

External factors threatening economic security include:

- Predominance of raw materials in exports.
- Dependence of the country on the import of many types of products, including strategic products, food products.
- Increasing foreign debt.
- Lack of development of modern financial, organizational and information structure to support the competitiveness of exports and streamline the structure of imports.
- Lack of development of transport infrastructure serving import-export operations.



Internal factors threatening economic security include:

- Low competitiveness of the national economy due to the backwardness of the technological base of most industries, high energy capacity and resource capacity.
- Insufficient development and instability of infrastructure facilities, etc.

In our opinion, the following can be considered as security criteria:

- Resource potential and its development opportunities.
- The level of efficiency in the use of resources, capital and labor and its compliance with the level of more developed countries, as well as the level at which internal and external threats are minimized.
- Competitiveness of the economy.
- Integrity of territories and economic zones.
- Sovereignty, independence and ability to withstand threats.
- Assessment of social stability and conditions for prevention and resolution of social conflicts.

### **3. FINANCIAL AND TAX SECURITY AS A GUARANTOR OF ECONOMIC SECURITY**

The purpose of economic security is, above all, to protect the national interest of the state. National security refers to the provision of the national economy and people's living conditions. Ensuring the national security of the state is a difficult and long-term process. The problems of the national interests and economic security are an important process that complements each other, has a wide range of functions and is sustainable. One of the important elements of economic security is the financial security of the state, as the financial system consists of an important part of the entire economy of the country, which directly determines each of its sectors. As it is known, the state financial security system provides the following classification:

- Safe state of the state budget
- Tax security.
- Safe condition of domestic and foreign public debts.
- Security of money circulation system.
- Safe condition of the banking and credit system.
- Safe condition of gold and foreign exchange reserves.

All of the above elements are closely interrelated, and each element is a subsystem of the whole system. The main core of financial security in any state is the budget-tax, monetary-credit system. Because the financial situation of the country depends on their level and strength. One of the important tasks of banks is to ensure the implementation of state policy in the field of monetary and currency relations, which affects financial security. The current pace of development not only opens up favorable opportunities for its political and economic integration into the world, but also sets the task for the country's economy to use these opportunities more effectively. From this point of view, the study of tax security, which is one of the important elements of the competitiveness of the national economy, is particularly relevant. The essence of state tax security can be more fully and deeply revealed when the concept of state tax security is formed. It should be based on the following:

- Issues of tax security theory.
- Issues of tax policy optimization as an important element of the state's financial policy.
- Issues of application of observance of safety principles in the course of practical activity in the field of taxation.

Each of the three items listed can be not only an integral part of the concept of tax security of the state as a single document, but also the subject of independent scientific research. At the same time, in our opinion, it should be noted that from the point of view of the current problems of tax security of the state, the most important of the above-mentioned areas is the third. The effectiveness of tax security infrastructure methods is to create certain conditions in the field of taxation, constantly increasing the incentive of the taxpayer to choose the optimal system of taxation, which is a complex multi-criteria task in a modern market economy and ever-changing tax legislation. The tax security system should cover the tax interests of ordinary citizens, businesses, society and the state. Therefore, the subject structure of tax security is represented by the interests of business, society and the state. Defining the subject structure of tax security allows to expand the concept of tax security with such concepts as “tax security of society”, “tax security of business” and “tax security of the state”. In a systematic approach to the economic content of the tax security system, we can note that it is a subsystem of national, economic and financial security systems of the country. Financial security is a situation of financial institutions in which the most pessimistic development of external and internal processes ensures the harmonious and socially oriented development of such a financial system and financial institutions. Tax security is a state of the tax system in which the tax interests of business, society and the state are protected from internal and external threats. Tax security system means a set of legal, organizational, administrative, logistical and other means aimed at identifying, forecasting and eliminating tax threats in order to increase the level of economic security. Therefore, the study of the participants of tax relations - the state, business representatives and society - in the context of interaction and activity as a whole social structures within the tax security system can give better results. The results of such an integrated system approach can be characterized as a socio-economic category of tax security within the unity of principles and elements. In our opinion, the main strategic directions of liberalization and harmonization of international tax regulation aimed at increasing the level of economic security are as follows:

- Elimination of double taxation and creation of harmonization of tax systems and taxation of different countries;
- Ensuring tax security of leading economic entities conducting foreign economy in another state; in this case, a favorable tax climate is ensured by eliminating tax discrimination;
- Increasing international commercial activity, increasing capital flows between countries through mutual cooperation: a country that is a capital exporter receives income tax from its business residents, and a country that is a capital importer receives foreign investment in the national economy, as well as preferential taxation;
- Carrying out of the necessary investigations in case if any inconsistencies or inconsistency in tax sovereignty in a result of the international tax relations happens, through the exchange of information with fiscal authorities
- Development of procedures for conciliation of disputes arising between different states and taxpayers on the basis of international law.

The development of the strategy of the state financial and tax security system is complex and multifaceted. As a rule, financial and economic processes are accompanied by risk and uncertainty. In order to direct it in the right direction, the expected results of these processes must be taken into account, and they must be analyzed and managed, as well as monitored. Consideration of this problem as an object of special research stems from the need to analyze and forecast a wide range of factors that characterize the stability of the country's financial and banking system, to identify threats and weaknesses in its activities.

Such an approach allows us to determine the extent to which the stability and security of economic and social development depends on financial factors and the characteristics of the economy and the direction of development of the real sector.

#### **4. THE MAIN FEATURES OF THE INDICATORS OF THE ECONOMIC SECURITY SYSTEM**

As it was already mentioned, economic security is a situation of the economy and the authorities in which the most pessimistic development of external and internal processes ensures the protection of national interests and the country's defense potential. In alternative approaches to economic security, it is possible to see a slightly different position in content. The economic security of the country is understood as the compatibility of economic, political, legal, scientific, technical and other conditions that ensure sustainable and dynamic development of the amount of economic resources per capita in the long run in more efficient ways. Analytical indicators characterizing almost all aspects of the country's socio-economic development should be used in the process of monitoring threats to the country's economic security. Boundary value indexes or indicators act as a system of economic security indicators. It should be noted that the highest level of security is achieved provided that the whole set of indicators has its own limit values within acceptable limits, and the limit or boundary values of one indicator are achieved without harming the other. In order to obtain the boundary values of economic security indicators, it is necessary to determine the national interests of the country in the economic sphere at the principal level. The main national interests of economic security include:

- Further strengthening of the country's national security by the state;
- Ability of the economy to operate in an expanded mode of reproduction;
- Maintaining state control over strategic resources;
- Elimination of dependence of the economy on imports of important types of products;
- Keeping the living conditions of the population above the level of poverty;
- The stability of the financial system, as well as the national currency.
- Provision of the required level of development of the financial market and the securities market.
- The reduction and effective management of domestic and foreign debt.
- Creation of the favorable conditions for investment activities.
- Maintenance of a single economic space and interregional economic relations.
- Ensuring the necessary state regulation that can ensure the normal functioning of economic processes.

In practice, the most important feature of indicators for building an economic security system is their ever-present interrelationship; only when the intensity of the threat increases, they go beyond certain boundaries, become extreme and obvious.

The collection of information on the numerical parameters of such interactions is important for determining the socio-economic consequences of macroeconomic decisions, for assessing certain threats to economic security.

In the context of globalization, effective economic security is impossible without the creation of a modern mechanism of this activity. It should be noted that the following key elements are necessary in the mechanism of ensuring economic security in modern conditions:

- Periodic monitoring of the economy and society in order to identify and forecast internal and external threats to economic activity.
- Determining the permissible legal values of socio-economic indicators, non-compliance of which leads to instability and social conflicts

It is necessary to note the features of ensuring economic security in the context of integration, the potential of the economy:

- Accelerate the establishment of institutions and mechanisms to ensure economic security in the country.
- Changing the model of interaction with the world economy, which has replaced the exchange of goods with other forms of cooperation, such as capital consolidation, scientific and technological cooperation, production integration based on the paradigm of new relations;
- Increase of national income in comparison with conditioned scales of domestic production on the basis of international turnover of resources and increase of its efficiency;
- Increasing labor productivity and competitiveness of the country's economy, strengthening the role of international exchange as a factor in balancing economic growth.

As a result, despite the existence of internal and external threats to economic security, the country's socio-economic development is improving. Along with this, work is underway to create a concept of economic security of the economy in the medium term. In this regard, the stability and sustainable development of the economy depends on improving the quality of life, allocating money for science, culture, health, increasing the social protection of certain categories of citizens, which will ultimately increase the competitiveness of the economy as a whole. Improving a more modern legal system is of particular importance for resolving economic issues.

## **5. CONCLUSION**

Financial security, being part of economic and national security as a whole, means that finances and financial institutions are in a position to create the necessary financial conditions to ensure the country's socio-economic and financial stability. Financial security aims to ensure the unity of the financial system, including money, budget, credit, to be able to successfully eliminate internal and external threats in the financial sphere, to coordinate the overall financial relations in the country and to direct all opportunities to the development of a healthy national economy, while maintaining the tax and currency system. Thus, the structure of financial security activities is a complex combination of various elements, goals, means and results, which are in continuous contact and constantly evolving. The above-mentioned instruments of the mechanism of ensuring economic activity can provide a solid foundation for sustainable economic growth in the long run. Monitoring plays an important role in the mechanism of ensuring financial security. In this case, it is necessary to compare the actual and marginal values with the quantitative parameters of economic security.

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## **PRIORITY AREAS OF SOCIO - ECONOMIC DEVELOPMENT OF THE NON – OIL SECTOR IN AZERBAIJAN**

**Godjayeva Elmira Mahammad**

*Azerbaijan State University of Economics (UNEC)*

*AZ-1001, İstiqlaliyyat str.6, Baku, Azerbaijan*

*qocayeva-e@rambler.ru*

**Babayeva Saida Jabi**

*Azerbaijan State University of Economics (UNEC)*

*AZ-1001, İstiqlaliyyat str.6, Baku, Azerbaijan*

*Saida.baba@unec.edu.az*

**Sadigova Ulker Farhad**

*Azerbaijan Tourism and Management University, Baku, Azerbaijan*

*u.sadiqova@atmu.edu.az*

### **ABSTRACT**

*Today, tourism is one of the fastest growing and priority areas of socio-economic development of many countries. This sector of the economy plays an important role in the economic development of the regions, the fight against poverty, urbanization, especially in remote rural areas, and the increase in tax revenues. Azerbaijan has a very high competitiveness in tourism. Natural resources, colorful climate, rich historical and cultural heritage are important factors for creating attractive tourist products. At the same time, Azerbaijan declared the development of tourism a priority for the non-oil sector of the economy. The ongoing reforms, the work done to promote tourism in the country over the past 15 years, as well as the adopted state programs, the improvement of the regulatory framework, once again prove this. The study analyzes the growth rate of international tourism, indicators of tourism development in the global economy, explores the possibilities of using tourism potential in Azerbaijan. In international practice, the tourism sector has a significant impact on the growth of the country's productive potential, income and employment, as well as on the development of other sectors of the economy. Thus, according to statistics, the share of tourism in world GDP in 2018 amounted to 9.7%, and employment - 9.4%. According to recent statistics, tourism is one of the most dynamically developing sectors in Azerbaijan [1].*

**Keywords:** *investment, competitiveness, tourism market, sustainable development, econometric assessment*

### **1. INTRODUCTION**

The results achieved in the Republic of Azerbaijan are a consequence, first of all, of the development and application by the President of the country, Ilham Aliyev, of a set of innovative technologies that have ensured the most efficient use of economic opportunities for the comprehensive development of the country and improving the welfare of the population. The results obtained with the least financial means are the result of the application of innovative technologies. It should be noted that this statement was the subject of analysis in the report of the World Economic Forum. For example, in August 2018, the President of Azerbaijan Ilham Aliyev signed a decree on the creation of a legal entity of public law "Agency for Sustainable and Operational Social Security" (DOST Agency). The agency was created with the aim of improving the quality of services provided to citizens in the areas of employment, labor, social protection and security, applying innovative solutions, accelerating the transition to electronic services, and preventing cases of red tape.

DOST Center No. 1 opened in May 2019. It provides 126 types of services, including employment services, social benefits and pensions, social and medical expertise and rehabilitation, social insurance, labor relations, etc. In 2019-2025, another 31 DOST centers are planned to be opened in Baku and the country's regions. It should be noted that at Davos 2020, the speech, interviews and meetings of the President of the Republic of Azerbaijan Ilham Aliyev were met with great interest. Successful reforms in Azerbaijan were highly appreciated by the influential financial institutions participating in the Forum, as well as by the leaders of world famous companies and media representatives.

## **2. OF THE NON – OIL SECTOR IN AZERBAIJAN**

In connection with the successful reforms being carried out in the country, Azerbaijan's position was characterized by 25th place in the Doing Business - 2019 World Bank report. Of course, this became possible as a result of reforms carried out in Azerbaijan over the past twenty years in all sectors of the economy. In this case, it is necessary to take into account the influence of globalization processes on the challenges of the new era, which, in turn, leads to the intensification of regional processes. Consequently, innovative technologies, primarily the digital economy, changing production methods, increasing productivity and competitiveness, give a modern essence to the concept of "limits of markets for products and services". Thus, 12 percent of the sale of goods and 50 percent of the services provided in the world are carried out via the Internet. In modern conditions it is very important to use the positive qualities of globalization, and at the same time reduce its negative consequences to the extent possible. The benefits of globalization must be pointed out:

- the possibility of free trade that meets the interests of all parties;
- the spread of modern advanced industrial technologies, as well as an increase in direct investment, the creation of multinational companies or cooperation with them;
- comprehensive protection of consumer interests and prevention of price increases, by properly regulating factors of internal and external competition;
- expanding the scale of innovation and increasing labor productivity and product quality;
- mobilization of financial resources and improvement of national legislative systems;
- free dissemination of ideas and knowledge, the possibility of using the achievements of world civilization;
- International distribution of labor and reducing the cost of production;
- improving the level, quality and welfare of the population.[10]

Based on the foregoing, it should be noted that tourism, education and employment abroad, Internet commerce and recent preferential trade events organized in Baku attract foreign tourists. The current situation in the world, namely the decline in oil prices and the coronavirus pandemic, suggests that certain socioeconomic values will be revised in the world, despite the fact that tourism was an important part of the economy of many countries of the world. According to the high pace of development, it was regarded as an economic phenomenon of the last century. In the global economy, tourism only competes with oil production. In the global economy, income from tourism prevailed over income from the automotive industry. It is no coincidence that tourism provided up to 10 percent of the world's total income. This sector has gradually become increasingly important as an important source of foreign exchange earnings and the expansion of external relations. But at the same time, according to the forecasts of the World Tourism Organization, in 2020 the number of foreign tourists was to reach 1.6 billion people, and revenues from international tourism - 2 trillion. US dollars, then today these figures will be modified taking into account the coronavirus pandemic, which has greatly affected the socio-economic development of many countries of the world [17].

We are well aware that in each country, tourism has positively influenced and we are confident that it will subsequently affect the development of other sectors of the economy, namely the development of the economy: transport and communications, construction, agriculture, financial structures, consumer goods production, etc.

### 3. DEVELOPMENT OF TOURISM

It should be noted that the development of tourism as an area of important socio-economic importance in the Republic of Azerbaijan is always in the center of attention of the state. Back in 1999, the Law of the Republic of Azerbaijan "On Tourism" was adopted, in 2002 - the "State Program for the Development of Tourism in the Azerbaijan Republic in 2002-2005," and in 2009 - the "State Program for the Development of Resorts in Azerbaijan in 2009-2018 years." According to the Decree of the President of the Republic of Azerbaijan On approval of the "Main directions of the strategic roadmap on the national economy and main sectors of the economy" and issues arising from this dated March 16, 2016 No. 1897, a Working Group was created to develop detailed plans for the development of the Azerbaijani economy in 11 sectors, including 8 main and 3 auxiliary sectors. This Decree of the head of state gave relevant instructions regarding the development of an economic development strategy and an action plan until 2020, a long-term view until 2025 and a target view after 2025. Today, re-shaping the need for health tourism, supporting the development of winter tourism, creating cultural tourism routes, supporting the development of business tourism, strengthening sustainable tourism potential (ecotourism, rural tourism, etc.) is more than ever waking up. The potential of Azerbaijan for various types of tourism is observed by [3.37]:

- Cultural tourism.  
Cultural tourism is defined as a type of tourism, including the cultural heritage of the regions, lifestyle, history, art, architecture, religion, etc. The country has a huge potential for cultural tourism, for example, the art gallery located in Baku, national mugam music, well-developed world jazz music, national and foreign dances, exquisite and rich cuisine, and a tolerant attitude to all religions and social gatherings can serve as an example.
- Wellness tourism.  
The number of warm mineral water sources in the country amounts to thousands, among which the waters of Istisu, Turshsu, Badamli, Galaalti, Shykhburnu, Surahani are the most famous sources of healing water. In addition, Naftalan oil is one of the most important resort resources of Azerbaijan.
- Ecological tourism.  
The territory of Azerbaijan, where 9 out of 11 climatic zones are observed (from semi-desert and dry steppes to mountain tundra), is home to more than 4100 plant species. It's worth mentioning that President Ilham Aliyev declared 2011 the Year of Tourism in our country.

One of the important documents aimed at the development of tourism in our country is the "Strategic Road Map for the Development of the Specialized Tourism Industry in Azerbaijan", approved by the Decree of the Head of State dated December 6, 2016. The infrastructure of socio-economic regions, the commissioning of hotels and medical centers of a high level in the capital and regions, the laying of new roads, the simplification of the visa regime and others have contributed and will contribute to the rapid growth of our country's competitiveness in the tourism sector. In 2017, the Republic of Azerbaijan was the most advanced country (13 steps) in the international ranking table. According to the World Tourism and Travel Council, in recent years (2010-2017) Azerbaijan was among the ten countries with the highest rates of tourism development. Along with this, it should be recognized that the huge reserves of our country in the tourism sector are not fully used. For example, in Spain tourism accounted for 18.3 percent of the currency that came from the export of products and services, in Austria - 11.8 percent, Greece - 33.6 percent, Portugal - 15 percent, and Cyprus - 53 percent.

The increase in the number of foreign tourists was especially associated with the growth of hotels and hotel services in our country in recent years[14]. It should be noted that the spread of coronavirus disease around the world has led many countries to decide to adjust their plans for the development of tourism for the future. Knowing full well that Azerbaijan, which at the end of 2019, the forecast was based on attracting tourists from China and Iranian tourists to Novruz. In 2018, 71 thousand Iranian citizens arrived in Azerbaijan in March, and in the same period of 2019, only 35 thousand Iranians visited our country, which is 2 times less. The expanded theme of the coronavirus pandemic will change the development of the tourism business, which is completely dependent on external conditions, which, in turn, will serve the development of domestic tourism in Azerbaijan. In particular, Azerbaijan is developing a marketing scenario for attracting tourists to the regions. So, in Azerbaijan it is planned to conduct marketing research in May to study changes in the tastes and preferences of tourists after the end of the COVID-19 coronavirus pandemic. Naturally, the requirements for safety and hygiene will lead to a world-wide revision of the organization of transportation and service in accommodation facilities. The Government of Azerbaijan allocated about 500 million euros in support of the economy in the form of loans and financial guarantees, which allowed to continue implementing a number of large tourism infrastructure projects for the subsequent development of the domestic tourism market after the weakening epidemiological situation in the country. Of course, it should be noted that the Russian direction is given a key role in restoring the tourism industry of Azerbaijan, since Russia remains an important inbound tourism market for Azerbaijan. According to the State Statistics Committee, tourist flow to Azerbaijan in 2019 amounted to 3 million 170.4 thousand people, which is 11.3% more than in 2018. At the same time, the number of Azerbaijani citizens traveling abroad during the reporting period increased by 13.4% to 5 million 567.7 thousand people[1]. The coronavirus infection pandemic COVID-19 has led to a crisis in many areas of the global economy. But most of all, it affected the tourism industry. In recent months, we see that borders are closed, air traffic is minimized. At the same time, we note that the tourism industry in Azerbaijan lives and its primary task these days is to preserve jobs. The overwhelming burden on the shoulders of entrepreneurs is enormous, but the state has not left them face to face with their problems. Everyone knows that tourism in Azerbaijan has always been and remains in the sphere of close attention of President Ilham Aliyev. The historical picture is such that this sector of the economy from the beginning of the XXI century has at least three times experienced serious upheavals: September 2001; in 2003, when SARS was raging and in 2009 during the global economic crisis. So, the way out of the situation is precisely in the financial assistance from the state, which involves tax holidays, benefits and a loan guarantee program, as well as tax breaks, loans, and the provision of salaries, which, in turn, makes it possible for the tourism industry to survive global shocks and provide further growth[10]. To the place, we note that there are 843 hotels and a hotel-type facility in the country, 4,461 travel agencies and a tour operator. The result of model (2) shows that an increase in the number of accommodation facilities by 1% contributes to an increase in the number of tourists arriving in the country by 0.99%. Thus, the state and current problems of the economic and investment environment and ways to solve them, which are some of the traditionally discussed at the Davos forum this year, were in the spotlight. It is gratifying that the high level of the business climate created in our country is particularly emphasized by the heads of foreign companies.

#### **4. PRIORITY AREAS OF SOCIO - ECONOMIC DEVELOPMENT**

In his speeches, the head of state emphasized that issues of issuing visas at airports are constantly being updated, and the introduction of electronic visa regimes, as in other developed tourist countries since 2013, has become a priority for the tourism sector. The tourism sector of Azerbaijan is also developing in the conditions of the economic crisis, and this year an increase



in the number of tourists arriving in the country is expected than last year. The increase in the number of foreign tourists was especially associated with the growth of hotels and hotel services in our country in recent years. Thus, the number of accommodation facilities in the country is already increasing, and the competitiveness of tourism is increasing, which, in turn, reduces the cost of services for tourists and improves quality. Now let's analyze the dependence of the number of tourists arriving from countries on the number of hotels and types of hotels, and make forecasts based on the results for the coming years. (table 1)

*Table 1: Information about accommodation and tourists arriving in the country*

Of the year	Placement Companies (YMS)	Number of arrivals of tourists (OGTS)	Of the year	Placement Companies (YMS)	Number of arrivals of tourists (OGTS)
2006	285	1 262.0	2013	530	2 508.9
2007	320	1 332.7	2014	535	2 297.8
2008	370	1 898.9	2015	536	2 006.2
2009	452	1 830.4	2016	548	2 248.8
2010	499	1 962.9	2017	563	2 696.7
2011	508	2 239.2	2018	596	2 849.6
2012	514	2 484.1			

*Source: Goskomstat, 2019*

Analysis of the database shows that there is a correlation between the number of accommodation facilities and the number of tourists arriving in the country. Consider an econometric assessment of the database. First of all, let's build an equation. This equation of dependence will be as follows:

$$\text{LOG(OGTS)} = C(1) + C(2)*\text{LOG(YMS)} \quad (1)$$

Let us set the basic regression equation using the data from table 1. It is recommended to do this using the EvIEWS software package, since solving a problem manually requires a lot of time and too many calculations. The following results can be obtained with those that are observed at the initial stage:

$$\text{LOG(OGTS)} = 1.50905041628 + 0.995365473716*\text{LOG(YMS)} \quad (2)$$

$$\text{s.s.} \quad (0.454178) \quad (0.122463)$$

$$\text{R-squared}=0.857258, \text{ Adjusted R-squared}=0.844284, \text{ Durbin Watson}=1.744058$$

Model (2) shows that the model is adequate. Thus, the standard error of the parameters is much smaller than the parameter values. The coefficient of determination (R-squared) = 0.857258 indicates that approximately 85.7% of the change in the number of tourists arriving in the country is due to stable factors and a change in accommodation. The proximity of the adjusted deterministic coefficient (Corrected R-square) to the value of the determination indicates that the coincidence in the reliability of the result is much lower. The result of model (2) shows that an increase in the number of accommodation facilities by 1% contributes to an increase in the number of tourists arriving in the country by 0.99%. The increase in the quantity and quality of accommodation facilities depends on the amount of investment made in this area in recent years.

Now let's analyze the relationship between the volume of tourism investment and the location of housing and make a forecast based on prices for the coming years. To do this, let's first use the database for analysis. (table 2).

*Table 2: Volume of investments in housing and tourism*

Of the year	Placement Companies (YMS)	Investments in the tourism sector (TYIH)
2009	452	527.8
2010	499	949.2
2011	508	1 407.8
2012	514	1 478.2
2013	530	1 371.0
2014	535	2 204.0
2015	536	1 063.9
2016	548	363.0
2017	563	267.3
2018	596	229.7

*Source: Goskomstat, 2019*

Analysis of the database shows that there is a correlation between the number of accommodation facilities and the amount of investment in tourism. Consider an econometric assessment of the database. First of all, let's build an equation. This equation of dependence will be as follows:

$$\text{LOG(YMS)} = C(1) + C(2) * \text{LOG(TYIH)} \quad (3)$$

Let's set up the basic regression equation using the data in table 2. Similarly, the Eviews software package that we used to build the previous model is useful for data processing. The following results can be obtained with those that are observed at the initial stage:

$$\text{LOG(YMS)} = 6.51951748504 + 0.0380111918308 * \text{LOG(TYIH)} \quad (4)$$

$$\text{s.s.} \quad (0.203425) \quad (0.030404)$$

R-squared=0.876548, Adjusted R-squared=0.851274, Durbin Watson=1.684058

The statistical characteristics of model (4) show that the model is adequate. Thus, the standard error of the parameters is much smaller than the parameter values. The determination coefficient (R-squared) = 0.876548 indicates that approximately 87.7% of the differences in the number of accommodation facilities are due to stable factors and changes in tourism investments. The proximity of the adjusted deterministic coefficient (Corrected R-square) to the value of the determination indicates that the coincidence in the reliability of the result is much lower. The results of model (4) show that an increase in investment in tourism by 1% contributes to an increase in the number of accommodation facilities by 0.04%.

## 5. CONCLUSION

Therefore, it should be noted that in accordance with the 2018 report of the World Economic Forum, the Republic of Azerbaijan is the absolute record holder for the most efficient use of economic resources for the inclusive development of the country. Azerbaijan's rating on the level of inclusive development is 23 points higher than the rating of the country's economic opportunities.

This feature was determined by the fact that the experience of the Republic of Azerbaijan in the optimal management of economic and human resources for inclusive development was the subject of analysis in the report of the World Economic Forum 2020. As a result of these measures, the tourism industry in Azerbaijan has entered a new phase, our country has become recognizable as a new tourism destination in the world, and the integration of the international tourism market is growing every year. Azerbaijan, which has a rich national and cultural heritage, historical monuments, forests and beaches, also has great potential in order to become important in the global tourism market. In this context, tourism can also be used as a powerful tool to reduce poverty and prevent population displacement, especially in remote regions. The study analyzes the growth rate of international tourism, indicators of tourism development in the global economy, explores the possibilities of using tourism potential in Azerbaijan. To achieve this goal, the Shahdag summer and winter tourist complex in the Republic of Azerbaijan differs from such complexes in the world by its modernity and versatility. The complex is the first ski resort in the history of Azerbaijan. A few years ago, Azerbaijani citizens traveled to other countries for the winter season. However, there are two winter tourism enterprises in Azerbaijan: the Shahdag complex of summer and winter holidays in Gusar and the Tufan ski center, which opened in January 2014 in Gabala. The construction of these large complexes shows that special attention is paid to the development of alternative tourism not only in summer tourism, but also the creation of infrastructure in this area.

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# ECONOMETRIC MODEL FOR GROSS DOMESTIC PRODUCT IN AZERBAIJAN

**Shafizade Elnure**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*

*ANAS Institute of Controlling Systems, Azerbaijan*

*elnure\_sh@unec.edu.az*

## ABSTRACT

*One of the indicators of the country's economic growth is the gross domestic product (GDP), and one of the factors of economic growth is capital. The main criteria and source of economic development is economic growth. Economic growth is a sustainable increasing tendency of the main indicators of the domestic product (GDP, GNI). Furthermore, absolute value and growth per capita are also considered. In economic and statistics, various indicators are used to measure the volume of national production. The most important of these is gross domestic product (GDP). GDP is expressed by monetary unit of the final products and services produced in the economy. Here should be taken into account the fact that GDP comprises final products and services produced within the particular country. In this work, was created the econometric model that demonstrates the dependence of GDP on investments in case of Azerbaijan economy. This approach provides an opportunity for strategic planning of GDP for the country. In this work, to achieve the desired level of GDP for current year, the volume of investment for previous year is used as the independent variable in the dynamic model. But as indicated above, many other factors affect GDP. We chose one of them: the amount of investment. Further research will be created the dynamic model of GDP for current year depending on investment volume of previous year. In this case, a dynamic model will allow to plan GDP volume depending on investment volume of previous year. This approach is very important from point of GDP planning view.*

**Keywords:** *macroeconomics, gross domestic product, investments, econometric model*

## 1. INTRODUCTION

The main criteria and source of economic development is economic growth. Economic growth is a solid stimulant for the growth of the main indicators of national production (GDP, GNI). Furthermore, Absolute value and growth per capita is also kept in mind. In economic theory and statistics, various indicators are used to measure the volume of national production. The most important of these is gross domestic product (GDP) [4.6]. GDP is an expression in monetary unit of the final products and services produced in the economy. This refers to the final products and services produced within the borders of a particular country. Three main methods are used to calculate GDP:

- Added value method (method of production). With this method GDP is determined by the sum of added values on the cost, wages and income generated in the production process and characterized by the actual share in the final product in this enterprise for all sectors and types of production.
- By expenses. Using this method, the volume of GDP is calculated as the sum of all expenses in society (daily expenses of the population, investments of producers, expenses of the government on goods and services), net exports (balance of imports and exports of the country);
- Calculation of GDP by income - the total amount of all income in the company (excluding the wages of workers being paid from the state budget, as long as their wages are paid from the state budget), property income, income, interest on capital, depreciation, rent payments.

There are objective and subjective factors of economic growth. Objective factors are factors that directly and finally affect the rate of economic growth. Subjective factors are indirect factors affecting the scale and pace of economic growth. The objective factors of economic growth are the following:

- increase in the volume and quality of fixed capital;
- changes in production technologies;
- increase in the volume of economic resources;
- increase in entrepreneurial activity of the population;
- increase in the quantity and quality of labor resources;
- Activization of the needs of the population, leading to increase in production volumes.

The relationship between economic growth factors within the national economy is becoming more complicated. In such a situation, the main goal of the state is the effective use of existing economic factors to promote economic growth to benefit the general populace [11]. As mentioned above, one of the indicators of a country's economic growth is gross domestic product (GDP), and one of the factors of economic growth is capital. In this work, we will build the econometric model that demonstrates the dependence of GDP on investment in the country's economy.

## 2. THE ECONOMETRIC MODEL OF GDP

Lets volume of GDP in  $i$ -th year denote by  $y_i$ , volume of investment in the country's economy in  $i$ -th year by  $m_i$ . Suppose the volume of GDP in  $(i + 1)$ -th year depending on  $y_i$  and  $m_{i+1}$ . Suppose this dependence is as follows:

$$y_{i+1} = Ay_i^F m_{i+1}^G$$

If both sides of this function are logarithm, then we get a linear function:

$$lgy_{i+1} = lGA + \alpha lgy_i + \beta lgm_{i+1}$$

We carry out the following notation:

$$lgy_{i+1} = x_{i+1}, lGA = v, lgy_i = x_i, lgm_{i+1} = u_{i+1}$$

The initial value of GDP and investment is denoted by  $x_0$  and  $u_0$  respectively. Consider the following task:

$$\begin{cases} \tilde{x}_{i+1} = Fx_i + Gu_{i+1} + v, i = \overline{0, n-1} & (1) \\ x(0) = x_0, & (2) \\ u(0) = u_0 & (3) \end{cases}$$

Here  $F$  and  $G$  are coefficients (parameters of linear dependence), and  $v$  is a constant that includes all the influences that are overlooked in this dependence. The goal of this task is to find such values of  $F$  and  $G$  that get the model values of GDP ( $\tilde{x}_i$ ) as close as possible to their statistical values ( $x_i$ ). In other words,  $|\tilde{x}_i - x_i|$  is as close to zero as possible. To do this, we use the least squares method.

We minimize the following functionality:

$$J = \sum_{i=1}^n (\tilde{x}_i - x_i)^2 \rightarrow \min \quad (4)$$

Using (1) in (4), we obtain the following:

$$J = \sum_{i=1}^n (Fx_{i-1} + Gu_i + v - x_i)^2 \rightarrow \min \quad (5)$$

To determine the values of F, G and  $v$  that minimize (5), we must obtain the first derivative with respect to F, G и  $v$  and equate it to zero:

$$J'_F = 0 \quad (6)$$

$$J'_G = 0 \quad (7)$$

$$J'_v = 0 \quad (8)$$

So, we get the following system of equations:

$$\begin{cases} \sum_{i=1}^n x_{i-1}(Fx_{i-1} + Gu_i + v - x_i) = 0 \end{cases} \quad (9)$$

$$\begin{cases} \sum_{i=1}^n u_{i-1}(Fx_{i-1} + Gu_i + v - x_i) = 0 \end{cases} \quad (10)$$

$$\begin{cases} \sum_{i=1}^n (Fx_{i-1} + Gu_i + v - x_i) = 0 \end{cases} \quad (11)$$

From this system we get the following equations for F, G and  $v$ :

$$\left\{ \begin{aligned} F &= \frac{\sum_{i=1}^n x_i x_{i-1} - \frac{1}{n} \sum_{i=1}^n x_i \sum_{i=1}^n x_{i-1}}{\sum_{i=1}^n x_{i-1}^2 - \frac{1}{n} (\sum_{i=1}^n x_{i-1})^2} - \\ &\quad - \frac{G \left( \sum_{i=1}^n u_i x_{i-1} - \frac{1}{n} \sum_{i=1}^n x_{i-1} \sum_{i=1}^n u_i \right)}{\sum_{i=1}^n x_{i-1}^2 - \frac{1}{n} (\sum_{i=1}^n x_{i-1})^2} \quad (12) \\ G &= \frac{\sum_{i=1}^n x_i u_i - \frac{1}{n} \sum_{i=1}^n x_i \sum_{i=1}^n u_i}{\left( \sum_{i=1}^n u_i^2 - \frac{1}{n} (\sum_{i=1}^n u_i)^2 \right) - \frac{\left( \sum_{i=1}^n u_i x_{i-1} - \frac{1}{n} \sum_{i=1}^n x_{i-1} \sum_{i=1}^n u_i \right)^2}{\sum_{i=1}^n x_{i-1}^2 - \frac{1}{n} (\sum_{i=1}^n x_{i-1})^2}} - \\ &\quad - \frac{\left( \sum_{i=1}^n x_i x_{i-1} - \frac{1}{n} \sum_{i=1}^n x_i \sum_{i=1}^n x_{i-1} \right) \left( \sum_{i=1}^n u_i x_{i-1} - \frac{1}{n} \sum_{i=1}^n x_{i-1} \sum_{i=1}^n u_i \right)}{\sum_{i=1}^n x_{i-1}^2 - \frac{1}{n} (\sum_{i=1}^n x_{i-1})^2} \quad (13) \\ v &= \frac{1}{n} \left( \sum_{i=1}^n x_i - F \sum_{i=1}^n x_{i-1} - G \sum_{i=1}^n u_i \right) \quad (14) \end{aligned} \right.$$

Consider the statistical values of GDP and investment in industry in Azerbaijan in 2006-2018 years (table 1).

years	GDP, mln. USA dollars, $y_i$	investments in the industry, mln. USA dollars, $m_i$	$x_i$	$u_i$
2006	20983,00	4996,512	4,321868	3,698667
2007	33050,30	5338,372	4,519175	3,727409
2008	48852,50	5181,707	4,688887	3,714473
2009	44297,00	4031,25	4,646374	3,60544
2010	52909,30	5345	4,723532	3,727948
2011	65951,60	6797,468	4,819225	3,832347
2012	69683,90	7645,57	4,843132	3,88341
2013	74164,40	9614,872	4,870195	3,982943
2014	75234,70	9794,231	4,876418	3,99097
2015	52996,80	8333,235	4,72425	3,920814
2016	37862,80	6218,625	4,578213	3,793694
2017	40867,90	6168,663	4,611382	3,790191
2018	47112,90	4998,353	4,67314	3,698827

Table 1: The volume of GDP and investments in the industry of Azerbaijan in 2006-2018 years

Based on this, we can consider a dynamic model showing the dependence of GDP on investment. Then the problem (1) - (3) will be in the following form:

$$\begin{cases} \tilde{x}_{i+1} = Fx_i + Gu_{i+1} + v, i = \overline{0,12} \end{cases} \quad (15)$$

$$\begin{cases} x(0) = x_{2006}, \end{cases} \quad (16)$$

$$\begin{cases} u(0) = u_{2006} \end{cases} \quad (17)$$

Based on table 1  $x_{2006} = 4,321868$ ,  $u_{2006} = 3,698667$ . Based on (12)-(14), the values of parameters F, G and  $v$  will be calculated by the following expressions:

$$F = \frac{\sum_{i=1}^{13} x_i x_{i-1} - \frac{1}{n} \sum_{i=1}^{13} x_i \sum_{i=1}^{13} x_{i-1} - G \left( \sum_{i=1}^{13} u_i x_{i-1} - \frac{1}{13} \sum_{i=1}^{13} x_{i-1} \sum_{i=1}^{13} u_i \right)}{\sum_{i=1}^{13} x_{i-1}^2 - \frac{1}{13} \left( \sum_{i=1}^{13} x_{i-1} \right)^2} \quad (18)$$

$$G = \frac{\sum_{i=1}^{13} x_i u_i - \frac{1}{13} \sum_{i=1}^{13} x_i \sum_{i=1}^{13} u_i}{\left( \sum_{i=1}^{13} u_i^2 - \frac{1}{13} \left( \sum_{i=1}^{13} u_i \right)^2 \right) - \frac{\left( \sum_{i=1}^{13} u_i x_{i-1} - \frac{1}{13} \sum_{i=1}^{13} x_{i-1} \sum_{i=1}^{13} u_i \right)^2}{\sum_{i=1}^{13} x_{i-1}^2 - \frac{1}{13} \left( \sum_{i=1}^{13} x_{i-1} \right)^2}} - \frac{\left( \sum_{i=1}^{13} x_i x_{i-1} - \frac{1}{13} \sum_{i=1}^{13} x_i \sum_{i=1}^{13} x_{i-1} \right) \left( \sum_{i=1}^{13} u_{i-1} x_{i-1} - \frac{1}{13} \sum_{i=1}^{13} x_{i-1} \sum_{i=1}^{13} u_i \right)}{\sum_{i=1}^{13} x_{i-1}^2 - \frac{1}{13} \left( \sum_{i=1}^{13} x_{i-1} \right)^2} \quad (19)$$

$$v = \frac{1}{13} \left( \sum_{i=1}^{13} x_i - F \sum_{i=1}^{13} x_{i-1} - G \sum_{i=1}^{13} u_i \right) \quad (20)$$

Based on this data, formulas (15)-(16) were processed in MATLAB and the following results were obtained.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.000000	4.10E-13	2.44E+12	0.0000
LGY-1	1.000000	1.09E-13	9.17E+12	0.0000
LGX1	3.03E-13	1.44E-13	2.099384	0.0621
R-squared	1.000000			

Table 2: Pormulas (15)-(16) processed in MATLAB and the following results obtained

i.e

$$G=3,03*10^{-13}$$

$$F=1$$

$$v=1$$

We can accept this model with a 99% confidenceinterval. The model is as follows:

$$\tilde{x}_{i+1} = x_i + 3,03 * 10^{-13} u_{i+1} + 1 \quad (21)$$

Or

$$y_{i+1} = 10y_i m_{i+1}^{3,03*10^{-13}} \quad (22)$$

A comparison of model and statistical values of GDP is given in table 3.

years	Statistical values of GDP, mln. USA dollars.	Model values of GDP, mln. USA dollars.
2006	20983,00	20983,00
2007	33050,30	33050,30
2008	48852,50	48852,50
2009	44297,00	44297,00
2010	52909,30	52909,30
2011	65951,60	65951,60
2012	69683,90	69683,90
2013	74164,40	74164,40
2014	75234,70	75234,70
2015	52996,80	52996,80
2016	37862,80	37862,80
2017	40867,90	40867,90
2018	47112,90	47112,90

Table 3: Model and statistical values of Azerbaijan's GDP in 2006-2018 years

A visual comparison of model and statistical values of GDP is given in Figure 1



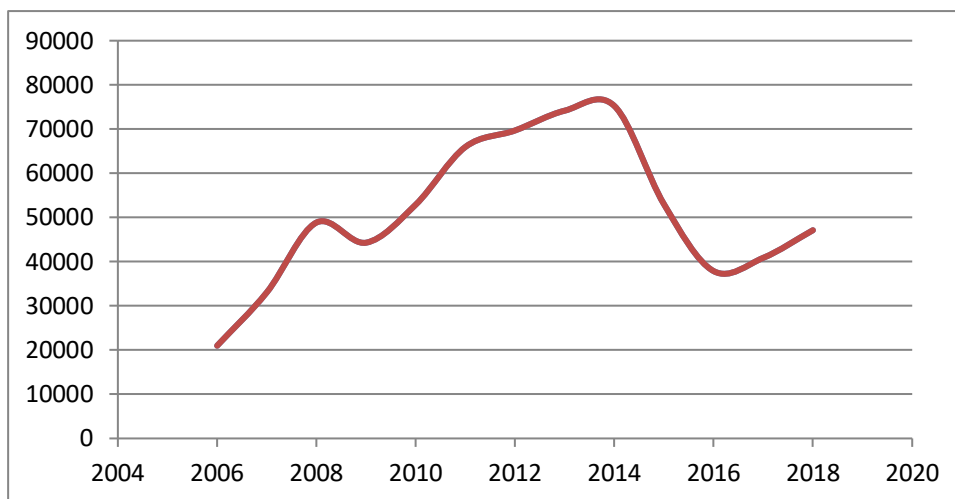


Figure 1: Comparison of model (green line) and statistical values (red line) GDP (as values of each year are equal it seems only one line)

### 3. CONCLUSION

This approach provides an opportunity for strategic planning of GDP for the country. This econometric model give us an opportunity to achieve dynamic model of GDP. On the base of dynamic model we can create optimal GDP trajectory.

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## METHODS OF EVALUATING THE ECONOMIC EFFECTIVENESS OF E-LEARNING IN AZERBAIJAN

**Arzu Huseynova**

*Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan  
eim09@rambler.ru*

**Ophelya Mazanova**

*Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan  
ofelya.mazanova@unec.edu.az*

### **ABSTRACT**

*The article deals with the application of electronic management systems in the higher education system, the increase of electronic resources, the ways to ensure employment and convenience for teachers and students, the implementation of social reading programs apart from traditional lectures in the training classes, provision of information security, and elimination of electronic backwardness. The article also discusses the use analysis of electronic education system in Azerbaijani higher education institutions and evaluation methods of its economic effectiveness. Created a questionnaire to analyze e-learning, traditional training, and mixed learning. Cluster, regression, SWOT, and PEST analysis methods were used in the process of query processing. As a result, it was recommended to develop a strategy for the electronic education system and to develop a human resources training system for innovative Technologies.*

**Keywords:** LMS, SWOT, PEST, cluster, electronic resources

### **1. INTRODUCTION**

The main tasks of the formation of information society are the creation of legal bases of information and knowledge society, the development of human factor, the right of citizens to receive, disseminate and use information, the formation of electronic government, electronic commerce, strengthening of economic, social and intellectual potential of the country, establishment of information and knowledge-based, competitive economy, creation of modern information and communication infrastructure, formation of uniform national electronic information space, implementation of electronic governance systems in higher education system, increase of electronic resources, determining the ways to ensure employment and convenience for teachers and students, implementation of social reading programs apart from traditional lectures in the training classes, provision of information security, and elimination of electronic backwardness. The tendency of global informatization of the society is directly related to the development of educational institutions. This requires the creation of a continuing education system that ensures that everyone has access to quality basic education, as well as to the wishes and demands of everyone at any time and place, from the point of view of the availability of education. It is important to use electronic education (e-education) technologies to build such education system. E-education technologies are the most effective tool for managing new types of education and developing the necessary knowledge and skills in the future for lifelong education. E-education creates a bridge between labor activity and education and creates extensive opportunities for lifelong education. Azerbaijan has prioritized the establishment of the Azerbaijan Information Society as the main priority of state policy. Doing so will include structuring a single national electronic information space, the introduction of e-management systems in the higher education system, improving the use of electronic resources, identifying the ways to provide teachers and students with employment and comfort, and implementing different social reading programs apart from traditional lectures in classrooms

while providing for information security and the elimination of electron retention<sup>1</sup>. The tendency of the society to embrace global informatization depends directly on the development of educational institutions. This requires the creation of an uninterrupted educational system that ensures that everyone will have access to a high-quality fundamental education according to each person's desires and needs that is available anywhere and anytime. For this reason, the introduction of electronic education related technology is essential to establishing such an education system. E-training technology provides the most effective tools for directing people to new types of education and to developing the skills and abilities needed for lifelong learning. E-education creates enormous opportunities for lifelong learning by building a bridge between labour and education. E-education is the bridge between labour activity and education today. In return, it makes broad opportunities for education along the life.

## 2. RULE

The State Strategy for the Development of Education in the Republic of Azerbaijan was approved by the Decree 13 of October 24, 2013. The decree states: "In modern times the role of education in economic life has significantly increased. At the moment, education should be accompanied by the introduction of the required knowledge and skills in the economy, as well as the comprehensive training of the person to future life and integration into the society<sup>2</sup>. The most important of all is the factor that raises the role of education in economic life. At the same time, rapid technological advancement requires regular updates of knowledge and skills. This increases the demand for new smart educational technologies and more appropriate qualifications and competitiveness. Based on knowledge, the education system occupies a special place in the development of the economy". The society of information and knowledge creates enormous opportunities for publicizing the individual knowledge with the help of the Internet. At present, a number of reforms are being carried out in Azerbaijan in the direction of formation of information and knowledge society. Adopted by the Decree of the President of the Republic of Azerbaijan dated December 29, 2012<sup>3</sup>, "Azerbaijan 2020: Outlook for the Future" Development Concept and "Strategic Roadmap for the National Economy Perspective of the Republic of Azerbaijan" approved by Decree of the President of the Republic of Azerbaijan dated December 6, 2016 has been accepted. These state programs also give impulse to the development of other knowledge-based economics infrastructure - high quality education, effective fundamental science, knowledge production and high technologies, effective science-technical business venture, and implementation of ideas and transfer. The important role of e-education in the development of national education systems has been reflected in relevant documents confirmed in our country. Thus, the Law of Republic of Azerbaijan on education "833-IIIQ of June 19, 2009" was approved<sup>4</sup>.

### 2.1. Analysis of electronic education system in Azerbaijan and methods of their economic efficiency evaluation

The core of the modern electronic education system is the LMS (Learning Management System) or the training process management system. LMS is designed for a large number of students and focuses on cooperative training in educational institutions. The main feature is the ability of the trainee to pass a certain part of the course, the date of entry into the course, the number of visits, and to control the process of passing the course.

<sup>1</sup> See link: Innovations in Education and Teaching International. 2018;55

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<sup>2</sup> "State strategy under development of education in Azerbaijan Republic" by Order No.13 dated 24.10.2013. Baku, Azerbaijan. 2013, <https://edu.gov.az/en/page/473>

<sup>3</sup> Development Concept "Azerbaijan 2020: The View to the Future", 29 December 2012

<sup>4</sup> National Strategy for the Development of Information Society in the Republic of Azerbaijan for 2014-2020 [https://president.az/files/future\\_en.pdf](https://president.az/files/future_en.pdf)

This system allows the user to sign up for listening the course. Sends the registered user a reminder of the next online course. At present, the LMS system is implemented in our country. In the UNEC (ASUE), Prometheus has been prepared for 20 observation surveys in the 2015 academic year with 30 teachers and students and 30 secondary education providers in the electronic education system. As a result, SWOT analysis method was used in the processing of surveys, 2 (two) tables were developed on the general state of teachers and students' use of electronic education system.

*Table 1: Analysis of teachers' use of electronic education system*

<b>STRONG SIDES</b>	<b>WEAK SIDES</b>
Traditional	Online
Hybrid	Offline
Socialnet	Forum
Webinar	Video-lesson
e-lecture	Youtube
e-book	Real time mode
Work in search systems	Wikipediya
	Online-simulation
	Use of e-databases on materials
	posted online

*Table 2: Analysis of students' use of electronic education system*

<b>STRONG SIDES</b>	<b>WEAK SIDES</b>
Online	Traditional
Offline	Hybrid
Forum	Work in search systems
Video-lesson	Webinar
Youtube	e-lecture
Real time mode	e-book
Wikipediya	
Online-simulation	
Use of e-databases on materials	
posted online	
Socialnet	

As we see from the analysis, students are more interested in using electronic education system than teachers. On the other hand, although many countries around the world are using electronic education system and using the LMS system, the issue of the importance of establishing this system in our country is reflected only in government programs. Establishing the LMS system will result in more benefits for students. Let's look at the regression model to calculate the effects of survey results on each other. For this purpose we will process the request data after the survey has been completed.

*Table following on the next page*

Table 3: Grouping of e-resources according to usage level

N	e-resources	Result indicator	Factor indexes		
		High teacher	Middle teacher	Student	Pupil
Cluster 1 (usage level of network technology)					
1.	Chat (mob.)	29	27	18	30
2.	Sos.net	24	21	19	8
3.	Forum	4	6	2	2
4.	Webinar	9	3	2	6
5.	e-mail	25	26	16	28
6.	Youtube	14	19	11	17
Cluster 2 (usage level of e-training materials)					
7.	Video-lesson	12	21	10	4
8.	e-book	30	28	15	24
9.	Online simulation	8	7	4	8
10.	e- material	11	14	5	6
11.	e-lecture	9	18	6	6
12.	Wikipediya	10	12	8	13
13.	e-base	10	7	2	10
14.	e-library	11	8	3	9
15.	Search	5	12	7	17
Cluster 3 (priority level of e-education)					
16.	Traditional	24	23	23	10
17.	Hybrid	12	25	12	10
18.	Real time mode	10	13	3	14
19.	Online	5	8	3	8
20.	Offline	2	9	6	4
Average result		13,2	15,35	8,75	11,7

The table summarizes the result indicator and the factor indexes of the e-resources divided into cluster groups. As you can see, the result indicator of the electronic resources listed in Cluster 1 and the factor indexes are high. Because 99% of the population of Azerbaijan is a mobile phone user. There is a disparity between the value of the result indicator and the value of the factor index on electronic resources found in Cluster 2. Thus, the high teacher's parameters value is lower than the factor index value. In the field of education, there is a great need for creative staff, who work with innovations. Innovation potential in Azerbaijan is weak. Finally, Cluster 3 usage levels of parameters value are quite low. Because, the azerbaijani-language electronic resources are quite low. No methodological resources have been developed for the use of electronic resources in Azerbaijan. Generally, there is no normative legal document in this field. Thus, the high teacher's index is calculated based on 20 indicators of 3 factor indexes. Here, e-resources differ from each other by the value of factor groups. For example the average values showing the level of use of e-resources on factor groups were calculated and diagram based on it was calculated. Regression models are set up on the interaction between the middle teacher, student and pupil factors and the high teacher factor of indicators included in the group of factor indexes. As a result, all units became equal. Let's take a look at the impact of the survey results on each other. Interaction between the high teacher's factor and the other 3 (three) factors – the middle teacher, student, and pupil is determined by the index of the use of 20 electronic resources.

It should be noted that the determinant coefficient depends entirely on the indications of result index value of the high teacher. The determinant coefficient of middle teacher factor indicates that 67% of high teacher depend on a middle teacher. Darbin-Watson's coefficient is smaller than 2, meaning that autocorrecting is adequate for indicators of equality. The determinant coefficients in the high teacher's coefficient, middle teacher, student, and student-dependency models show that the high teacher's result indicator depend on the indicators included in the model: at least 49% of the student factor and 71% of the pupil factor<sup>5</sup>. The problem of reducing the usage level of electronic resources by teachers has been identified as a result of the regression model based on the questionnaire survey. To analyze the cause of the problem, we need to use the macro environment analysis, in other words PEST analysis. PEST is a political, economic, social and technological environment. Macro-environment is political, legal, economic, demographic, social, cultural, technological and environmental changes in our society's life. We will look at the economic and political environment together because the interaction between them makes it difficult to identify individual effects that are often taken separately. Political change in one sphere creates economic change in other spheres, and changes in the economy can accelerate political activities and changes in general.

*Table 4: PEST analysis*

<b>POLITICAL</b>	<b>PEST</b>	<b>ANALYSIS</b>
<i>FACTOR</i>	<i>IMPACT ON EDUCATIONAL INSTITUTIONS</i>	<i>PLANNED EVENT</i>
State does not provide teachers with free internet	The teacher can not work on it	Teachers will be given a workshop on e-mail usage
<b>ECONOMICAL</b>		
IT department is closing	Budget reduction	Control over budget spending reduction
Low funding from public sector		Requirement for quality improvement, skilled workers search
	Demand for employers in multi-profile courses	Testing of teachers
IT + health		
<b>SOCIAL</b>		
Rise of salary	Preparation for distance lessons	Appropriate salary
	Preparing graduates for a global career	Work experience on Lonardoo / Erasmus schemes
<b>TECHNOLOGICAL</b>		
Webcam, networking, social networking and online students	Web demand for web-teachers in online social student groups	An electronic warehouse that stores educational facilities, Open Source Web 2.0 new website for students and teachers to use interactivity

<sup>5</sup> Model evaluation of an Innovative Capital, OCT 12-14, 2016, 607-609. Web of Science  
<https://ieeexplore.ieee.org/document/7991775>

In Table 6, we need to look at all the factors in the PEST analysis and to analyze the impact on their higher education institutions by choosing the important ones, and in the end, the most positive and most negative factor that will affect the university's overall macro environment. PEST analysis was based on questionnaire survey. Strategic conditions created by external environment affecting the low level of use of e-resources by teachers in higher education institutions were assessed.

### 3.CONCLUSIONS

The possibilities for e-learning in Azerbaijan are quite complicated. Development of methodology and normative base is at a low level. The uncertainty of the criteria for the quality of electronic courses, complicates the implementation of electron education. In the course of the study, the current situation has been analyzed and suggestions have been made to address the problem<sup>6</sup>. The efficiency of training on the basis of information resources depends on the quality and quantity of resources and information technologies used by teachers and students. Furthermore, the economic effect of electronic courses depends on the number of students. Electronic training is offered by the government to provide e-standards for new generation technologies, support broadband effective and other emerging technology systems, accelerate technical work required for the national e-portfolio development, and elaborate electronic education methodological plans. In addition, it is recommended that a strategy for the electron training system be developed to expand the national electron education network and create a system of personnel training on innovative technologies. It would be better to apply practices acquired by PRT program in the Azerbaijan State University of Economics. In the course of the research, the following proposals were put forward about the existing situation based on the analysis and assessment:

- It is necessary to develop the Learning Management System methodological and normative base.
- It is necessary to determine an assessment criterion for the evaluation of e-training tools.
- The rules for preparing lectures for electron environment at the universities must be developed and approved by the authority. Besides, there is a demand to evaluate teachers by students for their lectures. It means that teachers might be assessed for the percentage of students how they understand the lectures. The selection of a teacher in the system can be implemented according to the percentage of students' acquisition. Under these conditions, the issue of improving the quality of lectures can be solved.
- It is recommended to prefer open education resources at universities and implement a pilot project in this direction.
- It is needed to define if there is any requirement to prepare lectures.

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## CURRENT SITUATION AND PROSPECTS OF DEVELOPMENT IN THE SPHERE OF FINANCING OF SMALL AND MEDIUM BUSINESS ENTITIES IN THE REPUBLIC OF AZERBAIJAN

**Naila Akhundova**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*naila-akhundova@hotmail.com*

### **ABSTRACT**

*The place and role of small and medium business (SME) in strengthening economic stability, competitiveness and economic activity in the country is significant. However, due to the high risk factors associated with SMEs in the Republic of Azerbaijan, the level of access to funding sources for this category of enterprises is low. The simplest and most reliable option for the organization of the financial base is to direct the funds of the owner of the business entity and the attracted funds in one form or another to new enterprises. The problem with the Azerbaijani economy is that start-up entrepreneurs do not have enough financial resources. Analysis of the state's tax policy in the financing of SMEs (small and medium enterprises) also plays a supporting role in this direction. The study of these issues in the presented article reflects the urgency of the topic. The scientific-methodical base of the research consists of publications of economists of Azerbaijan and foreign countries on entrepreneurship financing, state legislative acts, normative documents and decisions. The purpose of the study is to identify and analyze the factors involved in providing financial support to SMEs. From this point of view, the results were obtained by statistical analysis of the number and value of SMEs in the market economy, the volume and share of SMEs in GDP, the comparison of funds attracted to SMEs with different financing instruments. The article uses the method of synthesis, systematic approach, correlation and regression. As a result of the analysis, the directions of improving the financing of SMEs, the internal factors determining the investment attractiveness are shown in the form of a table, and the ways to increase their trade turnover are listed. As a result of the study, it can be noted that the support of SMEs raises the need for a specific approach such as the creation of a guarantee system for the financing of these entities, the introduction of deposited financing mechanisms, risk insurance, etc.*

**Keywords:** *Small and medium business entities, entrepreneurship, business environment, tax policy, financing, investment*

### **1. INTRODUCTION**

Entrepreneurship is an integral part of the process of reproduction at a time when humanity has embarked on a path of post-industrial progress, which has a transformative effect on the nature and level of regional competition by strengthening the mobility of innovation potential. Small and medium enterprises (SMEs) as a type of business activity are currently widespread in the Republic of Azerbaijan (AR) and are developing. The widespread use of this type of activity is due to the favorable conditions in the country. Thus, the competitive environment that affects the activities of small and medium-sized businesses (SMEs) and is one of the most important issues in the economy meets the modern requirements of a market economy. In this case, increasing the economic power of SMEs is one of the priorities based on the strategic interests of the state. Because the development of SMEs allows to increase employment in the economy or create new jobs. In addition, SMEs are more sensitive to the needs of the population and can respond more quickly and quickly to changes in market conditions. High integration extent of SMEs to contemporary market economy also mediates the creation of an economically egalitarian society by achieving a redistribution of the means of production among more

entities. In this regard, the solution of socio-economic problems of SMEs, the development of the non-oil sector, employment, effective deployment of productive forces in the regions, the creation of maximum favorable conditions for entrepreneurship, increasing the attractiveness of business and investment environment, increase the economic activity of the population as a whole, ensure the efficient use of human potential, adequate regulation of economic issues, as well as the expansion of import- import-substituting manufacture and activities in many regions are at the center of economic processes in Azerbaijan.

## **2. APPROACHES TO THE ACTIVITIES OF SME SUBJECTS AT THE INTERNATIONAL LEVEL**

There are at most two types of economies among the CIS countries. The first is characterized by a relatively low effective tax burden, relatively light regulation, high tax revenues, and a relatively good supply of public goods in the formal sector. The second type is embodied in economic systems with relatively high effective tax burdens, relatively strict regulation, low tax collection and relatively low quality products. The difference between the two types is that the first form has a smaller share and higher growth rates as a legal entity than the second. These results confirm that entrepreneurship is central to the transition, but that it plays a slightly different role than previously thought. There is a real choice between whether new businesses operate in a formal or informal economy. If consumer goods are of high quality during business activities as a legal entity, the activities of business entities will be registered, which will allow the government to receive tax revenues and provide the population with products. If consumer goods in the formal sector are of poor quality, entrepreneurs will not be registered and the government will lose tax revenues. Reform is an important part of the reform process, which is usually neglected to improve the efficiency of the formal sector in terms of new private enterprises. (Johnson S., Kaufmann D. and Shleifer A., 1997: p. 30). According to J.J. Lambe, “sustainable competitive advantage is gained only by businesses that constantly and systematically analyze market needs, which leads to the development of goods designed for certain customer groups and with specific features different from competing products.” he says. (Nurmuhametov A.V., 2014: p. 17) In other words, Lambe emphasized business entities as a leading figure in market conditions. If the basic principle of a market economy is to make a profit, SME activity is central to the implementation of this principle. In our opinion, the position of the state in modern public administration should not be to ensure the satisfaction of demand in the market, but to create conditions and support for SMEs to meet this demand. Many years of experience in the development of SMEs in European countries have shown that the subject of economic relations plays a major role in the country's economy, stimulates competition, encourages large companies to apply new technologies and increase production efficiency. From this, it can be concluded that the increase in the efficiency of economic activity in the European Union as a whole is directly conditioned by the successful operation of SMEs. Therefore, the main goal of the EU in the policy of support for SMEs is to balance the interests of business with the state, to provide optimal conditions for entrepreneurship, as well as to increase the competitiveness of SMEs (Kazybaikiza A., Smagulova Z.B., Berikbolova U., Mukhanova A.E., 2015: p. 425). As we know, the activities of SMEs can be considered effective primarily through the proper use of financial resources. In this regard, approaches to financial problems are important for SMEs. In the world practice, the following problems are encountered in the SME financial management strategy (Zongsheng Liu, 2010: p. 133):

- Lack of scientifically sound and standardized financial strategies;
- Lack of strategic environmental analysis and inappropriate strategic financial targets;
- Reducing the role of budgeting in strategic financial operations and other problems in strategic management.

### 3. THE CONTRIBUTION OF SME SUBJECTS TO THE ECONOMY OF THE REPUBLIC OF AZERBAIJAN AND THE CHALLENGES EMERGING IN THIS SPHERE

By the decision of the Cabinet of Ministers of the Republic of Azerbaijan dated 21.12.2018, the division of micro, small, medium and large business entities was determined according to new criteria (<http://www.e-qanun.az/framework/41048>). The one-stop-shop system has created a favorable environment for businesses by electronic registration procedures, as well as simplifying the issuance of licenses. The criteria for classification of business entities are shown in Table 1.

Categories of business entities by capacity	Average list number of employees	Yearly income (yi) (million AZN)
Micro	1-10	$yi < 200$
Small	11-50	$200 < yi < 3000$
Medium	51-250	$3000 < yi < 30000$
Large	251 and over	$30000 < yi$

*Table 1: Criteria for the distribution of micro, small, medium and large businesses*  
(Source: <https://cabmin.gov.az/az/document/3251>)

In the modern market economy, micro, small and medium enterprises are objectively expanding as a somewhat independent sector. SMEs manifest great socio-economic importance in point of view of support both social and political sustainability, form a rational economic structure, weaken structural changes, adapt more flexibly to changes in market demand, stimulate the development of regions in the country, increase revenue from all levels of budgeting, engineering, industry and revealing and introducing management innovations as well. The place of SMEs in the country's economy is determined by the following factors:

- a) the number of small enterprises and individual entrepreneurs in the total number of market economy entities;
- b) the share of small enterprises in the formation of GDP, production;
- c) the role of small enterprises in the formation of state and local budgets;
- d) increasing the number of able-bodied people working in small enterprises, the importance of reducing the number of unemployed;
- e) enrichment of the market with consumer goods;
- f) better meeting the needs of the population;
- g) the ability of competent citizens to set up their own businesses.

Small business is more widespread in the country's economy than others. Small businesses operate mostly individually. Thus, in 2014, 92% of small businesses were sole proprietors. In order to accelerate their growth, it is necessary to take measures to facilitate their transformation into legal entities, as enterprises can receive financial support on better terms than individuals. (Zbучea A., Nikolaidis D., 2016: p. 472)

#### 3.1. The challenges SMEs face in their activities

The main problem facing the majority of SMEs is the lack of full access to budget resources and constant attempts to save money. In addition, the following difficulties remain in the activities of SMEs in our country:

- a) heavy tax burden, repeated amendments to tax legislation and tax reporting;

- b) immutable and non-transparent legislation restricting the activities of small businesses in certain areas. Companies are constantly adjusting their work rules, especially in connection with taxation and foreign economic activity.
- c) the existence of shortcomings in the legislation to ensure equality of various forms of liability and protection of private property;
- d) low purchasing power.
- e) Negative dynamics of SME development and reduction of the share of small enterprises in the economy as a whole;
- f) widespread informal employment. This is due to the difficulties associated with employee registration and the high financial burden;
- g) Crisis events such as liquidity crises that negatively affect SMEs.

### **3.2. Current situation of state financial support for SMEs**

Currently, the institutions providing state financial support to SMEs include the Azerbaijan Export and Investment Promotion Fund, the Agrarian Credit and Development Agency, the Youth Foundation, the Azerbaijan Investment Company and the Innovation Agency. Azerbaijan Investment Company OJSC was established in 2006 and its main principle of activity is to attract or finance fixed-term investments for the development of the non-oil sector (<https://aic.az/en/pages/id:10>). The state financial support to the company's SMEs is carried out through competition through the state and local budgets in accordance with the legislation. The Azerbaijan Export and Investment Promotion Foundation (AZPROMO) was established in 2003 on the balance of the Ministry of Economy. AZPROMO works to attract foreign investment to SMEs, including to support the export of non-oil products ([www.azpromo.az/about-us/azerbaycanda-ixracin-ve-investisyalaryn-tesviki-fondu-azpromo](http://www.azpromo.az/about-us/azerbaycanda-ixracin-ve-investisyalaryn-tesviki-fondu-azpromo)). The advantages of AZPROMO are as follows:

- No state inspections (except for tax, state security and health issues);
- There are no restrictions on the export of profits;
- There is no licensing for foreign exchange transactions related to capital turnover.

The Entrepreneurship Development Fund and authorized commercial banks provide financial assistance to entrepreneurs, as well as property assistance on leasing or financial lease terms. The fund finances programs, projects and activities aimed at supporting and developing entrepreneurship through the use of capital funds in the form of budget allocations, credit resources, voluntary donations and remittances of legal entities and individuals, issuance and placement of securities.

#### *3.2.1. Condition of soft loans in the development of SMEs*

Although entrepreneurs have access to preferential loans, commercial banks do not have the authority to directly approve such loans. The Entrepreneurship Development Fund must give the final approval to the banks. This can negatively affect the development of entrepreneurship by increasing the decision-making time. As banks are in a more favorable position in terms of loan evaluation and approval, it is more efficient to give banks the power to make the final decision on loan approval. In order to eliminate unplanned support, not only loans but also the subsidy mechanism must be reformed. Given the high interest rates in banks and limited access to budget loans, there is a need to develop financial markets for entrepreneurs to obtain foreign financing. By selling securities, SMEs can obtain more affordable financing. The development of financial markets will open up more opportunities for entrepreneurs to finance. As small businesses need more financial support, there is a need for specialized banks that can more accurately assess risks and adjust loan terms.

### 3.2.2. *The application of effective tax incentives in the development of SMEs*

The mentioned incentives perform a number of functions that can affect the course of economic processes in the country, including:

- formation of the state treasury;
- stimulation or distillation of economic processes;
- impact on macroeconomic indicators;
- balance of payments regulation;
- redistribution of financial flows from various activities;
- to meet the social needs of society;
- control over the fulfillment of obligations by taxpayers and the amount of funds received in the budget.

The state has the ability to influence the economy through tax policy. But an effective tax system is needed for a responsive response. When carrying out reforms, drafting new decrees and laws, the country's leadership must follow the basic principles of the tax system:

- a) taxes must be commensurate with the ability of taxpayers;
- b) the amount of the payment, as well as the payment period, must be determined in advance;
- c) the payment term must be appropriate to the payer;
- d) respect for the interests of both parties;
- e) mandatory payments;
- f) equal distribution of the tax burden;
- g) ease of procedures for the payer;
- h) abolition of double taxation;
- i) the adequacy of the costs of accumulating the specified rates.

The state can implement a mechanism for regulating economic processes in society using tax incentives. This tool gives the payer certain rights and advantages over other organizations. Tax exemptions are granted to certain citizens or business entities who have reasonable rights to use the exemptions. Generally, documents confirming their special status must be provided to allow individuals to take advantage of them. Entrepreneurs can apply tax exemptions prescribed by law without first applying to the tax authorities. However, they must be prepared to prove their rights during tax audits.

## 4. MACROECONOMIC ANALYSIS OF SME ACTIVITIES

To determine the macroeconomic position of entrepreneurial activity, GDP (in million AZN) (Y), export trade turnover (in million AZN) (X1), import trade turnover (in million AZN) (X2), number of business entities (X3), fixed capital investments (in million AZN) (X4), profit tax paid by legal entities (in million AZN) (X5), value of non-oil sector (in million AZN) (X6) and total volume of credit investments in the economy (in million AZN) (X7) Let's show the indicators for 2011-2019 in Table 2:

*Table following on the next page*

	Y	X1	X2	X3	X4	X5	X6	X7
2011	52082,0	58641,3	58641,3	364600	12799,1	2135,362	21974,3	9850,3
2012	54743,7	55477,9	17709,7	432141	15407,3	2244,492	26165,4	12243,7
2013	58182,0	53895,0	17545,0	454997	17850,8	2385,462	29982,8	15422,9
2014	59014,1	48041,4	15864,4	519860	17618,6	2301,55	33038,2	18542,6
2015	54380,0	26496,3	16615,2	576906	15957,0	2229,58	34500,9	21730,4
2016	60425,2	22457,9	15307,1	715585	14903,4	1994,032	35951,2	16444,6
2017	70337,8	25758,5	15363,4	794441	15550,8	2321,147	40012,3	11757,8
2018	79797,3	35349,4	18619,1	441674	17238,2	2473,716	41588,6	13020,3
2019	81681,0	33776,0	19270,0	496000	17184,3	2532,111	44471,8	15298,2

Table 2: Indicators in areas related to entrepreneurial activity.

(Source: State Statistics Committee of Azerbaijan ([www.stat.gov.az](http://www.stat.gov.az)), Ministry of Economy of the Republic of Azerbaijan ([www.economy.gov.az](http://www.economy.gov.az)), Central Bank of the Republic of Azerbaijan (<https://www.cbar.az>))

As can be seen, entrepreneurial activity is an economic sphere that effectively affects economic activity in the Republic of Azerbaijan. The value created by entrepreneurial activity in the country's economy is an auxiliary direction with a fairly high share in GDP. Also, the implementation of such activities has become a reference point for the state to provide employment in the framework of socio-economic processes. According to the data in Table 2, for the analyzed period, the development indicators of entrepreneurial activity and the changing dynamics of the parameters of related areas are described in Figure 1:

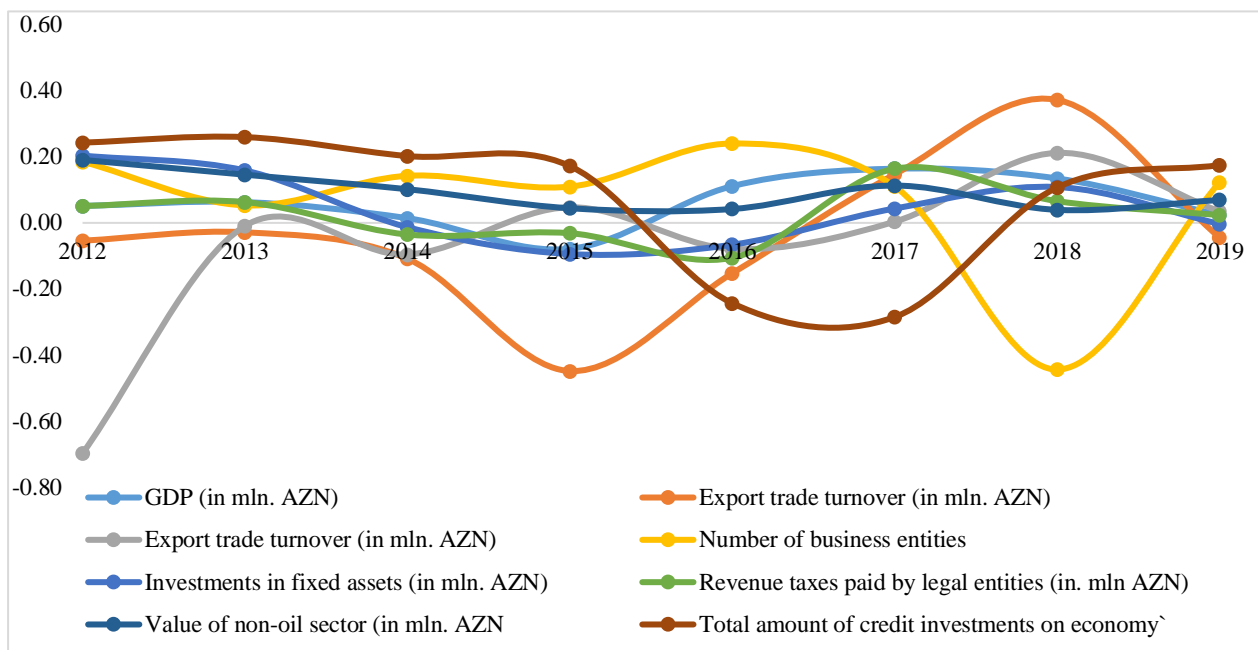


Figure 1: Individual parameters of entrepreneurial activity and growth dynamics of indicators of related fields.

(Source: Designed by the author based on the information in Table 2).

It can be noted from Figure 1 that no single trend change was observed in any of the economic categories showing the course of economic processes. In 2012 and 2019, the dynamics of growth of corporate income tax paid by legal entities is the same.

At the same time, the fact that the two field figures have the same directional variability indicates that there is a relationship between them. In the comparable periods, the largest decline in the sector's performance occurred in 2012 in the import trade turnover. This situation can be considered positive. Thus, due to the positive dynamics of the non-oil sector, it has led to a decrease in import trade due to the production of import-substituting products in the country. The highest increase in the analyzed indicators was taken by the indicator of export trade turnover. Based on this, it can be said that the development of SMEs in their economic processes has led to an increase in exports. According to the table, the highest growth rate among these sectors was observed in 2018 in the volume of products produced in the non-oil sector. However, the decrease in the dynamics of export products in that period can be justified by the increase in domestic demand. In addition, the decline in tax payments of businesses in that period can be explained by economic reforms. Interestingly, 2018 was marked by a slowdown in GDP growth. The number of operating business entities decreased during the period when the development of the non-oil sector was at its maximum. This can be justified by the application of the rules for determining business entities in the country with new criteria. During this period, the slow behavior of entrepreneurs in the registration process or the occurrence of deviations in the registration process can be considered as the reasons for the decrease in the number of business entities. The dynamic increase in fixed capital investment in 2018 is due to the non-oil sector, which has shown its benefits. Based on the information shown in Table 2, let's calculate the multifactor correlation between the individual parameters of entrepreneurial activity and the indicators of the related areas through the Excel editor and describe the results in Table 3:

	Y	X1	X2	X3	X4	X5	X6	X7
Y	1							
X1	-0,45105	1						
X2	-0,33063	0,52204	1					
X3	0,155342	-0,80235	-0,51631	1				
X4	0,465555	-0,093	-0,71821	-0,02375	1			
X5	0,723337	0,05524	-0,27848	-0,27491	0,719538	1		
X6	0,882756	-0,76712	-0,60238	0,486343	0,536988	0,548025	1	
X7	-0,15268	-0,4007	-0,5334	0,22843	0,464268	-0,04563	0,246678	1

*Table 3: Results of multifactor correlation between individual parameters of entrepreneurial activity and indicators of related fields*

During the correlation analysis, a close relationship was observed between GDP and income tax paid by businesses (0.723337) and value added in the non-oil sector (0.882756). For this reason, we continue our research through multivariate regression analysis to study their interactions in these areas. Note that when calculating the multivariate regression analysis during the study, it was determined based on the following formula:

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_n x_n$$

During the analysis, the following model was obtained by conducting an estimation in the excel editor to study the impact of income tax paid by businesses ( $\beta_1$ ) and value generated in the non-oil sector ( $\beta_2$ ) on GDP (Y1):

$$y = -25325,34228 + 22,98896175x_1 - 25325,34228x_2$$



In purpose of making sure of the adequacy of the model, the growth dynamics of the GDP indicator with the obtained model is capable to be compared in the following Figure 2:

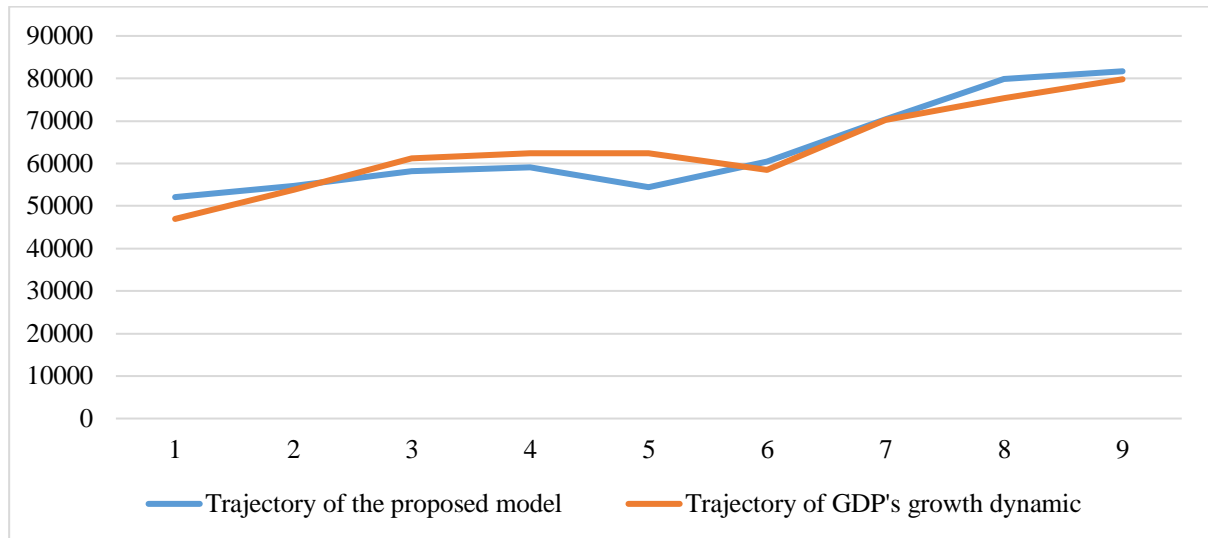


Figure 2: Trajectory of GDP growth dynamics with the advanced model.

As can be seen from Figure 2, it is observed that the model adequately reflects the real situation in many parts, increasing hereby the reliability of the forecast to be calculated. As a result of the study, according to the above model, it can be supposed that given an increase in corporate income tax and value added in the non-oil sector by 1 percent in 2020, the GDP will equal 80852,71 million AZN.

## 5. CONCLUSION

Based on the analysis of the development path of SMEs in our country and foreign experience, we can form the following directions for the improvement and development of the conditions created in our country to encourage business:

- 1) *Reducing the tax burden.* This is the main goal in improving support for small business. This support should also apply to both existing and newly established small businesses. Grants, subsidies, loans, etc. to the regions. It is not advisable to allocate various financial assistance, as support organizations do not pay attention to the implementation of large-scale economic activities due to high tax rates, as well as the lack of a flexible system for start-ups. However, potential small businesses could increase their economic turnover and pay taxes to the local budget. "According to some entrepreneurs, the main advantage of informal status is the absence of a tax burden." This indicates that the increase in government revenues is provided by a possible increase in legally registered enterprises. In foreign countries with advanced levels of economic development, which have left behind a high tax rate, they later abandoned this path, realizing that such a system strengthens the "shadow business". The author believes that this experience should be taken into account in Azerbaijan, as tax legislation is a major obstacle to the development and support of small businesses;
- 2) *Improving laws to eliminate bureaucracy and anti-corruption legislation.* The aim is to reduce the risk of administrative barriers, strengthen the protection of property and contract rights, create legal conditions for entrepreneurship and their implementation, and protect against unfair competition. Examples of administrative barriers include the Spanish experience, which allows businesses to register and engage in activities that do not require a license within 24 hours;

- 3) *Development of legislative measures to stimulate investment and lending to SMEs.* The main problem after the tax pressure faced by entrepreneurs is the difficult access to debt sources and high prices. Subsidies to cover expenses do not allow start-ups to organize their business due to lack of start-up capital, so they can be replaced by subsidies to be provided before the costs are incurred. Such practices are widely used in developed countries;
- 4) *Expanding forms of cooperation between SMEs.* The Republic of Azerbaijan has a well-developed infrastructure to support SMEs, for example, there is a well-developed network of both public and private institutions in all EU member states to regulate the development and support of SMEs. At the same time, SME development policy in each EU country is developed by the Ministries of Economy, Industry and Trade, and many other government authorities, such as the Ministry of Employment are involved in supporting SMEs. Number of government agencies, regulating major spheres, including employment, training, international trade, development and etc., particularly trade and industry chambers, are engaged in training and technological consulting of SMEs, promotion of international trade and cooperation, issuance of quality certificates, and providing business information to SME representatives. After analyzing the experience of foreign countries, it is possible to apply the methods of the United States and Germany in this matter by preparing strict requirements for the number of orders in the total share of orders for small organizations;
- 5) *Information assistance at the state level.* Information support should be provided at the state level, not at the regional level, in order to exert stronger political influence on SME development and protect the interests of the government at the highest level;
- 6) *Strengthening support for SMEs in the regions.* This problem is relevant for small towns, where large businesses do not thrive, and small businesses can be a source of local budget revenues and job creation. An example of this is the Dutch experience, where special attention should be paid to the development of small business in economically complex regions. The government solves the problem of targeted placement of small businesses by providing non-refundable subsidies to create a developed infrastructure. Examples are special loans provided by the Ministry of Economy and guarantees for annual salaries in small businesses.
- 7) *Strengthening transparent competition in the local market.* The Tariff Council was established to regulate tariffs on natural monopolies, as well as prices set by the state. The policy pursued in this direction is aimed at implementing state support for entrepreneurship on the basis of a system that reduces the impact of state support measures on entrepreneurs. Continuous measures are being taken to implement this strategic line. A mechanism for financial support for entrepreneurship has been established, and this source acts as an important tool to meet the financial requirements of small and medium enterprises. (Alakbarov I., 2010: pp. 2-3)

Thus, targeted state support for SMEs is important for the Azerbaijani economy and can be implemented based on a regulated conceptual framework and a system of consistent regulatory measures arising from this framework. Along with the protectionist approach, including the development and implementation of targeted programs to support SMEs in our country, countries with efficient market economies in general have taken the path of purposeful and consistent development of the macro environment in business. In other words, the creation of favorable conditions for the successful operation of enterprises is reflected in the legislative framework at the state level. The implementation of state programs and most regional programs for the development of small business in our country has a positive impact on the profitability of small business.

**ACKNOWLEDGEMENT:** *As one of the key areas influencing GDP growth, the business sector requires an innovative approach characterized by integration, taking into account the interactive interaction of all elements to solve problems in terms of government regulation. In this case, the risk factors in the implementation of SME support programs should be assessed and their insurance should be organized. The necessary conditions, such as tax breaks, pre-submission of various orders to SMEs, as well as the provision of logistics services for the sake of supporting international exports, should be set as an incentive for the state to expand the activities of SMEs.*

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## ADAPTIVE METHOD OF ECONOMETRIC MODELING AND FORECASTING OF AZERBAIJAN'S GDP

**Esmira Ahmadova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
fbc.baku@gmail.com*

### ABSTRACT

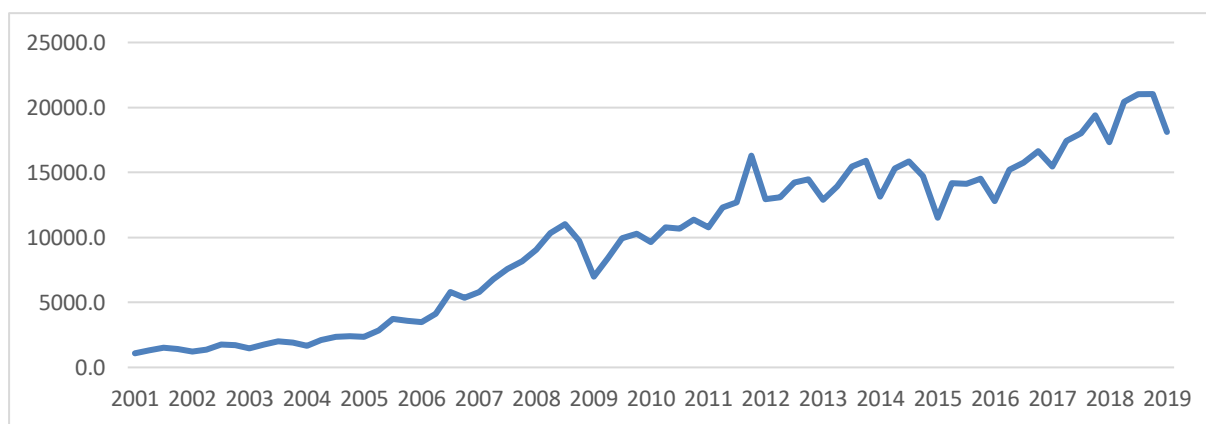
*This article deals with the adaptive methods for econometric modeling in the study of the GDP of Azerbaijan for 1997–2018. The research purpose is to obtain short-term forecasts of the dynamic development of the economy of Azerbaijan in the conditions of the period of transition to a market economy. The methodological basis of the research consists of the Holt-Winters and ARIMA (p, d, q) methods of econometric analysis of the GDP of Azerbaijan. The calculations were performed and graphs were plotted using freely distributed modern software — the statistical environment R— which is one of the most dynamically developing programs in its class. The research is deemed relevant as the economic tooling used in the article is related to one of the current directions of statistical analysis and forecasting of time series, and at the same time these issues have not been addressed to a sufficient extent in domestic and foreign publications. In this view, the article provides a method for constructing mixed autoregressive models—the moving-average method — as well as a study of the model properties, and their empirical comparison with the adaptive autoregressive model. Diverse econometric tests performed in the course of the study showed us that the constructed econometric models meet all the essential postulates of econometric analysis, i.e. meet the conditions of the specification, parametrization, and verification. The results obtained in the article are of high relevance and great importance. They can be applied in practice, as well as used both to monitor and forecast the development of the economy of Azerbaijan as a whole, and as a tool for retrospective analysis*

**Keywords:** *Adaptive Method, Economy, Modeling, Time Series*

### 1. INTRODUCTION

Gross domestic product is now pretty much the main indicator that measures the social and economic development of countries. Definitely, GDP, with a dominating scale of the economy, remains the main instrument for measuring economic development and the welfare of citizens (Zolov O. N., Matnenko N. N., 2019). At the same time, GDP, as a measure of the scale of the economy and social and economic development has been a major discourse of the scientific community, which has intensified with the development of the processes of digital transformation of the economy and public life. The disadvantages of this indicator include the inability of GDP to reflect the qualitative state of the economy, highlighting the intensive and extensive factors of its development, and to understand whether economic growth is sustainable. GDP was created by Simon Kuznets in 1934 as the monetary value of all goods produced in a particular country for a certain period. Despite the fact that the significance of the GDP indicator is overestimated, many economists consider it the main goal of development and a reflection of the economy condition. In this regard, the analysis and forecasting of this indicator is one of the main problems at the present stage. A number of Azerbaijan's GDP from 1995 to 2018 and quarterly data from 2001 to 2019 were taken as a time series.

*Figure following on the next page*



*Figure 1: Azerbaijan GDP dynamics, quarterly data, in million manats  
(Source: data from the State Statistics Committee of Azerbaijan)*

GDP and its fluctuations were one of the most favorable subjects for researchers and economists in the field of macroeconomics. For this purpose, various methods for predicting the movement, fluctuations, or volatility of the dynamics of this indicator have been tested. The most popular among them are econometric methods. Recently, modern computational approaches such as artificial neural networks and fuzzy expert systems have gained popularity because they are more flexible and accurate than traditional methods. However, there is still no unified view on which methods are more reliable (Bashiri Behmiri, Niaz and Pires Manso, José Ramos, 2013). Bashiri Behmiri, Niaz and Pires Manso, José Ramos in their articles investigated and grouped the basic methods for forecasting time series, which include the subject of research in this article, i.e. GDP.

## 2. LITERATURE REVIEW

In the literature on forecasting, there are two main categories of forecasting methods: quantitative and qualitative. Quantitative methods are numerical and quantitative are variables; they include two categories of methods: econometric methods and non-standard methods. Among them, econometric models are grouped into three classes of models: Time Series Models, Financial Models, and Structural Models. On the other hand, the main non-standard methods that are most often used in forecasting time series are artificial neural networks and support vector machines. On the other hand, qualitative methods are the dolphin method, fuzzy logic and expert systems, as well as the text mining method. Time series models include three main categories: naive models, exponential smoothing models, and autoregressive models such as the ARIMA (Autoregressive integrated moving average) and ARCH Autoregressive conditional heteroskedastisity, as well as GARCH (Generalized autoregressive conditional heteroskedastisity). The results of these methods were compared with the results of methods of reference vector machines and artificial neural networks. The results of selective forecasting showed that the ARIMA model provides the lowest forecasting efficiency among the mentioned methods. Fernandez (FERNÁNDEZ, S. and WISE, L. R., 2010) performed off-program forecasting for short-term and long-term horizons using the ARIMA model. The result proves that the ARIMA model surpasses for a very short-term horizon forecast to artificial neural networks and support vector machine approaches; however, the ARIMA model provides the worst accurate forecasts for a long-term horizon forecast. Since the number of forecasting methods is enormous, the choice of the method most suitable for a particular scenario is of concern to all forecasters. The accuracy of various forecasting methods has been studied by many researchers. These studies typically use prediction accuracy after sampling. Makridakis and Hibon (Makridakis S & Hibon M, 1979) were the first to compare a large number of basic methods. Their study used more than 100 time series, taken from a wide range of real situations.

The main conclusion was that simple methods, such as exponential smoothing, surpassed the complex ones (C.K.Ng, 2018). Makridakis continued the study (Makridakis S, Chatfield C, Hibon M, Lawrence M, Mills T, Ord K & Simmons L. F., 1993). This time, the number of series used was increased to 1001, and the number of methods was increased to 15. The results of the new study were similar to the results of the previous research and were summarized in the following provisions:

1. Statistically complex or complex methods not necessarily surpass simple methods.
2. The relative evaluation of the effectiveness of different methods varies depending on the accuracy measure used.
3. The accuracy with which various methods are combined, on average, exceeds the accuracy of individual combined methods and is very high compared to other methods.
4. The accuracy of various methods depends on the length of the corresponding forecast horizon.

The first adaptive models were developed in the early 50s of the XX century (Zolov O. N., Matnenko N. N., 2019). They are based on the method of exponential smoothing proposed by R.G. Brown. Subsequently, R. Wade, D. Mat, J. Box, G. Jenkins, P. Harrison, D. Ward, G. Tail, S. Wage, R. Markland, P. R. Winters, R.F. Mayer, J.A. Muller, D. Trigg, A. Leach, M.L. Shawn, W. Chow, S. Roberte, R. Reed, A. Rao, A. Shapiro, Yu.P. Lukashin, E.M. Levitskiy, A.G. Ivanenko, A.A. Frenkel, E.M. Chetyrkin, V.V. Wensel made a great contribution to the development and improvement of adaptive forecasting methods. Subsequently, these findings were reproduced by other researchers. Among them are Geurts and Kelly (Geurts M D & Kelly J P, 1986), Clemen (Clemen R, 1989), Fildes, Hibon, Makridakis and Meade (Fildes R, Hibon M, Makridakis S & Meade N, 1998), Makridakis S & Hibon M. (Makridakis S & Hibon M, 2000).

### 3. THE HOLT-WINTERS METHOD

As a result of analysis of the literature on the topic under discussion, forecasting the GDP of Azerbaijan in the short term is based on forecasting the time series using the family model of the autoregressive integrated moving average (ARIMA) and the adaptive Holt-Winters model. The Holt-Winters model is one of the most popular time series forecasting methods. This method is quite widespread. It is used in monitoring social and economic development, as well as for purposes such as anomaly detection and planning. The adaptive methods started developing since the work by C. Holt ( Williams T. M., 1987). In the future, this matter was thoroughly studied by R.G. Brown, J. Boxing and G. Jenkins, Yu. P. Lukashin and others (Lukashin Yu.P., 2003, Holt C. E., 1957, Winters P. R., 1960). Holt-Winters is a time series behavior model; it is a way of modeling three aspects of a time series: typical value (average), slope (trend) in time and cyclic repeating pattern (seasonality). The Holt-Winters model uses exponential smoothing to encode multiple values from the past and use them to predict “typical” values for the present and future. The Holt-Winters prediction algorithm allows users to smooth out time series and use this data for forecasting; the later historical data is assigned more weight when forecasting than older ones. Holt-Winters uses three types of exponential smoothing methods:

- Single exponential smoothing - suitable for predicting data without a trend or seasonal pattern, where the level of data can change over time.
- Double exponential smoothing - to predict data where trends exist.
- Triple exponential smoothing - used to predict data on trend and/or seasonality.

The Holt-Winters method is a way to structurally model three aspects of time series; typical initial value (level), time slope (trend) and cyclical repeating pattern (seasonality).

Each of these three variables is adaptive. Instead of the Holt model, it is better to build its modification, namely the Holt-Winters method, which in general is described by the following system of equations:

$$\left\{ \begin{array}{l} \hat{Y}_{T+\tau} = (a_T + \tau b_T) + c_{T-s+\tau} \\ a_t = \alpha(Y_t - c_{t-s}) + (1 - \alpha)(a_{t-1} + b_{t-1}) \\ b_t = \beta(a_t - a_{t-1}) + (1 - \beta)b_{t-1} \\ c_t = \gamma(Y_t - a_t) + (1 - \gamma)c_{t-s} \end{array} \right. \quad (1)$$

where  $s$  – seasonality step in the model,  $a_t$ ,  $b_t$  and  $c_t$  - model parameters,  $\alpha, \beta, \gamma \in (0,1)$  – constant smoothing. In this case, when evaluating the model in R, the following values were obtained:  $\alpha = 0,7953$ ,  $\beta = 0,0015$  и  $\gamma = 0,202$ . Thus, the model looks like this:

$$\left\{ \begin{array}{l} \hat{Y}_{T+\tau} = (a_T + \tau b_T) + c_{T-s+\tau} \\ a_t = 0,7953(Y_t - c_{t-s}) + (1 - \alpha)(a_{t-1} + b_{t-1}) \\ b_t = 0,0015(a_t - a_{t-1}) + (1 - \beta)b_{t-1} \\ c_t = 0,202(Y_t - a_t) + (1 - \gamma)c_{t-s} \end{array} \right. \quad (2)$$

Forecasted values and their correlation with reality are best viewed on the chart (see Fig. 2)

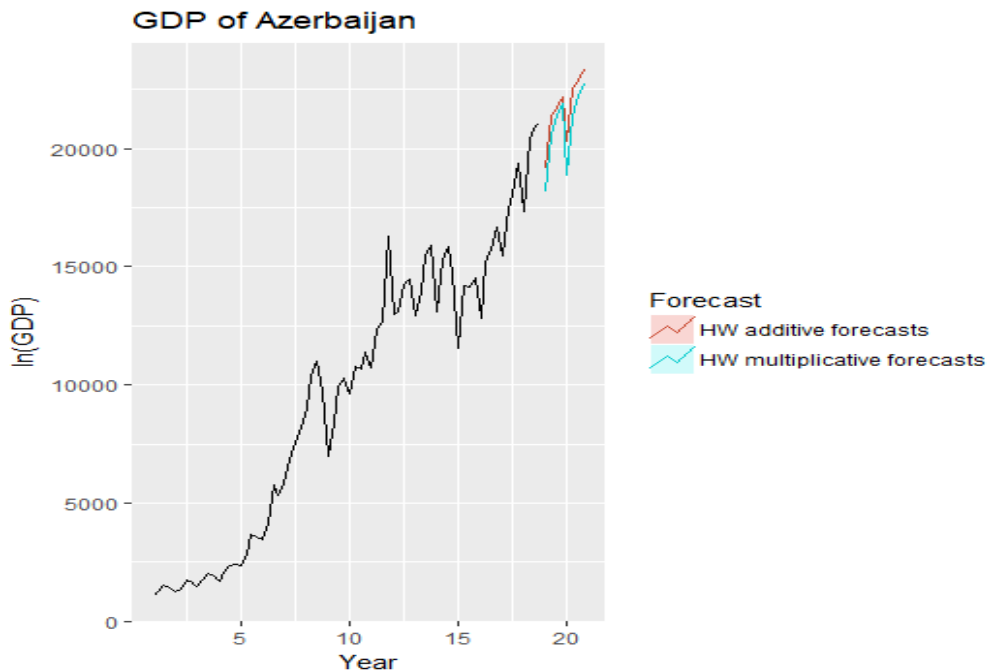


Figure 2: Azerbaijan's GDP chart and forecast according to Holt-Winters additive and multiplicative models  
(Source: author's development)

Method	Value	Adj. Value	Probability
Lilliefors (D)	0,1002	NA	0.0706
Cramer-von Mises (W2)	5,9106	0,08268	5,249-e-12
Watson (U2)	0.082200	0.082684	0.1622
Anderson-Darling (A2)	0.541873	0.546823	0.1596

*Table 1: Tests for the normal distribution of residues of the Holt-Winters model  
(Source: made by author)*

The test results for normal distribution indicate the fact that we won't reject the hypothesis of a normal distribution of residues at a 5% significance level for the Holt-Winters multiplicative model, which means the model is appropriate.

#### 4. THE ARIMA (P, D, Q) METHOD

In this article, we will consider one of the most effective adaptive forecasting methods called Auto ARIMA. ARIMA is a very popular statistical method for forecasting time series. ARIMA is an auto regression integrated moving average. The models work on the following assumptions: The data series is stationary, which means that the mean and variance should not change over time. A series can be made stationary by converting or differentiating data. The data provided as input should be a one-dimensional sequence, since ARIMA uses past values to predict future values (FERNÁNDEZ, S. and WISE, L. R. (2010). ARIMA (p, d, q) consists of three components - AR (autoregressive term), I - (differentiating term) and MA (moving average) and is represented by the following equation (3):

$$Z_t = (1-L)^d * y_t = \Delta^d * y_t \quad (3)$$

where  $\Delta^d * y_t$  - dth difference  $y_t$

The model (3) is an integrated autoregressive model with errors in the form of a moving average, or ARIMA (p, d, q) [4]. In general, model (3) can be written as (4):

$$\Delta^d * y_t = \mu + \gamma_1 \Delta y_{t-1} + \gamma_2 \Delta y_{t-2} + \dots + \gamma_p \Delta y_{t-p} + \varepsilon_t - \theta_1 \varepsilon_{t-1} - \dots - \theta_q \varepsilon_{t-q}, \quad (4)$$

where  $\Delta^d * y_t = y_t - y_{t-1} = (1 - L) y_t$

$$y_t = a_0 + \sum a_i y_{t-i} + \sum b_i y_{t-i} \quad (5)$$

Let have a look at each of these components. The term AR refers to past values used to forecast the next value. The term AR is defined by the parameter "p" in ARIMA. The p value is determined using the PACF graph. The term MA is used to determine the number of past forecast errors used to predict future values. The parameter "q" in ARIMA is represented by the term MA. The ACF chart is used to determine the correct q value. The differentiation order determines how many times the differentiation operation is performed on a series to make it stationary. Tests such as ADF and KPSS can be used to determine if a series is stationary and help determine the d value. An econometric analysis of the time series to the available data: Azerbaijan's GDP was carried out using a four-step iterative procedure, including identification, assessment and diagnostic verification of the model.

*Figure following on the next page*



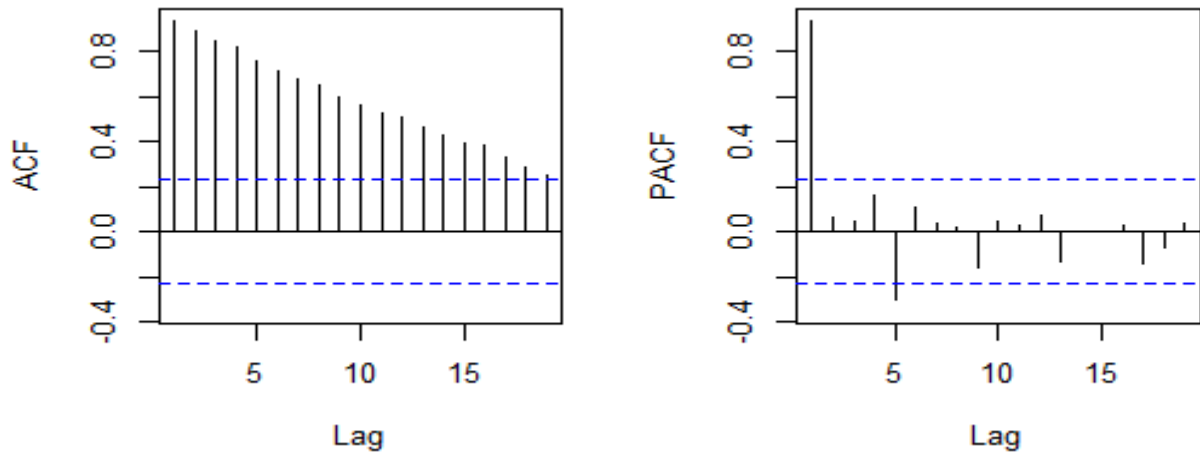


Figure 3: Correlogram for Azerbaijan's GDP indicators  
(Source: drawn up by author)

After carrying out a preliminary analysis by selecting the appropriate model from the ARIMA class with a seasonal component, according to the Akaike criterion, using the R software, we selected the following seasonal ARIMA model (1,0,0) (0,1,1) (Makridakis S & Hibon M., 1979), which reflects quarterly dynamics of Azerbaijan's GDP. The model parameters are estimated using the maximum likelihood estimation (MLE). MLE is widespread due to its good asymptotic properties:

- consistency
- asymptotic normality,
- asymptotic efficiency.

The concentrated logarithmic likelihood function is calculated using the following formula:

$$\ell(\theta|Y) = -T/2(\log(2\pi e) + \log(\sigma^2)) \quad (6)$$

where  $\theta$  — is the vector of model parameters, and  $T$  is the number of observations. The likelihood function (4) can be used to evaluate model parameters, as well as to calculate information criteria and select the optimal model.

Variable	Coefficient	Standard error (s.e.)	t- statistics
AR1	0,8024	0,0751	10,6844
SMA(1)	-0,6324	0,1082	5,8447
drift	269,9098	51,9586	5,7946

Table 2: Parameters of the ARIMA model (1,0,0) (0,1,1) [4], for a variable: GDP of Azerbaijan, quarterly data  
(Source: author calculations using R software)

The table above (see table 2) shows that all coefficients are significant at the level of 0.1 or 10%. As a result of modeling, we obtained a regression model of the ARIMA class (p, d, q), presented in the following form:

$$y = 269,9098 + 0,8024 \cdot y_{t-1} - 0,6324 \cdot y_{t-4} + \varepsilon \quad (7)$$

Now let's move on to tests and criteria for comparing models and highlighting the best from the point of view of forecasting from those considered.

Model	AIC – criterion	BIC	p-value	RMSE	MAPE	X-squared
Fit1	1300.79	1321.28	0.7091	871.297	11.31	2.1453
Fit2	1261.51	1282.00	0.0473	767.389	6.72	9.6235
ARIMA(1,0,0)(0,1,1)[4]	1125.78	1134.66	0.9274	856.9216	8.47	0.8803

Table 3: Model Test Results

(Source: Author's calculations using R software)

The average percentage of MAPE deviation according to the table is the smallest in the Holt-Winters Fit2 multiplicative model. Although according to the AIC criterion, the best model for forecasting is the ARIMA model (1,0,0) (0,1,1) (Makridakis S & Hibon M., 1979). According to the criterion of the smallest square root of the standard error, the Holt-Winters Fit2 multiplicative model is used. Both models considered above have both positive and negative aspects. Both are equitable and can be used to forecast the GDP of Azerbaijan in the short term.

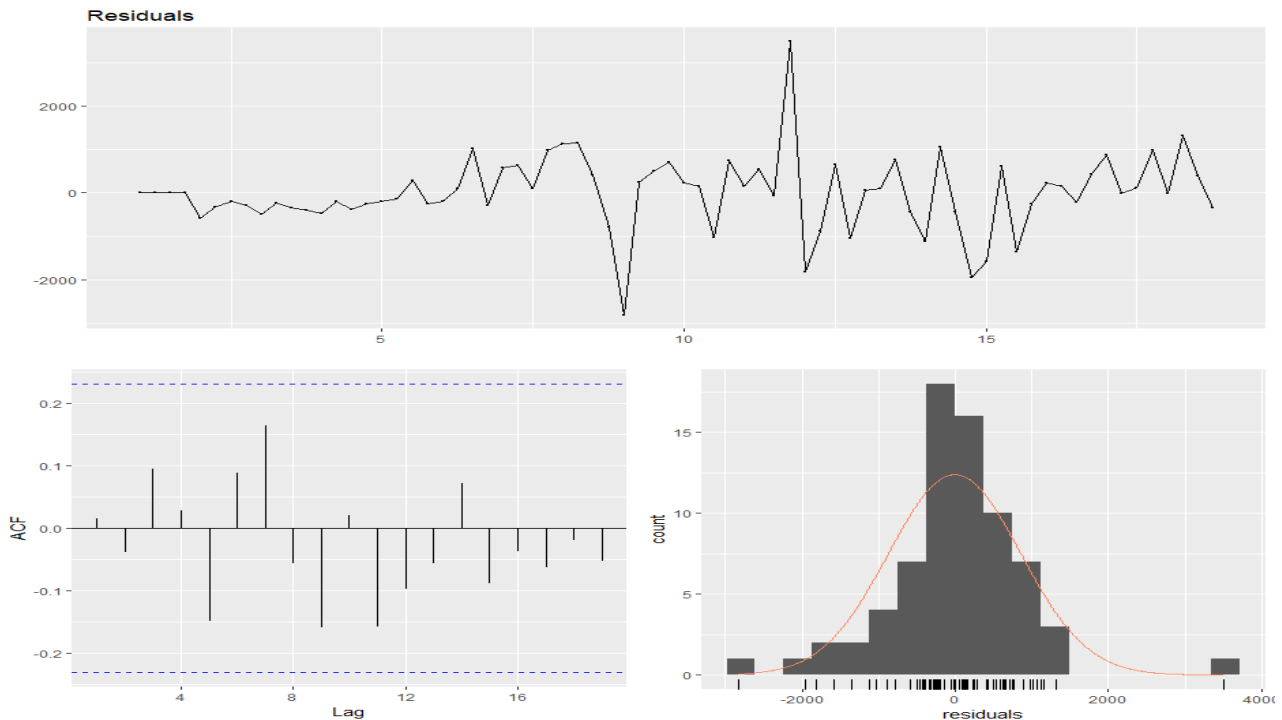


Figure 4: Chart of the residuals of the ARIMA model (1,0,0) (0,1,1) [4]

(Source: drawn up by author)

Descriptive statistics and the test results for the presence of autocorrelation (Jung-Box test performed for 4 lags) are given in Table. 4.

Model	Sample volume	Asymmetry	Jung-box test	Excess	White test
ARIMA(0,1,1)(1,0,1)[4],	88	0.351778	5,37	0.885849	$\chi^2 = 8.8502$ , df = 2, p-value = 0.0119

Table 4: Sample volume, descriptive statistics, and test results

(Source: drawn up by author)

The values of the asymmetry (Skewness) and excess (Kurtosis) are minimal, which speaks in favor of the normality of the residues. The schedule of autocorrelation of residues does not go beyond the boundaries of an acceptable level. No emissions in residues were noticed. Residues have an almost normal distribution. The simplest and most commonly used getsroskedasticity test is White test. Let's do the white test.

Hypotheses:

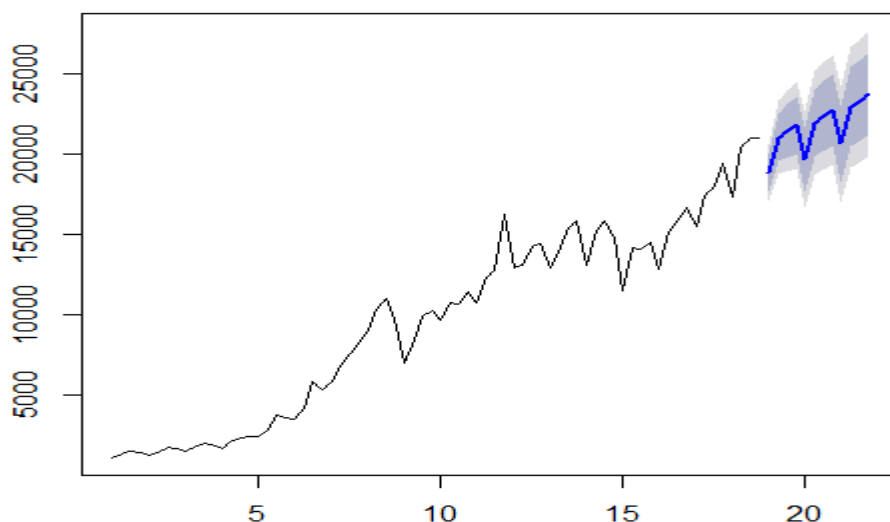
- $H_0$ : homoskedasticity,
- $H_1$ : heteroskedasticity.
- White stats:  $\chi^2$  estimated = 8,85.
- 

$$\chi^2_{0,05,cr}(2) = 5,99$$

$\chi^2 > \chi^2_{0,05,cr} \Rightarrow$  there is no heteroskedasticity in the model.

Using this test, it is assumed that the variance of the regression errors is one and the same function of the observed values of the regressors. According to White test,  $\chi^2$  calculated = 8.85 is greater than  $\chi^2$  tabular, which at a significance level of 5% is 5.99, respectively. From this we can conclude that the null hypothesis is not rejected, that is, heteroskedasticity does not take place. Heteroskedasticity at a significance level of 5% is considered insignificant, i.e. random errors are homoskedastic. Thus, the best model, according to statistical and econometric characteristics, is the ARIMA model (0,1,1) (1,0,1) (Makridakis S & Hibon M, 1979). Let's consider the forecast of Azerbaijan's GDP according to this model. Graphically, it is presented in Fig. 5

**Forecasts from ARIMA(1,0,0)(0,1,1)[4] with drift**



*Figure 5: Azerbaijan GDP dynamics taking into account forecast values  
(Source: drawn up by author)*

## 5. CONCLUSION

The article examined and analyzed the adaptive Holt-Winters model and the ARIMA autoregressive moving average model (p, d, q). As a result of the simulation, three models were obtained, two of which have good econometric characteristics and were recognized as appropriate for short-term forecasting of the time series - the GDP of Azerbaijan.

Despite the fact that models of the ARIMA class (p, d, q) are easy to forecast, these models have several disadvantages. These include the following:

- Interpretation of parameters is not obvious. That is, model coefficients are not amenable to the usual interpretation inherent in regression models;
- Model instability. Since forecasting requires maintaining the conditions for the development of the economic system, which is difficult to do, since the development of the economy is stochastic. This factor is not reflected in the model in any way, which makes this model vulnerable and unreliable in long-term forecasting;
- Assessment procedures can be costly;
- It is difficult to control the appropriateness of parameter estimates;
- The confidence interval expands with time, which indicates a loss in the accuracy of the forecast and an increase in error;
- The further dynamics of GDP is not clear, because the confidence interval includes opposite directions of development;
- The forecast GDP values reflect and extrapolate the latest indicators with repeating dynamics;

Nevertheless, this model is one of the most practical and most easily applicable for forecasting time series and at the same time has good econometric properties and meets the criteria of modeling and forecasting in modern conditions. Based on the simulation results, it was revealed that the GDP dynamics of Azerbaijan will have a positive trend and an upward trend in the short term. The recommended models are recommended for monitoring the economy of Azerbaijan, building short-term forecasting and developing business plans and investment policies. Forecasts should be built within the confidence interval and for the short term.

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## COGNITIVE MODELING AS A METHOD FOR IMPROVING THE EFFECTIVENESS OF INTERNATIONAL BANKING

**Fahri Murshudli**

*Azerbaijan State University of Economics (UNEC),  
Baku, Istiqlaliyyat str., 6, AZ1001, Azerbaijan  
fahri\_murshudli@yahoo.com*

**Olena Golovko**

*Kharkiv Educational and Scientific Institute of the Banking University,  
Kharkiv, Peremohy Av., 55, 61174, Ukraine  
elena.golovko13@gmail.com*

**Kateryna Oriekhova**

*Kharkiv Educational and Scientific Institute of the Banking University,  
Kharkiv, Peremohy Av., 55, 61174, Ukraine  
kate.orekhova2010@gmail.com*

### ABSTRACT

*The current development stage of the national economy is characterized by a continuous process of financial globalization and liberalization of the international capital transfer, increased competition in the banking sector and the banking innovations development. The purpose of the article is to develop a cognitive model of increasing the efficiency of international banking activities. Cognitive models are reflected in the fact of the influence of one factor on the other, as well as the influence of factors on the studied indicator. The first stage of building a cognitive model is realized by a priori ranking. It allows to separate the factors of endogenous and exogenous origin. The second stage involves dividing the factors by the level of their internal and external origin (uncontrolled and controllable by the banking institution). The implementation of the third stage provide causality between the factors and the studied indicator, both direct and indirect. Based on the integral estimates obtained the position of the bank in a matrix is determined. A meaningful analysis of the quadrants of the matrix identifies 4 classes of situations. The level of influence of exogenous and endogenous factors characterize the financial potential of the bank. They could be favorable, acceptable, risky or unfavorable. Testing of cognitive modelling for increase of efficiency of international banking activity on an example of banking institutions of Ukraine is carried out. The aggregate influence of endogenous and exogenous factors on financial resources and resources is determined. It is proposed to improve the tools of banking management, increase the profitability of banking activities, harmonize the economic interests of the state, banks and consumers of banking services to improve the efficiency of international banking.*

**Keywords:** *International banking, Cognitive model, Financial potential, Exogenous factors, Endogenous factors, Harrington function, Positioning matrix*

### 1. INTRODUCTION

The existence of a successfully functioning international financial market, in particular banking, is a prerequisite for effective development of the world economy. Banking institutions have a significant amount of financial resources through their accumulation and investment, which are necessary for the proper functioning of both the national and world economy. The characteristic features of the evolution of the international banking market is: the strengthening competition between banking institutions. The emergence of competitors in the person of other financial intermediaries. The introduction of new and modification of traditional banking services.

The rapid development of information technology. The growth and diversification of the needs of economic entities and the population in banking service, increasing the needs and requirements of customers to the quality of banking services. In addition, the conditions of functioning and the external environment of banking institutions vary substantially depending on the development stage of the international financial market, and the tasks that face them change accordingly. All these challenges of the modern period should effectively solve banking institutions "on the ground", with the help of successful managerial decisions. Therefore, international banks that are focused on activities in accordance with international standards and practices of functioning of the world's leading banks, under the conditions of strong international competition, should quickly adapt to changes in external and internal environments. Recognizing diverse problems of effective management of international banking activities. It is also important to take into account their individuality, which is the most important value for this banking institution. That is why there is a need for structuring and formalization of factors influence and application of modern instruments to improve international banking efficiency. At the same time, the desire for absolute accuracy, which comes down to the typical mathematical calculation deviates, because most of the problems encountered by banking institutions belong to the class weakly structured. For their research and effective solution, it is necessary to abandon the requirements of clarity and allow approximate results. This method can be called cognitive modelling, that is a simulation based on the creation and study of cognitive maps situations, which in a broad sense represent a schematic, simplified description of the fragments of business functioning related to a particular problem situation. In a narrow sense, cognitive map is a weighted oriented graph in which the vertices correspond to the factors, and the arcs reflect the direct links between these factors. Such relationships may be positive or negative. The aim of the article is to develop a methodical approach to enhancing international banking activities based on cognitive modelling.

## 2. THEORETICAL BACKGROUND

Cognitive maps reflect only the fact that there is an influence on the other factors, as well as their impact on the investigated figure (Eden, 1992; Portugali, 1996). They do not show the detailed nature of these influences, nor the dynamics of change of influences depending on the situation change, nor the time changes of the factors (Kudas, 2014; Kleftouri, 2017; Kuznetsova et al., 2020). Analysis of international banking activity based on cognitive maps allows seeing and realizing the logic of developments with a large number of interrelated factors. In the general case, building a cognitive map consists of the stages given in table 1. The first stage of building a cognitive map is realized with the help of priority ranking, the use of which allowed separating factors of endogenous and exogenous origin, which constitute the most significant influence on international banking, from the least influential. The second stage involves dividing the factors by the level of their origin, that is, internal and external (uncontrolled and subject to control by the banking institution). The implementation of the third stage is to establish causality between the factors and the studied indicator, both direct and indirect. Thus, while cognitive maps do not reflect all the relevant factors and the possible relationships between them, they are an initial conceptual model and are the basis for building detailed models of the impact to the factors on international banking. Based on the above study, it is proposed to evaluate the level of influence of external and internal environment factors on international banking activity in accordance with the methodological approach, the stages of which are presented in Fig.1.

*Table following on the next page*

*Table 1: Stages of building cognitive maps of international banking*

Stage	Meaning
Allocation of factors that characterize the problematic situation	Selection of basis factors (concepts) that describe the problem. Allocation in aggregate basic target factors whose condition is desirable to change. Determination of factors influencing the target. These factors in the map will be potentially possible levers of action on the situation (control parameters).
Grouping of factors into blocks	Grouping of factors into the blocks characterizing certain sphere of problem (in this case macro-and micro economical blocks).
Identifying linkages between factors	Identifying the direction of influence and interrelations between factors, determination of positivity of influence (+/-), determination of relations of factors in different blocks of factors.

*Source: concluded on the basis of generalization of scientific works – Azarenkova et al., 2011; Panasenko, 2012; Brauers et al., 2014; Kolodiziev et al., 2016; Morozova et al., 2019*

To determine the impact of factors on international banking, the use of quality (sign) cognitive cards, the idea of which belongs to R.B. Axelrod (Shewhart, 1931). Situation-related factors are only a sign of influence: positive (+) or negative (-). With a positive connection of the growth factor-cause leads to an increase in the factor-effect, and in negative – to decrease. If there are both positive and negative links from one node of the graph to the other, the question of the total nature of the influence of factors on the international banking activity remains uncertain for the inequality of the number of arcs positive and negative.

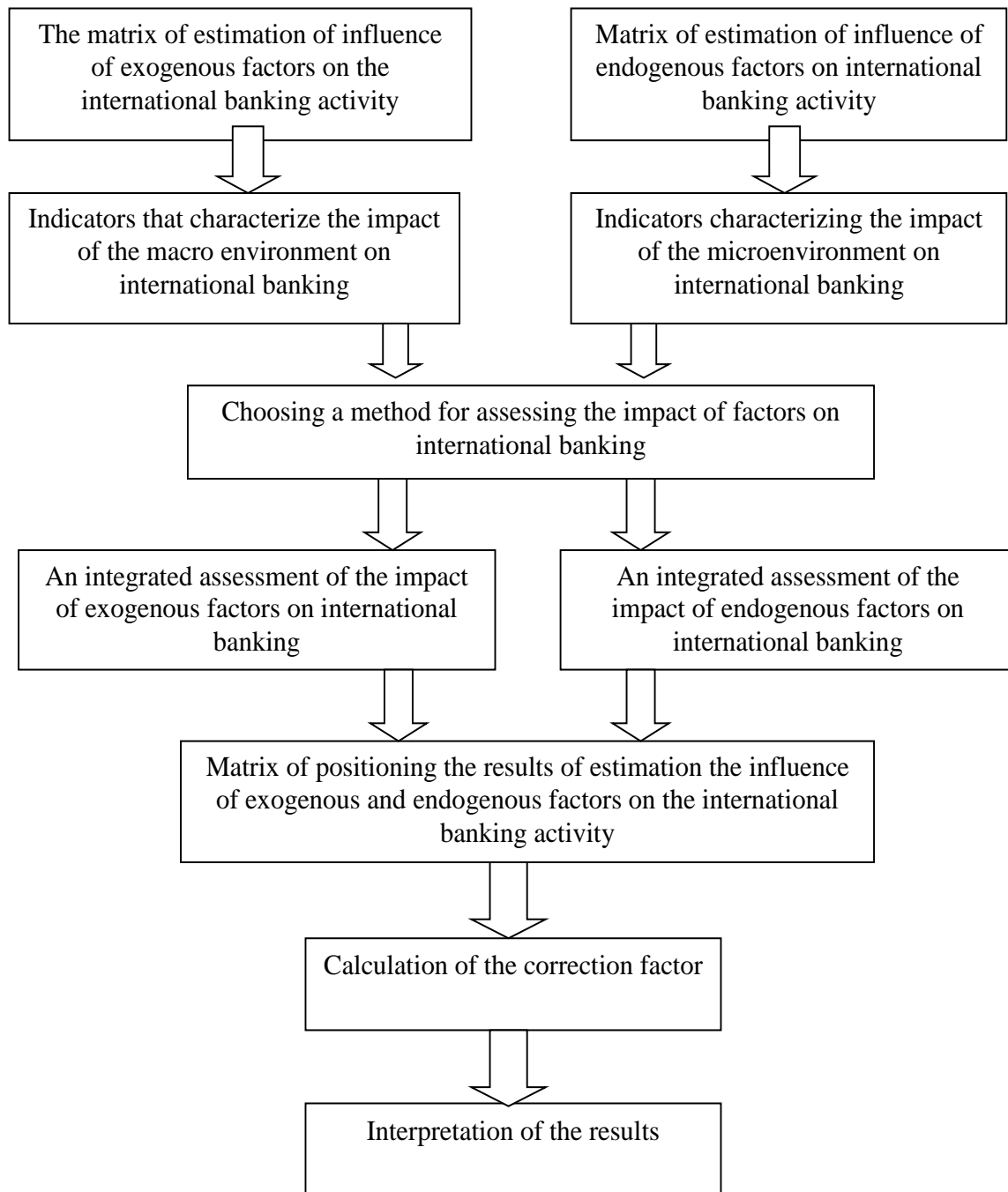
### 3. RESULTS

To confirm the practical importance of the methodological approach to improving the efficiency of international banking activities, Ukrainian banking institutions were selected. The study was carried out in the following stages. In the first stage, a survey of ten leading practitioners in the banking sector identified factors of endogenous and exogenous origin that have a direct or indirect impact on international banking. Banking experts selected to work at Sberbank JSC. In the second stage, the individual assessments of all experts were summarized in the a priori ranking table, with the factors being evaluated on a 10-point scale of relative importance of influence: the factor that has the most significant impact on international banking activity is assigned a value of 1 point, and the least significant one – 10 points. At the final stage, auxiliary calculations were performed and rank was assigned according to the relative importance scale (Andros, 2012; Bhati et al., 2019). Thus, the conducted studies show that factors such as: M3 share (money supply) in GDP (gross domestic product), return on assets and capital of the banking system, average monthly wage of the population, profitability of operating activities of enterprises, discount rate, growth of authorized capital banks, demand deposits and time deposits, bank debt securities and interest rates on deposit. The financial transactions have the most significant impact on international banking activities Sberbank JSC. Having identified the factors that have the most significant impact on international banking, the need arises to structure and formalize their impact on its effectiveness.

*Figure following on the next page*



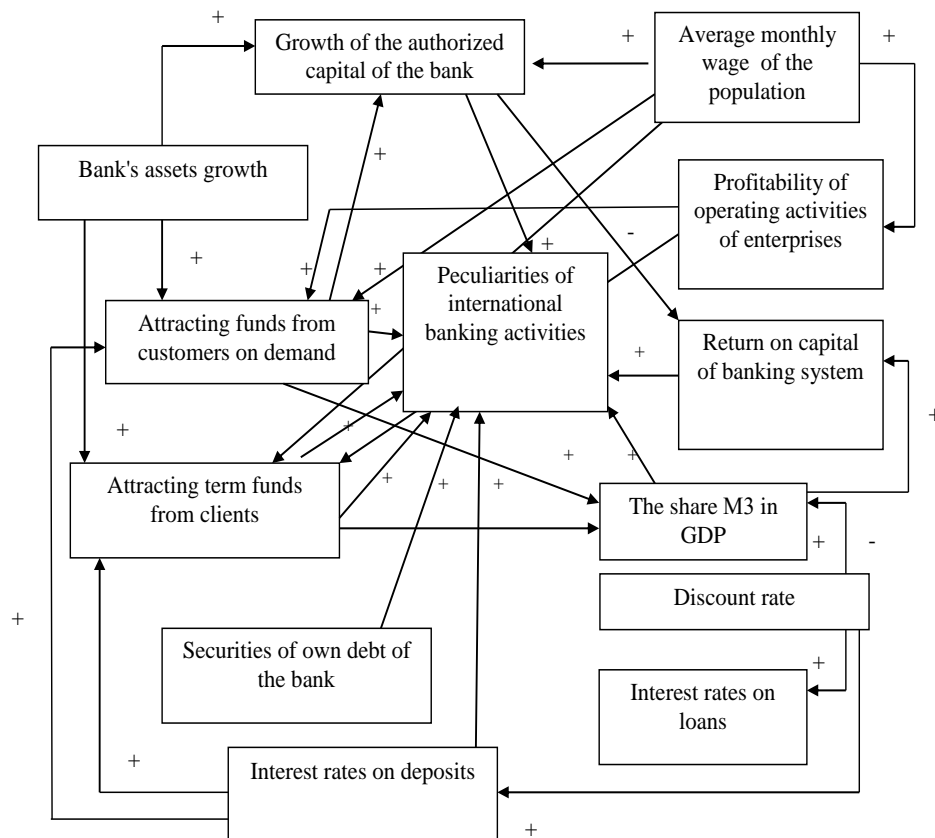
*Figure 1: Methodical approach to cognitive modelling of increasing the efficiency of international banking*



*Source: concluded on the basis of generalization of scientific works – Pacera, 2013; Kuznetsova et al., 2019; Simatele et al., 2018*

In Fig. 2 presents a cognitive map of the influence of factors on the international banking activities of Sberbank JSC. A cognitive map is built to monitor the static combined positive effects of these factors on international banking based on the built graph system, which describe the existing linkages between factors and international banking activities and relationships between factors. Moreover, observation data provides an opportunity to assess not only the final result with further application of mathematical modelling, but also of all intermediate factors used to increase the efficiency of international banking activity.

Figure 2: Cognitive map of influencing factors on international banking activity of Sberbank JSC



Source: concluded on the basis of generalization of scientific works – Derkach, 2014; Axelrod, 2016; Dotsenko, 2019

In the table 2 presents local indicators that assess the level of influence of external and internal factors on international banking.

Table 2: Value of exogenous and endogenous factors of international banking activity

Indicators	Year		
	2017	2018	2019
<b>Exogenous factors of influence on international banking activity</b>			
The share of M3 in GDP	0,44	0,48	0,55
Return on capital on the average banking system, %	-10,19	-5,27	2,85
Average monthly nominal wages, UAH*	4772	7705,40	8867,30
Operating profitability of industrial enterprises, %	4,70	5,50	5,80
Discount rate, %	18,2	13,25	16,8
<b>Endogenous factors affecting international banking</b>			
Asset growth rate, %	134	159	176
Share capital growth rate, %	100	100	100
Funds to the question, ths UAH	12 619 903	13 666 002	14 081 616
Term funds, ths UAH	24 420 575	38 585 413	37 143 460
Bonds issued by the bank, ths UAH	446 177	511 231	204 267
Interest rates on loans, %	18,5	16,4	19,1
Interest rates on attracted deposits, %	11,4	9,1	12,1

\* UAH - Ukrainian national currency "hryvnia"

Source: concluded on the basis of the public financial statements of Sberbank JSC

Therefore, it is advisable to use the Harrington scale as a method of assessing the impact of factors on international banking. In accordance with the methodological approach to cognitive modelling of increasing the efficiency of international banking activity presented in Fig. 1, the next step is the integrated assessment of external and internal factors, which is based on the calculation of integral indicators of the level of influence of factors of macro and microenvironment on international banking activities. To apply the Harrington scale, it is necessary to standardize the studied indicators. The results of the calculation are presented in table. 3.

*Table 3: Calculations for exogenous and endogenous factors of influence on the Harrington function*

Indicators	Year		
	2017	2018	2019
Standardization of initial data of exogenous factors			
The share of M3 in GDP	-0,371	-0,361	-0,357
Return on capital in the banking system, %	-0,393	-0,372	-0,353
Average monthly nominal wages, UAH	2,838	2,841	2,843
Profitability of operating activities of industrial enterprises,%	-0,362	-0,352	-0,348
Discount rate, %	-0,356	-0,348	-0,346
Partial functions of di exogenous factors			
The share of M3 in GDP	0,235	0,238	0,239
Return on capital in the banking system, %	0,227	0,235	0,241
Average monthly nominal wages, UAH	0,943	0,943	0,943
Profitability of operating activities of industrial enterprises, %	0,238	0,241	0,242
Discount rate, %	0,240	0,243	0,243
The value of the generalized Harrington function (Dex)	0,314		
Standardization of initial data of endogenous factors			
Asset growth rate, %	-0,453	-0,423	-0,426
Share capital growth rate, %	-0,453	-0,423	-0,426
Funds to the question, ths UAH	1,073	0,673	0,740
Term funds, ths UAH	2,500	2,673	2,649
Bonds issued by the bank, ths UAH	-0,399	-0,382	-0,409
Interest rates on loans, %	-0,453	-0,423	-0,426
Interest rates on attracted deposits, %	-0,453	-0,423	-0,426
Partial functions of di endogenous factors			
Asset growth rate, %	0,207	0,217	0,216
Share capital growth rate, %	0,207	0,217	0,216
Funds to the question, ths UAH	0,710	0,600	0,621
Term funds, ths UAH	0,921	0,933	0,932
Bonds issued by the bank, ths UAH	0,225	0,231	0,222
Interest rates on loans, %	0,207	0,217	0,216
Interest rates on attracted deposits, %	0,207	0,217	0,216
The value of the generalized Harrington function (Dend)	0,749		

*Source: concluded on the basis of the public financial statements of Sberbank JSC*

For exogenous factors, the values of the Harrington function  $D_{ex}=0,314$ , and for the endogenous ones, the  $D_{end}=0,749$ . According to the Harrington scale, the following factors should be taken into account when analysing the overall impact on international banking. To recognize the level of influence of exogenous and endogenous factors, it is proposed to construct a two-dimensional matrix of positioning of the results of the integral calculation (Fig. 3), which is described by the following formula:

$$P = \{D_{ex}|D_{end}\}, (1)$$

\*P is the combined level of influence of the factors of macro- and microenvironment

On the basis of the integral estimates obtained, which are the coordinates of the consolidated level (P) of the influence of external and internal factors on international banking activity, its position in this matrix is determined. It should be noted that the higher the value of integral indicators, the greater the benefits of the investigated factors create for international banking, but if they approach zero, it indicates a negative impact of factors in this group (Brauers et al., 2014). The matrix consists of four quadrants, which allows to determine the level of positive or negative influence of factors on international banking. The quadrants of the matrix have the following economic interpretation:

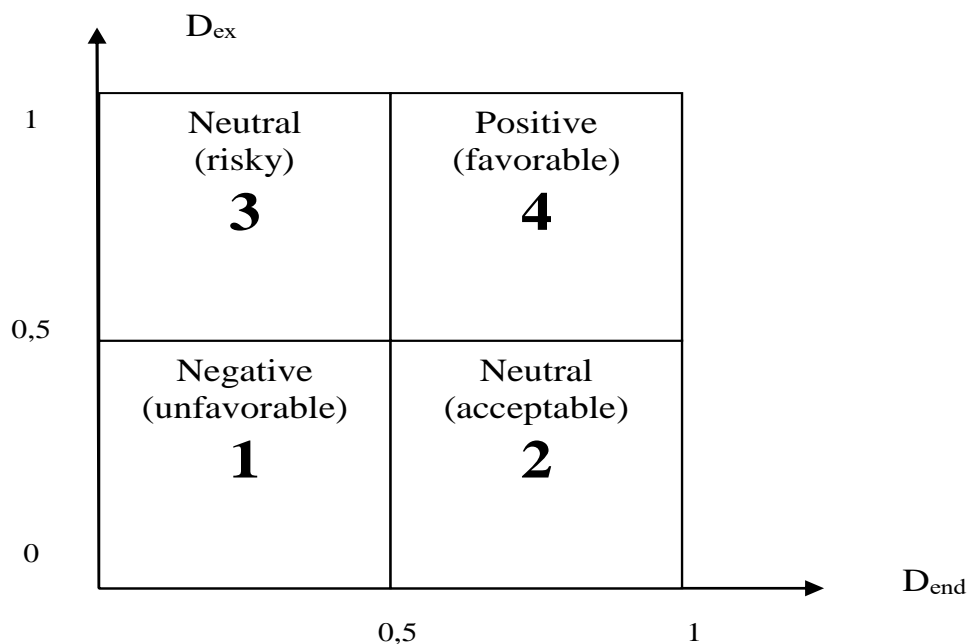
- quadrant 1 ( $D_{ex}(0-0,5)$ ;  $D_{end}(0-0,5)$ ) – characterizes the negative impact of macro and micro environment factors on international banking, which threatens the further development of the institution and, as a consequence, reduces its ability to financial market;
- quadrant 2 ( $D_{ex}(0-0,5)$ ;  $D_{end}(0,5-1)$ ) and quadrant 3 ( $D_{ex}(0,5-1)$ ;  $D_{end}(0-0,5)$ ) – the characteristics of these quadrants have some common features and indicate that the macro and microenvironment has a neutral impact on the development of the banking institution and its international activities;
- quadrant 4 ( $D_{ex}(0,5-1)$ ;  $D_{end}(0,5-1)$ ) – indicates the most positive level of influence of factors on international banking activity. A meaningful analysis of quadrants has allowed to allocate 4 classes of situations, which characterize the level of influence of exogenous and endogenous factors on international banking: favourable (quadrant 4), acceptable (quadrant 2), risk (quadrant 3), adverse (quadrant 1).

In order to ensure a positive or negative level of the influence of factors of the studied environment on the international banking activity, it is necessary to calculate the modified registration coefficient, which is calculated by the following formula:

$$T'_k = 1 - D_{i.}, (2)$$

\* $D_i$  – correction coefficient

Figure 3: Matrix of influence of factors on the international banking activity



Source: concluded on the basis of generalization of scientific works – Shami, 2019;  
Samorodov et al., 2019

So, if the consolidated level (P) is in the quadrants 4, 2, the efficiency of international banking activity increases by the value of the threshold, as the state of macro and micro environment contributes to further development of the bank in the banking market. If the combined level falls into quadrants 1,3, then the efficiency of international banking activities decreases as the activity of the assessment object is related to the risks arising in the external environment. Hence, we have the value

$$T'_{k\ ex} = 1 - 0,314 = 0,686 \text{ та } T'_{k\ end} = 1 - 0,749 = 0,251,$$

indicating a move point that characterizes the effects of endogenous and exogenous factors on international banking activities on quadrangular 2 (acceptable effects of factors) to quadrant 3 (risk factors). So, factors of endogenous and exogenous origin aggressively affect the international banking activities of Sberbank JSC.

#### 4. CONCLUSION

Among the most important features of the world economy and international economic relations are the trans nationalization and globalization of economic activity in various spheres, including international banking activities. Formation of international banking activities is a complex, long-term and versatile process. The need to move capital from one country to another is the main reason for the progressive development of the process of internationalization of banking institutions. Today, national banking systems are increasingly integrating and interacting with each other, which leads to a lower level of their activity and the increase of their dependence on environmental conditions and the international banking sector. Presented in the article the methodological approach to improving the efficiency of international banking activities differs from the existing construction of cognitive map of influence of exo- and endogenous factors, as well as applying the Harrington scale for the development of factor-influencing matrix on international banking activities. To confirm his practical significance is tested on the example of banking institutions in Ukraine. This allowed us to establish that the factors of endogenous and exogenous origin aggressively affect the international banking activities of Ukrainian banking institutions. The most significant impact on the international activities of banking institutions in Ukraine is carried out by the following factors:

- Endogenous origin: asset growth rate, authorized capital growth rate, funds to question, funds term, bonds issued by the bank, interest rates on the loans granted, interest rates on involved deposits;
- Exogenous origin: M3 share in GDP, return on capital in the average banking system, average monthly nominal wages, profitability of industrial enterprises, accounting rate.

In order to minimize the crisis situations in the banking sector, increasing the competitiveness of banking institutions in Ukraine on the international market should expand the set of banking services and further improve the quality of customer service. Introduction of new banking technologies using integrated distribution network; increased protection of depositors' interests from other countries; unification of rules of business ethics for banking institutions at the international financial market and others. Further scientific researches related to the profound coverage of measures to increase the efficiency of banking and healthy competition of banking institutions in the international financial market.

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## THE ROLE OF THE TAX SYSTEM IN ENSURING ECONOMIC AND FINANCIAL SECURITY OF THE COUNTRY

**Tahmasib Huseynov**

*Azerbaijan State University of Economics (UNEC)*

*Baku Engineering University, Azerbaijan*

*tahmasib.huseynov@unec.edu.az*

**Faig Huseynov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*

*faiq.huseynov@unec.edu.az*

### ABSTRACT

*The article deals with improving in ensuring the Azerbaijan Republic economic and financial security through perfection of tax system. The problem of economic and financial security is a prerequisite for sustainable development and an attribute of national security of a country. Ensuring economic and financial security makes more certain financial resources for stable well-being and transition into a more responsive to requirements of national security level of socio-economic development. The economic system of a country may be defined as the aggregate of production, infrastructure, business environment and governance. The economic system's performance must provide reliable flow of financial resources into high productive real investment and the state budget. Economic and financial security rests on versatile economic growth and investment, productive employment, admissible level of inflation. Taxation as an effective tool of fiscal policy must stimulate the contributors of economic and financial security and ensure sufficient resources for the budget. The stimulation require tax exemptions and reduced tax rates, the state budget needs more financial resources for implementing inherent functions of it. Azerbaijan state budget revenues depends on volatile financial sources as natural resources, i.e. oil and gas. An unexpected decline in oil prices in 2014 Azerbaijan faced decrease in revenues and devalued its currency 2 times in 2015. The government tries through diversification of economy and development of non-oil sectors to solve this urgent problem. Perfection of tax system can and must play adequate role for ensuring economic and financial security through quality development of the economy.*

**Keywords:** *Economic and financial security, Contributors of economic security, Fiscal policy, Tax system, Perfection of tax system, Azerbaijan economy*

### 1. INTRODUCTION

Security, as a concept lacking of conceptual boundary is used and defined in different forms of meanings. The security may be defined as a state of a complex system or its elements when the effects of external and internal developments do not and cannot cause the negative changes and undesirable consequences in their functioning. Security is one of the basic and self-defending needs of a person, family, society, state, and humanity for existence and development. Its essence can be presented as the capacity to counter, prevent, eliminate threatening dangers to existence, well-being, development of the above subjects, as well as continuous strengthening of the capacity through perfection of functional environment. The problem of economic and financial security is a prerequisite for continuous sustainable development and an attribute of national security of a country. Ensuring economic and financial security makes more certain financial resources for stable well-being and transition into a more responsive to requirements of national security level of socio-economic development. The economic system of a country may be defined as the aggregate of production, infrastructure, business environment and governance.



The economic system' performance must provide reliable flow of financial resources into high productive real investment and the state budget. Economic and financial security rests on versatile economic growth and investment, productive employment, admissible level of inflation. Taxation as an effective tool of fiscal policy must stimulate the contributors of economic and financial security and ensure sufficient resources for the budget. The stimulation require tax exemptions and reduced tax rates, the state budget needs more financial resources for implementing inherent functions of it. Dual targets as stimulation of the economy and securing more financial resources must not be mutually exclusive, but mutually complementing each other processes.

## 2. CURRENT ECONOMIC SITUATION AND URGENT CHALLENGES

### 2.1. Oil price and state budget revenues

Azerbaijan state budget revenues depends on volatile financial sources as natural resources, i.e. oil and gas. Azerbaijan was able to overcome oil price fluctuation between record peaks of US\$147 and US\$30 in 2008 due to financial cushion as Oil Fund reserves. However during next "dance" of oil prices in 2014 Azerbaijan faced decrease in revenues for the state budget and devalued its currency 2 times in 2015. The tables below contain information about oil prices and the state budget revenues in 2013-2019.

*Table 1: Average annual Brent crude oil price from 1913 to 2020 (in U.S. dollars per barrel)*

Year	2013	2014	2015	2016	2017	2018	2019
Average annual Brent crude oil price in US dollars per barrel	108,56	98,97	52,32	43,67	54,25	71,34	64,36
Change % base year 2010	100	91	48	40	50	66	59

Source: <https://www.statista.com/statistics/262860/uk-brent-crude-oil-price-changes-since-1976/>

The table 2. shows that the price moves more into decreasing than increasing during 2013-2019. Therefore oil revenues are not reliable source for financial security and this negative trend had been reflected in the budget revenues.

*Table 2: Income of Azerbaijan state budgets (million AZN)*

	2013	2014	2015	2016	2017	2018	2019
<b>Income of the state budget</b>	<b>19496</b>	<b>18401</b>	<b>17498</b>	<b>17506</b>	<b>16517</b>	<b>22509</b>	<b>23168</b>
Including							
Taxes	6979	7686	7857	8170	8453	9444	9784
Taxes on foreign economic relations	675	685	935	861	903	1144	900
Other incomes	492	693	577	860	1061	963	1120
Transfer from SOFAZ	11350	9337	8130	7615	6100	10959	11364

Source: "Azerbaijan in figures 2019" p.241; SOFAZ Annual report 2018, p.19, data for 2019 from site of SOFAZ and State budget for 2019

*Table 3: The official average exchange rate of AZN against foreign currencies*

	2013	2014	2015	2016	2017	2018	2019
Average exchange rate 1\$=	0,7844	0,7844	1,0261	1,5959	1,7212	1,7	1,7

Source: Statistical bulletin 2019, CBAR p.39

*Table 4: Income of Azerbaijan state budgets (million USD)*

	2013	2014	2015	2016	2017	2018	2019
<b>Income of the state budget</b>	24855	23458	17053	10969	9596	13241	13628
Including							
Taxes	8897	9798	7657	5119	4911	5555	5755
Taxes on foreign economic relations	861	873	911	540	525	673	529
Other incomes	627	884	562	539	616	566	659
Transfer from SOFAZ	14470	11903	7923	4772	3544	6446	6685

*Source: Calculated according to data in tables 1 and 2*

Table 4. shows that revenue of the budget in 2019 decreased in comparison with 2013 year 1.8 times. During the same period transfers from SOFAZ are reduced 2.2 times, also. This situation strains the state's financial capability for effective execution of its inherent duties. Losing and not regaining of 2013 year level budget revenues is an acute challenge for the economy. But year 2020 turned more complicated with "twin evils" for the economy- unexpectedly record low oil price and lockdown because of coronavirus. Confluence of decreasing revenues and increasing expenses as a result of coronavirus lockdown require new approach in decision-making towards rapid stimulation of economic development after reopening.

## **2.2. Financial burden of devaluations in 2015**

For compensation to citizens whose loan burden increased as a result of the devaluations of the manat in February and December 2015 the government decided to help individuals. "640 million manat was provided for the transfer of funds from the state budget to the Central Bank to the accounts of relevant banks. As a result, 593,000 individuals have actually received significant assistance from the state in connection with the loans they are suffering from". (Speech of the Finance Minister at the meeting). But a more serious consequence of double devaluations is a loss of confidence in national currency. The only way for the restoration of confidence is to ensure emergence of competitively working and providing necessary financial resources national economy.

## **2.3. Unreached or unreachable goal?**

"Azerbaijan 2020: Look into the future" Concept of development had defined a goal that "as a result of the measures stipulated by the concept, by the end of the period, the volume of per capita GDP in the country will increase more than twice and reach 13,000 US dollars" ("Azerbaijan 2020: Look into the future" Concept of development; page 9). In 2019 per capita GDP was 8247 AZN or 4851 USD. (Macroeconomic indicators of economic and social development of the country in 2019). Lagged efforts to diversify economy with tightened monetary policy did not permit to realize target of 13,000 USD per capita GDP. Broad money indicator decreased from 16.4 billion manat in 2013 to 8 billion manat in January of 2016. (Monetary survey). Decline in price and production of oil became a new normal requiring fresh approach for attaining of the goal in future.

## **2.4. The Economic Complexity Index**

According to the Observatory of Economic Complexity "Azerbaijan is the 77th largest export economy in the world and the 84th most complex economy according to the Economic Complexity Index (ECI)." In 2017, Azerbaijan exported \$14.3B and imported \$8.1B, resulting in a positive trade balance of \$6.17B (<https://oec.world/en/profile/country/aze/>). The Index being a measure of the productive capabilities of a country explains the knowledge intensity of an economy.

The place of Azerbaijan requires more science based efforts for technological progress in formation of diverse and sophisticated economy. These efforts in case of successful implementation may ensure economic security and stable financial revenues.

## 2.5. Territorial diversification

The economic and financial security may be achieved through equal development of regions. Despite government investments on infrastructure, shares of regions and central Baku in GDP incomparable.

*Table 5: GDP by regions of Azerbaijan Republic (in per cent)*

Regions	2010	2011	2012	2013	2014	2015	2016	2017
Baku city	77.2	76	73.9	72.2	73.1	70.3	71.7	71.5
Absheron economic region	1.5	1.8	2	2.2	2.5	2.7	2.9	2.9
Other economic regions	18.1	18.2	19.6	20.8	19.8	21.7	20.4	21.2
The Nakhchivan Autonomous Republic	3.2	4	4.5	4.8	4.6	5.3	5	4.4
Total	100	100	100	100	100	100	100	100

Source:

<https://www.azstat.org/MESearch/details?lang=en&type=2&id=209&departament=14>

The table shows that essential share-more than 70 per cent of the GDP accounted for capital Baku city. Lack of regularly statistical information about regional tax revenues does not allow making comparisons for shares of regions in the GDP and tax revenues of the republic and to find trend of development. However, according to the Taxes Ministry in 2019, tax revenues in the regions increased by 11.9 percent to 795.4 million AZN. The number comprises 3.4 per cent of budget revenues and 8.1 per cent of tax revenues (Vergiler newspaper). This is low more than 2 times in comparison with the share of regions in GDP. It can be explained by the fact that agriculture production exempted from taxes (except land tax and tax on employment income). Accentuating diversification efforts toward low productivity sectors (e.g. agriculture) without further deep processing facilities and addressing productivity challenges through modern technology can not result in quality growth of the economy. Therefore tax reforms must stimulate creation and development high value creating industries in the regions.

## 2.6. Forecasting for economic growth

*Table 6: Real GDP, Consumer Prices, Current Account Balance*

	Real GDP			Consumer Prices			Current account balance		
	2019	Projections		2019	Projections		2019	Projections	
		2020	2021		2020	2021		2020	2021
IMF	2.3	-2.2	0.7	2.6	3.3	3.2	9.2	-8.2	-3.7
World bank	2.2	-0.2	2.2	2.9	3.3	2.9	8.8	-7	-4.3

Source: IMF World Economic Outlook April 2020, page 34; World Bank ECA Economic update, Spring 2020 Fighting COVID-19 Office of the Chief Economist, Page 42 (Annual percent change)

Record low oil prices because of Saudi Arabia-Russia oil war and coronavirus lockdown deteriorated economic outlook and world's leading financial organizations-IMF and World bank- updated their forecasts for current and next years. These forecasts for Azerbaijan promise contraction in current year-2.2 and 0.2 per cent, and negative current account balance-8.2 and 7 percent.

Low inflation expectations may be explained by diminishing purchase power of population and more prudent behavior in consumption. Negative current account balance is a great problem for Azerbaijan economy and exchange rate of national currency. Sharp devaluations may be ultimate blow on national currency. Therefore struggle for involving of domestic private savings and world's profit-seeking capital into real innovative investment is a high priority in current complex situation. The road for victory in this struggle may be paved by favorable tax environment.

### **3. CONCLUSION**

#### **3.1. Brief inference**

Dependence on oil revenues, low knowledge intensity of the economy, loss of achieved level of development after 2014 are urgent problems requiring deliberate many-sided measures. Brief description of Azerbaijan economy's current state indicates great challenges for economic and financial security of it. Security and risk are intertwined phenomena. The risk is uncertainty and for ensuring economic and financial security mitigation of risk require governing the uncertainty. Here must be taken measures in 2 directions:

1. To quantify impact of dangers in economic and financial security;
2. To ensure further economic development enabling to neutralize the danger's impact to required allowable level.

The first direction is a broad subject for another study. Second task requires multidirectional and substantiated reforms with exact timeframes. Our aim to substantiate perfection of taxation for ensuring economic and financial security of the country. The taxation is a tool with great potential for indirectly stimulating the country's economic development in desirable direction.

#### **3.2. Limitations on tax reforms**

Azerbaijan's maneuver opportunities are reduced with decreased oil prices. Therefore perfection of taxation cannot allow reduction in revenues and this must be taken into account in preparing and implementing of tax changes. All tax reform proposals must be directed to new and relating to non-oil sector of economy entities. This may prevent negative influence of tax changes on tax revenues and stimulate development of non-oil sector of the economy.

#### **3.3. Proposed measures**

The changes in taxation implemented with tunnel view approach. Even the last changes in The Tax Code address branches of the economy affected by the coronavirus. Lack of broad view hinders to face great challenges and ensure innovative development economy as a whole and by regions. Perfection of tax system must stimulate economic development of regions and induce creation of high value creating enterprises, secure sufficient financial resources for households and the state. Therefore the measures on improvements of tax system must be multipurpose and constantly updating process with cost-benefit analysis. For stimulating development in the regions:

- Temporarily exempt part of profit from tax for new enterprises;
- Temporarily exempt income of banks from long-term crediting of new enterprises in regions from tax for profit.

For stimulating of emergence of innovative high value creating entities exempt qualified new established enterprises from:

- Tax on profit during certain period;
- Tax on property for machinery and equipment.

For involvement of domestic private savings and foreign direct capital into real innovative investment:

- a) For new enterprises in regions:
  - Exempt dividends from income tax during certain period.
- b) For new enterprises in Baku city:
  - Exempt part of dividends from income tax during certain period.
- c) For qualified as high value creating enterprises irrespective of location:
  - Exempt dividends from income tax during certain period.

There must be prepared criteria for qualifying tax exemptions and privileges. This may be effective for achievement of correct target. Economic history proves regulating role of taxes and use of it for different purposes. Here must be observed 2 condition:

- Firstly, the effects of the changes must be followed by monitoring process to reveal and evaluate the results. This process can promote emergence of a study center for assessment of economic policy steps and preparation of result-predictable fiscal and monetary policy measures.
- Secondly, tax exemptions and privileges can cause misapplications and reduce or nullify effects towards supposed targets. Therefore is require transparency and strict control over the process.

For addressing the great challenges, Azerbaijan must apply tax stimulation measures and evaluate their consequences for adopting correcting steps in the process.

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## THE IMPROVEMENT OF THE UTILIZATION OF COMPETITIVE ADVANTAGES OF NON-OIL INDUSTRIAL ENTERPRISES IN MODERN CONDITIONS

**Fidan Mahish Safarova**

*Senior lecturer at*

*Azerbaijan State University of Economics, Azerbaijan*

*ehmedovafidan@mail.ru*

### **ABSTRACT**

*The dynamics of competitive environment, unpredictable behavior of competitors, in modern condition characterizing by frequent change of country's priorities, the activities of industrial enterprises require constant creation and realization of competitive advantages, which will help to achieve the goals and maintain a high level of competitiveness in the long term success. The low level of competitiveness of local enterprises necessitates the objective importance of developing the theory and practice of competitiveness management as well as scientific approaches to the formation of competitive advantages as an effective instrument of ensuring competitiveness of industrial enterprises. The fundamental and applied research of local and foreign scientists under the influence of the activities of enterprises and their competitiveness has been evolved. The great interest of scientists in presenting theoretical and methodological knowledge in the field of competitiveness proves the relevance and perspective of the development of this direction. The purpose of the research is to establish competitive advantages of industrial enterprises as an effective instrument for ensuring competitiveness. The fundamental principles, incentives and general features of economic mechanisms for the formation of competitive advantages of enterprises have been carried out in the article. The main competitive advantages of businesses have been revealed, and the characteristics of their competitive advantages are explored. The originality and scientific novelty of the research is that there was a systematic analysis using the results of international research, and relevant suggestions and recommendations were made for the improvement of the utilisation of competitive advantages of national industrial enterprises.*

**Keywords:** *Industrial enterprise, Competition, Competitive advantages, Competitiveness*

### **1. INTRODUCTION**

In modern times, Azerbaijan is actively integrating into the globalized world economy, including the post-oil stage in the development of the national economy. For the effective integration into the world economy and for the better utilization of its opportunities in such a situation, it is necessary to increase the competitiveness of the national economy in all areas and directions. It is also a fact that the competitiveness of the national economy as a whole depends on its existing structures, enterprises, firms, services, as well as logistics and information provision at the micro level. If the increasing competitiveness was much more connected with maximizing profits in the early stages of economic development in our country, today this problem has become a complex problem that covers all aspects, levels and directions of broader economic development. From this point of view, it is necessary to determine the priorities of economic development at the macro-mezo-micro and even nano levels, taking into consideration the absolute, relative and competitive advantages of the national economy, the existing level of economic development and potential that can be mobilized within current opportunities in Azerbaijan. From this point of view, the increasing problem of competitiveness for Azerbaijan is much more related to improving the structure of the economy, diversification, increasing the share of non-oil products in the structure of imports and exports. In this regard, the problem of competitiveness of the national economy must be identified in accordance with

the goals and objectives of each specific stage of economic development. It should be strictly noted that the problem of increasing competitiveness is directly related to ensuring economic security at all levels and in all directions.

## 2. THEORETICAL ISSUES OF ENTERPRISE COMPETITIVENESS

In the non-oil sector, including the food industry, the local economic science has been improved under the influence of fundamental and applied research, developed by the following local and foreign scientists on the activities of enterprises and their competitiveness: Abbasov V.H. [1], Aliyev I. [2,3], Soltanly İ. [3], Aliyev Sh.T. [4], Fikretzade F. and Abbasov E. [5], Huseyn R.Z. [6], Guliyev.E.A. [7], Azoyev G.L. [8], Aksonov P.V. [9], Barinov V.A. [10], Bondareva S.R. [11], Varga İ.F. [12], Gorbashenko Y. [13], Gorkova T. [14], Lavrenova G.A., [15,16], Sysoev S.I., [16], Pavlova E.A. and Smirnova L.A. [17], Pererva, P. G. [18], Perminov I.A. [19], Porter M.E. [20,21], Rose M. D. [22], Fathutdinov R.A. [23], Chernaya M.V. [24] and so on. According to Michael Porter, the international competitiveness of any country can be differentiated in terms of the following factors, depending on the stage of economic development of the country:

1. Competition based on the factors of production;
2. Competition, based on investment;
3. Competition based on innovations.

It should be pointed out that, competitiveness, depending on the macro, micro and meso level, may be more important. Thus, the analysis shows that in the initial stage of the formation of competitiveness, the competitiveness of any enterprise and firm is based more on natural resources involved in production, the cost of labor, as well as efficient, natural-geographical conditions. Improving competitiveness is achieved through the improvement and application of existing techniques and technologies, with more investment in production in the so-called second stage. In the third stage of increasing competitiveness, firms and companies create and apply new techniques and technologies. As a rule, enterprises and companies develop by defining their own development strategy. The most important criterion for the success of the enterprise in modern conditions is competitiveness. Competitiveness of an enterprise means its ability to develop, produce and sell its products more efficiently than competitors. The competitive advantages of the enterprise are ensured by its superiority over its competitors in the economic, industrial, organizational, social and market activity spheres. The competitive advantages of the enterprise can be new products, new technologies, new services, new markets, new equipment, modernization of means of production, new ways of organizing and managing production, labor and sales [12, p. 219]. While forming the competitive advantages of the enterprise, it is recommended to be guided by a number of principles; value, multi-faceted, irreversibility, renewal, information security [24, p. 184-186].

- The principle of value: It means that the greatest economic interest is represented by competitive advantages that have the greatest impact on the competitiveness of the enterprise;
- The principle of multifaceted: Its essence is that the selection and implementation of the most important economic benefits should be based on the use of a multi-criteria approach;
- The principle of irreversibility: This means that the enterprise is not able to quickly eliminate the negative consequences of unsuccessful and implemented management decisions aimed at increasing its competitiveness;
- The principle of renewal: It arises from the need to make the necessary adjustments to the system of certain priority competitive advantages due to the constant changes in the macro and micro environment;



- The principle of information security: Its essence is that in the absence of the necessary or reliable information about the relevant competitive advantages, the resulting priority is not included in the system of advantages. The source of competitive strategic advantage is the resources available in the enterprise and the information available to the enterprise.

The formation of the competitive advantage of the enterprise should be a stimulating factor in the following conditions:

1. The existence of a form of reproduction that remains all economic structures on an economically equal condition (the ratio of its own and budget funding sources should be clearly defined, investment loans should be affordable; interest rates should not exceed the loan repayment rate);
2. The existence of binding mechanisms for the utilization of “inedible” reproduction elements for investment purposes;
3. Development of enterprises as production-social complexes that can control the reproduction of highly qualified personnel, their social protection, protection of health and normal working conditions;
4. The existence of a unified institutional system for the organization and stimulation of creative work, protection of intellectual property by the state and the stimulation of intellectual activity.

The terms for the operation of an economic mechanism aimed at creating a competitive advantage are insufficient. The mechanism itself should be effective. The analysis of the existing work on this problem allows to emphasize the general features of economic mechanisms that are more or less adapted to the needs of the formation of competitive advantages [5, p.35-44]:

- The process of reproduction of infrastructure, in particular, the establishment of an innovation type in accordance with the field of production and turnover;
- Precise procedures for calculation, collection and utilization of the depreciation fund in the process of reproduction;
- Availability of special funds of significant functional importance at the level of state and economic entities, including reserve funds and risk funds;
- Human resource rehabilitation, research and development funding;
- Development of equipment leasing system;
- Effective stimulation of rationalization of creative activity aimed at strengthening the position of enterprises;
- Reorganization of organizational structures for conducting research and development (R&D) in various fields of activity;
- Availability of effective cost compensation mechanisms with long maturity.

There is no mutually coordinated subsystem in Azerbaijan that would embody the conditions, ideas and principles set out in the existing mechanism.

### **3. FORMATION FEATURES OF COMPETITIVE ADVANTAGES IN THE NON-OIL ENTERPRISES OF AZERBAIJAN**

The basis for the formation of competitive advantages in non-oil enterprises of the country are innovations in a broad sense (improvement of technology, improvement of management methods and techniques, change of product or production process, introduction of new approaches to marketing, new distribution channels, new competitive strategies, etc.) [2, s.5].

These are the most typical opportunities for the emergence of innovations that give a competitive advantage to the company [18, pp. 230-235; 22, pp. 115-126]:

1. Promotion of new technologies, new production methods and goods that create new opportunities for product development;
2. Changes in the cost of components of goods production (commodity, raw materials, energy, transport, communications, equipment, information) due to changes in the conditions of suppliers or the possibility of using new or qualitatively different components;
3. New customer preferences, which often create a competitive advantage or facilitate its transition from enterprise to enterprise, when buyers have completely new desires or a sharp change in perception of the value of the product;
4. The emergence of a new market segment in which it is possible to enter a new group of buyers and release goods to a certain group of buyers and find a more effective way;
5. Standardization, environmental protection, business support, customs regulation, trade restrictions, etc. changes in the state regulation of the market due to changes in state policy in these areas.

The following sources can also serve as an area for the emergence of competitive advantages:

- High quality of goods, reliability;
- Image of the enterprise, trademark, status (purpose) of the goods;
- Product range and nomenclature;
- Technical priorities, innovations;
- Service provided (credit, after-sales service);
- Individual marketing functions (share of advertising costs, distribution channels);
- Technology used (processing accuracy);
- Input quality;
- Qualifications and experience of employees;
- Activity control;
- Convenient location (for example, retail stores);
- Vertical integration degree.

The sources of benefits are diverse and specific to each industry and enterprise. Factors of competitiveness of the food industry are various, such as raw materials and labor resources, consumption factor (conditions of demand for the field product) and so on. The consumer factor and labor resources primarily affect to the competitiveness of the food industry. This is due to the fact that the products meet the vital needs of people. At the same time, transportation of semi-finished products is more economical than finished products. Therefore, from the competitiveness point of view the most effective way is the placement of enterprises in consumer regions. All sub-sectors of the food industry are labor-intensive and require a large amount of specialized resources. This orientation has historically been mainly focused on women's labor in the manufacturing sector. The competitiveness of the industry is determined by the participation of competitive enterprises. The basis of the competitive advantage of any enterprise is its production-technological and financial potential, management system, competitiveness of the marketing policy. The marketing policy of the enterprise is determined by the main features of the market itself, the type and capacity of the enterprise, the presence of competitors. One of the main goals of the non-oil industry is to restore the activities of industrial enterprises in the country and its regions, to create new enterprises. Particular attention should be paid to the reorganization of processing plants for agricultural products, industrial products and the increase in sales opportunities for products grown by farmers involved in this production.

The production of some previously imported food products is now organized in the republic. In addition, Azersun Holding (butter, canned food, tea, sugar), BM - SUN (packaged tea), Coca - Cola (soft drinks), European Tobacco (cigarettes), Azer - Castel (beer), DAD, Barakat (dairy products) ), Elvan Turk-Azeri Food Industry LTD STI (chocolate), Sickendick (sausage products) and others, such foreign and joint ventures meet the local market by producing products that meet advanced world standards, thereby replacing imports. Having a competitive advantage in an enterprise can only help it to be successful in the market for a while, because an important feature of competitive advantages is that they “wear out” over time, i.e. one or another competitive advantage of the enterprise becomes available to competitors. A competitive advantage loses some or all of its value if it is easily multiplied by competitors. For the development of the enterprise it is necessary to maintain a competitive advantage, to manage the market position, to gain new competitive advantages, and at the same time to try to keep the existing ones as long as possible. It is especially important to gain an advantage in saturated markets where demand is met by many sellers. The ability of an enterprise to maintain its competitive advantage in the long run is determined by improving both its competitive advantage and the superiority of its resources in a more orderly way - longer (more sustainable) and more efficient, with less duplication. For example, “Azersun Holding”, which has been operating in Azerbaijan since 1991, has an exceptional role in ensuring food security in our country. “Bazarstore”, one of the supermarket chains launched by “Azersun Holding” since 2011, has quickly become the most trusted and popular supermarket in Azerbaijan as a leader in the modern retail sector. High-quality tea, sugar, butter, salt, milk, canned food, chocolate and sauces produced by “Azersun Holding”, which made significant contributions to the development of the food industry in Azerbaijan during its existence, are highly valued in foreign markets as well as meeting domestic demand. During its existence, “Azersun Holding” has a mission to put dozens of production enterprise into operation and provide employment for thousands of people. “Azerchay”, “Final”, “Bizim Tarla”, “Zeytun baghlari”, “Bizim Sufra” and other enterprises of “Azersun Holding” which create such high-quality brands, ensures the competitiveness of national products in international markets. Quality control of Azersun goods, the production philosophy of which is considered "from field to table", is provided at the highest level at all stages. “Azersun Holding” acts as a large group of companies uniting the leading companies of Azerbaijan in the food industry sector, expanding its areas of activity every year and putting into operation more than 30 enterprises in the food production, packaging and paper industries.

#### **4. CONDITIONS AND EFFECTIVE MEANS OF ENSURING THE SUSTAINABILITY OF COMPETITIVE ADVANTAGE**

Many research authors provide the following three requirements [12, pp. 220-222; 18, pp. 230-235] for ensuring the sustainability of a competitive advantage:

1. In order to ensure the uniqueness of its brand compared to long-term competition, the strengths of the enterprise are associated with the weaknesses of the competitor;
2. Meeting the specific needs of the customer, i.e the relatively strong strengths of the enterprise should give appropriate benefits to the consumer group for this purpose;
3. Building on the specific capabilities and resources of the enterprise, it must be original compared to competitors and its imitation must be difficult or impossible.

As it is known, the competitive advantage of the enterprise is determined by the transfer of its factors - resources. Creating a competitive advantage for the company is even more important to increase competitiveness. The resources are created both by themselves and by other subjects of the value creation system and by the whole national economy as a result of their activities on the basis of various processes.

Thus, the competitive advantage of the enterprise can be determined by the speed of creation, improvement, provision, adaptation and utilization of resources in the process of its activity. In principle, all resources accomplish and replace each other at the same time, the next factor that affects the competitive advantage of the enterprise is the ratio of resources. Preferred resources should be resources (factors) that determine the competitiveness of the field either by its low cost, or high quality specialization, or uniqueness. The most characteristic main advantages of enterprises in terms of factors such as production, technology, resources, staff, management are shown in table 1.

*Table 1: The main competitive advantages of the enterprise*

Number	Competitive advantage factor	The form of competitive advantage
1	Production	Existence of inventions, patents, know-how, trademark; advanced technological equipment; specialization and concentration of production; location of production (enterprise).
2.	Technology	Reduction of labor costs through mechanization and automation; efficient utilization of raw materials and equipment; improving the quality of goods
3.	Resources	Qualitative and cheap raw materials, materials, fuel and energy, financial, information sources; access of new technologies to the market; logistics and operating costs are low
4.	Staff	Increase productivity and quality of work; to improve the organization of labor and production; advanced training, creating conditions for staff development and motivation for effective work
5.	Management	High management culture, qualifications and discipline of managers; organization of supply of raw materials, components, spare parts on the basis of "In time" principle; Organization of a certified quality management system in accordance with ISO 900: 2000 international standards; ability to create, produce and sell products more efficiently than competitors; Ability to analyze the noisy activities of competitors, the market, consumers, and on the basis of this analysis to develop and implement a strategy for sustainable development of the enterprise.

Long-term competitive advantages are preferred for the enterprise, they are characterized by the following features; value, uniqueness, stability, profitability.

1. Value. Consumers are given significant value (benefits);
2. Uniqueness. The consumer cannot take advantage of other suppliers;
3. Sustainability. The advantage is irreversibility or difficulty copying for competitors;
4. Profitability. The company offers goods and services with a price structure, costs and production volume allowing to make high profits.

One of the important conditions for strengthening and developing the competitive advantage of the business structure is the choice of a different area of competition from competitors or the transition to global competition, if other competing firms are limited to the domestic market. Therefore, the approach to the development of competitive advantage, in our opinion, is global and is determined by the acquisition of new competitive advantages in the system: the strategic group - a sector of the national economy - the world market. An effective tool for forming, maintaining and developing an enterprise's competitive advantage is attack strategies applied in the following areas: attacking the opponent's strong sides; attacking the weak sides of opponents; multi-faceted attack; capture of strategic lines; guerrilla attacks; active measures. The formation of competitive advantages begins with the identification of actual and potential buyers, the location of customers, methods of obtaining goods, ways of influencing customers, consumer values of goods, customer tastes and preferences. The following analysis is used to determine competitive advantages: market potential; market trends; development prospects in

the assumption of invariability of technologies and market structure; factors affecting development; projected changes in market structure due to economic development; change in tastes and preferences; actions of competitors; expected innovations that change tastes and preferences; ways to meet needs; opinions on consumer qualities; to create new consumer qualities and needs that are not fully met by the goods and services offered. Competitive advantages are formed in order to expand and strengthen their market share. The potential of the market indicates the degree of its attractiveness, which helps to determine the appropriateness of spending to capture and maintain it. Trend analysis provides information about the changes. As a result, the company can adjust the goods and services offered to them. Competitive advantages must meet not only the tastes and needs of consumers now, but also the new needs of customers in the future. Formation of competitive advantages, functions of the enterprise, its features and interdependence, sequence of values, consumers, suppliers are based on a clear understanding of competitors. Competitive advantages are implemented with the help of an enterprise that performs its functions better. Studying their features allows you to understand exactly what is required by the enterprise, how to do it and whether the buyer is ready to pay. Therefore, improving the performance of functions is achieved by analyzing and improving their features. The performed functions may depend on each other. Studying the sequence of values presented helps to understand where the consumer is willing to pay for where and what functions are performed. A clear understanding of consumers allows us to understand exactly what we need and at what price. Supplier awareness increases competitive advantage by obtaining better quality raw materials at lower prices. Studying competitors helps to predict their possible actions and get a timely response.

## 5. CONCLUSION

As the most important market category, the competitiveness of an enterprise is ensured by its advantages over its competitors - economic, industrial, organizational, social, market activities. The principles, conditions and general features of economic mechanisms for the formation of competitive advantages have been identified. The most characteristic, main competitive advantages of the enterprise are shown in the factors such as production, technology, resources, personnel, management. The characteristics of competitive advantages are given: value, uniqueness, sustainability, profitability. The opportunities for the formation of competitive advantages of enterprises, including innovations, new technologies, changes in the cost of factors of production, new customer requirements, new market segments, changes in laws and regulations, enterprise image, brand awareness, sales with deferred payments, employee specialization, favorable location and the implementation of offensive strategies have been shown in the article. A promising area of research in the field of gaining a competitive advantage by enterprises is to identify the advantages for increasing the number of different enterprises and to develop a methodological framework for their implementation.

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## GOVERNMENT SUPPORT FOR AGRICULTURAL DEVELOPMENT: EXPERIENCE AND PRIORITIES

**Ibrahim Guliyev**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
ibrahim\_guliyev@unec.edu.az*

**Musayeva Yagut Surkhay**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
yagut-musayeva@unec.edu.az*

### ABSTRACT

*In each country, the development of agriculture as one of the key sectors of the national economy is always in the center of attention of the state. This will contribute to the socio-economic development of the sector, ensuring food security, increasing employment and so on. derives from the role. That is why they are sometimes compared with the military-industrial complex of agriculture. Thus, the greater the role of the military-industrial complex in ensuring the national security of the country, the higher the role of agriculture in ensuring food security. It should be borne in mind that state support for the development of agriculture is caused not by its high importance, but by high production risks in this area. The mechanisms and methods of state support for agricultural production have always been the subject of discussion. As a rule, some countries try to give priority to Western and European experience. It is believed that a proven support mechanism should be highly effective. If we specifically describe the reality of Azerbaijan, then there is a diversified mechanism for supporting agriculture. The main attention is paid to subsidies, taxes and loans, the development of leasing relations and technical assistance. The analysis shows that, despite the existing support mechanism and the extensive agricultural independence of the local agricultural producer, the necessary results were not achieved. In Europe, one agricultural producer produces 85-95 people, and 6-7 people in Azerbaijan produce food. There may be several approaches to the interpretation of the current situation. First, large-scale government support can create a sense of trust among manufacturers. Secondly, productive resources are inefficient. Thirdly, the lack of an effective pricing mechanism can seriously damage the interests of producers. We believe that the main problem in the country's agriculture today is not production, but the problems of supply, goods and sales. There is a serious need for the development and implementation of state support mechanisms in these areas.*

**Keywords:** *Agriculture, Regulation, Price, Tax, Subsidy, Credit*

### 1. INTRODUCTION

One of the sectors of the country's economy, which needs greater state support, is the agricultural sector. Adviser to the President of the United States Paul Samuelson, in one of his speeches in 1970, said that the agricultural sector is an unfortunate criticism of nature, a favorite criticism of the government. This idea derives from the socio-economic significance of the sector, which is more risky, is widely used as a form of competition and needs support. Well-known economists have their own views on the need for state support for the development of agriculture. For the first time, Friedrich Liszt, famous for a number of features of the agricultural sector, showed that he needs special protection. He asserted that agrarian countries could no longer compete with industrially developed countries. The Azerbaijani scientist F.Kh. Abbasov considers that the agricultural sector is a mother who needs help, but if it does not

help in time, she gives birth to a disabled child, which means that she does not know what she is doing. Mechanisms of support, which should be provided to different units, different. It is a fact that such mechanisms are important, such as subsidies, tax and credit incentives, infrastructure and investment, price regulation, insurance, generate a large selection: what support mechanisms need to be applied differently. In our opinion, the success of agrarian policy of the state also depends on the correct delimitation of the region, which will be supported and not supported. In line with modern realities, state support should be provided for the production of export-oriented products. This process should be based on a comprehensive database of data, improved methodology and best practices. In this way, the measures of state support for the development of the agricultural sector should also cover legal, organizational, marketing and consulting services.

## **2. METHODOLOGY**

The study used traditional mathematical, statistical and economic research methods. Here, observation, grouping, and statistical analysis methods are preferred. In addition to the above, a survey of farmers working in the regions was conducted. As a result of the survey, the opinion of respondents on the quantity, volume and terms of state aid was studied. The responses of farmers from different regions were summarized, and their expert assessment was carried out.

## **3. FACTORS DETERMINING THE STATE SUPPORT FOR THE DEVELOPMENT OF THE AGRICULTURAL SECTOR**

Millions of people around the world suffer from hunger. Most of them spend less dollars a day. Considering that poverty is the main cause of hunger in developing countries, long-term food insecurity cannot be guaranteed. In connection with this, considering that two-thirds of the world's poor live in rural areas, the policy of protection of agriculture should take into account the rapidly growing world demand for food, fluctuations in prices and volatility of the world. At the same time, the transition from government subsidies to increasing productivity, efficient use of natural resources and reducing economic risks should be a priority in the development of agrarian policy. We can show the following four main directions of state support of agriculture in Azerbaijan:

1. Assistance to manufacturers at the expense of the state budget for fuel and motor oils;
2. Providing assistance to producers at the expense of the state budget for sowing wheat and raw rice;
3. Sale of mineral fertilizers to agricultural producers at reduced prices;
4. Subsidies from the state budget for the sale of seeds of the 1st and 2nd reproduction and seedlings to seed and seedling farms.

There are contradictory and contradictory views on the role of the state in the development and regulation of the agricultural sector. This is one of the reasons for constant adjustments in the national economy and the global agricultural sector. In developed countries, local producers are supported in raising prices (for a limited range of goods), increasing the income of agricultural producers, their creditworthiness and increasing the investment attractiveness of the agricultural sector without adversely affecting the competitive environment in agriculture. The protection of the interests of local producers and the provision of state protection can, in principle, create a trend for monopolies in reliable economic entities. Monopolistic tendencies are more common in processing enterprises and associations, seeking partnerships with agricultural producers. The increase of monopolistic tendencies in the production and processing of technical cultures is more realistic. For this reason, it is necessary to develop an effective mechanism for regulating the creation of a healthy competitive environment and preventing abuses by monopolistic economic entities.



Analyzing the methods used in agriculture in developing countries, experts from the Organization of Economic Cooperation and Development have come to the conclusion that the intervention of the state in the regulation and regulation of the state is not regulated. The world experience demonstrates the economic benefits of public investment in rural infrastructure and social assistance to farmers in need. The study of agrarian policy in 47 countries, which accounts for 80% of the total added value in the agricultural sector, shows that, regardless of the collision, caused by the economic crisis, the level of economic crisis. Thus, this indicator decreased by 21% in 1995–1997 to 16% in 2010–2012. At the same time, significant differences between regions and countries are observed. In general, it can be noted that the provision of financial support to agricultural producers and its results are reflected in the dynamics of changes in GDP per year in the economy of the country. The average share of agriculture in GDP is 4 percent, which is lower than the average for a developed country. At the same time, the share of added value in agriculture, created by Azerbaijan, in GDP is close to the average. This low indicator explains the important role of oil in the economic development of the country. In general, the reasons for the weak real growth rate of growth in the agricultural sector in comparison with other sectors of the economy, as well as the instability of this growth in recent years can be noted in the following way:

- The average size of farms operating in the current agricultural sector, it is not uncommon to have unprofitable points of view of production under optimal conditions;
- Due to the shortcomings in the provision of the agricultural sector with the corresponding infrastructural services (irrigation, agrotechservice, veterinary medicine, phytosanitary, scientific research, marketing, etc.), access to small farms is obvious;
- Inability of agricultural producers to sell their products on favorable terms, imperfections in the system of delivery of products to consumers;
- Insufficient provision of agricultural producers with financial resources;
- Low level of development of human resources in the agricultural sector and the possibility of using modern technologies;
- Low productivity of labor in field conditions by the above reasons.

In addition to the mobilization of all opportunities for the development of the agricultural sector in the economic policy of the state, agricultural producers should produce high-quality agricultural products, increase production. Agriculture is not only a form of economic activity, it is also a way of life, and a long-standing economic tradition of people. Any instability in the agricultural sector is directly reflected in the food market and ultimately affects the level of life of the population. Therefore, state support for sustainable and dynamic development of the agricultural sector is a guarantor of social stability, and the listed reasons are also factors that require state support for agriculture. The analysis shows that at the present time the growth of agricultural production in Azerbaijan is achieved on a larger scale. This is confirmed by low productivity.

*Table following on the next page*

*Table 1: Productivity of agricultural products, cents / ha*

Indicator	2015	2016	2017	2018	In 2018, compared to 2015, as a percentage
Cereals and Beans	31.5	30.6	29.8	30.0	95.0
Paddy	24.5	22.5	30.7	30.0	122.0
cotton	18.8	17.3	15.3	17.6	94.0
tobacco	25.4	15.2	16.6	19.0	75.0
potatoes	136.0	140.0	150.0	159.0	117.0
vegetable	158.0	159.0	155.0	162.0	103.0
Fruits and berries	71.4	65.7	68.4	68.0	95.0
vintage	86.6	74.4	84.1	92.8	107.0
Sugar beet	376.0	490.0	316.0	350.0	93.0
river	12.4	14.1	11.1	11.1	90.0

Source: [www.stat.gov.az](http://www.stat.gov.az)

The table shows some contradictions. Productivity in 2018 compared to 2015 decreased significantly in the production of products that received great government support in recent years, including wheat, cotton, tobacco and tea. Although the productivity of other products has increased, it is rather low compared to developed countries. This shows that the volume of production in Azerbaijan does not correlate properly with subsidizing agricultural production. Thus, the sustainable and dynamic development of the agricultural sector should be approached from three sides:

- Prevention of the negative impact of economic changes on the standard of living of the country's population;
- Prevention of structural contradictions and uneven development in sectoral and territorial complexes of the economy;
- Neutralization of the negative impact of globalization on the agricultural sector [3, p.235].

It should be noted that although Azerbaijan is not a member of the WTO, it follows the rules of this organization. Anyone familiar with these rules knows that the conditions for joining the WTO are highly discriminatory or discriminatory. According to the relevant rules, the volume of state aid to agriculture was frozen at the level of the 90s of the last century. We believe that this does not correspond to the practice of state aid in countries that have the right to vote in the organization. Because the agricultural sector in these countries was formed and developed with active support for about 20-30 years. However, there are no economic, social, humanitarian or moral grounds for making such demands to countries that are developing agrarian entrepreneurship. The goal is for the “food instead of energy” scenario to always work. In other words, in the name of economic cooperation and assistance, the obligation to ensure own economic dominance is fulfilled as if guided by the slogan “from economic cooperation to economic domination”. In addition, non-member countries that are more compliant with WTO requirements judge the seriousness of phytosanitary and veterinary services and the barriers to exporters' access to the domestic market. production of potential products must be supported.

#### **4. THE MAIN DIRECTIONS AND RESULTS OF STATE SUPPORT FOR THE DEVELOPMENT OF THE AGRICULTURAL SECTOR IN AZERBAIJAN**

Promising areas of activity cannot be selected without monitoring the measures taken in any field and evaluating their results. In this sense, government support for the agricultural sector is no exception. In other words, future goals and priorities require, first of all, the provision of financial assistance to agricultural producers and assessment of its results. It is known that financial assistance to agricultural producers primarily affects the level of profitability of their sales.

*Table 2: Return on sales of agricultural products, (percent)*

The name of indicators	2015	2016	2017	2018	In 2018, compared to 2015, "+", "-"
cereals	47.3	45.8	53.6	56.2	+9.1
Raw Cotton	10.6	7.3	-	27.2	+16.6
Sugar beet (for processing)	201.8	71.0	25.7	55.0	-146.8
tobacco	83.0	-	179.0	87.7	+ 4.7
Green tea leaves	-	-	-	15.6	-
potatoes	17.6	261.0	-	27.5	+9.9
Vegetables (in the open ground)	71.4	17.8	40.3	42.8	- 28.6
Melon products	43.1	33.2	18.5	73.6	+30.5
Fruits and berries	24.8	17.7	30.0	28.5	+3.7
vintage	14.1	4.2	8.5	6.2	-7.9
on plant products	28.4	43.5	25.5	40.4	+12.0
beef and poultry, total	9.6	13.9	7.8	15.4	+5.8
Milk products	8,7	20.7	19.8	20.2	+11.5
egg	15.7	4.9	-	-	-
For livestock products	18.1	11.8	8.0	5.9	-12.2

*Source: www.stat.gov.az*

The table shows that, despite government support, the profitability of sales of green tea leaves, grapes and livestock products is generally very low. At the same time, there has been a decrease in the profitability of sales of sugar beets and vegetables. This, first of all, prevents the increase of financial security of agricultural entrepreneurs. Studies show that the profitability of products from active markets, such as raw cotton, sugar beets, tobacco, grapes and potatoes, as well as supply and processing enterprises, should average at least 30%. It is true that financial assistance from the state to the agricultural sector is constantly increasing, soft loans are provided to agricultural producers, insurance of soft crops is applied at the expense of the budget, and consistent work is being carried out to record tariffs for fuel and electricity for agricultural producers. The real situation shows that such government support measures are not a complete solution to the problem. Some researchers argue that there is a negative relationship between initial financial support and production. [55, 56]. This negative relationship is due to the abundance and inefficient use of resources in the subsidy program and the lack of information on the amount of subsidies actually received [56]. Other studies have shown that drones projects may not affect initial support programs in production [57]. We can say that these claims are justified on the example of our country. We believe that the practice of providing subsidies for the cultivated area and the number of animals does not give the expected results, and the practice of providing it for productivity should be changed. In the agricultural sector, providing financial support to individual farmers also allows them to increase their profitability by reducing the cost of their products. Rising prices for manufactured goods used in agriculture negatively affect the interests of farmers. This situation further limits the financial capacity of agricultural producers and sometimes makes production inefficient. Studies show that over the past five years, prices for the main types of agricultural products increased by an average of 25-30 percent, and prices for agricultural machinery and fertilizers increased by 2-3 times. As a result, the relationship between rising prices for agricultural products and industrial products used in agriculture has clearly changed in favor of the latter. Studies show that long-term government support for agriculture serves to regulate farmers' incomes and ensure food security in the country through programs. For example, up to 40% of corn production in the United States is raised through subsidies to producers. [4] The country has supported agriculture for about eighty years. Here, 28 percent of the cost of production is provided by state subsidies, loans are provided to farmers in the amount of 0.5 to 1.5 percent per year, in addition, support is provided for the export of food products.

European farmers receive from 300 to 1000 dollars per hectare, which is many times higher than that of our local producers. Price regulation has a special place in the program of state support for the development of the agricultural sector. Over the past period, with the introduction of modern agricultural technologies, advanced cooling and transport systems and, most importantly, the globalization of markets, serious changes have occurred in food production [5]. Price support, such as recurring payments and price discounts, is reflected in increased production and product diversification. [thirteen]. For example, Aliya D.Yu. evaluated the impact of Benin's price support policy on cotton production. The government decided to increase the price of cotton production by 5%, and then another 25%. Statistical analysis showed that this price support led to an increase in the supply of cotton, as the stability of product prices prompted more and more farmers to grow cotton [12]. It must be admitted that at present, prices for agricultural products in Azerbaijan do not ensure the profitability of the vast majority of producers in the regions. According to estimates, the rate of return should be 20-25 percent higher than inflation. In addition, a guarantee system for the sale of products should be created. One of the important points is to assist in organizing the timely sale of products without loss within the framework of state support; measures are currently being taken to optimize the operation of large retail chains and prevent artificial price increases. Experience has shown that consumer cooperation can lead to further improvement. Rather, cooperatives that can compete with other retail chains are the best intermediaries for agricultural producers. Tax incentives, which have a decisive positive effect on the profitability and economic activity of agricultural producers, do not limit the regulatory function of taxes. Currently, a set of regulatory benefits may include credit incentives for agriculture, leasing on preferential terms, subsidies to compensate for a significant part of the cost of a product. Appropriate regulatory measures contribute to the sustainable development of the agricultural sector and increase the effectiveness of direct investment. The usefulness of a set of measures to improve the efficiency of investments in the agricultural sector as a decisive factor in economic growth should be measured by criteria of profitability and financial security of the sector. In principle, subsidies for agricultural production should serve its intensive development. In other words, subsidies, cheap loans and other similar instruments of financial regulation should be expressed and justified as a result of intensive development of the agricultural sector. In this case, the volume of production and income of farmers are the most valuable results. The influence of support measures on production is considered from three sides: increase, decrease and stability of production. [6, 9]. The high frequency, quality of services provided, field experience and well-trained specialists are factors associated with the positive impact of this policy on production [10, 11].

## 5. ANALYSIS

An important subject of financial regulation of the intensive development of the agricultural sector is production infrastructure. The creation of a reliable supply network for agricultural needs with electricity and natural gas is financed from the state budget as part of a reasonable program. The provision of transport and communication services at the level of modern requirements, the formation of an information infrastructure, the creation of a progressive logistics system are favorable conditions for the intensive development of the agricultural sector. As a continuation in accordance with the main directions of the “Strategic Road Map for the National Economy and Key Sectors of the Economy”, approved on December 6, 2016, the results of the analysis of the current state of agricultural production efficiency and assessment of its prospects can be summarized as follows:

### 1. Strengths:

- The presence of favorable climatic conditions;
- The availability of sufficient labor resources;

- Advantageous geographical location for foreign trade relations.
2. Weaknesses:
    - Low productivity and interest in agricultural production;
    - Lack of quality seeds and fertilizers;
    - Limited access of agricultural producers to central sales markets;
    - Low profitability of agricultural production;
    - Weak state guarantees to manufacturers;
    - Incomplete application of insurance in the agricultural system.
  3. Capabilities:
    - Wide opportunities for intensive development of agricultural production;
    - Application of advanced technologies and technologies;
    - Expansion of trade in agricultural products;
    - Development of a network of consumer cooperatives;
    - Gradual replacement of imports by exports.
  4. Threats:
    - Withdrawal of local producers from sales markets;
    - Decrease in food self-sufficiency in the republic;
    - Increased dependence on imports;
    - Increased migration of the rural population to large cities.

We believe that, according to SWOT analysis, the mutual consideration of opportunities and threats and the systematic resolution of related issues can lead to significant progress in the agricultural sector. We must not forget that the main problem of agricultural enterprises in Azerbaijan today is not only the organization of production, but also marketing. Therefore, in our opinion, it is necessary to complete the SWOT analysis with the 4P concept. In recent years, state support for the development of the agricultural sector in our country has been gradually increasing, and significant measures are being taken to increase its export potential. At the same time, the provision of comprehensive financial and technical support to manufacturers in this area, the development and implementation of a mechanism to protect them from losses or, more precisely, insurance risks, are also important issues. In the agricultural sector, for one reason or another, the attitude towards the insurance system is unsatisfactory. The main methodological problems that impede the development of the agricultural insurance system in the country can be explained by the lack of a unified approach to assessing and managing losses, as well as by a weak methodology for determining the insurance value of the product. The strategic roadmap for the production and processing of agricultural products, approved in 2016, also provides a very relative place to organize an insurance mechanism for agricultural producers. Although the implementation of this process with state support is emphasized, the composition of insurance events and facilities does not seem satisfactory. Thus, in a country with such climatic conditions as Azerbaijan, frost, and not drought, is considered an insured event [2]. It is possible that the loss of products due to frost is directly related to the irresponsibility of the entrepreneur, but such claims regarding the drought are unfounded. The full imposition of the sum insured on the state can create security and almost irresponsibility, protecting manufacturers from any losses. For example, the weaker the producer in the fight against drought and hail, the more competent he will protect agricultural buildings, machinery and equipment. Thus, the approximate organization of the agricultural insurance system in the economic regions of the

country, more precisely, the objects of insurance and events that are considered appropriate for sharing the insurance amount between the producer and the state, can be classified as follows.

*Table 3: Classification of objects of insurance and probable insured events by economic region*

<b>№ Economic regions</b>	<b>The main objects of insurance</b>	<b>Insured events that are more likely</b>
1 Absheron	vineyards, fruits, vegetables	infectious diseases
2 Ganja -nGas	potatoes, vineyards	drought, hail
3 Aran	sugar beet, wheat	drought pests
4 Sheki - Zagatala	fruits	drought, flood
5 Lip - Khachmaz	vegetables fruits	flood, flood
6 Lankaran - Astara	citrus fruits, vineyards, potatoes	flood, drought
7 Mountain Shirvan	vineyards, orchards	drought
8 Upper Karabakh	wheat fruit	infectious diseases, pests

*Source: The table is compiled by the authors*

Although the presented table is the result of subjective thinking and approach, it may be more effective to have an improved version prepared by a commission of insurers, hydrometeorologists and entrepreneurs. The lack of agricultural machinery and equipment among the insurance objects in the table may be justified by the fact that, when imported into the country, manufacturers are provided with sufficient tax and customs benefits. Consequently, the duty and responsibility of manufacturers is directly related to the deterioration, breakdown, etc. of these technical means. To protect, you must insure for this purpose. This means both risk reduction work and the organization of their distribution. We consider it appropriate to gradually move from a system of state assistance and sponsorship to agricultural producers to an affordable insurance and credit system. Interest rates and insurance rates for loans should be set in such a way that they serve not as an indicator of price increases, but as objective reasons for the price drop.

## 6. CONCLUSION

Thus, despite the positive changes in the agrarian policy of the state, it is necessary to take measures for its rapid modernization. From this point of view, the main directions of state support for the agrarian sector may be the following:

- The connection of state support with measures to improve the efficiency and competitiveness of agricultural production;
- Attracting investment and removing administrative barriers to updating fixed assets and expanding the network of soft loans;
- Development of agricultural insurance system;
- Sponsoring the development of agricultural consumer cooperatives;
- Stimulation of high productivity and quality of work.

These measures should be developed as part of a scientifically sound and balanced state strategy for the development of the agricultural sector, taking into account the possibilities of state support for their implementation. This includes structuring government support for the World Trade Organization (WTO) for baskets, strengthening the green box to support research, pest and disease control, and developing insurance and infrastructure systems. At the same time, opportunities for tax benefits that are not part of the yellow box measures should be used effectively. Thus, the development of the situation in the agricultural sector will depend on the validity and effectiveness of the agricultural policy, its adaptation to the dynamic state of the

internal and external environment, the ability to modernize the national agricultural sector, and strengthen its production and social infrastructure.

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## INFLUENCE OF INNOVATIVE DEVELOPMENT FACTORS TO IMPROVE HUMAN CAPITAL IN AZERBAIJAN

**Samira Abasova**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str. 6, AZ1001, Azerbaijan  
sabasova@mail.ru*

**Gulnara Mikayilzade**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str. 6, AZ1001, Azerbaijan  
gulnara.mikailzade@hotmail.com*

### ABSTRACT

*The article considers the influence of innovative development factors on improving human capital in Azerbaijan. The authors, assessing the socio-economic reforms being carried out in our country, show that now in Azerbaijan, the transition to an innovative type of development is very relevant. This is due to several factors. First of all, it is necessary to increase the number of producers of innovative products, to give preference to the behaviour of consumers of innovative products, to strengthen the interaction between manufacturers and consumers of innovative products. The authors note that for the implementation of all this, the creation of a national innovation system is important. However, the article reveals a number of factors that impede the creation of a national innovation system, without which it is impossible to further develop this system in our country.*

**Keywords:** *Innovation, Innovative economy, Information society, Human capital, Socio-economic reforms*

### 1. INTRODUCTION

Currently, all over the world, including Azerbaijan, special attention is paid to the formation and development of human capital, which is the most important sociocultural reason in the modern economy. Human capital is a cause determining the current state of developed countries. In this sense, the socio-economic reforms carried out in Azerbaijan are aimed on improving the welfare of every citizen. The successful economic reforms that have been carried out in our country are a reason to assert that the most of the country's income goes to the innovative development of the education, healthcare and implementation of new technologies. To develop the human capital is one of the main priorities of the state programs implemented in Azerbaijan. In the World Bank report, that has been prepared in connection with the increasing role of the human factor, it is said that human capital in the economy is measured by the volume of investments directed to the person. 16 percent of global economic growth came from physical capital, 20 percent from natural resources, and 64 percent from human capital. The increase in expenditures allocated to human capital will ultimately lead to the further development of the country. Having the determination of the human capital as one of the main goals of the future economic strategy, the government invests the "black gold" in this area, thereby creates the basis for the future national development. Along with that in an innovative economy there are economic resources that give powerful financial opportunities, there is an urgent need for the intellectual and technological potential that controls this system. The constant increase of the number of participants in the innovation network, the attraction of new social groups, and the formation of the institutional framework for innovative development are key factors in this area.



Given the fact that human capital in Azerbaijan that is based on a rich scientific tradition, it is clear that the capital invested in the scientific innovation is of great importance.

## **2. THE DEVELOPMENT OF HUMAN CAPITAL - THE MAIN STRATEGIC DIRECTION OF INNOVATION POLICY**

Azerbaijan invests in innovative initiatives and innovative ideas within the framework of the strategic roadmap for economic development till 2025. Innovative activities include the practical application of the results of scientific research and experimental design work, which increase the efficiency of production, commercial, managerial, and social processes. As a result of the innovation process, new or improved goods and services enter the market. At the same time, innovations can be used in technological, managerial, and organizational processes. Innovative activity is the result of improving the intellectual activity of society. In 2018, the national innovation competition gathered 220 proposals from young Azerbaijani entrepreneurs, researchers, and scientists. The main reason why the most advanced social level of development of a society can be called the "Information Society" is a strategically preferential access to information sources. The regulation of innovation processes in The Republic of Azerbaijan is carried out through the innovation policy, which is the main component of the state socio-economic policy. Under this policy, it is planned to create appropriate innovation structures, in particular, innovation centers, technology business incubators and technology parks to further improve the investment climate in the country. Azerbaijan entered the top ten reformers in the World Bank's Ease of Doing Business Report for 2018, which allowed the country to secure 25th place among 190 countries. The innovation process begins to play a dominant role in the functioning of the entire economic system, changing the type of reproduction, the quality of socio-economic relations, and creating a new innovative economy, which includes a special form of accumulation, a specific welfare structure and special criteria for evaluating effectiveness. Due to its creation, the innovation can be strategic and reactive. Strategic innovations give a competitive advantage as a result of the application of innovations, and the company or state that applies them receives a scientific and technical rent. Jet innovations are aimed at achieving the results of competitors who apply strategic innovation. Innovation is the process of updating science and technology to give economic and social benefits and advantages. In terms of novelty, there are 3 types of innovations: basic innovations - materials, equipment and investments of a new generation, for fundamentally new equipment and technologies; improved and modern innovations - the dissemination and improvement of new generation equipment and technologies, investments for improving the production of goods and services; wrong innovations - investments aimed at improving obsolete equipment and technologies that do not produce results or have a negative impact. Innovation consists of the development and application of new ideas, methods, products that provide economic and social benefits. Thus, innovations can be aimed at solving existing problems or at satisfying needs that have not been previously considered, or at to make many of the available goods and services even more beautiful, convenient, and more useful for people. The innovation is accomplished with the implementation of the following ideas: the appearance of goods and services, and the following sales and implementation of methods. Giving advantage to the institutional context of innovation, K. Freeman emphasized that the national innovation system consists of a network of institutional structures that create, change and facilitate the activation and interaction of the economy in the public and private sectors, the diffusion of new technologies [13]. Innovation is not a separate occasion; it covers all the processes of science and technology. As a social category, innovation consists in the matter of fact that almost all inventions are aimed at reducing the cost of living labor, the cost of electricity, attracting new productive forces to production, increasing labor productivity and production, and improving the quality of products.

All this leads to an increase in the level of production and consumption, helps to improve the quality of life, improves the quality of goods, reduces costs and increases productivity, helps to balance supply and demand, production and consumption. Innovations contribute to the process of development of human capital, the realization of the intellectual capabilities of people; create conditions for their growth and development. As a new economic category, the term "innovation" was introduced into the scientific circulation in the early decades of the 20th century by the Austrian scientist Josef Schumpeter in 1911 in his work "Theory of Economic Development" [7]. He was the first who addressed the issues of new innovative changes in development and gave a full image of the innovation process. He tried to show the essence of innovative entrepreneurship within the framework of the production function, exploring the foundations of the theory of innovative processes. Schumpeter considers innovation as a change in technology and management, pointing to the role of the entrepreneur in the innovation process and calling him the coordinator between invention and novelty. J. Schumpeter identified 5 directions in development: 1) the use of new technologies, technological processes or new offers in the market; 2) the use of new products; 3) the use of new raw materials; 4) organization, management, logistics and production logistics; 5) emerge of new markets. He proved that the entrepreneur-innovator will become the central figure in the economy. J. Schumpeter notes that innovation is the changes that occur to introduce and use new products and vehicles, markets, and industry forms. He considers the innovations as changes in technology and management, notes the role of the entrepreneur as a coordinator between discovery and innovation. However, in his definition of innovation, he did not take into account the possibility of changing the quantitative and qualitative composition of the staff and did not indicate the absolute need for effective development. Hartman Housstein in his book "Leitung industrieller Forschung und Entwicklung", published in Berlin in 1979 [12.] notes that innovation is an introduction in practice, the implementation and use of ideas, proposals, research solutions, models. However, this definition does not take into account the promotion of the idea to the market, and does not consider the absolute effectiveness of the idea, the possibility of changing the structure of production, staff composition. The well-known Estonian economist N.I. Lapin [5.] believes that innovation is a complex process aimed at creating, disseminating, and using new experimental tools to more fully meet the well-known needs of people. As you can see, here innovations are not considered as a specific object, organizational and administrative, social, and other innovations are not taken into account. Nowadays, to survive in a rapidly changing competitive environment, companies must constantly change and update their products, services, and production methods. Innovation includes all the processes associated with the development of a new or improved product, service or production process, and commercial profit. A new or improved product, service, or method of production is formed from new ideas. Innovation is a continuous activity. Research is one of the most important activities needed for innovation. Innovation is the key to economic growth, increased employment, and improved quality of life. To start an innovation activity, it is necessary to choose the most strategically significant innovative novelty. In this case, the requirements and desires of consumers should be taken into account. Even large corporations with ample opportunities for innovation, carefully evaluate all the possibilities. From the end of the twentieth century to the present, very large changes have taken place in human society. All of these changes are related to innovation. Many technological and fundamental inventions and discoveries, the use of modern information technologies in micro- and macroeconomics, as well as nanotechnologies in certain areas of modern science, such as electronics, radio physics, optoelectronics, laser technologies, chemistry and catalysis, modern aviation and astronautics, have led to the creation of high technology products. The technologies that provide these products, make them accessible to a wide range of consumers, are called high technology. As a result, the use of advanced technologies has led to the creation of a new direction of economic

development - innovative economic development countries of the world. From the end of the 20th century, the term "knowledge economy" or knowledge-based economy began to be widely used in science. The new type of economy differs from the preceding agrarian and industrial economies is that the knowledge and the human capital as its main factor. Nowadays, in developed countries, knowledge production is the main source of economic growth. The ability of society to create, choose, adapt, and turn knowledge into a source of income is crucial for sustainable economic development and improving the standard of living of the population. We believe that the knowledge economy is an economy that generates produces and uses knowledge to accelerate its development and increase competitiveness. Due to the mutual influence of science and production, new forms of competition have appeared. At present, enterprises that do not master new technologies cannot compete in world markets. Thus, the most important condition that must be taken into account is when developing an enterprise development strategy should be the use of scientific innovations and high technology. The famous American economist P.F. Drucker said that in the future there will be no understanding of the rich or poor countries of the world. There will be only countries that prefer innovations and countries that do not trust innovations. [8.] Today, to develop innovations, it is necessary to widely introduce scientific technology parks, small business incubators, and technopolises. In developed countries, the bulk of GDP growth is accounted for by high-tech goods and technologies. In recent years, the economic growth of countries such as the United States, Western European countries, Japan, India, China, South Korea, Singapore, etc. is largely due to the development of innovative infrastructure. INTERNET and high-speed computers have appeared, as a result of the development of high technologies, since 1990es. The modern world, the new economy, the information society are the result of new knowledge, new technologies, that are increasing the effectiveness of all economic branches. There is a constantly growing demand for innovative products and services in, because they create conditions for increasing the technical level of existing products and increasing its efficiency; updating manufactured products, and the production of new competitive products. Even though in most cases, the development and creation of innovative products are carried out under contracts between manufacturing enterprises (companies), as well as in the framework of state orders, more and more volumes of these products are sent to the foreign market. The innovative products are related to products of individual production by their nature. Therefore, its market in its features corresponds to the signs of a pure monopoly, and sellers have the opportunity to significantly influence its price. The development and implementation of innovative plans are becoming a vital attribute of Azerbaijani companies. Currently, in our country there are certain patterns in the field of innovation planning. So, the use of planning methods in the formation of innovative processes acts as a prerequisite for accelerated updating of all aspects of the company. Increasing participation in innovative work contributes to self-affirmation, updating, training, advanced training of most employees of the enterprise. The need for innovation determines the introduction of a new concept of training, based on the formation and development of a creative personality. The desire for competition and development in the Azerbaijani economy forces enterprises to seek and actively use new management tools that help them quickly and effectively solve their tasks.

### **3. THE CURRENT STATE OF GOVERNMENT INNOVATION ACTIVITY IN AZERBAIJAN**

One of the important factors accelerating technical and technological backwardness is the transition of developed Western countries from the investment type of economic development to the innovative type. For this reason now in Azerbaijan, the transition to an innovative type of development is so relevant. This is due to several factors. First of all, it is necessary to increase the number of producers of innovative products, to give preference to the behavior of

consumers of innovative products, to strengthen the interaction between manufacturers and consumers of innovative products. Based on the concept of continued development, various countries, depending on their economic and social situation, have developed various models of economic growth. Among them, the most suitable model for Azerbaijan is a model for creating a favorable living environment for people. The main goal in this model is to increase the living standards of people, and the human factor is the basis of economic development. Today, the main problem is the identification of priority issues of economic development of an innovative type, which will affect the sustainable economic growth of Azerbaijan. Based on the strategy of accelerated development, Azerbaijan has identified five main areas of economic modernization. The first of these areas is the innovative development of the Azerbaijan economy, which implies the development of modern technologies by domestic companies, ensuring the production of competitive products and expanding export markets. However, the technological level of material and production spheres in our country is much lower than in other developed countries. As a result, the quality of most industrial goods produced in our country does not meet the requirements of world standards. Without diminishing the significance of the achievements of recent years, it should be noted that due to the lack of investment in several leading sectors of the country's economy (agriculture, light, food, textile, chemical industries, etc.), the organization of the innovation process still does not meet the requirements of a market economy. The depreciation of fixed assets of enterprises is about 51.5%. Table 1 summarizes some of the results of the innovative activity of industrial enterprises in Azerbaijan. Statistics show the volume of innovative products by the level of novelty and types of economic activity.

*Table 1: Dynamics of development of the volume of innovative products by type of economic activity and level of novelty (thousand manats)*

	Products updated or subject to significant changes			Advanced products		
	All industry	Mining industry	Processing industry	All industry	Mining industry	Processing industry
2014	12318.5	-	12318.5	1117.6	-	1117.6
2015	929.7	-	929.7	589.7	-	589.7
2016	35746.9	129.6	35617.3	540.9	-	540.9
2017	14676.7	-	14676.7	383.8	183.8	200,0
2018	28952.2	215.3	28736.9	855.3	-	855.3

*Source: [www.stat.gov.az./source/industry/](http://www.stat.gov.az./source/industry/)*

As can be seen from the data of the State Statistics Committee on the innovative activities of industrial enterprises, the volume of innovative products in terms of novelty and types of economic activity throughout the industry in 2014 amounted to 12,318.5 thousand manats. However, in 2015, the volume of innovative products sharply decreased to 929.7 thousand manat (13.2 times). In 2016, the volume of innovative products produced increased again by 38.4 times and amounted to 35746.9 thousand manat. However, in 2017, the volume of innovative products decreased again by 2.4 times compared to the previous year and amounted to 14676.7 thousand manat. In 2018, we see an almost 2-fold increase compared to the previous year - 28952.7 thousand manat [16.]. In 2014, the volume of improved products in the manufacturing industry amounted to 1,117.6 thousand manat. However, already in 2015, this figure dropped to 589.7 thousand manat (1.9 times).

In 2016, this indicator amounted to 540.9 thousand manat, in 2017 - 200.0 thousand manats, and in 2018 - 855.3 thousand manat, which is 4.3 times more than the corresponding figure of the previous year. So, if no products were newly created or subject to significant changes in the production of food products in 2015, then in 2016 the volume of such products amounted to 402.5 thousand manats, in 2017 - 589.5 thousand manats. Already in 2018, the volume of newly created products or products subject to significant changes amounted to 831.2 thousand manat [16.]. In the chemical industry, in 2014, the volume of newly created products or products subject to significant changes amounted to 0.3 thousand manats. In 2015, the volume of innovative products of the chemical industry of Azerbaijan increased 44.7 times compared to the previous year and amounted to 13.4 thousand manats, in 2016 - 522.4 thousand manat (39.5 times), in 2017 - 1705, 1 thousand manats (3.3 times). The volume of improved products of the chemical industry in 2014 amounted to 565.7 thousand manats, and in 2015 - 127.5 thousand manat. In 2018, the volume of manufactured improved products increased significantly and amounted to 738 thousand manat. A stable situation is observed in the production of machinery and equipment. If in 2014 the volume of newly created products or products subject to significant changes amounted to 145.8 thousand manat, then in 2015 the volume of such products increased to 158.3 thousand manat (1.08 times). In 2016 - up to 174.9 thousand manats (1.13 times), in 2017 - up to 215.8 thousand manats (1.2 times), and 2018 - 222.8 thousand manats. The volume of improved products in the production of machinery and equipment amounted to 462.9 thousand manats in 2014. However, in the next 2015, there was a slight decrease in this indicator to 430.0 thousand manats (1.07 times), in 2016 this indicator increased to 524.8 thousand manats (1.22 times). In the mining industry, the output of newly created products or products subject to significant changes amounted to 129.6 thousand manat. In 2018, such products were produced for 215.3 thousand manats. As can be seen from these data, the dynamics of changes in the volume of innovative products at industrial enterprises in Azerbaijan tends to increase. All these changes occurred mainly due to changes in the volume of production in the manufacturing industry.

*Table 2: Costs of innovation in the industry by type of innovation (thousand manat)*

	Whole industry	product innovation	process innovation	Mining industry	product innovation	process innovation	Manufacturing industry	product innovation	process innovation
2013	13877.2	11899.5	1977,7	8196.6	8052,2	144.4	4066.6	3847.3	219.3
2014	21534.1	13510.4	8023.7	4133.5	3987.9	145.6	17383.6	9522.5	7861.1
2015	35179.1	13685.2	21493.9	2671.0	2527.5	143.5	32492.5	11157.2	21335.3
2016	27929.0	20313.8	7615.2	179.6	10.0	169.6	27744.4	20303.8	7440.6
2017	16135.7	10,439.6	5696.1	31.7	1,0	30.7	16104.0	10,438.6	5665,4
2018	34353.6	23298.7	11054.9	1386.0	679.3	706.7	32967.6	22619.4	10348,2

Source: [www.stat.gov.az/source/industry/](http://www.stat.gov.az/source/industry/)

As can be seen from the data in Table 2, in 2013, 13,877.2 thousand manat was spent on technological innovation in the industry. In 2014, this amount increased 1.6 times (or 64.4%) and amounted to 21,534.1 thousand manat. In 2015, there was an increase in expenses for the production of innovative products to 35179.1 thousand manat. Compared to the previous year, in 2015 the costs of innovative products increased 1.6 times (61.2%). However, in the subsequent period, there was a significant decrease, and in 2016 expenditures on innovative products across the industry decreased to 27929.0 thousand manats, or 1.25 times (by 20.6%). In 2017, the industry as a whole also experienced a decrease in the cost of manufacturing an innovative industry to 16135.7 thousand manats, or 1.7 times (by 42.23%). However, in 2018 we see more than a twofold increase in innovative costs to 34,353.6 thousand manat [15.]. If we compare the costs of technological innovations in industry for product innovations and innovations carried out in technological processes, then, as can be seen from the State Statistics Committee, in 2013, 11.899 million manat was spent on product innovations. In 2014, this figure increased to 13510.4 thousand manat, which is 13.5% more than in the previous year. In 2015, 13,685.2 thousand manats were spent on product innovation in the industry, which is 1.3% more than in the previous year. In 2016, there was also an increase in spending on product innovations, which amounted to 20,313.8 thousand manat, which is 48.4% more than in the previous year. Although in 2017 there was a sharp decrease in the cost of product innovation to 10,439.6 thousand manats, but already in 2018 there was an increase to 23298.7 thousand manats [16.]. As can be seen from the data in Table 2, in 2013, the costs of innovations implemented in technological processes in industry amounted to 1977.7 thousand manat. Until 2015, there has been an increase in these costs. For example, in 2014, expenditures on innovations implemented in technological processes amounted to 8,023.7 thousand manats, or 305.7% more than in the previous year. In 2015, the costs of process technological innovations in industry amounted to 21,493.9 thousand manat, which is 2.7 times more than in the previous year. However, already in 2016 there was a sharp decrease in these costs. They amounted to 7615.2 thousand manat, which is 2.8 times less than in the previous year. In 2017, there was also a decrease in the cost of process innovation in the industry. They amounted to 5696.1 thousand manat, which is 1919.1 thousand manat (33.7%) less than in the previous year. In the mining industry, for the period in the beginning there was a sharp decrease in the volume of expenses for innovations. If in 2016 the total expenditure on innovation amounted to 179.6 thousand manat, in 2017 this figure dropped to 31.7 thousand manat. But in 2018, this indicator increased to 1386.0 thousand manat. The volume of expenses on product innovations in the mining industry in 2016 amounted to 10.0 thousand manat, in 2017 - 1.0 thousand manat, and in 2018 already 679.3 thousand manat. The same trend has been observed in process of innovation. If in 2016 the costs of process innovations in the extractive industry amounted to 169.6 thousand manats, in 2017 they amounted to only 30.7 thousand manats (decreased by 4.7 times), but in 2018 they increased again and reached 706.7 thousand manats. For the period from 2013 to 2018, the process of increasing the cost of technological innovations are observed in the manufacturing industry. If in 2013 the costs of technological innovations amounted to 4066.6 thousand manat, then in 2015 they increased by almost 8 times compared to 2013. In 2017, the costs of technological innovations amounted to 16,104.0 thousand, which is 2.0 times more than in 2015, and 1.7 times less than in 2016. In 2018, these expenses increased by more than 2 times and reached 32967.6 thousand manat. In 2013, 3,847.3 thousand manat was spent on manufacturing innovations in the manufacturing industry. By 2016, this figure reached 20,303.8 thousand manat. And although in 2017 there was a sharp decrease in these expenses to 10,438.6 thousand manat, in the next 2018, the cost of product innovation increased to 22619.4 thousand manat. In 2013, 219.3 thousand manat was directed to process innovations in the manufacturing industry. By 2015, this figure increased to 21,335.3 thousand manats, or 97.3 times, in 2017 there was a sharp decrease in the cost of the process innovations in the

manufacturing industry to 5665.4 thousand manats, and in 2018 we are seeing an increase to 10348. 2 thousand manats.

*Table 3: Dynamics of changes in expenses for technological innovations by type of activity and sources of financing (thousand manats)*

	2013	2014	2015	2016	2017	2018
Whole industry	<b>13877.2</b>	<b>21534.1</b>	<b>35179.1</b>	<b>27929.0</b>	<b>16135.7</b>	<b>34353.6</b>
at the expense of enterprises	<b>12376.9</b>	<b>21133.5</b>	<b>34779.2</b>	<b>14286.5</b>	<b>16076.0</b>	34278.0
at the expense of the state budget	<b>551.2</b>	-	-	-	-	-
due to foreign investment	-	-	-	<b>11808.2</b>	<b>36.0</b>	<b>72.0</b>
other	<b>949.1</b>	<b>400.6</b>	<b>399.9</b>	<b>1834.3</b>	<b>23.7</b>	-
Mining industry	<b>8196.6</b>	<b>4133.5</b>	<b>2671.5</b>	<b>179.6</b>	<b>31.7</b>	<b>1386.0</b>
at the expense of enterprises	<b>8196.6</b>	<b>4133.5</b>	<b>2671.5</b>	<b>179.6</b>	<b>31.7</b>	<b>1386.0</b>
Manufacturing industry	<b>4066.6</b>	<b>17383.6</b>	<b>32492.5</b>	<b>27744.4</b>	<b>16104.0</b>	<b>32967.6</b>
at the expense of enterprises	<b>2566.3</b>	<b>16983.0</b>	<b>32092.6</b>	<b>14101.9</b>	<b>16044.3</b>	32892.0
at the expense of the state budget	<b>551.2</b>	-	-	-	-	-
due to foreign investment	-	-	-	<b>11808.2</b>	<b>36.0</b>	<b>72.0</b>
other	<b>949.1</b>	<b>400.6</b>	<b>399.9</b>	<b>1834.3</b>	<b>23.7</b>	-

Source: [www.stat.gov.az/source/industry/](http://www.stat.gov.az/source/industry/)

Table 3 shows the dynamics of changes in the costs of technological innovation by source of funding. As can be seen from the statistics, in the financial sources of expenditures on technological innovations own funds of enterprises prevail throughout the industry. Compared to 2013, in 2014 the costs of technological innovation in industry grew 1.5 times. Compared to the previous year, in 2015 there was also an increase in spending on technological innovation by 1.6 times. In subsequent years, a gradual decrease in this indicator. In 2016, 1.25 times fewer funds were spent on technological innovations than in the previous year, and in 2017, the costs of technological innovations amounted to 16,135.7 thousand manat. In 2018, this figure increased and amounted to 34,353.6 thousand manat. It should be noted that for the study period from 2013 to 2018, all expenses for technological innovations were financed from the own funds of enterprises, and only in 2013 - from the state budget [16.]. Azerbaijan is a country with a high human development index. According to a UN study in 2018, Azerbaijan ranks 80th in the ranking of countries around the world in terms of HDI and is ahead of such CIS countries as Armenia (83 / 0.755), Ukraine (88 / 0.710), Uzbekistan (105 / 0.710), Turkmenistan (108 / 0.706), Moldova (112 / 0.700). However, Estonia (30 / 0.871), Lithuania (35 / 0.858), Latvia (41 / 0.847), Russia (49 / 0.816), Belarus (53 / 0.808), Kazakhstan (58 / 0.800) and Georgia (70 / 0.780) occupy positions that are higher than Azerbaijan and belong to countries with very high

HDI. Today, the global high-tech market is estimated at 2.5 trillion. dollars a year. Of these: 39% accounted for by the United States, 30% - by Japan, 16% - by Germany. Other states share 15% remaining. Competitive technologies do not arise on their own. These are expensive products that are created through sophisticated research. Of course, to produce high-quality modern, competitive products, it is necessary to purchase foreign technology. However, if we only use other people's technologies, we will not be able to overcome the technological dependence of our country. Therefore, it is necessary to develop your science, mobilise the scientific and technical potential and resources of the country, and create conditions for the implementation of scientific achievements in production.

#### 4. CONCLUSION

During the period of economic reforms in Azerbaijan, innovation activity has increased markedly. The basis of this is the growth of highly qualified specialists, significant investment resources, and the development of innovative infrastructure. If we add here the active development of science, industry, and agriculture, products produced in large quantities in non-oil sectors, we will see that there are vast areas for the growth of innovative activity. The existing conditions create great opportunities for Azerbaijan to participate in the scientific and technological processes of an international level. In new scientific and technical areas - biotechnology, nanotechnology, information, and communication technologies - in all these areas we have a chance to achieve concrete results.

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## OPPORTUNITIES AND PRIORITIES OF AZERBAIJAN'S TRANSITION TO THE CONCEPT OF SUSTAINABLE DEVELOPMENT

**Gunay Mahish Panahova**

*Associate Professor at Department of "Theoretical and Practical Economics",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
gunaypanahova@gmail.com*

### **ABSTRACT**

*Taking into consideration the world experience of economic development, global, national and regional characteristics, transition problem of the sustainable economic development of Azerbaijan, the country's development level, existing balance of resources and its utilization, forwarding movement of opportunities in the near perspectives, as well as the obtained results in all the sectors and directions of the national economy of Azerbaijan, Challenges of sustainable development strategy and its practical implementation: The systematic SWOT analysis of the development of the national economy, its strong and weak sides, capacities, negative-global pressures, threat identification, evaluation tasks are revealed in a logical consistency on the basis of 360-degree diagnostics. For the realization of the sustainable development concept mechanism of Azerbaijan, the implementation of innovation-oriented investment policy, creating a strong economic and market infrastructure meeting international standards, forming a national innovation system, sharpening the share of intellectual capital in (GDP) gross domestic product, implementation of appropriate inevitable institutional changes requiring the condition and demand of market in a global world, determination of the amount of transfers from the oil funds to the budget according to the "golden rule" principles, the optimal ratio application of sustainable fiscal and effective monetary policy with the process of socio-economic regulation, vast utilization of targeted programs in the major fields and directions of the national economy and in a whole it is necessary to deepen the reforms from the sustainable development point of view. The concrete suggestions and recommendations are put forward at the end of the article.*

**Keywords:** Sustainable economy, Sustainability potential, Safety conception, Competitiveness, Human capital

### **1. INTRODUCTION**

The gained achievements, created economic, social, scientific and technical, financial potential, human capital, infrastructure, the level of improvement of social welfare, as well as the normative-legal legislation and institutional base allowed our country to present the transition to sustainable development as a practical problem in the field of socio-economic development in Azerbaijan over the past decade. At the same time, the global financial crisis and the sharp decline in world crude oil prices over the past two years, the devaluation of the manat, the role and opportunities of the oil factor in the development of the national economy, limited income, led to declining GDP in our trading partners. Increasing the balance of payments and non-oil budget deficit of the country, increasing global pressure on the nature of economic development as a whole, distorting the factors, criteria, driving forces, principles, mechanisms of economic development in our country turned into an objective necessity. This, in turn, includes: SWOT analysis of the current position of socio-economic development of our country (strong and weak sides, opportunities, danger and threats) and 360-degree diagnosis; assessment of the balance of resources owned by our country, the degree of their use and the potential that can be mobilized in the current conditions; identification of the main goals, objectives and priorities of the national economy development for the near future, ensuring the effective implementation

of economic, social, ecological and institutional development of the existing forms, methods, principles and means of regulation of socio-economic processes requires a stable fiscal and effective monetary policy. In condition of globalization, the demand for resources of mankind is constantly growing, the growing cost of their production, the growing dependence on globalization as a logical consequence of globalization, has led to the universal nature of economic, social, demographic and environmental problems. In such circumstances, the formation and development of a productive national economy in Azerbaijan depends to a large extent on the transition to its model of sustainable development. The historical experience of the developed countries shows that in order to ensure the transition of the national economy to sustainable development, the resource potential of the country must first and foremost be of interest and benefit to future generations. The required necessary economic, social, ecological, technical-technological potential should be gradually formed for the transition from resource-based development model to innovative development model. Generally, concept of sustainable development based on such a civilized approach is to be dominated by socio - economic systems, and regardless of the nature of development models, it is necessary to ensure that the application and development of scientific and technical progress in the national economy is accelerated and the principles of sustainable human life at all levels should be upheld and the balance of the environment should not be worsened.

## **2. AZERBAIJAN'S TRANSITION TO THE CONCEPT OF SUSTAINABLE DEVELOPMENT**

All this, in turn, makes it necessary to re-evaluate the growth factors of the national economy in terms of sustainable development. In such circumstances, the optimality and effectiveness of economic policy in each country, its responsiveness to the interests of present and future generations, and above all, the resilience of national economies to the global financial crisis, especially ecological balance. From this point of view, modernization of production in our country in the near future, increasing the competitiveness of innovative development, improving the structure and diversification of the economy, ensuring inclusive economic growth are based on the principles, mechanisms and goals of sustainable development. In such circumstances, ensuring the transition of the national economy to sustainable development in modern times should be considered as a key task facing our country in the near future. Emphasizing the urgency of the problem, President of the Republic of Azerbaijan Ilham Aliyev noted on the 90th anniversary of Baku State University: “The transition period in the Azerbaijani economy is over. We must draw conclusions by analyzing existing realities, think about new paradigms, and define the conceptual basis of the economic development model for the transition of the Azerbaijani economy to sustainable development. All these issues should form the main line of the strategic economic policy of the state developed in our country for the near future” (Azerbaijan newspaper, 2016). Ensuring the transition of the national economy to a model of sustainable development requires, first of all, the development and practical implementation of the conceptual framework of the development strategy, taking into account the relevant progressive world experience and national realities. World experience shows that although the natural resources of each country provide the initial necessary basis for its sustainable economic development, in many cases it does not act as a decisive condition. The development of the concept of transition to sustainable development of national economies, first of all, should determine the balance of material, labor and natural resources of the country, the degree of their use, as well as production factors that can be mobilized within the existing scientific and technological progress and financial potential. This, in turn, requires an objective assessment of the level of economic development and potential of the country in terms of economic, scientific, technical, financial, social, environmental and human capital.

In general, if we try to characterize the perspective development model aimed at ensuring sustainable development in our country in modern times, we will focus on the following priorities, showing the optimal ratio of key factors in economic growth, ensuring the security of the national economy, the competitiveness of the national economy. Particular attention should be paid to the assessment of growth efficiency from the point of view of reproduction, to the emphasis on social efficiency and, finally, to the fact that efficient use of one factor does not negatively affect the level of use of another. The analysis shows that at different stages of world development, the priorities and goals of the transition to sustainable development are also improving. Then, on December 6, 2016, 12 Strategic Roadmaps for eleven sectors were approved by presidential decree. For the first time, these roadmaps set as a strategic task the harmonious solution of economic and social development, the interests of present and future generations, as well as increasing the inclusion of the economy. In general, they are: investment-innovation; improving the business environment; investment promotion; implementation of structural and institutional reforms; increasing the competitiveness of the national economy; stimulating the development of the non-oil sector and exports; state support for the development of profitable labor-intensive industries and productions; improving the system of salaries, pensions and benefits; Promotion of the “Made in Azerbaijan” brand; and so on. can be grouped by destination. At the same time, the expectation of the security of the national economy was defined as an inevitable condition for the formation and implementation of the strategy of economic reforms to be implemented in our country. At the same time, as noted by academician Z.A.Samadzade, the success of economic reforms in each country depends crucially on the nature of economic policy pursued in the country, taking into account their changes in the world and national interests (Samadzade, 2009). The realization of the strategic goals and objectives of the country's transition to a model of sustainable development in the near future requires the improvement of the structure of the national economy in accordance with changing conditions and demand, ensuring optimal balance between the real and financial sectors. The analysis shows that the nature of our country's economic development in the near future will include: the relocation of global economic power centers to emerging markets in Asia; significant effects of technological innovations; the changing geopolitical configuration and the gradual reduction of the effects of the oil and gas factor will significantly increase the potential of the non-oil sector. The analysis shows that most of the capital investment in the country's economy over the past decade has been directed to the export of oil and gas resources to the world market, the creation and increase of logistics opportunities for economic, social and market infrastructure necessary for the development of entrepreneurship. Their main source of funding, along with the state budget, was financed by the transfers from the Oil Fund. In our opinion, the above-mentioned development should be considered one of the most characteristic features of Azerbaijan's transition to a sustainable development strategy. All this will dramatically increase the country's resilience to possible cataclysms and the negative impact of geo-economics and instability on the sustainable and dynamic development of the national economy in the near future. In general, from 1993 to 2018, the volume of investments in fixed assets in our country at the expense of all financial sources amounted to more than \$ 250 billion (Statistical Indicators of Azerbaijan, 2018). Assessing the potential and opportunities created in our country in recent years in all areas, the International Monetary Fund forecasts 2-3 percent annual growth of the Azerbaijani economy until 2025. Today, the Azerbaijani economy is in the process of transition from quantitative to qualitative changes. It is well known that no matter how much economic growth is affected by natural resources, their ability to ensure ever-increasing reproduction is limited, but human capital is a constant, inexhaustible source of economic development. From this point of view, in the near future, the national economy in Azerbaijan will ensure its self- development and competitiveness, and oil capital will depend to a large extent on the development of human capital.

The analysis shows that if we try to characterize the perspective development model aimed at ensuring sustainable development in our country in modern times, taking into account the world experience and national realities, we will focus on the following priority areas; to expect optimal ratios of key and progress factors in economic growth, to ensure the security of the national economy, to make the national economy competitive, to choose the right priorities, to approach the assessment of the efficiency of economic growth from the point of view of reproduction, highlighting social efficiency and finally, special attention should be paid to the fact that the efficient use of one factor does not negatively affect the level of use of another. In this regard, P. Solow rightly notes that three main issues should be in the center of attention while determining economic policy. First, society must direct more or less of its national income to savings. Second, it must be determined how economic policies can affect savings, and third, how changes in economic policies can affect technical progress. Because, as M. Todaro noted, "Development is a highly planned process, which accelerates the transformation of people's behavior, social institutions, social structure, fundamental, economic growth, reduces unemployment and softens inequality in society." [3] It is also a fact that the transition to the concept of real sustainable development is virtually impossible without ensuring its international competitiveness. Porter rightly writes that the competitiveness of the country's economy depends not only on the known classical factors of economic development, but also on national conditions, in other words, the structure of the national economy, national culture, mentality of public servants, and even the country's history also has a significant effect (Guliyev, 2002). Of course, in this case, as noted by P. Solow, the expectation of the degree of sustainability between existing produced capital and natural resources is a prerequisite for the development of sustainable development programs. Serious problems in the field of ensuring the harmony of nature-society, human relations in modern times have become an objective necessity to re-evaluate them in terms of sustainable development. In general, since the 1970s, new approaches to the concept of economic growth have emerged in relation to sustainable development. The introduction of the concept of sustainable development as a practical problem in the international arena dates back to the 1971 report "Limits of Growth" prepared by the Club of Rome. It was emphasized in the report that the increasing scale and wasteful use of natural resources, especially energy, causes great damage to the environment, rendering it unusable, and casts doubt on the possibility of normal life on Earth in the long run. To address this problem, the need to shift from intensive economic growth to intensive development in anticipation of ecological balance was justified. Taking into consideration the relevance and practical significance of the principles of the report, an international conference on sustainable development was held in Stockholm in 1972. It was presented to humanity as a challenge to address the problem of limited land resources at this conference. Then, the fundamental principles, ways, mechanisms and priorities of the concept of sustainable development were identified at the international summits held in 1992, 2002 and 2012. In 1972, Nobel laureates Y. Nordhaus and J. Tobin, in their study "Growth is Obsolete," actually proposed a model for the first time to assess the sustainability of the economy. In 1974, the conditions for sustainable economic development were formed for the first time by Robert Solow. He noted that a gradual decline in the consumption of the economy in order to ensure the intended sustainability of the natural resources in the produced capital provided the necessary conditions for the development of a sustainability program. Then, on October 20, 1987, the resolution of the 42nd session of the IMF defined the basic principles of sustainable development of mankind. It is known that in the world economic literature, the concepts of weak and strong sustainability are distinguished depending on the level of economic development of the country, the chosen model of development and the degree of integration into the world economy. "Poor sustainability - is a development that does not reduce from generation to generation." Other economists agree that poor sustainability is seen as "a sustainable supply of consumption without worsening the

condition of fixed capital." We note that it is the most difficult and contradictory process for economists to accurately define the indicators of "weak and strong" sustainable development. "Sustainability - is a development based on the long-term unity of social, financial and ecological balance, with long-term economic, environmental and cultural viability." The literature shows that the 5 main elements of sustainable economic development (E) are indices and indicators for assessing the economy, ecology, fairness, education and sustainable development (Alakbarov, 2013). In general, we can agree with the opinion of academician U. Alakbarov that sustainable development implies maintaining a weak balance between the improvement of people's lifestyles, needs, material well-being and the ecosystem of natural resources (Alakbarov, 2013). The analysis shows that the practical and effective implementation of the sustainable development strategy in highly developed national economies is determined by known general principles, but its provision at the mega, macro, meso, micro and regional levels must be taken into account. The above mentioned proves once again that the role of different factors in enhancing the competitiveness of national economies of different countries may vary depending on the level of development. In recent years, the strengthening of the social and humanitarian aspects of sustainable development in the international arena and the practical realization of these goals have become more relevant. In this regard, in accordance with the goals of sustainable development adopted at the UN Summit in September 2015, the "2030 Agenda" was adopted, taking into account the need for a comprehensive institutional and political approach to ensure the implementation of sustainable development goals in Azerbaijan until 2030 and the National Coordinating Council for Sustainable Development was established and the transition to the concept of inclusive economic growth was set as an important task. The nature of ensuring long-term inclusive economic growth has a strong negative impact on the existing disproportions in the level of socio-economic development of the country. In order to eliminate these negative processes in regional economic development, three regional development programs covering 2004-2008, 2009-2013, 2014-2018 were adopted by the order of the President of the Republic of Azerbaijan Ilham Aliyev, and today significant results have been achieved due to their implementation. In general, \$ 50 billion has been spent on regional development in our country over the past fifteen years. World experience shows that the practical implementation of sustainable development in a concrete example of any country is a logical sequence: a systematic SWOT analysis of the level of development of the national economy, goal setting, the degree to which the existing system of economic relations meets national interests and finally, the form, method, scale of its regulation. In general, in a globalizing world, every country must solve four problems to ensure sustainable development. First, it is necessary to implement a system of appropriate measures to address the environmental problems arising from the development of the world economy in modern times; second, to implement the necessary socio-economic programs to ensure sustainable human development; third, to formulate and implement appropriate policies to address the demographic problems observed in modern times; fourth, existing economic problems must be systematically addressed, taking into account current and future goals in terms of sustainable development. It should be noted that ultimately the ability to solve environmental, social and demographic problems depends crucially on the level and nature of economic development. At the same time, it should not be overlooked that the practical implementation of the concept of sustainable development is primarily conditioned by the country's potential for sustainability (Ahmadov, 2005). At the same time, the analysis shows that although the potential for sustainability is determined by the absolute advantages of the country as a whole, this potential can be significantly increased by implementing the right, optimal, flexible economic policy and waiting for the optimal stage of solving global, regional, national interests and current and future goals. In this regard, the existing scientific and technical, financial, investment and the distribution of potential and resources that can be

mobilized within their capabilities should be considered optimal. On the one hand, they should allow to meet the current socio-economic needs of society as well as possible, and most importantly, not to limit the material basis for better meeting these needs in the future and ensure economic growth, not to impose additional costs on future generations (debt, credit, etc.). The analysis shows that, ultimately, the transition to the concept of sustainable economic growth is crucially linked to the development and efficiency of the real sector. " The analysis of the Azerbaijani economy in terms of supply also shows the positive results of a successful strategy. Over the past 10 years, macroeconomic stability has been maintained in the Azerbaijani economy, important reforms have been carried out and necessary measures have been taken to diversify the economy and develop entrepreneurship. At the same time, the balanced development of the regions was ensured during this period, the competitiveness of the country's economy increased and the country's rapid integration into the world economy continued "(Muradov). Ensuring the transition to sustainable development is a problem directly related to the security of the national economy. Expectation of economic security is an internal and external factor covering the independence of the national economy, the stability of the reproduction process in the country at all levels, the coordination of current and future goals and objectives, dynamic and sustainable development, as well as its ability to constantly renew, self-development and improvement, in this case can be expressed as a set of conditions, especially the availability of appropriate financial security should be noted. As noted in the economic literature, "The financial self-sufficiency of a country is one of the most important criteria of its economic independence. A state that cannot support itself, is unable to provide its socio-economic development with the financial resources it has earned, cannot be considered a sedentary state in general " (Muzaffarl, 2014). The concept of economic security should include not only the protection of national interests, but also the mechanism of protection and realization of national interests, the development of national entrepreneurship and production, the ability to ensure socio-economic stability in society. In turn, to achieve relevant results in the field of economic security, in a number of areas; to identify and forecast internal and external threats to the society in all its interests, to create the necessary information base by conducting comprehensive objective monitoring of economic processes, to prevent possible negative consequences of threats to economic interests, to implement a set of flexible and long-term measures to eliminate them and their consequences. It requires timely assessment, adaptation to dynamic changes in the world economic system, global competition, as well as problems arising from limited resources, and adequate response to internal and external threats. A characteristic analysis of the economic policy pursued in Azerbaijan during the years of independence shows that during these years the Azerbaijani state has formed and implemented such an optimal economic development strategy that it almost did not lead to the so-called "delay effect" in the economic literature. The Azerbaijani government has always sought to maintain a link between regulatory capacity, especially financial capacity, and the level of regulation. Implementing financial market liberalization without creating an appropriate regulatory framework is undoubtedly a common recipe for economic instability (Stigeits, 2004). At the same time, Yantirberg's opinion is of particular importance that the scale of regulation should be coordinated with the country's regulatory capacity. In order to ensure sustainable economic growth, it is important to make the necessary structural and institutional changes in response to changing condition, demand and potential. This proves once again that in order to ensure sustainable economic development, the ratio between the country's financial potential and the development of the real sector must be constantly improved in accordance with changing conditions and demand, and the necessary changes in the structure of reproduction. Thus, the assessment of socio-economic processes on the basis of 360-degree diagnostics shows that the production process can be carried out efficiently in any national economy.

However, if the distribution and exchange process in the country is not optimal, especially if the existing products and services are not used efficiently, then the benefits of overall economic growth will fall sharply and the country will experience "impoverished economic growth." The analysis shows that until recent years, fiscal regulation has played a decisive role in the regulation of socio-economic processes in Azerbaijan. However, in the last two years, the negative pressure of external factors on the economy of our country, global challenges, sharp differences between domestic prices for products and services and world market prices, and so on. in the near future, the widespread application of monetary regulation on the basis of the country's floating exchange rate regime will become an objective necessity. It is also a fact that in order to effectively implement the strategy of sustainable development, every piece of legislation adopted in connection with socio-economic development must have a strong enough intellectual load and take into account current and future goals. Because, in fact, it reflects the legislative framework for the regulation of socio-economic processes and the economic policy pursued by the state in this area. An objective assessment of the impact of legislation on the dynamics and nature of economic development (RIA) is essential. In this regard, it should be noted that the legal rights of the interested parties (owners) should be determined, taking into account the opportunities and limitations in the management of socio-economic processes. This is because the distribution of legal rights affects the distribution of income "through the income effect" and respectively, the incentive mechanism in one direction or another. Therefore, ensuring the effective functioning of a competitive and dynamically developing national economy depends on the nature of the regulatory system, the effectiveness of its application and the level of management of these processes as a whole in the country. In general, when assessing the impact of legislation on socio-economic processes, along with costs and results, the issues of environmental assessment, ensuring national economic security and competitiveness, and anticipating the interests of present and future generations should not be overlooked. As a result of the economic development strategy implemented in our country in recent years, significant progress has been made in improving the competitiveness of the national economy, inclusion, development of infrastructure and the business environment as a whole, as well as the dynamics of economic freedom index. In the Global Competitiveness Report for 2017-2018, Azerbaijan's rating has risen two more steps according to the 35th level of inclusive development, it has made significant progress and ranked third among developing countries.

### 3. CONCLUSION

In general, our research leads to the conclusion that in the near future to ensure the transition of our country to the concept of sustainable development; formation and implementation of innovation-oriented investment policy; creation of appropriate production - socially oriented infrastructure; formation of the national innovation system; achieving a sharp increase in the share of intellectual capital in GDP; fifth, in a globalizing world, it has become an objective necessity to make the necessary institutional changes in response to changing market conditions and demands.

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## ECONOMETRIC EVALUATION OF THE RATIO BETWEEN DOMESTIC AND WORLD PRICES

**Ibrahim Guliyev**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*ibrahim\_guliyev@unec.edu.az*

### ABSTRACT

*The interrelation of domestic and world prices is the scientific discussion subject of economist-scientists. The problem is that domestic prices often differ from world prices. In order to determine the reason of this, main elements of pricing mechanisms in domestic and world markets should be systematically linked. The overlap of external and internal prices rarely occur. In other words, very often, different countries have different prices for the same product. As a rule, domestic prices exceed the world market prices. This is typical for all countries, although it is more typical for countries which are importing and less typical for countries which are exporting. The country's influence opportunities to the world prices for products is quite limited. Because the value bases of those prices are formed outside the country. Sometimes, in the face of the national currency's depreciation, product imports are accepted as "inflation imports" is based on this argument. In addition, the assessment of the impact of the following factors should also be taken into consideration:*

- 1. Economic barriers between national and world markets (customs duties, compensation charges, subsidies, taxes, etc.). Typically, as the national market faces such barriers, the discrepancy between local and world market prices is exacerbated. The less these barriers are, the more compatible the prices. Thus, a number of countries have subsidized their exports by using open and confidential financial support, which helps them lower world market prices than domestic prices.*
- 2. More intense price competition in the world markets than in national markets. The dynamics of domestic and world market prices can be monitored by analyzing the competitiveness index of local products versus imported products, the country's dependence rate on imports, national currency exchange rate fluctuations, and other related factors. From this point of view, there is a need for creation of an appropriate econometric model and interpretation of the results by using the correlation-regression and statistical analysis methods.*

**Keywords:** *Currency, Competition, Export, Import, Market, Price, Regulation, Value*

### 1. INTRODUCTION

Prices are affected by a number of economic, social, political, geographical and psychological factors in the process of its formation and dynamics. These factors determine the mutual ratios between different types of prices. Within the national economy, the interdependence between producer and retail prices is the subject of extensive discussion. However, in the globalization and integration context, there is a need to study the relationship and dependence between domestic and foreign prices. The domestic prices are formed as a result of these relations and create certain ideas about the country's economy. They reflect the stability of the national economy, the competitiveness of local products, as well as the volatility of the national currency. Therefore, in the mathematical and economic evaluation of the ratios between domestic and foreign prices, the accounting of these indicators should be given priority. If we look through the economic processes that have taken place in Azerbaijan over the past five years, we can see that there are enough issues that are quite relevant for research. From this point of view, the devaluation processes taking place in 2015-2016 and the fluctuations in

foreign trade turnover and price levels in the period of the national currency exchange rate in the following period should be appreciated. It should be noted that three consecutive devaluation processes (according to official sources only two) have led to a unique variation in the volume of domestic production and the level of prices as a result of changes in import-export ratios. Another important factor in the change of the ratio between domestic and foreign prices in Azerbaijan reality is the change of oil prices in the world. Azerbaijan, being an oil country, receives a large amount of foreign exchange earnings from oil exports. Changes of oil prices in the world oil have a significant impact on the exchange rate of the national currency reflected in the prices of local products and imports. It should be noted that the Azerbaijan government is still trying to regulate the level and dynamics of relevant prices keeping the national currency stable.

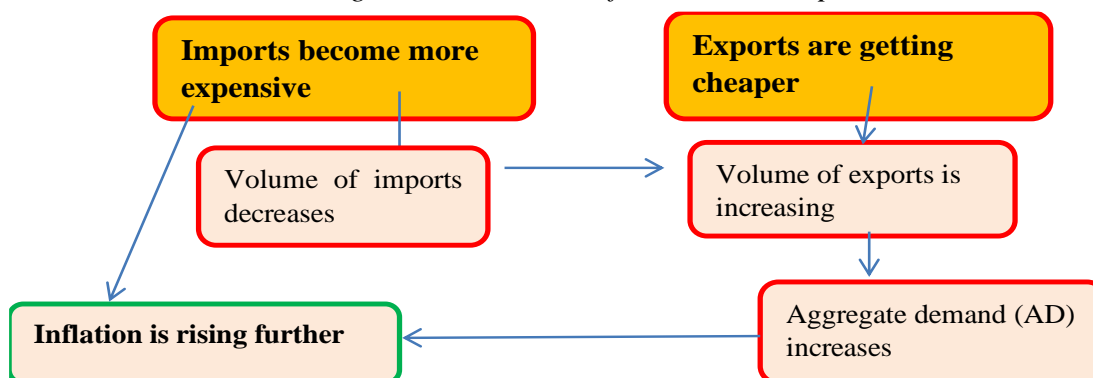
## 2. METHODOLOGY

Firstly the study examines the relationship between exchange rate fluctuations, foreign trade and currency depreciation, and then analyzes the impact of all these processes on the Azerbaijani economy through graphical and econometric models. For the sake of objectivity of the results of the analysis, comprehensive information was collected on the development trends of the national economy and the world economy, the factors affecting the exchange rate, as well as the environment and conditions that determine the dynamics of prices. Further, grouping, comparison and statistical analysis methods were used.

## 3. THE CHARACTERISTIC OF THE FACTORS INFLUENCING THE FORMATION OF INTERNAL AND EXTERNAL PRICES

We can say it is impossible to continue our daily lives indifferent to the economic processes taking place in the world. Environmental events affect the economy and indirectly human life. The news of a small crisis, not only in the city or country where we live, but also in another part of the world affect household budgets. With reference to the above provisions, it is necessary to assess two factors that affect the ratio between domestic and foreign prices in Azerbaijan in modern age: successive devaluation processes in recent years and sharp fluctuations in oil prices [10]. Therefore, we consider it is expedient to study the impact of each of them on prices separately. The integration of economies under the influence of globalization and exchange rate fluctuations due to open economic policies affect the foreign trade turnover of countries. There is no country which wants its currency to lose value against the other currencies. However, in some cases, devaluation may be necessary for the economic recovery. The main reason for the devaluation is the deficit of the foreign trade balance of the economy [11]. Because in this case, the country's purchasing power becomes weaker, more exports and fewer imports begin. As a result, the prices of imported goods rise and export prices fall.

*Figure 1: Directions of devaluation impact*



Source: [www.economicshelp.org](http://www.economicshelp.org)

During the devaluation due to the decline in export prices, foreign demand for domestic goods is growing. Devaluation can also turn foreign trade conditions against the country. Its negative impact is clearly visible in the countries where exports exceed imports. While rising exports decreases the world prices, declining imports do not reduce the prices. The foreign trade conditions harm the country, where devaluation takes place [1, p. 187]. The effects of devaluation in the field of foreign trade form the groups of "winners" and "losers". Its deterioration in terms of trade occurs mainly in the countries that are highly dependent on imports or export small quantities.

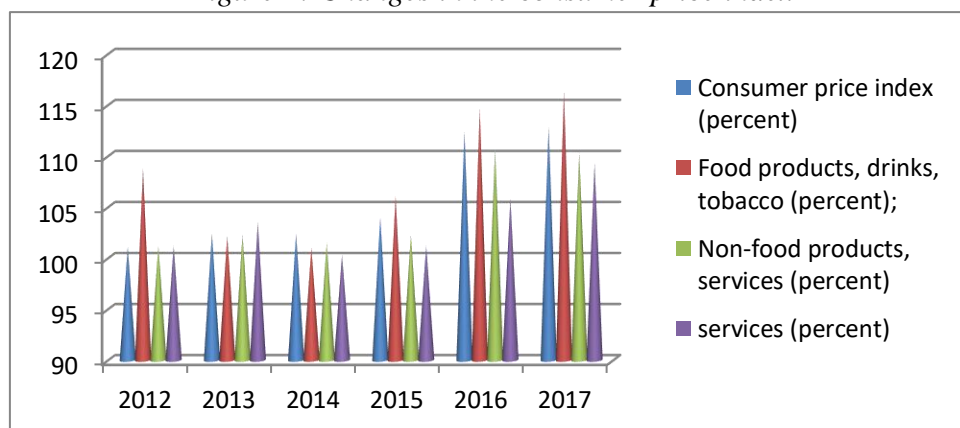
*Table 1: Consequencies of devaluation: "winners" and "losers"*

Winners	Losers
<ul style="list-style-type: none"> <li>• Exporters</li> <li>• Local tourism industry</li> <li>• Workers in the export industry</li> </ul>	<ul style="list-style-type: none"> <li>• Consumers buying imported products</li> <li>• Firms purchasing imported raw materials</li> <li>• People with stable incomes who see inflation rising faster</li> </ul>

*Source: www.economicshelp.org.*

Changes in the world economy, the fall in oil prices and the monetary policy pursued by the countries with strong economies, require certain economic steps in Azerbaijan. The lowering of the discount rate of the US dollar and the sharp decline in oil revenues lead to the depletion of foreign exchange reserves. After the devaluation process, there is a natural increase in the prices of goods and services due to changes in exchange rates. It is acceptable that this increase occurs once and not more than the level of devaluation, but the subsequent spiraling of this process leads to inflation process [5]. In this regard, we can say that the regulation of prices after the devaluation is one of the main problems facing governments. By devaluation, governments are trying to spend less currency on their trade balance by reducing imports and bringing more foreign currency into the country through increasing exports. However, for some reason, they are not obtained at any level in developing countries, particularly in Azerbaijan. The main reasons for this are low production volumes or narrow production areas, the backwardness in management and technology. Azerbaijan is an import-dependent country, therefore the domestic market prices are highly dependent on the dollar. From this point of view, there is no doubt that the devaluation of manat will affect the prices of all imported products. The rise in prices for a number of services is inevitable, at the same time [11]. In the absence of a significant increase in wages and pensions, it is possible to say that ordinary people will suffer more from the devaluation. This is proved by the devaluation and the dynamics of prices in the first year.

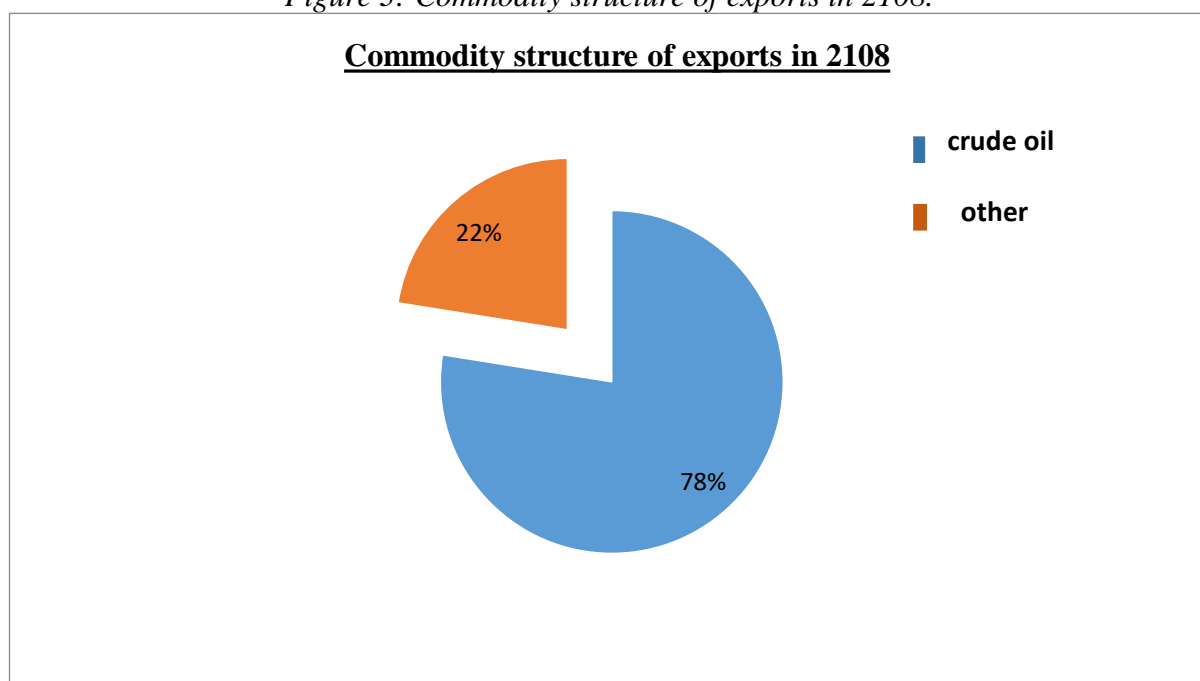
*Figure 2: Changes in the consumer price index*



*Source: www.stat.gov.az*

As we can see from the Figure, the dynamics of consumer prices and service tariff levels have consistently increased during the analysis period. After 2012, the highest increase in food prices was observed in 2016-2017. This is mainly reflected in the prices of imported products. Another issue to be investigated is the study of the impact of the structure of foreign trade commodities on the formation of price ratios. In general, the total volume of products exported exceeds the volume of imported products in Azerbaijan. The main reason of this is the increase in oil production and exports. However, the export of crude oil is not so profitable for our country, because the price of crude oil is lower than the price of finished oil products imported into the country. As a result, it is observed an inflow of foreign currency from the country and the inflow of this currency at a time when the exchange rate of the manat is low and it is not desirable process. The revenues from crude oil exports are about 3.0 times higher than revenues from sales of other products [9]. As we can see from the chart below, crude oil accounts for 78% of exports. It highlights the need for Azerbaijan's foreign trade policy to take the necessary measures on production, processing, exports, currency and prices.

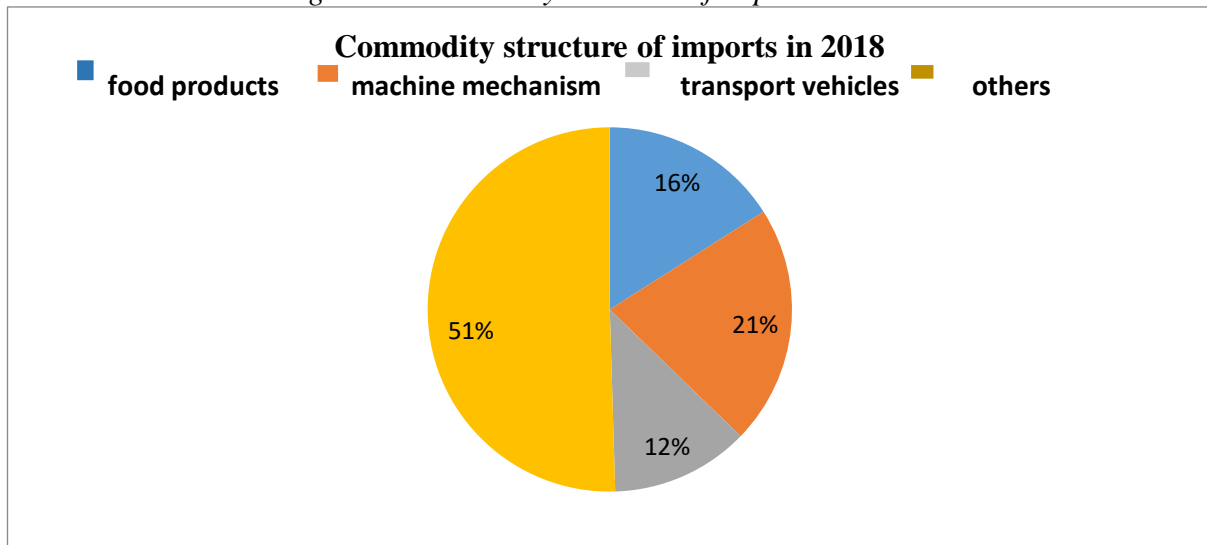
*Figure 3: Commodity structure of exports in 2108.*



*Source: <http://www.stat.gov.az> and <https://customs.gov.az>*

Regarding the import policy, we can say that the main goal here is to minimize the import of finished products in the country. But it has not yet been possible to supply the domestic market with the local products. As a result of the low competitiveness of domestic goods, consumers prefer foreign products. The problem of selling local products creates financial losses for producers through low prices. It can be observed in the commodity structure of importing goods.

*Figure following on the next page*

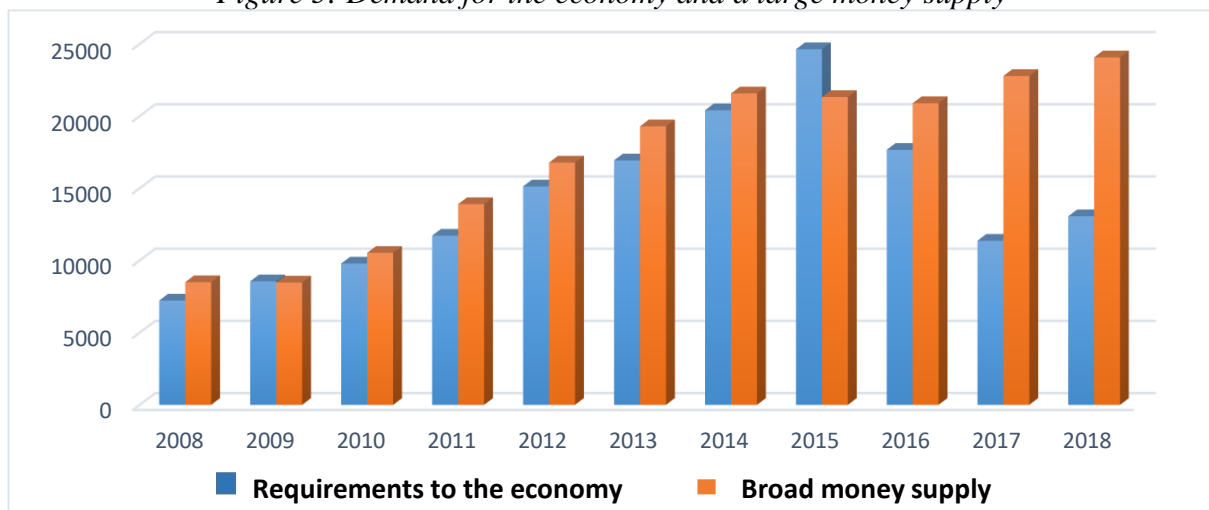
*Figure 4: Commodity structure of imports in 2018.*

Source: <http://www.stat.gov.az> və <https://customs.gov.az>

Azerbaijan takes various measures to reduce imports, especially for domestic production of imported products. New economic entities are being established to reduce the import of agricultural goods, and the state pays special attention to the employees working in agriculture. As a result of the measures taken, the national market is expected to be supplied with local products. The dependence on imports will be reduced, the development of local producers will be accelerated, and the abundance of products will allow prices to fall.

#### 4. ECONOMETRIC ASSESSMENT OF FACTORS AFFECTING EXCHANGE RATES AND PRICE RATIOS

Monetary policy plays an important role in regulation of economic development. In this regard, a broad money supply is very important. The change of the exchange rate in the country also has a significant impact on the volume of money supply.

*Figure 5: Demand for the economy and a large money supply*

Source: The graphic was developed by the author based on statistical data

As we can see from the graph, the net foreign assets of the Republic of Azerbaijan exceeded the net domestic assets for all previous periods. However, the change in the exchange rate in 2016, the 55.5% depreciation of the Azerbaijani manat against the US dollar compared to 2015,

led to a 28% decrease in net foreign assets. This increased net domestic assets by 26%. As a result, the money supply decreased by 2% or 429 million manat compared to the previous year. The close relationship between the broad money supply and demand in the economy is important issue. To find out, let's determine the correlation-regression relationship between them.

*Figure 6: Correlation-regression relationship between large money supply and economic demand*



*Source: The graphic was developed by the author based on statistical data*

We can see from the graph, there is an average correlation ( $R^2 = 0.47$ ) on the Ceddock scale, expressed by the regression equation of the pair correlation  $y = 0.7496x + 6435.5$  between the volume of money supply and the volume of demand for the economy. Increasing the efficiency of exchange rate policy in each country accelerates economic growth by affecting the country's export and import operations. To this end, it is important to assess the factors affecting the exchange rate. Let's use the following table data to assess the factors affecting the exchange rate in the Republic of Azerbaijan.

*Table 2: Exchange rate in the Republic of Azerbaijan and the dynamics of the factors affecting it*

Years	US dollar exchange rate (average for the reporting period) Y	Broad money supply with million manats X1	Inflation rate in the country, with % X2	Volume of exports, with million \$ X3	Volume of imports, with \$ X4	Attracted foreign investment (with million of US dollars) X5	Export of investments (with million \$) X6	Oil price (with \$) X7
2008	0,8581	4401,6	16,6	6731,3	5713,5	6 674	521	72,39
2009	0,8216	6081	20,8	59695	7170	6 847	556	97,26
2010	0,8037	6169,2	1,6	18376,7	6123,1	5 469	326	61,67
2011	0,8026	8297,5	5,7	26700,3	6600,6	8 248	236	79,5
2012	0,7897	10997,2	7,9	33213,6	9756	8 674	544	111,26
2013	0,7856	13806,4	1	29885	9652,9	10314	1 129	111,67
2014	0,7845	16434,8	2,4	20740,4	10712,5	10 541	1 534	108,66
2015	0,7844	17435,8	1,4	41052	9187,7	11 698	2217	98,95
2016	1,0261	8613,1	4	28780,8	9216,7	10 719	3 263	52,39
2017	1,5959	11546,3	12,4	1218,9	8489,1	10 161	2 918	43,73
2018	1,7211	12466,4	13	13811,6	8782	9 120	2 678	54,19

*Source: <http://www.stat.gov.az> və <https://customs.gov.az>*

According to the table, the dependence between the factors affecting the level of the national currency in the Republic of Azerbaijan in 2008-2018 years can be found in the ready-made mathematical software packages EViews, MatLab, MS Excel, MathCad, etc. can be used. For this purpose, using the Eviews software package, we can obtain the following results.

*Figure 7: Dependence between the factors affecting the level of the national currency in the Republic of Azerbaijan (2008-2018)*

Dependent Variable: Y

Method: Least Squares

Date: 05/14/20 Time: 09:42

Sample: 2008 2018

Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X7	-0.019022	0.008942	-2.127140	0.1233
X6	-0.000180	0.000226	-0.795206	0.4846
X5	-1.09E-05	8.64E-05	-0.125702	0.9079
X4	0.000129	8.66E-05	1.493635	0.2321
X3	4.24E-07	4.84E-06	0.087540	0.9358
X2	0.031596	0.010277	3.074497	0.0544
X1	6.35E-05	2.86E-05	2.223571	0.1127
C	0.872377	0.470225	1.855233	0.1606

R-squared	0.939144	Mean dependent var	0.979391
Adjusted R-squared	0.797146	S.D. dependent var	0.344045
S.E. of regression	0.154956	Akaike info criterion	-0.736092
Sum squared resid	0.072034	Schwarz criterion	-0.446714
Log likelihood	12.04851	Hannan-Quinn criter.	-0.918505
F-statistic	6.613780	Durbin-Watson stat	2.421394
Prob(F-statistic)	0.074352		

Based on the result obtained from the Eviews application software package, the regression equation will be as follows:

Estimation Command:

LS Y X7 X6 X5 X4 X3 X2 X1 C

Estimation Equation:

$$Y = C(1)*X7 + C(2)*X6 + C(3)*X5 + C(4)*X4 + C(5)*X3 + C(6)*X2 + C(7)*X1 + C(8)$$

Substituted Coefficients:

$$Y = -0.0190216005813*X7 - 0.000179551647276*X6 - 1.08597085599e-05*X5 + 0.000129294726003*X4 + 4.24082876712e-$$

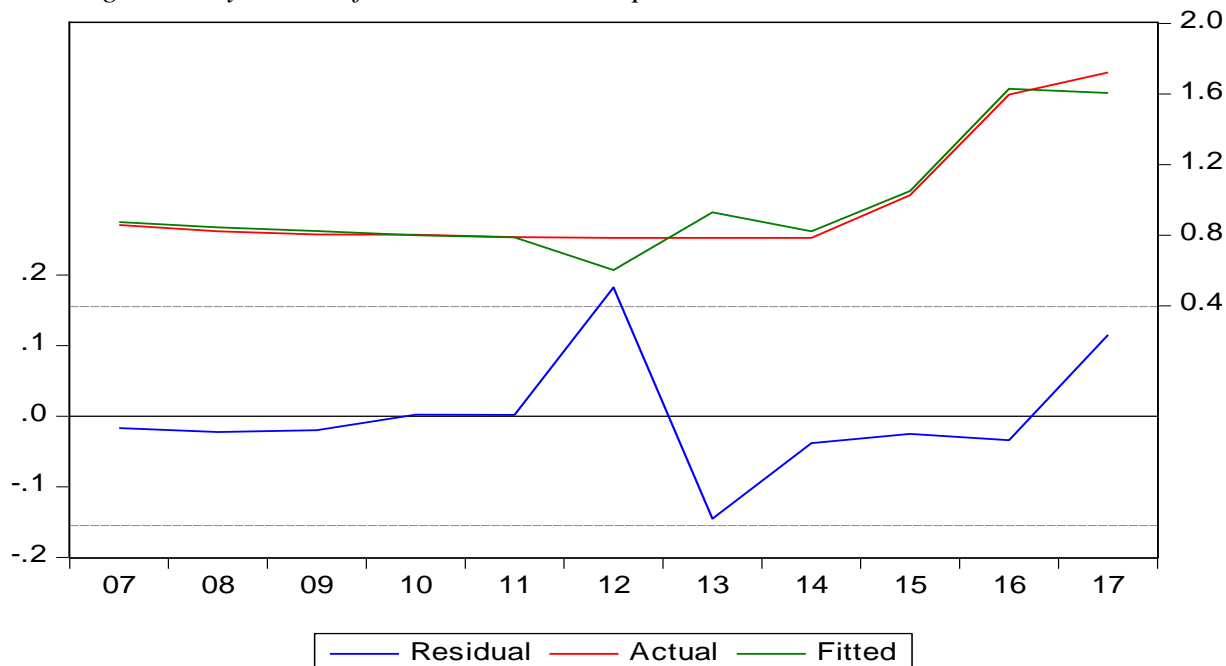
$$07*X3 + 0.0315958055096*X2 + 6.35432268459e-05*X1 + 0.872376645529$$

Source: EViews software package



Based on this correlation formula, it can be concluded that increase of the factor (X1) that indicates broad money supply by one unit leads to increase US dollar exchange rate by 6,354 units compared to the manat and increase of the factor (X2) over the country reflecting the inflation rate by one unit leads to increase US dollar exchange rate by 0.02 units against the manat, increase of the volume of exports by one unit leads to increase US dollar exchange rate by (X3), to  $4.24 \cdot 10^{-7}$  compared to the manat, increase of the volume of imports (X4) to 0.00013 by one unit leads to increase US dollar exchange rate against the manat, one unit increase in the factor (X5) that indicates volume of attracted foreign investments leads to decrease US dollar exchange rate by 1.1 units compared to the manat, one unit increase in the export of investment factor (X6) leads to decrease US dollar exchange rate by 0.0002 units compared to the manat, one unit increase in world oil prices (X7) the US dollar depreciated by 0.02 points against the manat. Undoubtedly, it is becoming one of the most effective factors in changing domestic prices. The multiplicity correlation coefficient  $R=0.8$  indicates a very high correlation between the dependent variable Y, which represents the exchange rate of the US dollar against the manat, and the free variables (X1, X2, X4, X5, X6 and X7) that represent the factors included in the model. The coefficient of determination is  $R^2 = 0.939$ , it means that the corresponding regression equation is explained by 93.9% of the variance results, and 6.1% by the influence of other factors. The high coefficient of determination indicates that the regression equation is better able to express the initial data and that the majority of the result factor (93.9%) is explained by the factors included in the model. The dynamics of the actual values, as well as the balances between them, obtained on the basis of the software package Eviews with the regression equation of the built model, are given in the graph below.

Figure 8: Dynamics of received and actual prices, as well as balances between them



Source: Eviews application was developed by the author based on the software package

With the help of the F-Fisher criterion, the statistical significance of the set of regression equations as a whole can be checked. For this purpose, the F-Fisher criterion should be compared with the value of the Ftable ( $\alpha$ ;  $m$ ;  $n-m-1$ ). According to the table data reflecting the results of the Eviews software package, F- statistic (Fisher's criterion) = 27.55403. If we set the value of table F in EXCEL using the formula F table ( $\alpha$ ;  $m$ ;  $n-m-1$ ) = Fraspobr, F table ( $\alpha$ ;  $m$ ;  $n-m-1$ ) = Fraspobr (0.05; 7; 3) = 4.35.

When comparing the F-Fisher criterion with the value of  $F_{table}(a; m; n-m-1)$ , it appears that the F-Fisher criterion  $> F_{table}$  ( $6.61 > 4.35$ ). This means that the regression equation as a whole is statistically significant. This means the adequacy of the established model.

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## SPECIFICITY OF RISKS IN THE TOURISM INDUSTRY

**Inara Rzayeva**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
ina3r@mail.ru*

### ABSTRACT

*Due to the development of market relations and globalization processes in the world, the problems of entrepreneurial risk have expanded and began to cover more spheres of the economy. In the modern world economy, the problem of risk management becomes actual in the face of increasing financial and economic crises, which reduce the degree of stability and increase the degree of risk in the activity of company. At the beginning of the article was considered the scientific works of some authors who studied the problem of risk management in the economy. Tourism, being an important component of the modern economic system and playing a significant role in solving social problems, is highly dependent on risks and crises, especially in the context of countries' integration into the global economic system. There are numerous types of risks that differ from each other in the causes and specific characteristics. These risks threaten the activities of any organization in the tourism industry. Therefore, the development of new methods in risk assessment has become an essential part of the management of the tourism industry. The tourism company in the strategic development plan must clearly identify all types of risks that the company may face throughout its activities. The article considers and classifies the types of risks that a company may face, as well as the methods used to prevent or predict them. The article also discusses current trends and problems in the development of tourism in Azerbaijan and the prospects for using risk management to increase the efficiency and safety activity of tourism companies.*

**Keywords:** *Globalization, Risk management, Tourism industry, Tour operator, Tourism risks*

### 1. INTRODUCTION

The concept of “risk” is a rather ancient concept and it was first formed in the 13th century. In the 18th century, this concept began to be considered in the framework of entrepreneurial activity, and the firstly was considered as the theory of entrepreneurial risk by Adam Smith in his book “The Study on the Nature and Causes of the Wealth of Nations”. As a result of his research, A. Smith came to the conclusion that “professions with a high level of risk guarantee higher pay on average than professions with a low level of risk” [2]. The English economist John Stuart Mill, in his book Principles of Political Economy, first examined the concept of risk and entrepreneurial profit. At the beginning of the twentieth century, Alfred Marshall and Arthur Pigou developed the “neoclassical theory” of entrepreneurial risk in a market economy. A significant contribution to the concept of risk and entrepreneurship was made by the English economist John Maynard Keynes, who for the first time introduced the concept of “cost of risk” and made the classification of business risks [3]. With the active development of market relations and globalization processes in the world, the problems of entrepreneurial risk have expanded and began to cover more areas of the economy. Globalization processes in the world create favorable conditions for business activation in various sectors of the economy, leveling some external economic risks, on the other hand, a lot of competing companies appear on the world market, the activity of which increases the degree of risk for all countries in all areas of business. In a post-industrial society, the service sector has become a priority. One of the significant and highly profitable constituent services sector is tourism, which plays an important role in the economy of many countries, including the economy of Azerbaijan. According to UNWTO statistics, in 2018, international tourist arrivals amounted to 1.451 billion people, total

revenues from world tourism amounted to 1.405 trillion dollars. The share of international tourism in world GDP was 10.4%. As for forecasts, by 2020 the number of international tourists will be approximately 1.5 billion people, and by 2030 - 1.8 billion people [7]. Unfortunately, this UNWTO forecast will not materialize in reality, due to the pandemics of the Coronavirus COVID-19, which has led to collapse World economy including tourism industry. According to preliminary estimates by the UNWTO, in 2020 the number of international tourists in the world will be down by 20-30%. In result will decline international receipts approximately US\$300-450 billion [7].

## 2. TYPES OF RISKS FACED BY A TOUR OPERATOR COMPANY

Tourism, being an important component of the modern economic system and playing a significant role in solving social problems, is highly dependent on risks and crises, especially in the context of countries' integration into the global economic system. Therefore, the development of new methods in risk assessment has become an integral part of the management of the tourism industry. Risks, being an integral part of modern business, differ from each other by their causes and specific characteristics. A common feature of all risks is the negative consequences related to their occurrence. Any tourism company in its strategic development plan must clearly identify all types of risks that the company may face throughout its activities. There are numerous types of risk that differ from each other by the causes and specific characteristics that threaten the activities of any tourism organization (hotels, transport companies, tour operators and travel agencies, etc.). Consider the risks faced by tour operators. All risks that a company may face in the process of its activities can be divided into internal, which the company can manage, and external, which are difficult to manage and sometimes impossible to foresee. Internal risks are associated with the activity of the company itself. These risks are divided into financial, risks related to the main and the auxiliary activities of a tourism company.

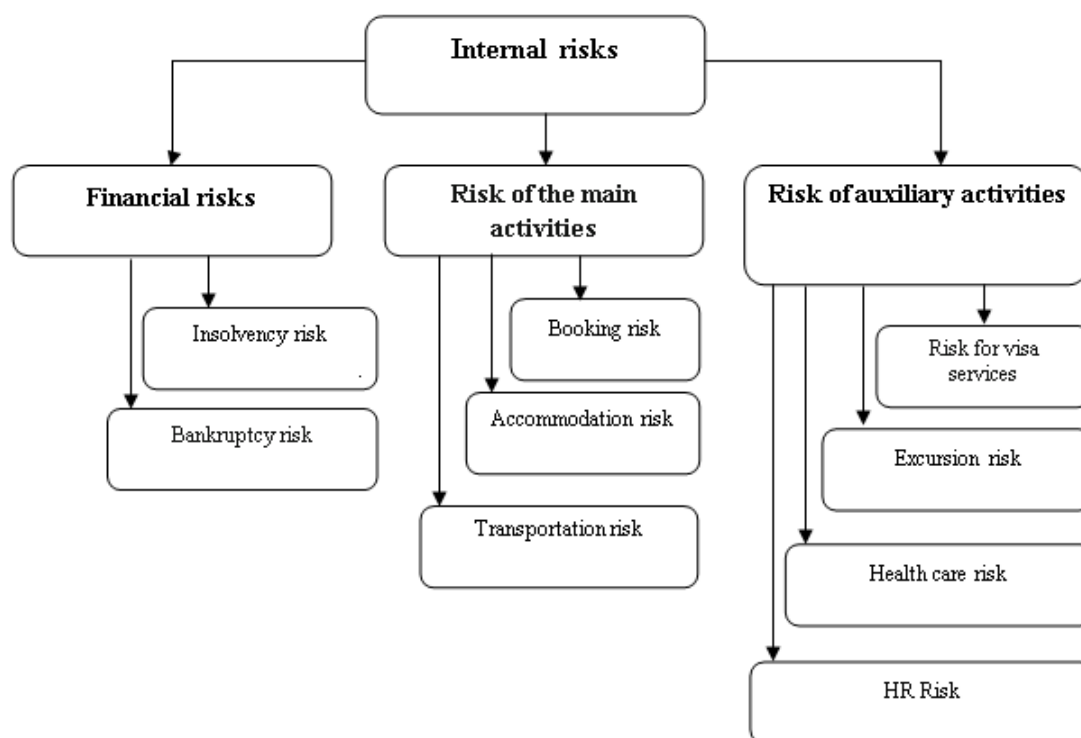
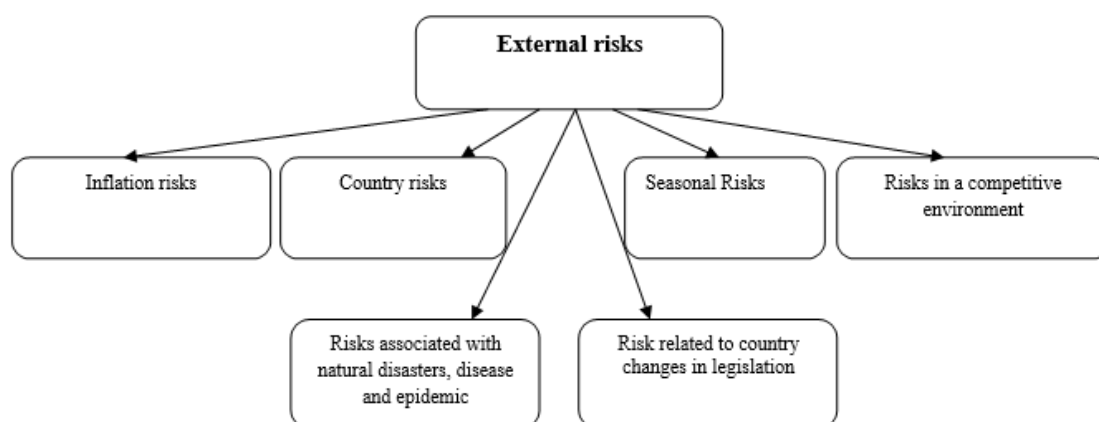


Figure 1: Classification of internal risks of a tour operator company

Consider all the internal risks of a tour operator company in more detail. 1. Financial risks can be classified into credit risk and currency risk. Credit risk may take place as a result of a decrease in the solvency of the creditor (insolvency risk). Currency risk is associated with additional foreign exchange expenses related to changes in the exchange rate. During economic and financial crises, when the exchange rate changes, between tourist companies and customers take place conflicts. The conflict appears due to the reluctance of customers to pay the difference for the purchased service after making a prepayment. Another threat to the company is the risk of currency convertibility arising due to the cessation of the free exchange of domestic currency into foreign currency. In order to maintain a reputation, a company often takes currency risk upon itself. Companies may also be at risk of bankruptcy. The reason for the bankruptcy of a tour operator company may be that these companies are forced to generate negative cash flow before receiving money from customers, because contracts with partners (hotels, carriers, etc.) was signed long before the sale of the tour product. Moreover, according to the contract, the tour operator must make a prepayment. If the company has its own funds earned as a result of activities in the previous season, the risk of bankruptcy is reduced. But if a company takes a loan from a bank to carry out a transaction, in this case the risk of bankruptcy increases, because there are many other risks that can put the company in a hopeless situation. Risks associated with the main activity of the company. Operational communication with hotels and transport companies is essential in the activities of a travel company. Therefore, the risks associated with booking are important in assessing the activities of a travel company. The reservation system includes computer systems for booking airline tickets, global distribution systems, local tour booking systems, integrated communication systems, etc. These systems not only accelerate the process of settlement and preparation of documents in conditions of strong competition, but also significantly reduce the cost of a tour package. Unfortunately, companies may face certain problems during the booking process. For example, the risk of a possible hacking of the site by hackers, problems with legislative support from the state and other risks. Risks for accommodation of tourists may related to the number of rooms, which may not satisfy to the number of potential customers and the possibilities of transportation. Sometimes hotel rooms do not meet the relevant standards, in result tour operators can lose their potential customers and the image of the company can be damaged. The tour operator company in its activities should consider transport risk tool, because it sign an agreement with transport companies on the transportation of tourists. Risks may have due to technical transport problems, delayed flights, increased transportation costs, bankruptcy of the carrier company, risks of accidents, etc. In this case, not only the carrier, but also the tour operator has to pay compensation to passengers. Currently, the package tour market worldwide is under pressure due to the development of online services for independent travel organization and the popularity of low-cost transportation. Thus, new risks appear for tour operators. This poses a threat to the activity of many travel companies, especially small ones. For example, one of the reasons for the collapse of one of the largest tour operators in the world of the English company Thomas Cook was the inability to adapt to online sales. The travel company faces risks not only in its main business, but also in auxiliary activities. Risks associated with human resource problems are very difficult to predict, although they are very important in the functioning of a travel company and play one of the key roles. Due to the irrationality of human resources, it is difficult to objectively assess the degree of threat in this area. Human resource risks are associated with a lack of personnel, loss of personnel, and inefficient use of personnel. There are external and internal human resource risks. External human resource risks are the result of the negative impact of the external environment, for example, the lack of educational institutions involved in the training of professionals in the tourism business. Internal human resource risks may include disability, dismissal, and incompetence in work, information leakage, official crimes, and undermining the business reputation of personnel.

There are risks related to visa services in the activities of tour operators. In the activities of tour operators there are risks associated with visa services. A problem takes place due to the refusal of a visa by the embassy and, as a result, tourist can reject to tour package.



*Figure 2: Classification of external risks of a tour operator company*

The activities of tour operators are not related to only with domestic tourism, international tourism play crucial role in their activity, which assume integration into the global tourism market. The activities of tour operators in the world market create new types of risks that all countries face, regardless of the level of economic development. This is country risks. Country risks are a multifactorial phenomenon, characterized by a close interweaving of many financial, economic and socio-political variables. Tour operator company use a country risk assessment to determine their position in the international tourism market. If the country's rating is high, the tour operator can work according to international standards with minimal anxiety for their projects. The following economic factors are taken into account in determining the degree of economic country risk:

- The structure of the economy;
- The investment structure;
- The presence production factors of production;
- The maintenance of non-inflationary growth of the economy.

Political country risks may appear due to direct government intervention in the activities of foreign firms. An example of how changes in the political situation in a country can increase the degree of risk of a company is a bankrupt company Thomas Cook. The company's problems began as a result of BREXIT. The demand for tours in the UK fell by 10-15% in 2016. As a result, the plans of all international operators in this market were disrupted. Inflation risk an external factor can affect the activities of tour operators. Inflation risk means that the inflation rate may be higher than the forecasts of specialists and adversely affect the result of the financial and economic activities of any company, including a travel company. There are a lot of factors inflation risk, such as an unexpected increase in aggregate demand, political instability, a shortage of resources in the economy, and an excessive increase in the money supply. Inflation risk depends on the degree of accuracy of inflation forecasting in the country and its impact on the financial and economic activities of the travel company. In a free market, companies operate in condition of competition, so they face the risks of a competitive environment. M. Porter formulated ways to create a competitive advantage of the company on the basis of the five forces of competition, as well as ways by which the company can maintain a competitive advantage, foresee and prevent competitive risks. According to Porter's theory, the company's activities are limited by risks due to the dependence on the buyer, supplier, threats of the

emergence of a new substitute product, new companies, as well as on depending activity of state. The tour operator company must accurately research the marketing environment of the tourism market and create an effective interaction with the consumer segments. This is necessary for making economically reasonable decisions regarding the strategy of a travel agency in a competitive market and minimizing competitive risk for company. The seasonality factor is significant in the tourism industry. All active participants of the tourism market and tour product producer, including tour operators, hotels, transport companies, must take into account the restrictions associated with seasonal climatic conditions. Thus, during the period of tourism activity, the demand for various types of tourism product increases, and in a period of low activity, the demand for tourism product decreases. Seasonal risk is also associated with some social factors. For example, in most companies, firms and organizations, most employees go on vacation in the summer season. Scientific, technical and economic progress radically changed the world and created to natural disasters, which began to be considered as the most important external risks of any company. Global warming, earthquakes, floods, etc. compose a risk to the activity of all companies, including travel companies, because tourism is largely associated with natural factors. The Coronavirus pandemic has shown how disastrous the consequences for tourism are of the risk of disease and epidemic. Approximately 80% of all tourism businesses in the world are small-and-medium-sized enterprises (SMEs) [7]. Thanks their activity provided employment and other opportunities for all category population: women, youth and rural people. Thus millions of jobs within the sector are at risk of being lost. All industry of tourism due to Coronavirus COVID-19 including activity of tour operators, hotels, transportation system suffer big losses. There are risks associated with changes in the legislation: risks of introducing restrictions on the country's import-export, risk of changes in the customs system and customs legislation, changes in income tax rates, etc. For example, in many European countries, the Value Added Tax (VAT) was increased as a result of the economic crisis, which negatively affected the activities of tour operators and other tourism industry enterprises.

### **3. METHODS OF RISKS MANAGEMENT IN TOURISM**

As mentioned above, risk is an inevitable process accompanying any economic activity, including tourism activity. But risks can be managed and, thereby, reduced the degree of their negative impact on the company's activities. The main purpose of risk management is to achieve the strategic goals of the company and a stable level of financial indicators, as well as increase the economic efficiency of the company. There are various risk management methods. If the risk level is very high for the activities of the tour operator or any other company in the tourism industry, it is necessary to use the risk avoidance method. This method involves refusing to sign a contract with a high degree of risk, as well as refusing to cooperate with unreliable partners. This method helps the tour operator to choose reliable partners. The next risk management method is risk containment. This method is used when the result of some tourism project will not be profitable, but can attract a certain segment of tourists. But in the future, this project may increase the company's revenue with the correct risk assessment. For example, such projects can be in adventure, active and extreme forms of tourism. Risk insurance is also an effective risk management method. There are two insurance options. According to the first option, the risk of the tour operator is redirecting to the insurance company. According to the second option, in case of a risky situation, the travel company insures itself from the internal insurance fund, which is created on the basis of the company's internal reserves (for example, deductions from profit). As noted, one of the risks for international tour operators is currency risk and currency convertibility. Currency risk for the tour operator may appear due to currency appreciation of the country of the provider of tourism services, because the tour package will become more expensive.

Currency risk can be insured using hedging instruments, through futures contracts for the purchase of foreign currency. An effective method of risk management is the method of diversification of activities. Diversification of tourism destinations allows the tour operator to reduce the risk. If some directions of tourism activity in a certain period will be unprofitable, other directions with their activity can cover the losses of the company. Although excessive business diversification can negatively affect the company. For example, the Thomas Cook travel company in recent years controlled a large number of hotels and various brands, as a result of over-diversifying its business. Moreover, under her management there were mainly entities rented that worked with this company on the basis of outsourcing. According to experts, this was one of the reasons for the collapse of Thomas Cook.

#### 4. RISKS IN THE TOURISM SECTOR OF AZERBAIJAN

According to the "strategic roadmap for the development of the tourism industry" in Azerbaijan, tourism has become considered one of the priority directions for the development of the country's economy. In recent years, Azerbaijan has achieved some success in the development of tourism. Thus, in the ranking of competitiveness in tourism of the World Economic Forum the Travel and Tourism Competitiveness Report, Azerbaijan is in 71th place. Based on the data of the experts of the World Economic Forum, Azerbaijan has strong positions in the quality of human resources and the labor market (30th place), in terms of security (35th place), in terms of price competitiveness (31st place), and weak positions in the service infrastructure (89th place), air transport infrastructure (77th place), the degree of openness of the country to international travelers (77th place), by the amount of natural resources (109th place) [8].

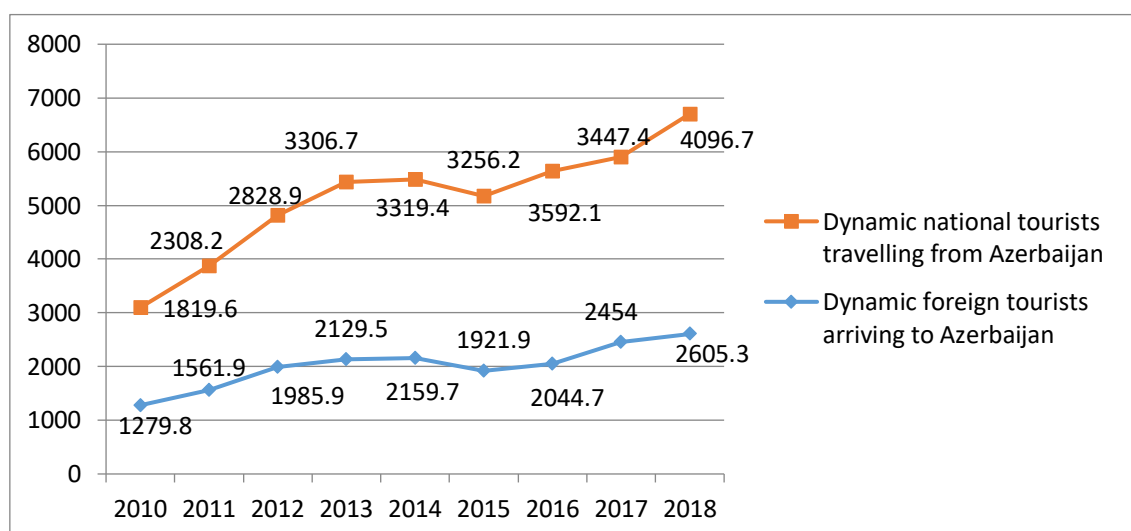


Figure 3: Dynamic of inbound and outbound tourism in Azerbaijan in 2010-2018 (thousand people)

(Source: State Statistics Committee of the Republic of Azerbaijan)

According to Figure 1, in Azerbaijan, outbound tourism prevails over inbound, despite the fact that in the last 3 years there has been a stable growth dynamics of foreign tourists to our country. As the national tourism sector is actively developed and integrated into the global tourism market, different kinds of risks increase for the main players in this industry. In particular, for tour operators specializing in international tourism, the issue of risk management is actual. According to the state tourism agency information, there are more than 2,000 tourist companies in our country and licenses are not required for their activities. This creates certain difficulties in implementation control over these companies. Therefore, the new bill on tourism will put forward a requirement for tour operators to create a "reserve fund".



This fund will enable the company, if services are not rendered to consumers, to cover such risks from its own fund. That is, according to international experience, an insurance mechanism should work that reduces the degree of risk of companies and reduces the level of state responsibility in eliminating such risks. These are just the initial steps in the development of risk management in the country in the field of tourism. Due to the relatively weak service infrastructure, national tour operators who specialize in attracting foreign tourists face accommodation risks.

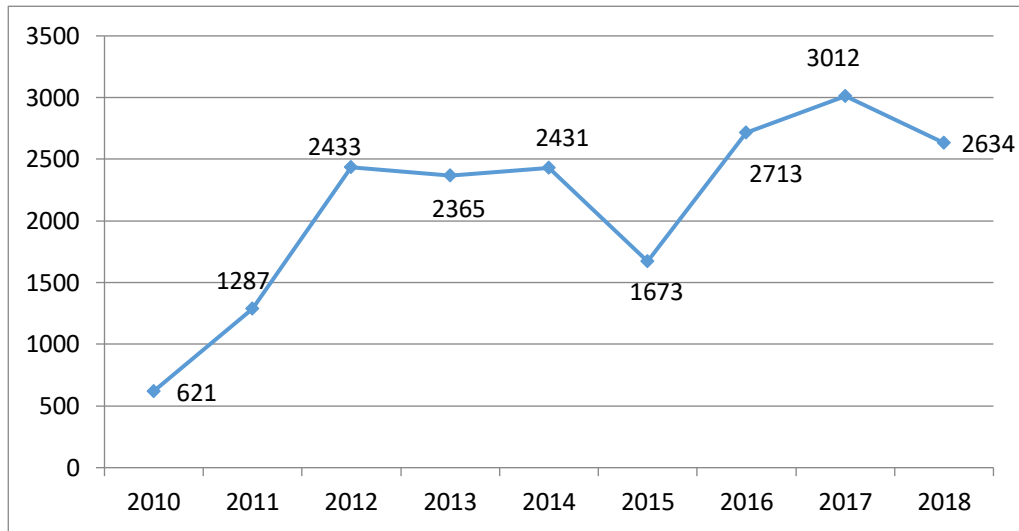


Figure 4: Dynamic of international tourism receipts in Azerbaijan in 2010-2018 (billion dollars)

(Source: Central Bank of Republic of Azerbaijan)

Accordance Figure 4, in 2018 International tourism receipts in Azerbaijan decreased by 13%, while international tourism receipts of our regional competitor Georgia increased and amounted to over \$ 3 billion [10, 11]. Thus, this can be regarded as one of the types of competition risks that must be taken into account by all representatives of the tourism industry in Azerbaijan. All representatives of our tourism industry should identify their weaknesses and eliminate or reduce them. For example, one of the risk problems concentrates in the hotel business of Azerbaijan.

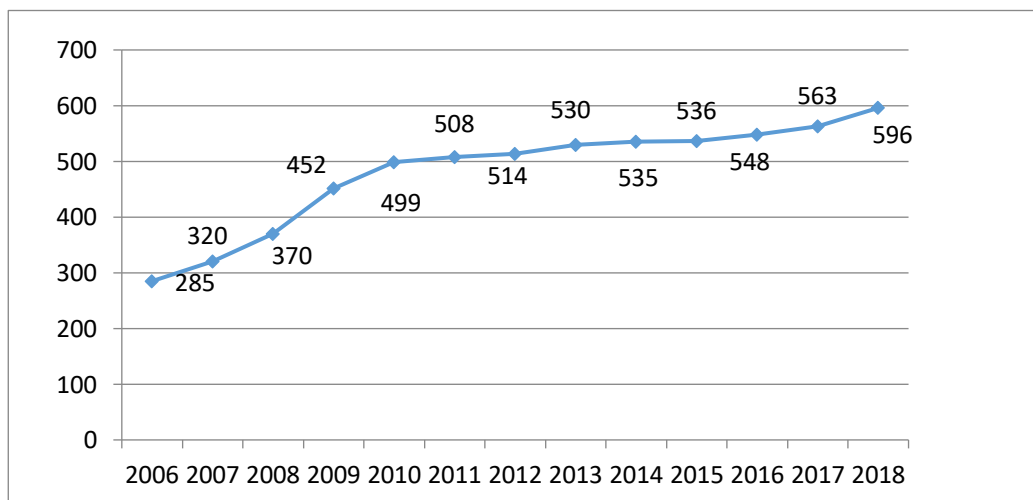


Figure 5: The dynamics of the growth in the number of hotels in Azerbaijan in 2006-2018 (Source: the graph is based on the data of the State Statistics Committee of the Azerbaijan Republic).

As can be seen from Figure 2, there is a growth dynamics of hotels in our country. According to the statistics of 2018, there are 596 hotels in Azerbaijan. Assessing the current trend of growth in the flow of foreign tourists in the last two years, our country is already facing the problem of an insufficient hotel fund, which could negatively affect the further expansion of the tourism market. Increasing the number of hotels, our republic should focus on the construction of budget hotels designed for middle-class tourists, because this category of tourists is most significant in the development of the tourism sector. Therefore, the construction of three, four-star hotels in Azerbaijan is a priority task. Inconsistency of the quality of the rooms with their prices is also a problem and can undermine the trust of foreign tour operators to the national touroperators, which have certain obligations to them.

## 5. CONCLUSION

In the context of globalization, the expansion of trade relations between countries, the active migration of the population, capital, finance, and due to that most companies are active in the global market, the risk problem, existing historically, currently occupies one of the central places in entrepreneurship. The problem of risk in the economic sphere is well studied, but in the tourism sector, which has its own characteristics, this problem is at the initial stage of study. As mentioned above, tourism is sensitive to various negative factors, especially if the company operates in the global market. Tourism experts believe that the introduction of risk management in the tourism industry can significantly guarantee the stability of the development of this service sector. To minimize the risk level, travel companies should not rely only on the regulatory efforts of the state, but should independently identify the risks specific to their company and develop appropriate methods for their prediction and prevention. As mentioned above, tourism sector in Azerbaijan active develop last years, and in result, increase risks in this sector. Thus problem of risk- management for all tourism companies of Azerbaijan will became actual. Unfortunately, Coronavirus COVID-19 will negatively affect the tourism sector of the economy of Azerbaijan too.

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## INCREASED EFFICIENCY TO SOLVE THE PROBLEM OF EXPANDING PRODUCTION

**Kamala Dadasheva**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*kamale.dadasheva.74@mail.ru*

### **ABSTRACT**

*The oil industry, being one of the traditional industries, was created and formed over a long historical period and constituted a new stage of economic development. However, an unsatisfactory attitude to this industrial sphere at the end of the last century led to an increase in the decline in the oil industry and a decrease in oil production. At present, Azerbaijan's integration into the world economy and socio-economic development of the country, along with other industries, are also linked to the availability of rich oil and gas resources. The most important priorities of the country's national development strategy are to make better use of these resources. With the construction of industrial relations based on the principles of a market economy, significant work was carried out on integration into the world economic system. In this regard, the collapse of the Union did not pass without "difficulties" for all post-soviet republics, including Azerbaijan. With the collapse of the Union, all economic ties were disrupted and the oil industry was unable to fully utilize its potential. All this was reflected in the annual drop in oil and gas production, a decrease in the efficiency of the operating fund of wells, and a sharp decrease in drilling operations. It should be noted that the continuous growth in demand for oil and ensuring the country's energy security imposes new and stringent requirements on the quality of oilfield equipment. The need to reduce imports of products in market conditions requires the reconstruction of machine-building plants in the country and the development of production that meets international standards.*

**Keywords:** *competition, costs, economy, efficiency, quality, standard*

### **1. INTRODUCTION**

The definition of economic efficiency of quality is based on general rules and is the same for all measures to improve the quality of products. This is because they reflect a specific form of implementation of scientific and technological progress. Thus, the economic efficiency of quality is considered an integral part of scientific and technological progress or the effectiveness of new technology. At the same time, the new technique should be considered in the broad sense of the word. Thus, speaking of new technology, we mean first of all the implementation of the results of research and development on a national economic scale, the use of new, more advanced technologies in the production process, means of labor, the organization of labor and production (1).

### **2. ANALYSIS OF METHODS FOR DETERMINING THE EFFECTIVENESS OF PRODUCT QUALITY GAS COMPLEX**

The definition of quality effectiveness should cover all stages of the product life cycle: design, development, turnover and operation. When calculating the economic efficiency at the design stage, to reduce the volume of project work, labor intensity and their duration, the following is taken into account:

- improving the organization of design work;
- wide use of standards;
- reduce the cost of developing projects in accordance with the standards;
- reducing the time for approval and approval of documentation for new equipment.

To calculate the economic efficiency at the production stage, the following factors are taken into account:

- reduction of metal consumption;
- reducing the complexity of the process;
- carrying out of unification;
- reduced capital intensity;
- reduction of specific energy and fuel consumption;
- with the growth of production volume, the share of fixed costs per unit of production decreases.

When calculating economic efficiency at the stage of turnover and operation, the reduction of consumer expenses is taken into account, which implies the following:

- reduced transport and storage costs;
- improving the technical level and quality of products;
- the need to replace several with one standard product (a single product);
- extending the product's life span;
- improving the reliability of the product;
- reduction of energy intensity, specific fuel, water and auxiliary materials consumption;
- reducing the number of service personnel;
- reducing the cost of repairs;
- reducing the need for spare parts and instrumentation.

Analysis of technical and economic literature (2) shows that the opinions of researchers on this issue differ. However, the commonality of their opinions is that the quality of products is determined only by its consumer value. Therefore, when evaluating the quality of products, production and technological indicators that are manifested in the production process and have no relation to consumer value should not be taken into account. In this aspect, the main indicators of product quality can be the following:

- 1) operational (load capacity, location, power, speed, speed diagram, number of steps, level of mechanization and automation, ergonomics, aesthetics, reliability, durability, serviceability, safety, number of service personnel, specific energy and lubricants consumption, need for additional equipment, dimensions and other indicators);
- 2) social (safety, harmful effects, etc.);
- 3) non-commodity (the level of the service system, disadvantages, implementation conditions, etc.).

Other indicators related to the above mentioned ones are grouped in the following areas and their combination forms a competitive product price:

- 1) Productivity – the annual volume of production produced by this product. This group combines the following indicators: load capacity, power, location, speed diagram, level of mechanization, ergonomics, aesthetics, reliability, durability, serviceability, safety;
- 2) Annual operating expenses of the consumer. In this group, the following indicators are distinguished: reliability, durability, serviceability, safety, the required number of service personnel, specific energy and costs of lubricants, dimensions, indicators of the level of the service system;
- 3) the consumer's capital investment includes: reliability, durability, serviceability, safety, commodity and measurement indicators, and others;
- 4) To indicators of negative economic impact on the environment and human concerns: the safety and harmful effects.

Note that when evaluating product quality, one of the most important tasks is to classify quality costs. The correct solution to this problem depends on their composition, analysis, and requirements for the organization of accounting and evaluation. The main requirements for classification are to fully cover all expenses. They are related to the quality of products and should reflect the full characteristics of the formation of the product quality process. Therefore, the classification should cover all stages of product creation and consumption. The economic literature (2) provides a generalized classification of quality expenditures. Thus, target-purpose expenditures are divided into: quality improvement, quality assurance, and quality management. According to their economic nature, they are divided into current and one-time ones. By type of expenditure, they are classified as productive and unproductive, by purpose – as direct and indirect. On the basis of accounting capability-both expenses of correct accounting and expenses of incorrect accounting, which are considered impractical. Product quality expenditures on the basis of durability are characterized by the costs of product development, use, and the type of production process costs in the main production, auxiliary production, and production maintenance. It should be noted that various classifications are given in the economic literature. The most interesting is the classification proposed by A. Feigenbaum (A. Feigenbaum. Product control and quality. Translation from English. M., Economics, 1986, 214 p.). According to it, "quality assurance expenses" consist of three parts: "expenses for fixing a defect", "expenses for evaluating the quality level" and "losses from unprofitable products". Each of these areas is characterized by a number of features. So, in "the costs of repairing the defect" shall include "measures in the sphere of quality" and "costs of the quality Department". "The cost of evaluation of the quality level" are divided into "expenses for the control and testing and cost of test activities for quality assurance". "Losses from loss-making products" expenses include expenses from "loss-making products" and complaints. K. Isokawa noted that (C. Isokawa. Japanese methods of quality management. Moscow, Economics, 1988, 305 p.) the Japanese model differs radically from the classification presented above. According to its concept, classification should be determined not by product, but by quality assurance and evaluation of its results. Therefore, the calculation of quality assurance costs consists in determining the cost of work that involves reducing overall costs with an increase in the cost of measures to eliminate defects and inconsistencies. The economic efficiency is evaluated not by entering the expense, but by comparing the expense with the expenses. In our opinion, the concept proposed by Japanese experts is more perfectly justified. The approach provided in it can be called "managerial", it helps to solve the typical situation that arises in economic research of the problem of quality costs. This approach answers the fundamental question – what is the share of quality costs in the cost of production? Spending on quality is an integral part of the quality economy. General principles of quality expenditure were first formed by J. Zhuran in the "Book of information on quality control" and in the second edition of this work, classification is given in two categories:

- 1) Costs for quality assurance of the project.
- 2) Expenses for ensuring product development.

This classification is based on the formation of the main elements of quality expenditures, and among them are the following: market research, research work, development of a working project, technological preparation and production planning, production process, inspections and tests, elimination of deficiencies, analysis of the causes of deficiencies, development and implementation of a quality assurance program. Subsequently, a different classification of expenditures was developed, called the Juran-Feigenbaum approach. According to it, all quality assurance costs are divided into four categories:

- 1) Preventative expenses – research expenses to reduce the resulting deficiencies and inconsistencies. For example, planning the quality of new products; studying the supplier's

capabilities; evaluating the possibilities of reconstructing the production process; implementing quality improvement projects; and spending on training and training specialists in the field of quality.

- 2) Estimated costs (product quality control costs) - determination and approval of the required quality level. For example, expenses for incoming inspection and testing of materials sold and purchased; tests and inspections included in the production process; and verification of finished products.
- 3) Expenses related to internal failures – expenses related to the detection of internal cyclic defects or non-conformities in any product lifecycle. For example, the cost of repeated corrections, repeated tests, repeated control, and disposal of unusable products.
- 4) Expenses related to external failures - expenses related to the detection of defects and non-conformities after delivery of the product to the consumer. For example, expenses related to a complaint or replacement of a low-quality product.

It should also be noted that the Zhuran-Feigenbaum approach was adopted in the UK as a "Guide to the definition and use of costs related to quality (BS6143) and included in national standards (3). The next stage of classification of quality costs belongs to F.Crosby. According to its classification, quality costs are divided into two categories (1):

- 1) compliance Costs – these important costs are based on the principle "Every thing is done right from the start".
- 2) Expenses due to nonconformity – additional expenses resulting from "Every thing is done wrong from the beginning". This classification was also used in the UK in the "cost process Model" standard.

In a market economy, one of the responsibilities of the business environment is current and long-term competition and achieving this involves reducing quality costs. In practice, a quality cost accounting system based on accounting data is usually used (4). However, this information allows you to identify and evaluate a very small part of the costs. The other part that is used inefficiently from production remains undetected. Quantifying material costs by determining quality indicators is quite possible, and determining non-material costs (these costs are called the "hidden cost of quality") creates many difficulties. According to experts, hidden costs that are not related to product quality are 3-4 times higher than quality costs. The most expensive result for the manufacturer is the detection of low-quality products delivered to the consumer. Naturally, it is possible to estimate the costs of identifying and correcting the discrepancy, but it is important to consider hidden costs. It should be noted that the use of scientific and technological progress significantly reduces the discrepancy in products, the influence of the "human factor" in the production process. It is known that perfect quality is not possible, but to achieve the possible level of quality, using the classification of quality costs, you can present the following strategy:

- mobilization of all forces in order to avoid inconsistencies;
- orientation of investment projects to improve product quality and prevent inconsistencies;
- reducing the cost of monitoring and evaluating the increase in the quality level;
- continuous evaluation of the results obtained.

This strategy is based on the following a priori information:

- each discrepancy is due to root causes;
- ability to eliminate shortcomings;
- avoiding any discrepancy is cheaper than correcting it.

As you know, in the process of improving the quality of products, as a rule, the cost of it increases, which leads to an increase in its selling price. Improving products to sell to the consumer at a high price is an important condition for improving the economic efficiency of the consumer. When the sales price increases, the manufacturer tries not only to compensate for the cost of improving the quality of products, but also to solve the problem of expanding production with increased efficiency. At the same time, the manufacturer, reducing operating costs, eliminating shortcomings in the use of products, tries to increase the economic efficiency of the consumer. In other words, if a manufacturer wants to increase its profit by improving the quality of its products, then, taking into account the quantitative and qualitative interests of the consumer, it must produce products with a lower cost. In this case, the product will be sold and the manufacturer will make a profit. With this approach, both the manufacturer and the consumer mutually improve their capabilities, as a result, overall efficiency increases and scientific and technical progress occurs due to improving the quality of products and the development of production. As you know, the main criterion for the consumer is the quality of the product, the price and the cost of use (operation). These features in the areas of consumption of goods (services) and production require research of various approaches to calculating economic efficiency, and among them the following should be noted:

- 1) using a comprehensive approach that allows, along with calculating the economic efficiency of the implementation of new scientific and technological progress, to take into account an indirect aspect-social and environmental efficiency due to the growth of indicators of the new facility.
- 2) Using a systematic approach. In this case, the effect is calculated by the "output" of the system, analyzing the investment invested in various projects and calculating the economic effect of their implementation, it is necessary to pay attention to two aspects: the effect on the producer and the consumer.

Along with this, it is very important to consider the following conditions:

- 1) Ensuring multi-variant organizational and technical links. Thus, if there is no choice, in rare cases it is possible to achieve an optimal solution and this can lead to significant losses. At the same time, in the economic literature (5, 6) it is noted that taking into account the conditions of the ratio 1:10: 100, i.e. making simple decisions as "saving" 1% per unit of money, at subsequent stages can lead to losses of 10%, 100% , etc.
- 2) Comparison of calculated options. If it is not possible to compare the indicators and parameters of the unified system, it is not possible to choose the optimal option.

Note that the effectiveness of the quality system can have a significant impact on the profitability of the enterprise. This, in turn, contributes not only to reducing production costs and reducing the output of low-quality products, but also to reducing the cost of using products.

### 3. RESULTS

It should be noted that the continuous growth in demand for oil and ensuring the country's energy security imposes new and stringent requirements on the quality of oilfield equipment. The need to reduce imports of products in market conditions requires the reconstruction of machine-building plants in the country and the development of production that meets international standards.

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## MACROECONOMIC ASPECTS OF SUSTAINABLE DEVELOPMENT OF NATIONAL ECONOMY IN THE CONTEXT OF GLOBAL PROBLEMS

**Hanifa Jafarli**

*Assistant professor at Azerbaijan State Economic University (UNEC),  
AZ1001, Baku city, Istiqlaliyyat str., 6., Azerbaijan  
jafarlihanifa1967@gmail.com*

### **ABSTRACT**

*The main purpose of the research is to identify the macroeconomic aspects of the sustainable development of the national economy in the context of global challenges and optimal solutions. In this context, the research task is to analyze and summarize the main features of the sustainable development of the national economy. For this purpose, the solutions of problems related to the theoretical and methodological features of the development of the country's economy, the issues to be considered and the acceleration of the development of the country's economy were examined. The characteristics of Azerbaijan's economic development model, its potential for self-development and its ability to increase its competitiveness in the face of global economic difficulties have been revealed. Particular attention was paid to the problems of choosing an effective model and mechanism for the development of the national economy. All this encourages us to think more about the sustainable development of the national economy in a global context, to form the national economy in the context of national economic interests and to optimize the most important development goals, to diversify the structure of the national economy, technological and innovation in the country to accelerate development, strengthen production capacity, ensure efficient use of energy and raw materials, and model human capital and intelligence use in line with global economic challenges. Given the trends in the oil economy of the Azerbaijan economy in the context of the expansion of the global economy, the conceptual approach to the sustainable development of the national economy and the problems that prevent the development of the national economy are explained objectively.*

**Keywords:** *economic mechanisms, national economy, resource potential, global economic challenges, the basic indicators of sustainable development, the model of economic development*

### **1. INTRODUCTION**

In one of the most respected scientific journals in the world, the desire to address macroeconomic aspects of the sustainable development of the national economy in the context of global challenges requires great responsibility. However, as my country of origin and now an independent state, my country insists on adapting the national economic development model to the experience of national economic development models that have been successful in global economic processes and rapid changes in the development of the national economy, and has led to the preparation of this article. Following the successful implementation of the Petroleum Strategy, the Azerbaijani economy has grown several times, a modern economic development model of the national economy has been created at the expense of foreign exchange funds, economic reforms have been established and a strong infrastructure network has been established. As a result of global economic trends, the decline in world oil prices, the most important export product of Azerbaijan, has seriously challenged the country's national economic development model. Due to the negative effects of the global financial crisis, Azerbaijan's national money and credit banking system and the entire economic and financial system face serious problems. The national currency - manat has been reduced several times, problematic loans have been increased, a number of large banks have been closed, restrictions

on the provision of credit resources and financial difficulties have occurred in addressing the socio-economic problems of the population. As current global economic trends and transformations deepen, macroeconomic development problems of the national economy become more important. In recent years, efforts to address the negative effects of the global financial crisis have been remembered by the complexity of institutional reforms, the development and implementation of new mechanisms. The traditional mechanisms and practical tools of the world economic processes have revealed their weaknesses, in other words, it is impossible to continue the economic process in the past. Considering the characteristics of the national economy and development trends, there is a need to develop and actively implement adequate national economic development models. The article tried to clarify such macroeconomic problems and to determine the most appropriate solutions to these problems.

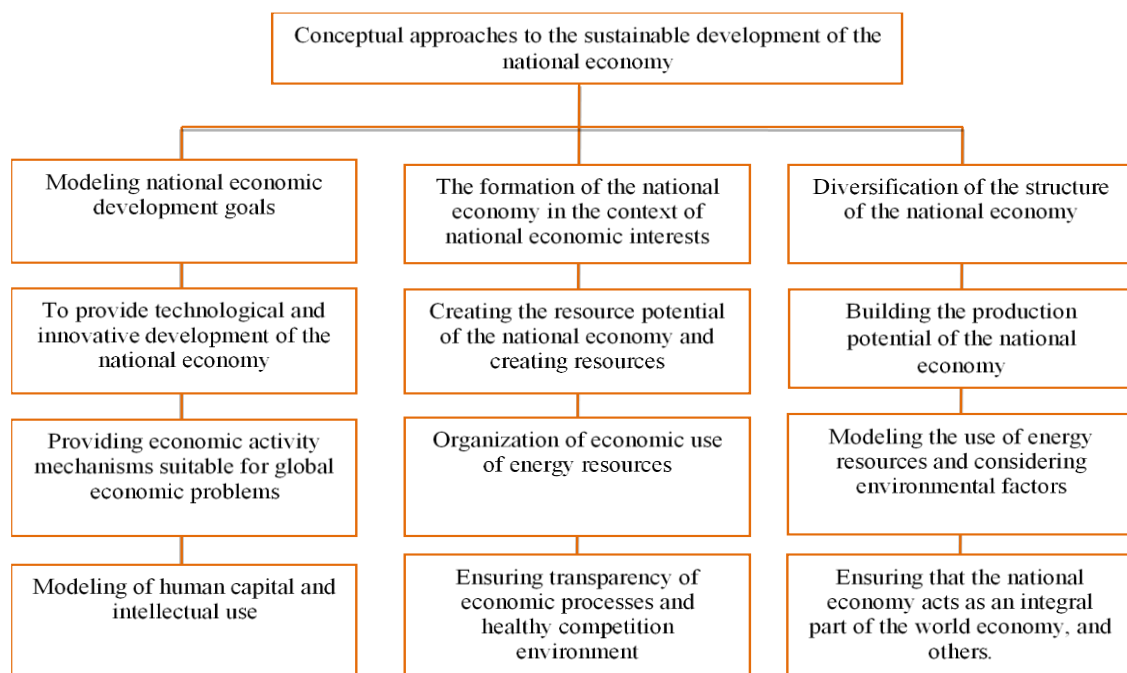
## **2. ANALYSIS METHOD**

The method of analysis of the study is based on global challenges, taking into account the characteristics of the macroeconomic aspects of sustainable development of the national economy in the context of the post-oil period. The main idea in the article consists of the author's approach to the problem and the copyright position. The author thinks that, in the context of global challenges, compared to the world experience in optimizing the macroeconomic aspects of the continuous development of the national economy, the adequate national economic development model, which enables the economic development of Azerbaijan with its durable and dynamic growth rate, has not been formed and searches-researches more elaborate with it. It should be maintained at a basic level.

## **3. CONCEPTUAL APPROACHES TO THE SUSTAINABLE DEVELOPMENT OF THE NATIONAL ECONOMY IN THE GLOBAL ECONOMIC ENVIRONMENT**

Global economic difficulties caused important changes in the basic mechanisms and columns of the economic systems of the world countries. Therefore, forecasts and trends related to the economic and financial processes of the last 5-10 years as well as the development prospects of the global economy are a reason for this. Although economic growth in the leading world countries is seeking new resources, no significant results have been achieved so far. Even in developing countries, growth rates have been relatively slower than in previous years. The question is: is there really a lack of resources for economic growth in the world? Or what happens? The answers are not clear. We asked similar questions in the past, and as a whole, the most important task during this research is to present conceptual approaches and opinions about the development of the national economy. Countries responsible for the economic sector of the world make continuous efforts, work, implement economic and institutional reforms and create new mechanisms for the economic system in order to gain more conceptual views and priorities. In our view, each country is interested in increasing its economic potential and developing a more optimal model of economic development that requires national interests and national economic interests. Based on analytical data on the implementation of global economic processes and measures on sustainable development by countries around the world, reports from international organizations, international and world forums, we can conclude that the living standards of the world population will increase over the next 20-30 years, Even higher results will not be possible in accessing food. At the same time, the transformation of the economic policies of leading world countries, new approaches, trends, economic mechanisms of the USA for economic integration, and relations with neighboring countries (Canada and Mexico) and EU countries have raised many questions. There seems to be more conflict, discomfort, different views and approaches in global economic processes. Since the end of the 20th century, this structure has undergone serious changes, the system of socialism has collapsed, and the legend of the economy of socialism has been destroyed.

Dozens of new independent states emerged on the world map, redistribution of resources important for world economic development, and there is still an intense struggle in this area. In the countries of the world, including China with a mixed economy, such basic mechanisms of action and economic mechanisms are directly related to market economy mechanisms. Undoubtedly, economic growth and activity in this form are inevitable, and the tendency to reduce economic differences between economically developed and developing countries in the near future will be further strengthened. China, Russia, Brazil, India, South Africa and others. Developing economies, which have large economies, tend to exceed most of the countries in the world in terms of economic power, and China's demands on this issue give it a reason. The economic power differences between the USA and China are decreasing each year, and as we look for new sources of growth for the US economy, the Chinese economy is growing every year, increasing its volume, expanding its national product and structure, and increasing the living standards of the population. From economic perspectives and interpretations, routes and approaches to more realistic economic processes are of great importance. Based on the economic intent of each country, approaches and concepts related to the development of the national economy are important. If these approaches and concepts are not in the interests of individuals and groups, transparency, integrity, national interests and national economic priorities, success of the concept or strategy being developed and implemented can be expected. We may be exaggerated, but these approaches are only our thoughts about the current realities of global economic processes and they can be subjective. In fact, in many countries, economic approaches and concepts have been unsuccessful for many years. Many modern economies face strong economic challenges in today's world, where a stable economic system and development model is created using the advantages of separate sectors of the economy in the international division of labor (Greece and b.). Or, for example, the attempts of many socialist and post-Soviet republics based on their raw resources for the sustainable development of the national economy have unilaterally used the superior components of the international labor distribution system (Russian Federation, and others). In our view, the conceptual view of the sustainable development of the national economy in a global context can be shown schematically in Figure 1.



*Figure 1: Estimated scheme of conceptual approaches to the sustainable development of the national economy (developed by the author) in a global context*

As can be seen in Figure 1, the main focus of the national economy on sustainable development is to create the national economy within the national economic interests and to optimize the most important development goals, to diversify the structure of the national economy, to accelerate the technological and innovation development in the country, to ensure the efficient use of energy and raw resources, and model human capital and intelligence use in line with global economic challenges. It is necessary to ensure the effectiveness of integration of the national economy with international economic processes, to accelerate the development of various sectors of the economy with the highest economic development potential, and to identify global approaches that support sustainable development as the main objectives of the state's economic policy. Sustainable development and economic security issues should be maximized and balanced [1, p.71]. On the other hand, measures for the socio-economic problems of the country should be considered as a priority to model the efficient use of national resources and to expand economic processes without harming natural resources and nature. The country's socio-economic system should consist of conceptual approaches and the most effective practical mechanisms that allow sustainable development [2]. And, as mentioned earlier, environmental issues should focus on environmental issues and be one of the most important in the state's economic policy. However, the study does not end with a high appreciation of these issues. Therefore, environmental issues should be addressed in the context of achieving economic priorities, in other words, efforts should be made to achieve economic development goals by ensuring sustainable development of the environmental and economic system. The stability of the environmental and economic system in these processes creates an environment of mutual trust between the state and society and ensures that the state maintains its economic development policy and has sympathy [3, p.119]. On the other hand, the integration of environmental and socioeconomic systems into the country's conceptual approaches to sustainable development in the global context should focus on all levels, including the creation of competitive businesses [4]. Conceptual approaches, strategies and strategic goals covering a long-term period for sustainable economic development have been developed and adopted in many countries, especially in post-Soviet countries. For example, these topics in Azerbaijan include the Strategic Roadmap for National Economic Perspectives, including short, medium and long-term economic development strategies and action plans by 2020, a long-term vision by 2025 and a goal for 2025 it is just a look. In other words, ensuring the sustainable development of the national economy is planned and envisaged, at least taking into account the maximum facts of the period. In this case, environmental and economic paradigms of sustainable development and the conceptual modeling of activities promoting sustainable development are increasing significantly. When maneuver becomes more important for long-term goals, long-term priority is given to conserving biodiversity and protecting the environment, enhancing environmental protection and maximizing the benefits of nature for civilization. Energy efficiency is not only an important component of sustainable development, but also important in optimizing the cost of goods and services produced by national manufacturers and producing competitive prices. In this case, it is possible to create and develop effective mechanisms for the sustainable development of the national economy by strengthening the country's resource potential [5]. We can expect the development of concepts and mechanisms of action to be more relevant in the near future, in line with global economic challenges. For this reason, many global challenges are becoming increasingly tense and unfortunately, the examples and forms of cooperation faced by global countries in the face of global challenges and global economic problems are unable to respond to current global problems, including global economic problems. The optimal modeling of the sustainable development of the country's economy in the global context in the long term and the conceptual handling of its mechanism of action are not sufficient for a nationwide concept, and therefore

every country is a component of the world economy. It should ensure the development and implementation of common conceptual approaches and approaches to these global problems. With this in mind, we consider it important to evaluate and analyze the developmental characteristics of key indicators of national economic security in the context of global challenges in the next paragraph.

#### 4. ANALYSIS OF THE CURRENT STATE OF THE AZERBAIJAN ECONOMY IN THE CONTEXT OF GLOBAL CHALLENGES

The most appropriate modeling of the Azerbaijani national economy and ensuring sustainable development in the context of global challenges, determining the ways of solving important macroeconomic problems, and raising national economic development to a new level are the historical and strategic challenges facing our country today. In this context, the priority is to accelerate the development of the national economy, especially the oil and gas sector, to increase the use of high-tech and innovation-oriented economic mechanisms by including value-added economies, to deepen the national economy innovation processes and to ensure sustainable development of the national economy based on these. their implementation processes are already at an intense stage. Figure 2 presents the GDP dynamics in Azerbaijan, one of the main indicators of national economic security, and covers the years 2005-2018.

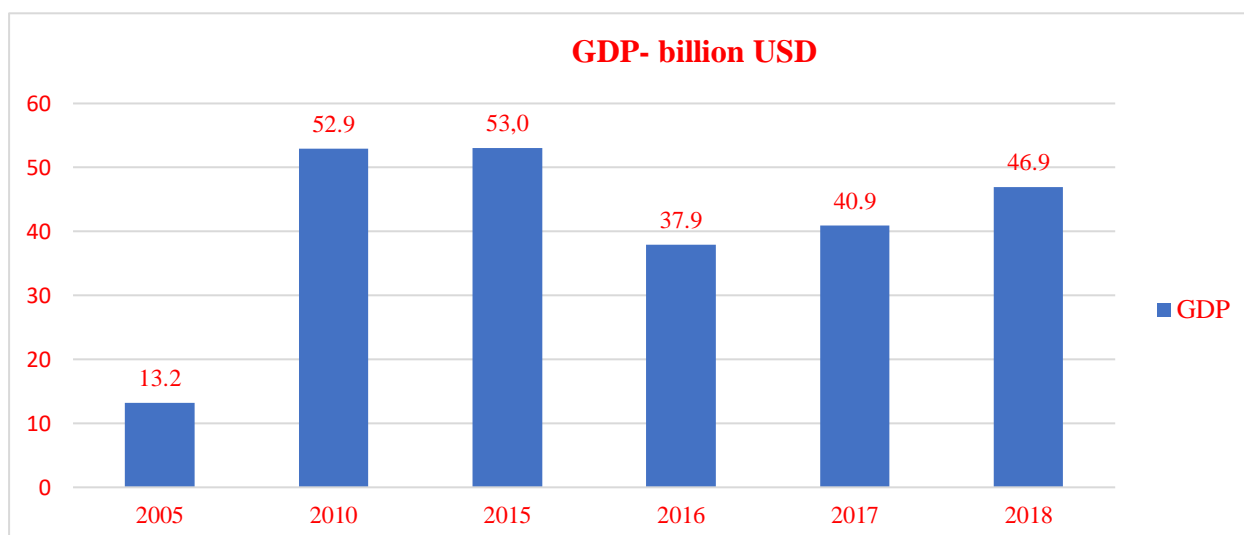


Figure 2: GDP dynamics of the Azerbaijan Republic in 2005-2018, billion. \$. (Prepared by the author on the basis of the Statistical Indicators of Azerbaijan, Baku, 2019.-788 p., [Http://www.stat.gov.az](http://www.stat.gov.az)) [6].

Based on Figure 2, we can conclude that the real GDP and GDP in Azerbaijan increased by 3.55 times in the period 2005-2018. If the real value of GDP in the country in 2010 was \$ 52.9 billion, this figure was \$ 53.0 billion in 2015 and \$ 37.8 billion in 2016. Generated \$. The real value of GDP rose to \$ 40.9 billion in 2017 and was \$ 46.9 billion in 2018. Looking at this, we can see that the growth rate decreased by 28.5% in 2016 compared to 2010-2015, but the growth rate slightly improved in 2017, but the speed is even more evident in 2018. From an objective point of view, this increase in 2010-2015 was due to the dollar difference in manats. GDP growth in the country was accompanied by an increase in 2018 compared to 2017. This means that our country can get rid of the difficulties caused by the global economic and financial crises. In other words, the economic growth rate of the country has been restored and systematic studies are being carried out to create new growth sources. The process of achieving the strategic objectives defined in this direction should undoubtedly be seen as a prerequisite for economic growth.

Figure 3 shows the GDP dynamics per capita in Azerbaijan in 2005-2018. The same is true for GDP per capita in Azerbaijan.

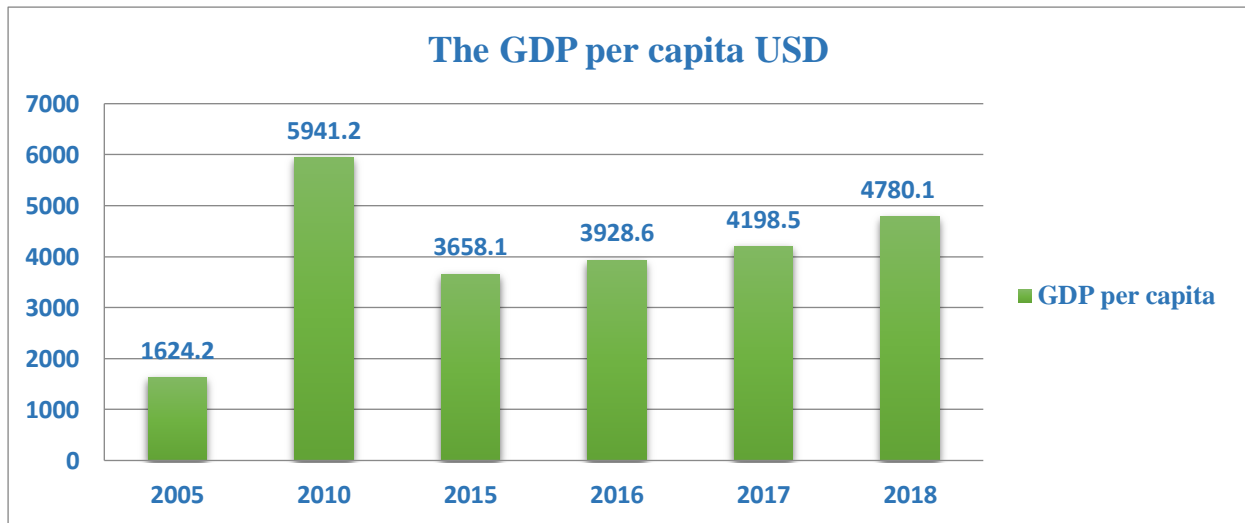


Figure 3: GDP dynamics per capita in Azerbaijan in 2005-2018 period, USD. (Prepared by the author according to statistics of Azerbaijan statistics <http://www.stat.gov.az>) [6].

According to Figure 3, while GDP per capita in Azerbaijan was \$ 1624.2 in 2005, it was \$ 5941.2 in 2010, \$ 3658.1 in 2010, \$ 3928.6 and \$ 4198. 5 and 2018- \$ 4780.1, respectively. In other words, GDP per capita in Azerbaijan increased by 2.94 times in 2005-2018. Competitors can state that the growth rate of the national economy varies in dollars, but the rate of decline in the national currency - manat is not so obvious. However, in 2015, the rate of increase decreased by 38.4% compared to 2010. As the objective approached, this observation was realized in exchange rate calculation of the manat at the rate of dollar, but the growth rates have started to recover since 2016. Figure 4 shows the structure of GDP in Azerbaijan in 2018 by types of economic activity.

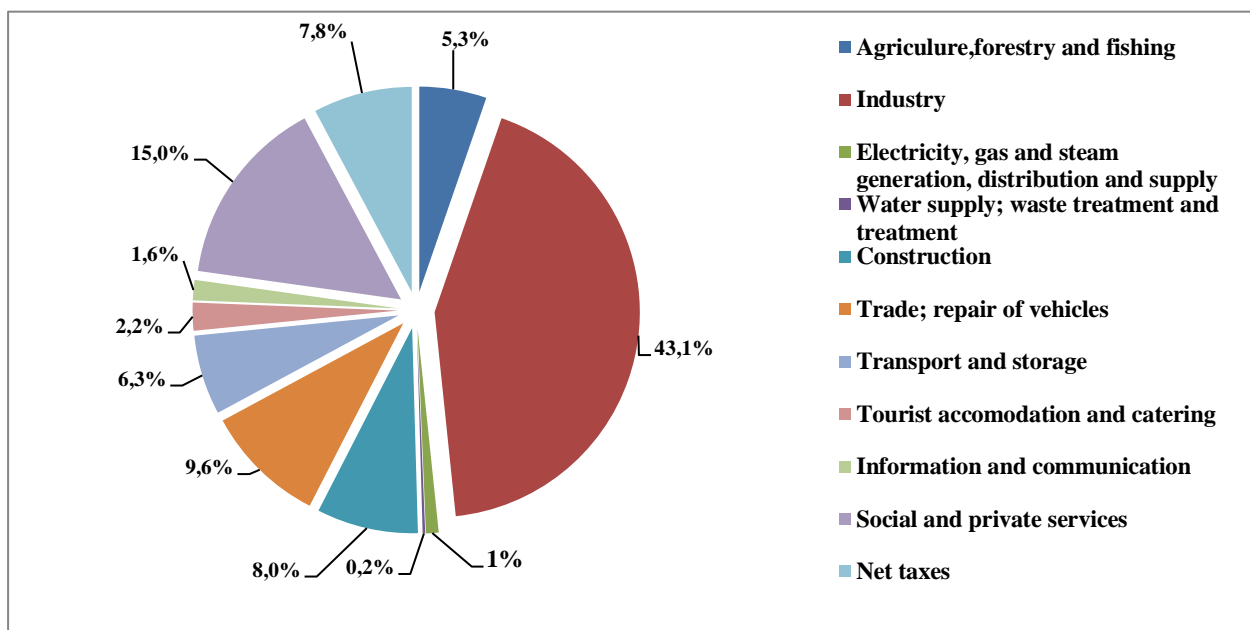


Figure 4: The structure of GDP by economic activity types in 2018 (prepared by the author based on Azerbaijan's Statistical data. [Http://www.stat.gov.az](http://www.stat.gov.az)) [6].

An analysis in Figure 4 shows that the industry holds 43.1% of the country's economy. The share of social and other services has also been increasing in recent years, and these sectors account for 15.0% of GDP. Besides trade, the share of vehicles is 9.6% of GDP. Unfortunately, although the potential of agriculture, agriculture industry complex, information technology and tourism sectors with high potential is high, their countries' GDP share is much lower than their own opportunities. However, the living conditions and development of tourism in the country are intensifying. While there are tens of thousands of service facilities in the city of Baku and other cities, they also entered the intensive development phase in the service sectors of the economy (construction, trade, transportation, communication and b.). Considering all these, in the near future, the share of the service sector in the country's GDP should be weighed and determined objectively, the statistical approach should be restructured and the transparency and accountability of the national products that make up the sectors of the national economy should be ensured. Analysis of the current state of the country's economy in the context of global challenges, a comparative analysis of real indicators allows us to conclude that Azerbaijan should fulfill its task to maximize its potential resources and potential in the near future. In this case, it will be possible to increase the immunity of our national economy against global economic threats. Taking these into account, in the next paragraph, it was important to examine the macroeconomic problems of the national economy and explain their explanations.

## **5. EXPLANATION OF THE MACROECONOMIC PROBLEMS OF THE NATIONAL ECONOMY**

It is important to examine the macroeconomic problems of the national economy and to take adequate measures, taking into account the modern development of global economic processes. For this purpose, it is necessary to analyze the development processes of the national economy and explain the macroeconomic problems that prevent their development objectively. The Azerbaijani economy is an integral part of the global economic system and is in the process of deepening the market economy mechanisms. We have stated that systematic and consistent, as well as strategic measures should be taken to ensure that the national economy is continuous and resilient, however, it is important to objectively explain and evaluate the problems that create obstacles for the development of the national economy in the context of the global economic challenges and to arm the economic development model with more effective mechanisms. In our opinion, it is possible to include them in macroeconomic issues related to the development of the Azerbaijani economy:

- The processes of diversification of the structure of the national economy and the completion of its structure for the calculation of the holistic economy areas are essentially incomplete;
- It should be ensured that the enterprises in the country are developed on the basis of principles of business and market economy and in a healthy competitive environment;
- Increasing transparency in tax and customs systems should be accelerated and maximum flexible and operational mechanisms should be implemented in these areas;
- More diverse and adequate mechanisms should be established for the sustainable development of the country's financial credit system, and measures should be taken to encourage the banking sector to invest in the real economy;
- The process of creating more competitive sectors of the national economy should be intensified;
- There is still a need for adequate accounting organization and functioning of taxation mechanisms in the service sector;
- Measures should be taken to regulate the operations of the processing industry and to increase the variety of products exported;

- There is a need for maximum efficient use of labor resources, balancing the productive forces in the regions, eliminating the differences between sectors and ensuring optimum use of labor and human resources.

It should be noted that it is not an easy task to eliminate the macroeconomic problems in the national economy as soon as possible. For this, it is necessary to prepare and realize many economic development programs, as we have mentioned before, to develop economic areas that create added value thanks to the efficient use of natural resources and raw materials, and to strengthen the economic wellness in the country in general. It is straight, the economic policies of our country are social, the state provides continuous support to vulnerable populations and groups, provides benefits, carries out stimulating projects for the integration of the unemployed into the entrepreneurship and business environment, financing their small business projects, should create good working conditions, help the peasant installations by technique, seed separates, rebuilds irrigation systems, gives incentives for agriculture and indulgence, creates the infrastructure of the supply of agriculture and agricultural products, stimulates the construction of logistics centers and warehouses, gives preferential loans to entrepreneurs, minimizes edge interventions to ownership. However, all this has not yet led to the sustainable development of the national economy and increased growth rates. In our view, the main reason for this is that the country has not fully established the market economy principles and has not yet completed a healthy competitive environment for entrepreneurial activity. It is no secret that many large companies and holdings have monopoly positions in key sectors of the economy, especially in the non-oil sector. This trend is most common in agriculture and agricultural sectors. In order to solve the current macroeconomic problems, to ensure the continuous and durable development of the economy areas, the establishment of a healthy competitive environment in these areas, the creation of a competitive business network, and the lifting of goods and services to the international standards in the country should be resolved. Progressionist economic policy mechanisms by some government, especially related to the activities of agriculture and agriculture sector, should be relatively softened and broader implementation of market economy mechanisms should be provided. However, in this case, it will be possible to define the resources that will ensure the growth of the national economy, to expand the use of labor resources and to strengthen the economic activity. In order to systematically examine the macroeconomic problems of the national economy, firstly, the nature of the economic developments and important tendencies in the world should be known and their effects on the national economy should be investigated. Understanding and evaluating the impact of important processes in the global economy on the national economy as an inevitable process should be one of the priorities of the state's economic policy. However, the problems of the national economy's commitment to international processes should be viewed and evaluated objectively. Analysis of the national economy at the macroeconomic level, evaluation of the current macroeconomic values, evaluation of the compatibility of the basic economic priorities of the national economy with the world economic processes should be systematically examined. Comprehensive measures should be taken in line with the issues accepted as macroeconomic indicators and problems in the standards of international statistics institutions. The commitment of the national economy with the international economic system and the principle of mutual activity should be restricted and these problems should take their place in state policy. In addition, a careful approach should be provided to the problems of effective development of the economy and the inclusion of new economic mechanisms in the national economic system. It is imperative to balance the economic policy of the state at the macro level and to set the basic principles.



## 6. CONCLUSION

We owe ourselves to our discussion of the world economists and the scientific public, to a number of ideas and possessions, as well as the materials given for the problems set out in the article, accusations and copyright approaches to the macroeconomic problems of the development of the national economy. In our opinion, primarily in an environment where global economic threats and global economic calls are increasing, and strategic road maps are carried out in Azerbaijan as the main sectors of the national economy and economy, the macroeconomic problems of the development of the national economy, especially the perspectives of the development of the national economy in the post-oil period and the conceptual solution of the development problems of the national economy. It is important to create a different, alternative, modern scientific-practical view of the ways. In general, in our view, the following measures should be implemented to speed up the resolution of macroeconomic problems of national economic development:

- Sustainable development and sustainability of the national economy in a global environment and in times of global economic crisis should be balanced, important principles should be taken into consideration, and every component of the national economic development model should be conservative for these components. Each country should rely on its own resource potential and implement the most effective mechanisms for the development of the national economy;
- One of the important issues of ensuring sustainable economic development in the global context is the establishment of a legal framework that can ensure the sustainable development of the economy. In this case, laws should comprehensively cover and address global and environmental, financial and economic, social and economic problems. Based on the law, it is important to ensure that the country's economic development processes are global;
- Every country should try to identify measures against objective reality stemming from sustainable development horizons globally and address the challenges of developing their economic systems. At the same time, modeling and rational use of resource use should be at the center of attention and placed as a conceptual approach to the development of the national economy;
- While developing conceptual approaches, the consequences of the global financial and economic crisis should be emphasized. World countries and each country should take permanent measures to ensure the dynamic and balanced development of their economic systems, and environmental and economic aspects should be prioritized for sustainable development in all cases;
- The macroeconomic analysis of the national economy, the evaluation of the current macroeconomic values, the evaluation of the compatibility of the basic development priorities of the national economy with the global economic processes should be systematically addressed;
- To address the macroeconomic problems of national competition, it is necessary to evaluate the current potential in the context of global competition, and the basic mechanisms for the future development of these problems should be identified and verified;
- In order to increase macroeconomic stability, it is necessary to increase the efficiency of the corporate economic environment, increase the current economic growth potential and accelerate the activities of the economy with its multiplier features.

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## THE DIRECTIONS FOR IMPROVEMENT OF COMPETITION STRATEGIES

**Jafarova Ulviyya Yusif**

*Azerbaijan State University of Economics (UNEC)*

*45A, Abbas Sahhat str., AZ 1007, Baku, Azerbaijan*

*cafarova04@mail.ru*

### ABSTRACT

*One of the most important principles of market economy is existence of free competition among commodity producers. Competition is a fight amount producers, consignors, firms and enterprises to obtain efficient production and sales terms in order to improve much more the results of entrepreneurial activity. The history of development of market economy shows that, competition is created in the same time with commodity production. But, it became to the important factor of market relations and also to rapid regulation of public production in the condition of development of capitalism. The competitive ability of enterprise means provision of efficient economic activity and productive sale in the condition of competitive market. The indicator of competitive ability is a mirror reflecting the works of all sections and services for each enterprise in itself. Entering to foreign market with competitive goods is the first opportunity in the field of capture of the market by enterprise and its consolidation there. Then, a great and important work on management of competitive abilities of goods starts. The management of competitive ability is the sum of measures on constant improvement of product, search of its new sales channels, new buyer groups constantly, improvement of service and advertising. The competition is the centre of gravity of the entire market economy and economic system and also it is the type of mutual relations among producers, as well as other market subjects for determination of prices in the market and the volumes of product offers. In other words, the competition is the form of relations established in the background of formation of volume of prices and demand in the market among producers, as well as consumers (buyers), also it is the practice of civil regulation and management of the distribution and redistribution system of markets and profit among market subjects.*

**Keywords:** *competition, producer, marketing strategies, market mechanism*

### 1. INTRODUCTION

The creation of competition environment in the economy, its increasing up to the civil level and its formation is difficult and long-term process. The competition environment undergoes to the impact of different restrictions, therefore it is possible to form it according to the requirements of modern period and to realize it only on stages. At the first stage, it is necessary to cancel commercialization of public enterprises according to the affiliation by civil servants of various kinds, to make stateless and to prevent from economic monopolism by including the development of private sector. At the second stage, the main attention shall be concentrated in formation of market infrastructure, creation of working market mechanisms that require low costs and suspension of subsidizing of prices of national consumption and other products by stages in order to realize social programs. At the third stage, it is possible to create and form the normal competition regime and market environment meeting modern requirements. The prevailing role shall be given not to seller, but to buyer to create the markets conforming to civil, international laws and anti-monopoly principles according to modern requirements, prevailing of supply over demand, i.e. formation of buyer market, not seller market, is necessary. Only in such markets, any place may be established for acute competition fight among all market subjects, also consumers - buyers, and high demand may be available for commodities offered.

## **2. FORMATION OF COMPETITION STRATEGY**

The improvement of competition types depends on quantity of commodity production and their special volume in the market. The most significant feature of competition environment is decrease of production costs, renewal of product assortment according to the variable demand, improvement of its quality, increase of competitive ability of product and the firm producing it, provision of legal protection by state and limitation of monopolistic activity. The relatively widespread modes and methods such as competition rules and norms are used in the condition of acute fight among commodity producers. It is called unjust or unpleasant competition in economic literature and practice. The main features characterizing unjust competition include: application of damping rules, i.e. determination of prices lower than estimate value intentionally at the time of product sale; supervision opportunities of leading firm over the activity of other competing firms; abuse of ruling position in the market; determination of discriminated prices or commercial terms; restriction of the activity of enterprises producing a product with competitive level; application of restricting terms and agent agreements on product sale; conducting of secret negotiations by leading firms at the time of trade; false information or advertising; violation of standards in regard to dispatch and transportation of products, etc. The organization itself must change and coordinate with environment in order to respond effectively to change of social factors. The main terms of competition strategy of enterprise include: to produce high quality product; to keep the position in the market; to get priority over competitors; to learn markets incessantly; to renew the assortment and nomenclature of products continuously; to modern existing products; to render high quality service; to realize diversification of production; to increase the volume of products with export orientation and substituting for import; the conducting of stimulating measures of sale, etc. The competition covers all fields of national economy and human activities in the condition of market relations and gets inevitable character. For this kind of competition, the human freedoms are proclaimed, they are provided by public authorities, the economy is separated from politics and also economic interests constitute the basis of internal and external policy, the religion is separated from state, the special package of laws is adopted, etc. The competition is a strong stimulus of economic development, increase of product's quality, speeding of scientific and technical progress, decrease of product costs and prices. The competition requesting the cancelation of unproductive, very costly and unprofitable production for society creates a condition for intensive growth of efficiency of public production. In practice, the competition orients the product manufacturers to market requirements, creates a condition for wide selection of commodities and services by buyers and full provision of production needs. The creation of competition among commodity producers is an important term of transition to market economy which is profitable for all.

## **3. STRATEGIC MARKETING IN THE COMPETITIVE SYSTEM OF THE ENTERPRISE**

The main purpose of each owner is to expand the economic activity causing to maximization of profit. It brings owners to mutual struggle for the most favorable production condition and conditions and they act as a competitor in relation with each other, i.e. as a party joining the competition. The practice shows that if supply exceeds demand on any commodity, then the competition struggle among sellers can intensify. Each of them is obliged to decrease the price to sell their commodities, naturally, it causes to the decrease of commodity production as a rule. If demand exceeds supply, i.e. prevails over it, buyers are obliged to compete with each other. In this case, in order to get an opportunity to buy the offered and relatively insufficient product, each of buyers should offer higher price than their competitors by considering his/her/its financial-economic status. As a result of it, prices increase and it stimulates the growth of supply of that product, and incites its production and sale.

The competition becomes to a leading force of market economy as a necessary element of market mechanism. The character of competition is different, therefore it may significantly affect to the methods and system for obtaining of market balance. The practice of the developed countries shows that the market mechanism works more effectively in the condition and regime of free or progressive competition, in reality the condition in the market is characterized with majority of buyers and sellers, being of product in the same type, free access of firm to the market and its exit from market. None of sellers or buyers is able to affect to market prices in the condition of such progressive competition. This scientific and practical phenomenon may be considered as a scientific supposition and accepted as a standard. Meanwhile, the analysis of its ideal and real competition systems and regimes is necessary as the first step to clarify the principles of the activity of market mechanism. When it speaks about competition and marketing researches, that is, studies, we firstly meet with a question – the word of why marketing is more commonly used in economic literatures in the modern period. What can the marketing concept give to the economies of the world countries, its companies, enterprises and businessmen? It is clearly important to understand that marketing is the most basic double and mutual additional approach. On the one hand, it is to learn accurately and comprehensively the market, tastes and demands; also to direct the production to these demands, to target released products; on the other hand is to impact actively on the market and existing demand. If the strategy of one company is similar to the strategy of the other, the level of competition between them may be high. In most industrial areas, leaders can be grouped into groups, each with its own strategy. Strategic group is a collection of many companies pursuing the same or similar strategies in their existing target markets in a certain industrial field. For example, those working in the sports bike industry belong to one strategic group. It is important that each company conducting the marketing researches analyzes all parameters of strategic groups selected within the industry. It needs to know main data about what qualities and characteristics of each competitor's goods, also services provided to consumers, price formation policy and distribution zone of goods, trade personnel, and advertising and sales promotion strategy. The party who conducts research must exactly learn the strategies in terms of areas and work projects where competitors work, product procurements and supplies, financing issues, clients and others. Only in this way companies can obtain information about the implementation of their strategies by their competitors and about whether they have achieved their goals. Certainly, it depends on the resources and economic development opportunities that each competitor holds. In the competitive system of enterprises, the advantages of market orientation strategies based on strategic marketing should be set in the following directions: the market orientation strategy ensures to achieve competitive advantage; the change of organizational structure for management of the enterprise means a new approach to the nature of mutual relations; the understanding of enterprise the needs of its customers, the actions of competitors and the nature of the commercial situation means the participation of the entire staff of the firm in the same process; the development and preparation of various procedures of the strategy acts as an integral part of maintaining the competitive advantages of the enterprise. For the purpose of increasing the competitive ability of local enterprises and economy, the minimization of the backwardness of our country from other leading countries in the field of the application of production and innovation technologies was one of the main objectives. In this regard, various measures directed to the stimulation of the development of innovation activity were implementing. In Azerbaijan, costs spent to technological innovations in industry amounted to 34,353.5000 manat for 2018, of which 23,298.7000 manat was allocated for product innovations and 11054.9000 manat for process innovations. In general, costs spent to the science from the state budget in 2018 amounted to 6200.0000 manat, and costs spent to researches and studies amounted to 9944,5000 manat. In our country, industrial and high technology parks are being established to create favorable conditions for the development of

competitive industrial production on the basis of innovative and high technologies, to support entrepreneurship in this area, to ensure the sustainable development of the non-oil sector and to increase the employment of population in the production sector. The obtained results show that the coverage of profitability zone in the food industry enterprises has a positive tendency. It may be included enterprises that make products such as beverages, tobacco and tobacco products, textile products, clothing and furniture. Each of these enterprises has a zone of individual profitability coverage.

#### **4. CONCLUSION**

In the market economy, in the condition of further aggravation of competition and competitive struggle, regardless of the property form, the high quality of the product made, frequent change in its assortment is an important condition for ensuring the competitiveness of enterprises and their products. Marketing Specialists shall not be only limited to analyzing the goals of competitors in connection with taking profit, because each competitor may have a set of goals that differ in their importance. For this reason, company conducting the research shall know that which relative meaning is given by its competitors to goals as leading position in the profitability, market share increase, and technology and service field. It allows to the party conducting research to learn the competitor's goals that the same competitor may come to a conclusion about whether his/her work satisfied with the current situation and what it will react to various actions of competitors. When efficient marketing strategy is developed, a firm and a company must take into consideration its competitors, its existing and potential consumers. It must always engage in analysis of competitors and make strategies of marketing competition. Such marketing strategies will provide taking of more efficient position against competitors and will create an opportunity to get maximum competition priority.

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# TAX BENEFITS IN ENSURING SOCIAL DEVELOPMENT AS ONE OF THE MEANS OF ECONOMIC INFLUENCE

**Javid Alirza Mammadov**

*Student at Azerbaijan State University of Economics (UNEC)*

*Baku, 6, Istiqlaliyyat str. AZ1001, Azerbaijan*

*jd.mammadov@gmail.com*

## ABSTRACT

*The study of tax policy cannot be considered without addressing the issues of fairness and efficiency, as society will always strive to implement a tax policy capable of fulfilling these two tasks simultaneously. A legally fair tax policy ensures the universal nature of taxation and equality of all taxpayers before the law, ie equality of their rights, duties and responsibilities for violations of tax laws. ensures a fair distribution [1]. An effective tax policy is aimed at increasing public welfare and at the same time best reflects the interests of society in finding a compromise between the application of the principles of efficiency and fairness in taxation [2]. Fairness of taxation means its equality, ie equal distribution of the tax burden. The distribution of the tax burden is a starting point in assessing the fairness of the tax system. However, the person carrying the main burden is not always the payer of this tax. This is because taxes affect supply and demand, and changes in equilibrium prices do not only affect taxpayers. The article provides a comparative analysis of fair and effective tax policy, legal properties of tax benefits, purposes of granting, features of formation of tax revenues of the budget, the procedure for their transfer to the budget, grouping of tax expenses on personal income tax, inclusion of benefits in the budget The amount of non-taxable income, the distribution of per capita income, the distribution of total cash income for 5 categories of the population. The purpose of the study is to assess tax revenues and expenditures based on internationally accepted criteria for assessing the effectiveness of tax incentives (budget, economic and social efficiency). Comparative and systematic analysis, logical generalization methods were used in the research work. The practical significance of the study is that the results of the study can be used to determine the principles and directions of development of government tax policy in developing countries, including Azerbaijan in the medium term. The originality and scientific novelty of the research are based on the analysis and assessment of non-budgetary tax expenditures related to the provision of benefits to taxpayers for individuals and legal entities, the introduction of new tax benefits at the national and local levels and the gradual abolition of most existing tax benefits. consists of giving.*

**Keywords:** *tax benefits, tax policy, social development, budget, tax burden, tax revenues, tax expenditures*

## 1. INTRODUCTION

The assessment of the effectiveness of tax benefits in the enterprises where they are implemented (both existing and applied benefits are analyzed) is determined by three criteria: budget, economic and social efficiency. Budget efficiency determines the impact of tax incentives on budget revenues and is calculated by comparing budget losses with the increase in tax payments arising from its application. Social efficiency is considered a positive thing while the application of tax benefits contributes to the increase of social protection of the population of the region, the creation of new jobs, increasing the income of citizens, the formation of favorable conditions for their living. Finally, the economic effect of the concession envisages improvement of the financial and economic performance of taxpayers for taking advantage of the concession. Assessment of the budget and social effectiveness of issued (planned to issue) tax benefits is carried out annually for each category of taxpayers.

Assessment of the budget and social effectiveness of tax benefits is carried out in order to ensure control over the effectiveness of tax benefits and their compliance with the public interest. While assessing budget efficiency, the first consideration is to consider the impact of tax incentives on the formation of regional budget revenues as a result of the use of tax incentives by taxpayers. When assessing social efficiency, the results of tax benefits (development of social infrastructure and increasing social security of the region's population, creation of new jobs, improvement of working conditions, etc.) are taken into consideration, which are expressed in the social significance of the taxpayer for society as a whole. The application of tax benefits is the right and not the obligation of the taxpayer, having the right to refuse from the utilization of the benefits or suspend their use for several tax periods, unless otherwise provided by the legislation of the country and must be declared by the taxpayer [3].

## **2. CONCEPTUAL AND LEGAL BASES OF FORMATION OF TAX PRIVILEGES IN THE AZERBAIJAN REPUBLIC**

In accordance with the Tax Code of the Republic of Azerbaijan (Article 3.7), each person must pay taxes and duties established by law [4]. Legislation on taxes and duties is based on the recognition of the universality and equality of taxation. When determining taxes, the taxpayer's ability to pay taxes is taken into consideration. Tax exemptions are set for both legal entities and individuals. The Tax Code of the Republic of Azerbaijan provides for benefits for certain categories of taxpayers - "discounts". In accordance with Article 12 of the Tax Code of the Republic of Azerbaijan, tax exemptions may be provided for when determining taxes on the grounds provided for by the Tax Code. It should be noted that the essence of the concept of tax credit is not found in the Tax Code. While considering the special part of the Tax Code of the Republic of Azerbaijan, it is clear that the term "tax credit" is rarely used here, and only the following cases are excluded:

- Article 102: "Income tax exemptions and privileges" on personal income tax;
- Article 106: "exemptions and privileges" on corporate income tax;
- Article 164: "VAT exemption";
- Article 165: "Zero withholding of VAT";
- Article 188: "exemptions" on excises;
- Article 199: "tax benefits and exemptions" for property tax;
- Article 207: "tax exemptions" in land tax.

In the special part of the Tax Code of the Republic of Azerbaijan, in addition to the concept of "tax exemption" for various types of taxes (excluding land tax), there are other tax articles that are essentially exempt, such as tax exemptions, application of low tax rates, restricted or unrestricted for exclusion from the tax base expressions such as the determination of amounts are used [5]. The main responsibilities for granting tax benefits are:

- implementation of targeted programs and priority directions of socio-economic development of the country;
- Stimulating the use of financial resources by taxpayers to expand and update production and technology in order to increase production, produce competitive products and create new jobs;
- increase the level of social protection of the population;
- Completeness and timely provision of tax revenues to the budget system of the Republic of Azerbaijan.

According to the legislation of the Republic of Azerbaijan, the emergence of budget revenues is carried out in accordance with the budget legislation of the country, the legislation on taxes and duties and other legislation on mandatory payments.



Budget tax revenues include revenues provided for in the laws of the Republic of Azerbaijan on taxes and duties, local taxes and fees, as well as fines imposed on them. At the same time, the legislation of most post-Soviet countries does not introduce the concept of "tax benefits" and provides an open list of types of tax benefits [6].

### **3. TAX EXPENSES AND THEIR CLASSIFICATION**

The budget system of the Azerbaijan Republic is recognized as a lack of budget revenues due to the application of tax benefits and other means (advantages) established by the legislation of the Azerbaijan Republic on tax expenditures, taxes and duties. In fact, the analysis of tax expenditures is a quantitative analysis of all decisions previously made in the field of tax policy, tax benefits and privileges. However, there is currently no normative regulation of tax expenditures, and its application requires the specific term "tax expenditures" approving by legislation. To assess the loss of tax revenue due to tax breaks, the classification of tax costs must ensure their relation to the types of taxes. It should be taken into account that tax expenditures are used to address the issues of socio-economic policy of the state and their target directions should be indicated in the classification of tax expenditures. The main directions of tax expenditures in the Republic of Azerbaijan have been identified in accordance with international experience in the assessment of tax costs and the experience of Azerbaijan in the application of tax benefits:

- social policy;
- education;
- treatment and health promotion;
- housing construction;
- EFFECT;
- to support different branches and sectors of the economy.

In connection with these areas, specific types of tax expenditures, including personal income tax, have been identified:

- social security;
- related to labor incomes of the population;
- to contribute to the increase of the population's income from property;
- to help the population to get education;
- to assist the population in obtaining medical services and rehabilitation;
- to support housing construction. [7]

### **4. THE RELATIONSHIP OF PHYSICAL PERSONS INCOME TAX WITH GOVERNMENT PROGRAMS AND BUDGET ALLOCATIONS**

Improving the efficiency of budget expenditures includes accounting for all resources used in the framework of government programs, as well as tax expenditures. In this regard, the classification of tax expenditures should provide a relation between tax incentives and relevant government programs. The relationship of physical persons income tax with government programs and budget allocations is presented in Table 1:

*Table following on the next page*

Application of tax expenses	Types of tax expenses on FPIT	Content of tax expenses	State program	Budget allocations
Social policy	Social security tax costs	Paid social benefits	State support to citizens	Social security of the population
	Tax expenses related to labor income of the population	Remuneration for work earned from the sale of products		
	Tax costs that increase household income from property	Supporting the income of citizens related to property transactions		
Assistance to the population in getting education	Tax costs to help people get an education	Compensation to employers for employee training costs. Compensation for employees on education expenses	Development of education	Provision of public services (performance of works)
Assistance in the treatment of the population, including sanatoriums	Tax costs to help people get health care and health care	Expensive, including for treatment; Payment in the sanatorium. Compensation to employees for medical expenses  expenses Translations of expenses	Health development	Provision of public services (performance of work)
Assistance to the population in housing construction	Support for housing construction	Property tax deduction for housing expenses	Providing the population with quality housing and communal services	Providing subsidies to individuals

*Table 1: The relationship of physical persons income tax with government programs and budget allocations*

Tax solvency seems fair to large sections of the population belonging to low-income families. In this regard, redistribution effects are occurring, despite the fact that public sector funding is not directly support the poor. Thus, for example, many social services (education, health, etc.) are provided to each user (student, patient, etc.). Because taxation is focused on solvency, most of all fixed taxes are paid by the wealthier, but services are distributed equally among the entire population. Therefore, a small segment of the rich not only pays for the use of these services, but also bears the main burden of teaching and learning costs for other members of the social

class. We see that the level of medical and educational services in the public sector, as a rule, is not high enough to meet the needs of the "rich" segment of the population who refuse public services and buy them at a high price in the market. In order to provide the necessary conditions for the comprehensive development of the family as a fundamental part of society, the "parties" undertake to promote the economic, legal and social protection of family life, in particular through social and family benefits, tax breaks and other appropriate measures. One of the foundations of harmonious interaction between the state and society is the principle of social justice. Such a position implies an equal tax burden without strong pressure on social groups. The essence of the principle of equality is related to the maximum consideration of the situation of taxpayers without formal equality. At the same time, the idea of social justice will be realized through the application of various types of tax benefits. The scheme that leads to equality in today's society should look like this: the same income is taxed according to its quantity under the same conditions of its receipt, but the taxation should be different when making a profit. Based on this understanding, social groups such as students, the unemployed, the disabled and retirees should be provided with benefits, certain types of benefits and various forms of fair support that compensate for their inability to receive a stable full value income. Decisions made at the national level to determine local taxes and republican taxes and special tax regimes, taxes and exemptions on revenues to the budgets of the subjects of the Republic of Azerbaijan and local budgets have a great impact on the sustainability of incomes at all levels of the budget system. According to their amount, such taxes are the main part of the taxes provided in the tax legislation of the Republic of Azerbaijan. In this regard, it is recommended that the Government of the Republic of Azerbaijan formulate its tax policy in the medium term on the basis of the following principles:

- it is assumed that the establishment of new exemptions at the national level (including taxation, exemptions from the tax base and the object of taxation) for national and local taxes will be permanently refused;
- it is necessary to make decisions in stages over the years (excluding these exceptions and exemptions that directly affect investment projects) for the abolition of most of the existing country exemptions from national and local taxes (other tax privileges and exemptions from general tax rules);
- while deciding on new privileges and exemptions for national taxes (special tax regimes) whose revenues go to the budgets of the subjects of the Azerbaijan Republic or to local budgets, the relevant powers of the subjects of the Azerbaijan Republic should be transferred to the level of state authorities and local governments. In this case, we are talking about the powers to apply such benefits, as well as to determine the parameters of their provision. At the same time, such a policy is possible only in cases where different parameters of tax benefits and exemptions in different institutions of the Republic of Azerbaijan do not create obstacles for tax administration;
- it is necessary to change the attitude to the establishment of new tax benefits - a mandatory element in the process of applying new benefits should be an assessment of their effectiveness. To do this, any new tax credit must be set for a limited period of time - for example, for 5 years or more, depending on the target direction of the tax credit. When the end of the grace period is approaching, the decision on its possible extension should be made taking into account the results of the analysis of its effectiveness;
- assessment of the total volume and dynamics of tax expenditures of budgets at all levels should be an integral part of the budget process and reflected in the main directions of tax and budget policy for the coming year and the planning period.

At the same time, the adoption of new exemptions, tax exemptions or other incentives under tax policy should be accompanied by the identification of a "source" for such a decision, which could be considered the abolition of one or more ineffective exemptions.

## **5. TAX BENEFITS FOR INDIVIDUALS AND LEGAL ENTITIES IN THE REPUBLIC OF AZERBAIJAN AND ORGANIZATIONAL AND ECONOMIC PROBLEMS OF ASSESSING THEIR EFFECTIVENESS**

All these groups of tax benefits are provided in a special part of the Tax Code of the Republic of Azerbaijan and are used to tax the income of individuals. In accordance with Article 96 of the Tax Code of the Republic of Azerbaijan, the object of taxation on personal income tax is income received by taxpayers. Non-taxable income is tax deductible. The main list of such incomes is given in Article 102 of the Tax Code. Exemptions are provided for the following items of Article 102 of the Tax Code of the Republic of Azerbaijan "Income tax exemptions and concessions ":

- income exempt from personal income tax in accordance with paragraph 1 of Article 102;
- reduced portions of the monthly income taxable on any employment of individuals in accordance with paragraphs 2-4 of Article 102;
- reduced portions of the monthly taxable income of one of the spouses with at least three dependents in accordance with paragraph 5 of Article 102.

Tax deductions are a certain amount that the taxpayer has the right to reduce the tax base. This right can be exercised when taxpayers want to receive these deductions. Terms and conditions of use are established by Article 101 of the Tax Code of the Republic of Azerbaijan. The tax base for income taxable at the rate of 14% is defined as the monetary expression of that income, which is reduced by the amount of tax deductions. According to Article 102 of Chapter VIII of the Tax Code of the Republic of Azerbaijan "Income tax of individuals", the income tax rate of individuals taxed at the level of 14% may be reduced by tax deductions. Article 106, paragraph 1, entitled "Exemptions and Privileges" of Chapter IX of the Tax Code of the Republic of Azerbaijan, entitled "Corporate Income Tax", provides for tax-exempt income, and paragraph 2 shows the characteristics of organizations subject to a 50% percent reduction in income tax rate. Chapter X of the Tax Code of the Republic of Azerbaijan, which deals with corporate income tax and individual income tax, the expenses of enterprises and entrepreneurs are grouped for taxation purposes in three directions:

- expenses not deductible from income;
- expenses with limited deduction from income;
- expenses deducted from income.

In order to analyze the types of tax expenditures of legal entities and individuals on the budgets included in the budget system of the Republic of Azerbaijan, first the tax schedule from legal entities at the expense of benefits, then the tax schedule from individuals at the expense of benefits, and then the tax schedule at the expense of individuals and legal entities, a summary table should be drawn up. With the help of these tables, we can identify and analyze the amount that is not included in the budget in connection with the provision of benefits to individuals and legal entities that are taxpayers, and evaluate the effectiveness of each of them. Information on tax benefits can be obtained using declaration on tax returns submitted by taxpayers. However, the general nature of such information casts doubt on the accuracy of the views on the effectiveness of tax incentives.

Therefore, the following issues need to be addressed in this direction:

- to determine the amount of tax lost in the budget in connection with the provision of benefits to individuals and legal entities that are taxpayers, in other words, the amount of reduction in revenues to the state budget as a result of tax benefits;
- to determine the level of use of separate tax benefits for different purposes;
- analyze and evaluate the degree of achievement of the targets set for individual concessions;
- efficiency indicators of different types of benefits used (comparison of the effect achieved by taxpayers with the amounts of taxes not included in the budget, determination of the growth of tax revenues in the subsequent periods under the influence of these benefits);
- income tax on business activities of individuals, corporate income tax, etc. to eliminate the general nature of such privileges (lack of differentiation between users, lack of address, etc.);
- legal establishment of the feedback mechanism in the system of application of tax benefits (for example, the issue of how to use the funds at the disposal of enterprises is reflected in the legislation);
- to provide administrative and information support of relevant state bodies to obtain the information required for research, etc.

## 6. CONCLUSION

For the purpose of the current analysis of tax revenues and tax expenditures, it can be concluded that tax expenditures are lost revenues of the budget system of the Republic of Azerbaijan as a result of the application of tax benefits established by the legislation of the Republic of Azerbaijan on taxes and duties. Tax expense analysis is a quantitative analysis of all previous decisions in the field of tax policy related to the provision of tax benefits. In the current situation, there is a need to establish a working mechanism to regulate, manage and monitor the process of reducing budget revenues as a result of the use of tax benefits. There was a need to monitor each tax exemption established by the Tax Code. In order to successfully monitor tax benefits, in addition to the initial information, the purpose of these benefits must be clarified. By accepting tax benefits as budget expenditures, it is necessary to try to make them effective, that is, purposeful, targeted and accountable. To do this, it is necessary to create an appropriate information system on the results of the use of tax benefits and analyze the effectiveness of their application by analyzing the individual tax benefits with reference to this system.

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# DIGITAL EDUCATION IN THE CONTEXT OF NEW ECONOMY

**Leyla Hajiyeva**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*

*Leyla\_Hajiyeva@unec.edu.az*

## ABSTRACT

*In the era of the new economy, the educational space is growing rapidly and expanding due to the development of the digital environment: electronic models of universities are being formed, electronic textbooks are being created, educational platforms are appearing and developing, the number of mass open online courses (MOOC) is measured in the thousands, and the number of their consumers - in the millions. Digital education is primarily electronic technologies that can be used in the traditional learning process in order to improve the quality of education and involve a huge number of students, not limited to physical space. The article explores the features of the development of digital education in modern conditions, considers the main indicators of the network readiness of countries, and analyzes the network readiness index for a number of selected countries. The relevance of the digital transformation of higher education is analyzed, it is noted that such a transformation is a significant cultural and organizational change in universities. The issues of building a digital learning environment (DLE) in universities are discussed in details; the purpose of such DLE, the organization of a personalized self-sufficient learning system is noted. Based on an online survey, data on the digital competence of university teachers are analyzed, suggestions are made to improve the level of digital knowledge and skills.*

**Keywords:** *digitalization, digital learning environment, digital competencies and skills, e-university*

## 1. INTRODUCTION

In the era of new economy education space is growing rapidly and expanding due to the development of the digital environment: electronic models of universities are being formed, electronic textbooks are being created, educational platforms are being created and developed, the number of massive open online courses is run into the thousands, and the number of their consumers - into the millions. Digital education is primarily electronic technology that can be used in the traditional educative process in order to improve the quality of education and involve a large number of students, not limiting to the physical space. The Article considers the features of digital education development in modern conditions, investigates the main indicators of networked readiness of countries, and analyses the networked readiness index for a number of selected countries. The relevance of digital transformation of higher education is also analysed here, noting that such transformation is a significant cultural and organizational change in universities. The issues of building a digital educational environment (DEE) in universities are highlighted; the purpose of such DEE is stated: the organization of a personalized self-sufficient education system. On the basis of an online survey, data on the digital competence of university professors is analysed, and proposals to improve the level of digital knowledge and skills are put forward.

## 2. DIGITAL TRANSFORMATION IN THE CONTEXT OF THE NEW ECONOMY

One of the main trends of the modern World Economy is the transition from an industrial to a post-industrial society, the most important component of which is the so-called the New Economy. The development of the "new economy" is an important condition for ensuring high, sustainable and quality economic growth, which runs mainly not due to an increase in traditional factors of production (raw materials resources, number of employees and amount of

fixed capital), but on the basis of an increase in the number of inventions and their active introduction into the economy by the means of venture business, on the one hand, and by the means of the widespread use of new information and communication technologies, on the other hand. Analysing the theoretical concepts of the "new economy", we can distinguish a narrow and broad approach to the essence of this concept. According to a narrow approach, the "new economy" covers to those branches of the national economy where computer and communication equipment, software, as well as the entire system for generating, storing, disposing of and receiving information, massively built on the Internet system is produced (Avdokushin, 2010). However, to reduce the phenomenon of the "new economy" only to its information and communication (ICT) component, for all its significance, is hardly correct. In addition to ICT, the creative basis of the "new economy" is based on other technologies: biotechnologies, nanotechnologies, technologies for saving resources, creation of new materials, eco-technologies, etc. The financial factor plays a very important role in the "new economy" system, which largely determines its character. According to many researchers, the "new economy" is the "knowledge economy", the economy of intellectual services. The "knowledge economy" is based on educational scientific structures of different levels. They include a mechanism of processing data into information, which in turn, under certain conditions, is transformed into knowledge, and then into technology. This process of processing and remitting data and raw information into an intelligent product: into know-how, technology - makes the basis of growth in the "new economy" and affects the growth of its productivity. The main features of the new economy era are the orientation to knowledge, the digital form of designation of economic entities, integration and interdisciplinary interaction in the development of innovative potential of enterprises, etc. (Castells, 2000). D. Bell, noted that the new economy will make a significant change in the structure of enterprises-commodity producers, in the structure of the manual and creative work, in system of its information support (Bell D., 1999). V. Martin stressed that the new economy is the basis of new social relations, which increasingly focuses on the quality of people's lives, changing social behaviour of individuals under the influence of information technology, interaction and interpenetration of cultures (Martin W.J., 1995). O. Toffler, in considering the differences between the stages of economic development from each other, stressed the role and importance of human in production processes, autonomy in solving socially significant tasks, taking into account new information technologies in the formation of a system of values that take into account the interests of not only elites, but also direct participants in the labour process (Toffler O., 1999). As a matter of fact, the new economy involves the returning use of the intellectual potential of social development: physical, mental, emotional and spiritual, that is, the results of human labour will increasingly depend on knowledge, skills and direct inclusion in the implementation of modern information technologies. Modern digital technologies provide new tools for the development of universities and other educational institutions around the world. Digitalization provides opportunities for the exchange of accumulated experience and knowledge, which allows people to learn more and make more grounded decisions in their daily lives. Along with the digitalization of the economy, there appeared the concept of "digital education", the essence of which is considered in the works M. W. Sitnicki (2018), Bykov V.Y. (2010), Foster A. and Shah M. (2020), Shaffer C.A. (2014), Williamson B (2015). Analysing the foreign authors' researches, it can be concluded that digital education should be understood as the process of organizing interaction between tutorials and students when moving from goal to result in a digital educational environment, the main means of which are digital technologies, digital tools and digital traces as the results of educational and professional activities in a digital format. Thus, it can be concluded that the main system-forming components of digital education are: digital educational environment, digital processes of educational process organization, digital knowledge verification processes, digital technologies of training organization, digital content,

digital interaction technologies, and digital resources. The information and educational environment of digital education includes:

- technical resources: computers, tablets, mobile devices, networks, video systems, interactive screens;
- educational resources: software, electronic educational resources, information and educational portals, distance education systems, electronic libraries, cloud resources, webinars, teleconferences;
- process management: distance education, email, social networks, personal account in the cloud, mode of study.

Following the approaches to the definition "digital educational environment", it is possible to clarify the definition of the digital educational environment (DEE) as a specially organized resource for educational purposes. The goal of such a DEE is the organization of a personalized self-sufficient training system (Kushcheva N.B., 2019). Tasks that can be solved in the DEE:

- access to electronic educational resources from any point where there is access to the Internet;
- access to electronic libraries;
- conducting various types of training sessions;
- fixing the results of educational activities of students (both intermediate certification and final control);
- creating an electronic portfolio;
- remote access of students to modern educational resources, databases, information and reference systems, etc.

The DEE is regularly updated and modern digital technologies are used in it to organize training. UNEC uses the Digital Learning Environment EDUMAN ([unec.edu.az](http://unec.edu.az)) - a system of electronic support for the educational process and distance learning that contains electronic educational resources and provides interaction between participants in the educational process.

### **3. ANALYSIS OF THE NETWORKED READINESS INDEX OF A NUMBER OF SELECTED COUNTRIES**

To assess the level of development of information and communication technologies worldwide, a comprehensive indicator - the Networked Readiness Index, proposed by the World Economic Forum to assess the readiness of countries for the digital economy is used. The networked readiness of individual countries is based on the following six principles:

- 1) availability of a high-quality regulatory and business environment which promotes the full implementation of ICT;
- 2) readiness to ICT is an index characterizing the preliminary conditions existing in the country and measured by the availability, skills and infrastructure of ICT;
- 3) for the best use of information and communication technologies the consolidation of the efforts of the whole society is necessary: both the government and the business sector, and the population generally;
- 4) The use of ICT should be regarded as impact of ICT on the economy and society;
- 5) The principal enablers, such as availability of an appropriate environment, readiness for ICT and adoption of ICT, should be considered as a sole and in interconnection;
- 6) The networked readiness structure should have a clear management guide.

The networked readiness structure is expressed in the NRI, a comprehensive indicator that consists of 4 main categories, 10 subcategories, and 53 separate indexes. Note that according to the World Economic Forum (), the following countries are among the five leading countries



by the network readiness index (NRI): Singapore (NRI 6,0), Finland (NRI 6,0), Sweden (NRI 5,8), Norway (NRI 5,8), United States (NRI 5,8). If we consider the situation with network readiness in post-Soviet countries, then Estonia was in 22nd place (index 5.4), Lithuania - in 29th (index 4.9), Latvia in 32th place (index 4.8), after the Baltic countries, in Kazakhstan ranked 39th with an index of 4.6, Russia ranked 41st in the ranking (index 4.5), Azerbaijan ranked 53th (index 4.3), Armenia 56th (index 4.3), Georgia 58th (index 4.3), Ukraine - 64th place (index 4.2), Moldova 71st place (index 4.0). The analysis was carried out on indicators of 139 countries. Neighboring Turkey ranks 48th (index 4.4). Let's analyze the network readiness indicators for a number of selected countries (table 1), note that the selected countries border Azerbaijan; they are of interest for research.

*Table 1: The Network Readiness Index for a number of selected countries*

Country	Rank	NRI	Environment subindex A		Readiness subindex B			Usage subindex C			Impact subindex D	
			1	2	3	4	5	6	7	8	9	10
Russian Federation	41	4.5	67 (4.0)		32 (5.5)			40 (4.5)			41 (4.1)	
			88 3.6	57 4.5	52 4.7	10 6.6	48 5.4	40 5.3	67 3.6	44 4.4	38 3.7	45 4.6
Turkey	48	4.4	49 (4.2)		40 (5.5)			59 (4.0)			58 (3.8)	
			69 3.8	43 4.7	59 4.5	2 6.9	69 5.0	65 4.3	56 3.8	57 4.1	67 3.2	54 4.4
Azerbaijan	53	4.3	74 (3.9)		67 (4.8)			41 (4.4)			46 (4.0)	
			79 3.7	74 4.2	74 4.1	71 5.3	68 5.1	56 4.8	58 3.7	35 4.7	50 3.5	48 4.5
Armenia	56	4.3	78 (3.9)		43 (5.4)			65 (4.0)			54 (3.9)	
			116 3.2	50 4.6	61 4.4	18 6.3	51 5.4	69 4.1	101 3.4	46 4.4	56 3.4	56 4.3
Georgia	58	4.3	56 (4.1)		46 (5.3)			72 (3.8)			63 (3.8)	
			73 3.7	55 4.5	65 4.4	15 6.4	64 5.1	68 4.1	108 3.2	54 4.1	91 2.9	44 4.6
Iran	92	3.7	82 (3.9)		83 (4.6)			99 (3.3)			102 (3.2)	
			91 3.5	76 4.2	101 3.0	37 6.0	80 4.8	90 3.3	126 3.1	93 3.5	100 2.9	101 3.5

Source: <https://reports.weforum.org/>

We have already noted that when calculating the country's network readiness, 4 categories of indicators are considered, which include: Environment subindex A, Readiness subindex B, Usage subindex C, Impact subindex D. Let's consider what indicators are included in these categories. Environment subindex A is divided into 2 groups of indicators, which include: 1. Political and regulatory environment (includes 9 indicators); 2. Business environment and innovation environment (9 indicators). The next category is Readiness subindex B, which includes indicators such as 3. Infrastructure (4 indicators); 4. Availability (3 indicators); 5. Skills (4 indicators). The Usage subindex C category includes indicators such as 6. Individual use (7 indicators); 7. Business use (6 indicators); 8. State use (3 indicators). The Impact subindex D category includes the following indicators: 9. Economic consequences (4 indicators); 10. Social impacts (4 indicators). Analyze the Environment sub-index A results in the selected countries: in terms of the political and regulatory environment (presence of legislative and normative acts regulating the networked readiness of the country) Turkey has the best positions with the sub-index of 3.8, it ranks 69<sup>th</sup> place, the worst position belongs to Armenia, which with its sub-index 3.2 ranks 116<sup>th</sup> place among 139 countries. According to the indexes of the business environment and the innovation environment among the selected countries, Turkey is the leader which with its sub-index 4.3 ranks 43<sup>rd</sup> place, the worst position belongs to Iran which with a sub-index of 4.2 ranks 76<sup>th</sup> place. Analyze the Environment sub-index B results in the neighboring countries: networked infrastructure indexes are high in Russia (52<sup>nd</sup> place, sub-

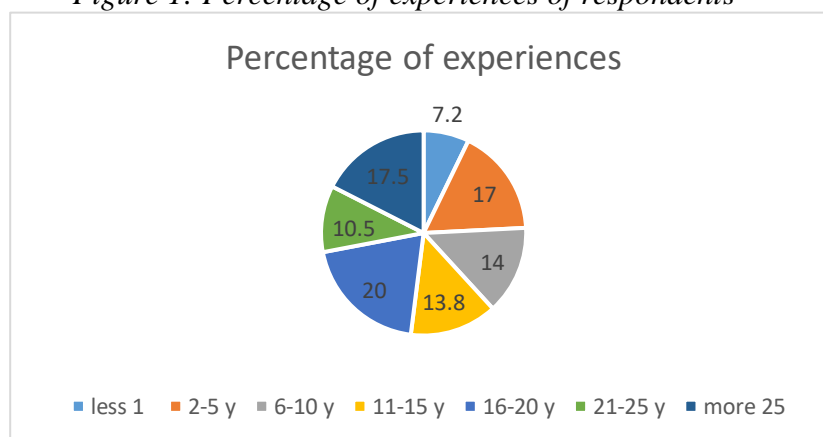
index is 4.7), low in Iran (101<sup>st</sup> place, sub-index - 3.0); in terms of network availability Turkey is the leader (2<sup>nd</sup> place in the rating, sub-index - 6.9), Azerbaijan is the outsider (71<sup>st</sup> place, sub-index is 5.3); online skills are the best in Russia (48<sup>th</sup> place, sub-index - 5.4), the worst is in Iran (80<sup>th</sup> place, sub-index - 4.8). The next category of indexes is Usage sub-index C, in terms of Individual use index, Russia has the best positions (40<sup>th</sup> place, sub-index - 5.3), Iran has the worst position (90<sup>th</sup> place, sub-index - 3.3); in terms of Business use Turkey has the highest indexes (56<sup>th</sup> place, sub-index - 3.8), Iran has the worst index (126<sup>th</sup> place, sub-index - 3.1); Azerbaijan is the leader among neighboring countries (35<sup>th</sup> place, sub-index - 4.7), and Iran is the outsider (93<sup>rd</sup> place, sub-index - 3.5). According to category Impact sub-index D, the best Economic impact indexes belong to Russia (38<sup>th</sup> place, sub-index - 3.7), Iran has the worst indexes (100<sup>th</sup> place, sub-index - 2.9); in terms of Social consequences, Georgia is the leader (44<sup>th</sup> place, sub-index - 4.6), and Iran is the outsider (101<sup>st</sup> place, sub-index - 3.5). As follows from the Table, Azerbaijan has a relatively good position in Usage sub-index C and Impact sub-index, the worst indicator in Environment sub-index A, and therefore, it is necessary to make great efforts to improve the political, legal, innovative and business environment of the country's networked readiness.

#### **4. THE ROLE OF UNIVERSITIES IN THE ERA OF DIGITAL EDUCATION**

The next decade should be an era of significant changes in higher education – the formation of a new middle class for the development of the digital economy and the reorganization of the educational process based on the use of artificial intelligence technologies. The reform of digitalization of education enables equipping educational institutions with modern technology, namely, with computers providing the ability to connect to the Internet, information systems that allow access to educational resources, the results of modern research and development, electronic scientific libraries in various languages of the world. Education goes beyond classrooms, laboratories, and libraries. The number of students who study remotely is increasing. Digital technologies radically change the content of taught subjects and the form of their presentation. This is not just routine electronic presentations or usage of video. Direct connections to electronic databases, news, forums, video broadcasts, stimulation systems, and electronic simulators are possible. Learning is being transformed. The role of a teacher is changing dramatically – from a knowledge relay, he turns into a motivator of learning, acting as a mentor and preceptor to the younger generation. A significant role is assigned to real practical projects in real organizations. And the task of the teacher is to help students navigate the vast amounts of information. In practical sessions, a use of social networks is possible. Using Skype and messengers, you can participate in the class of a leading specialist or expert. Publishers specializing in training literature are increasingly switching to electronic versions of textbooks and study guide [4]. Universities striving to maintain their positions in the global education market are faced with the task of entering the international scientific and educational space. In particular, part of the criteria in the QS World University Ranking rating assesses the degree of globalization of the university in the context of the share of foreign students and teachers. The THE (Times Higher Education) rating takes into account the share of foreign students, the share of foreign teachers, the number of articles published in joint authorship with foreign research groups, the level of dissemination of knowledge and innovation. Among the strategies of universities to integrate into the international educational space are the creating new international campuses in other countries, attracting foreign scientists, teachers and students, supporting academic mobility programs for their own scientists and organizing foreign practices for students. Every University, regardless of the chosen strategy, must undergo a digital transformation. This transformation is not only about implementation of solutions, but is also a significant cultural and organizational change at the University. The transition to a digital University implies implementation of more flexible and seamless processes, change of

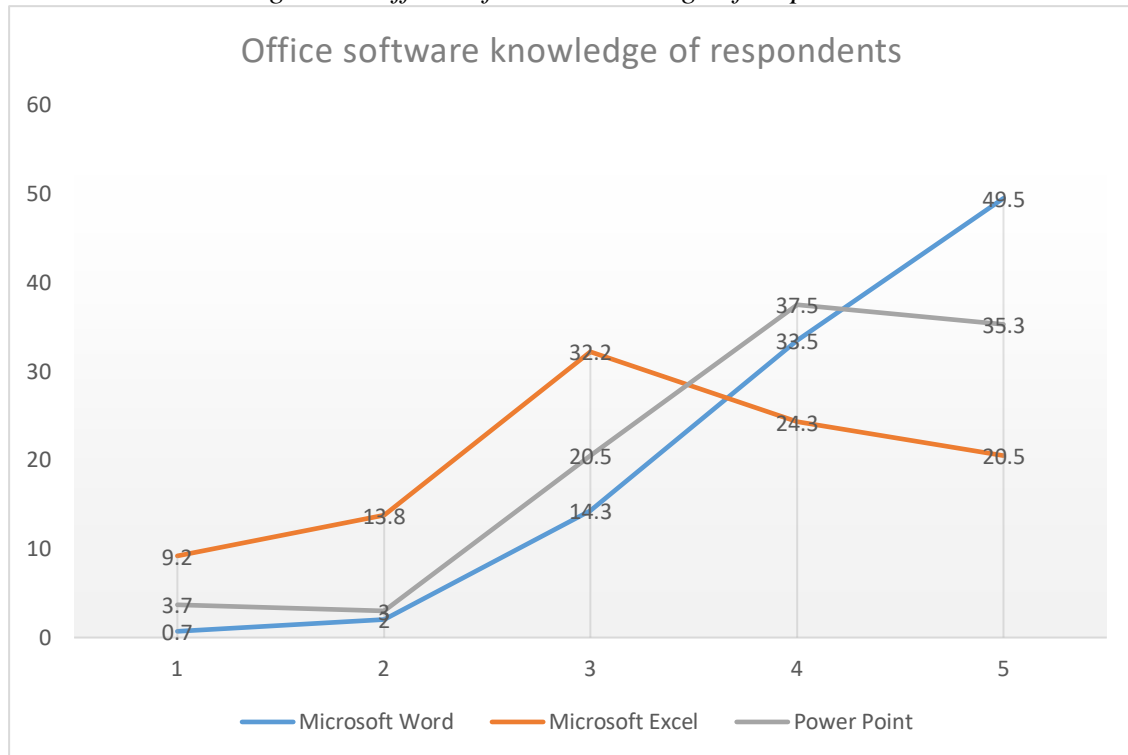
the corporate culture, and optimization of processes. The urgency of the transition is explained by several factors. First, almost all students now belong to the “digital natives” generation, and they demonstrate a much greater propensity to application of new technologies in their daily lives. This is especially true of IT and Internet technologies, as well as their application not only in the professional field, but also for socialization and communication. Thus, digitalization of the University will make it more adapted to the target audience. This will definitely lead to further improving the University's competitiveness in the education market, creation of additional value and attracting students. The second argument consists of growth of competition among universities, especially among the top universities. Due to the globalization of the market, the struggle for students will take place not within a single country or cluster of countries, but at the international level. Thus, the creation and maintenance of a competitive advantage of the University will be determined by the timely introduction of new technologies and, as a result, the readiness for fundamental changes in the direction of a new generation's educational system. The third argument is based on the need to digitalize the internal processes of the University in order to increase the effectiveness of interaction between departments at the level of the entire educational institution. This is necessary for all the innovative and cultural changes that are required from the University when switching to a new educational model. Digitalization is also relevant for universities in Azerbaijan. Azerbaijan State University of Economics (UNEC) has switched to the EDUMAN-E-University model ([www.unec.edu.az](http://www.unec.edu.az)), in which has been created e-classrooms for teachers, with the provision of necessary educational materials; e-classrooms for students with access to educational materials; electronic grade books for registration of classes; an electronic library that operates 24/7, etc. an appropriate digital educational environment has been created at the University; all classrooms are equipped with the necessary equipment and Internet. Distance education centre "UNEC Extern", equipped with modern digital technology has been created at the University. The functioning of this distance centre will allow to train up to 20,000 students a year, as well as conduct online seminars, trainings, certified programs for representatives of various organizations and commercial structures. Along with the creation of a digital educational system, it is also necessary to constantly improve the digital skills and competencies of the teaching staff of the University. To study the level of digital literacy of teachers, we conducted a survey, in which 400 teachers from various faculties took part. Among the interviewed teachers, 54% were women and 46% were men. The distribution of respondents by age criterion was as follows: the largest group of respondents was the age group between 41-55 years (43%), in second place was the age group between 26-40 years (35.2%), the smallest number was observed in the group aged between 20-25 years (3%). Data on the experience of respondents are shown in Figure 1.

*Figure 1: Percentage of experiences of respondents*



When asked about how much time you spend on the Internet, 32.5% of respondents answered more than 6 hours, 28.75% -3-4 hours, 22.5% - 5-6 hours, 12.5% - 1-2 hours , the smallest group of respondents 3.75% said they spend less than 1 hour on the Internet. Interest for the study was data on knowledge of basic office programs, so we asked respondents to rate their computer knowledge on a 5-point scale (1-very low, 2-low, 3-medium, 4-high, 5-very high).

*Figure 2: Office software knowledge of respondents*



As follows from the responses of the respondents, the lowest knowledge of the office Excel program, the highest - Microsoft Word. To the question “Have you attended online courses”, the respondents' answers were distributed as follows: Never - 29%; rarely -34.5%, several times -24.5%, often -12%. Only 55 respondents (13.8%) said that they do not need training to improve their digital skills, 345 people -86.2% said that they need various online courses aimed at improving their digital competencies, therefore, the university should concentrate its efforts in this direction.

## 5. CONCLUSION

The time of preparation of this Article coincided with the period of the announcement of the COVID-19 global pandemic, when quarantine was announced all over the world and many areas have completely or partially limited their activities. The restrictions also affected the educational sphere, schools and universities have transferred from the traditional educational system to online education. During this period, the issues of creating a digital environment in universities, training teachers, and improving their digital competencies became even more relevant. Summing up the study undertaken, we should note that at the present stage, one of the main tasks of higher education institutions is the transition to a digital university model. The project on the digital transformation of the university should be initiated by senior management and supported at the level of institutes / faculties / departments. The latter should take greater control over the implementation of measures aimed at achieving the necessary results, and link their action plans with the overall strategy of the university.

Key activities to create a digital university model should include the following:

- creation of a digital educational space at the university, taking into account the introduction of the latest information technologies;
- development of optional or mandatory modules within training programs aimed at improving digital literacy among students;
- providing support to research and teaching staff who set trends in the field of development of digital skills and involved in development of innovative teaching methods;
- conducting training sessions to improve the digital competencies of the University's teaching staff.

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## IDENTIFICATION OF THE MAIN FACTORS OF TOURISM DEVELOPMENT IN AZERBAIJAN

**Leyla Huseynova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
fbc.baku@gmail.com*

**Esmira Ahmadova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
fbc.baku@gmail.com*

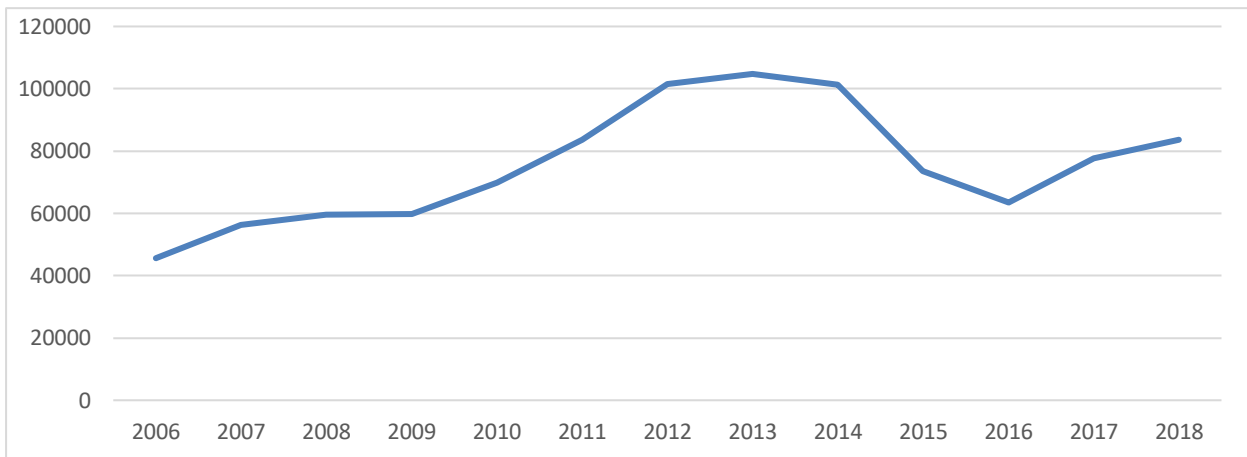
### ABSTRACT

*This study deals with the issues of systemic analysis of the contemporary state of the tourism sector in the Republic of Azerbaijan and quantitative assessment of its development prospects. The purpose of the research is to identify quantitative dependencies of the tourism sector based on considering it as a sophisticated, probabilistic economic system and putting forward scientifically reasoned and adequate forecasts of this sector development. In order to conduct a quantitative analysis and forecasting, we used the apparatus of econometric analysis and modeling, in particular the method of correlation and regression analysis. As a result of systemic econometric studies, the authors managed to construct complex econometric models that reflect the quantitative dependencies of the economic indicators of the tourism sector in the Republic of Azerbaijan on key impact factors. Diverse econometric tests performed in the course of the study showed us that the constructed econometric models meet all the essential postulates of econometric analysis, i.e. meet the conditions of the specification, parametrization, and verification. As a result of the econometric analysis, we identified the key factors of the development of our country's tourism sector. As the result of the study, we obtained econometric models of dependencies between the controlled and controlling factors in the tourism sector of the Republic of Azerbaijan, which are rather adequate to the real economic situation in the country. Consequently, the research conclusions can be successfully applied to forecast the development potential of this important segment of the non-petroleum sector in the course of diversification of the economy of Azerbaijan. Besides, we revealed important dependencies both at the macro level and at the micro level, and drew relevant conclusion and proposals.*

**Keywords:** *tourism sector, econometric analysis, modeling, factors*

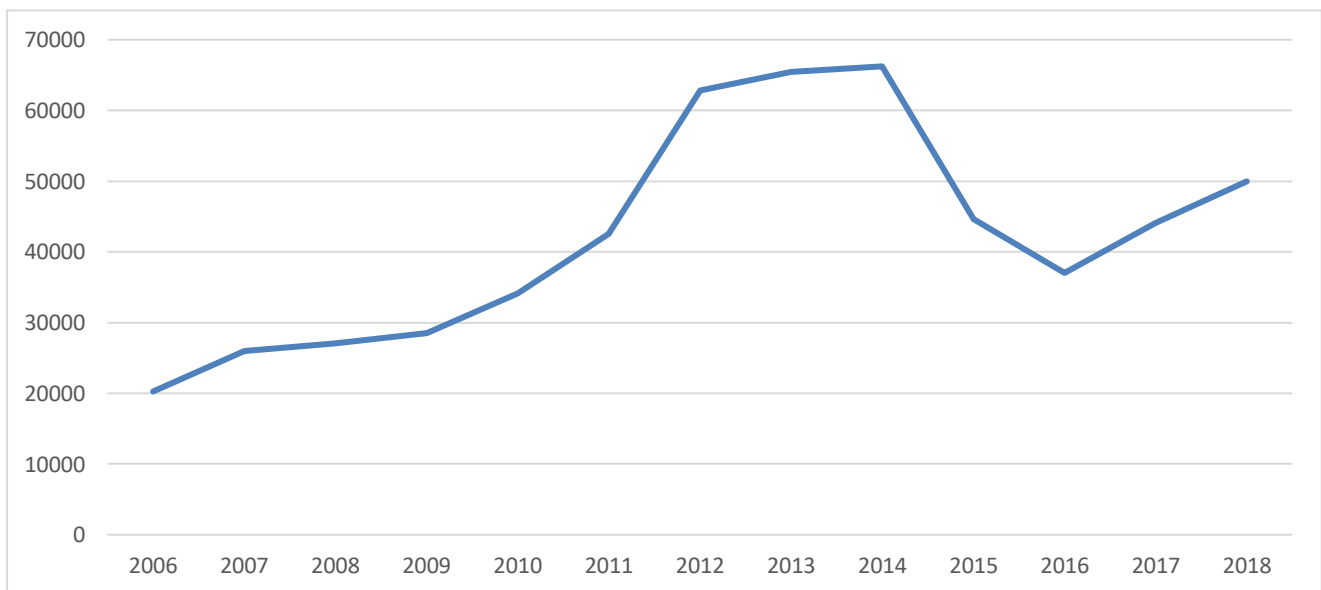
### 1. INTRODUCTION

Since the time commodity production actually became the main form of production engineering, and the market became its spontaneous regulator, economic crises became an objective law. Without a single reason for the cyclical development of a market economy, the current stage of which is interpreted by Richard D'Aveni, professor of business school at Dartmouth University, as a strategic capitalism, many modern economists confine themselves to the general indication that the cause of the cyclical movement is due to a complex and contradictory character of multiple forces and factors that affect the movement of the market economy. A large part of the modern market economy of developed and developing countries is the service sector, which increases its GDP share every year. Azerbaijani economy reflects global trends. So, from 2008 to 2014, the GDP share of the service sector increased from 22% to 34%. One of the fastest growing sectors of the service sector in the reproductive structure of Azerbaijan's GDP is the tourism sector, represented in the cumulative output by the hotel business and catering enterprises (Ahmadova E.M., 2018).



*Figure 1: The number of received and departed tourists  
(Source: [www.stat.gov.az](http://www.stat.gov.az))*

Figure 1 shows the dynamics of the number of received and departed tourists. As you can see, there it has a positive trend. Over 12 years, the number of received and departed tourists increased by 83.65% or 1.8 times. Nevertheless, this growth was heterogeneous. 2009 and 2016 were marked by a decrease within this indicator. These are the years of the cyclical development crisis of the Azerbaijani economy. The peak of departed and received tourists falls on 2013 and amounts to 104 764 people. It should be noted that this indicator coincides with the cycle phase, i.e. a boom of the economy prosperity. Thus, the number of tourists received and departed can be considered as a procyclical indicator of the development of the tourism sector and the country's economy.



*Figure 2: Profit from travel agencies and tour operators of Azerbaijan, thousand manats  
(Source: [www.stat.gov.az](http://www.stat.gov.az))*

Figure 2 shows a chart with the dynamics of profit of travel agencies in Azerbaijan from 2006 to 2018. It should be noted that the dynamics of the development of this indicator has a positive trend, but also marked with a wave-like nature. The years of crisis of 2009 and 2016 are also marked with a collapse.

## 2. CRISIS POINT ANALYSIS

The global economic crisis that began in 2007 in the US and the EU developed in the context of globalization and financial interdependence of countries. All countries of the world to one degree or another have experienced the effects of the global financial crisis. Azerbaijan is no exception. The openness and integration of the Azerbaijani economy into the global economy contributed to the reflection of the global economic crisis in it. It should be mentioned that the Azerbaijani economy didn't experience the problems of the crisis at once. 2007 and the first half of 2008, when the crisis was "raging" in developed countries, were marked by high rates of stable economic growth in Azerbaijan. So, the implementation of the "State program for the social and economic development of regions for 2004-2008 was successfully completed. According to the State Statistics Committee, Azerbaijan's GDP increased by 11.5% in 2008, per capita income increased by 35.6%, and CBA foreign exchange reserves in 2008 the year increased by 52.8% or by 2121.7 million manats. Taking into account the assets of the State Oil Fund, the country's strategic currency reserves exceeded 16 billion manats. There was growth observed in lending to the real economy during 2007-2008. Investments in 2008 increased by 38.8% compared to 2007. Export increase in 2008 almost 8 times, and import by 29.7% by 2007 testifies about the growth of the economy of Azerbaijan. There were record-breaking harvest of agricultural crops done. In 2008, the World Bank in the business management program ranked Azerbaijan the first place in the world (Ahmadova E. M., Mamedov E. Y. 2019). As a result, Azerbaijan is one of the countries that has been least affected by the impact of the global economic crisis. This was achieved thanks to timely and well-implemented measures taken by the government of the country and thoughtful measures of the Central Bank, which we will consider below, and as a result of which, during the global crisis, the state entities of Azerbaijan successfully solved three main tasks: first, the national currency was able to remain stable and prevented devaluation. Second, despite a decrease in revenues from oil sales, in January-November 2009 there was a state budget surplus of 1,163.3 million manats. And third, Azerbaijani banks saved themselves and not one bank went bankrupt. These facts allow us to positively assess the fiscal policy of the state.

## 3. RESEARCH OF THE MAIN INDICATORS OF THE TOURISM SECTOR

All these factors contributed to the dynamic development of the tourism sector. Thus, the reproduction in the first quarter of 2019 of the tourism sector compared to the same period in 2001 increased by 90.9 times. The number of travel agencies and tour operators over 12 years, from 2006 to 2018, in Azerbaijan increased 3.9 times. Over the same period, the profit of tourism organizations increased 6.7 times, and the number of employees increased 2.7 times. A comparative analysis shows that the tourism sector of Azerbaijan is developing quite rapidly. However, the development is characterized by its own peculiarities. Having examined the chain structural shifts of the main indicators of the tourism sector in Azerbaijan (see Fig. 3), as well as the data in Figures 1 and 2, the following conclusion was drawn: the tourism sector, as well as the economy of Azerbaijan as a whole, is subject to cyclical development.

*Figure following on the next page*



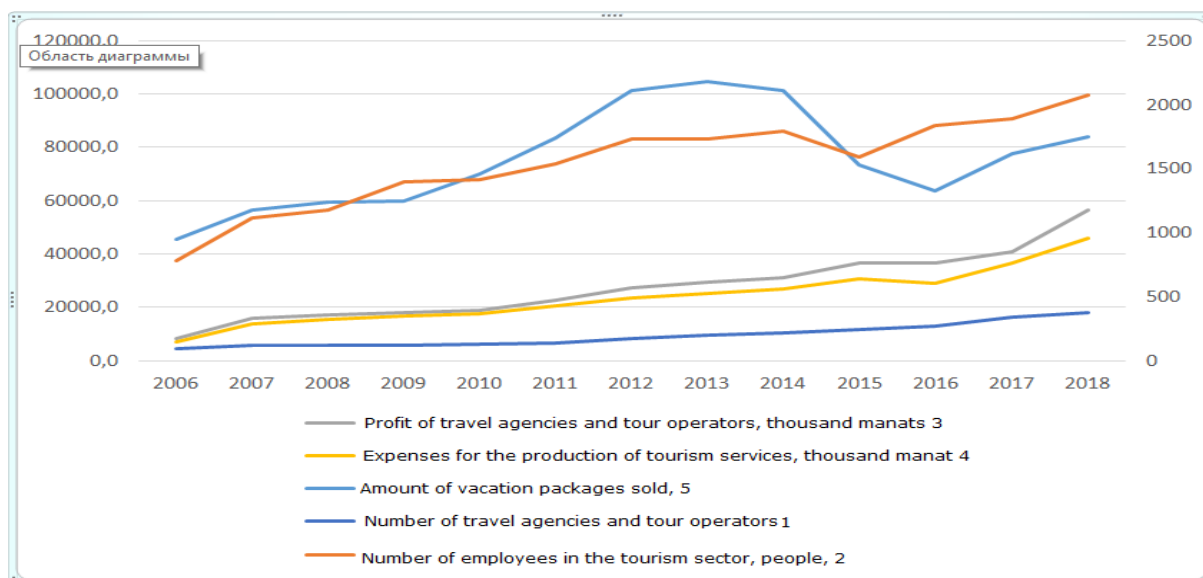


Figure 3: The dynamics of the main indicators of the tourism sector in Azerbaijan from 2006 to 2019

The main cycle, which stands out among others in the dynamic development of the Azerbaijani economy, is the medium-term 7-year Juglar cycles. It's the cycles that reflect the dynamics of the main indicators of the tourism sector. Moreover, indicators of the tourism sector are divided into leading, advanced and pro-cyclical, coinciding. As you may know, there are four successive phases in the movement of the economic cycle: expansion, crisis, recession and recovery. However, some modern economists identify the crisis and boom as turning points in the cycle, and consider the phases of recession and recovery to be its main phases. Each phase of the cycle creates the conditions and prerequisites necessary for the transition to the next phase. The main phase of the economic cycle is the expansion, which serves as the starting point for the next phases of the cycle. In this regard, the foreground of the management of the tourism sector must be highlighted as the main component of crisis management.

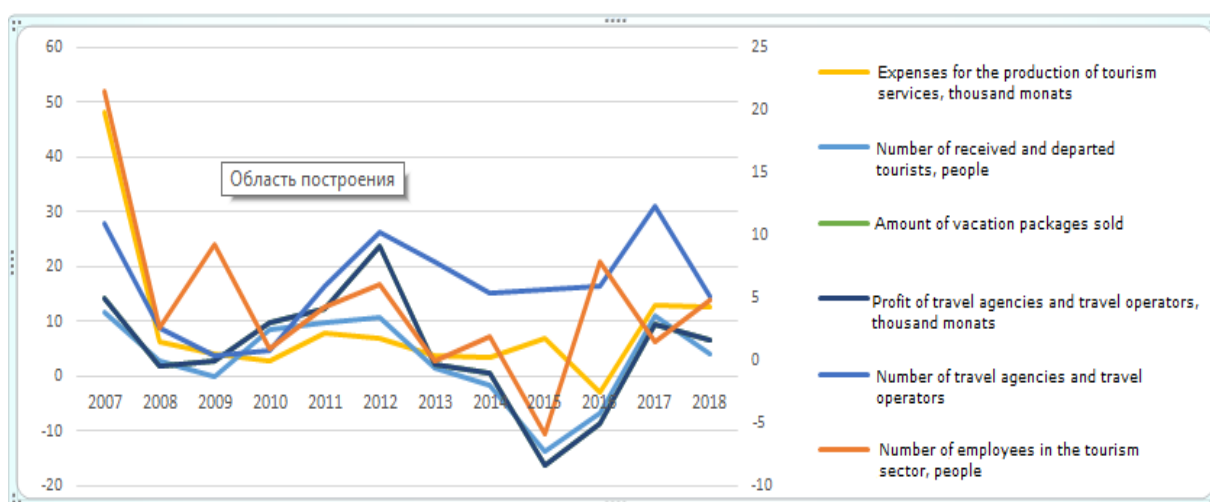


Figure 4: Chain structural shifts of the main indicators of the tourism sector in Azerbaijan

The modern concept of organization management, revealing the essence and principles of crises and the possibility of their diagnosis, as well as the crisis management methodology at both strategic and tactical levels. The main problem of the economy is the optimal regulatory mechanism, including in the tourism sector.

The development of tourism in Azerbaijan is actively supported by the state. Large-scale international events are held: Eurovision, European Games, Formula 1 and others. This greatly contributes to the development of the tourism sector. The task of crisis management in modern conditions is the prevention and resolution of social and economic problems, contradictions, crisis factors, to improve the efficiency of tourism enterprises (Artemova E. I., Tsatsenko N. A. (2013). The generalized experience of crisis management in the tourism sector in different countries brings the following functions to the foreground: pre-crisis management, crisis management and crisis management processes. At the same time, the first two functions include timely problem solving, stabilization of fragile situations and minimization of losses and missed opportunities. Each of the functions has its own features, but together they reflect the content of crisis management within the tourism sector. They are the most important components of management, since the crisis despite being a negative change in nature, at the same time brings new opportunities for development. The crisis reveals what is invisible in a normal situation, sets in motion those forces that contribute to the development of the entire tourism sector (Don Beck, Teddy Larsen, Solonin S., 2019). Anti-crisis management in each new economic cycle requires a set of specific measures, since crises are unique, the causes and factors that cause them are diverse. Nevertheless, the identified leading and coinciding indicators of the tourism sector of Azerbaijan can be used as leverage and signals of crisis management (Baldin K.V., Perederayev I.I., Rukosuev A.V., 2012).

#### 4. THE ECONOMETRIC SIMULATION

Based on the analyzed data, an econometric simulation was performed as a result of the research. According to the multiple regression analysis, the following regression model was built:

$$Y = -3182.288 + 0.098753X_1 + 144.9066X_2 + 0.014303X_3 \quad (1)$$

Where Y is the income of travel agencies (thousand manats), x1 is the cost of sold tourist tickets (thousand manats), x2 is the number of travel agencies, X3 is the number of received and departed tourists (people). The econometric characteristics of the model are presented in table 1.

Indicator	Value	Indicator	Value
R-squared	0.9794	DW	1.4119
Adjusted R-squared	0.9726	Akaike info criterion	18.4181
F-statistic	142.87	Schwarz criterion	18.5919

*Table 1: The econometric characteristics of the model  
(Source: Author's calculations using E-Views software)*

The determination coefficient of the model is quite high and amounts to almost 98%. This indicates the presence of a functional dependence and 98% of the variance is explained by the observed independent parameters X1, X2 and X3. There was no autocorrelation of model residues found. Using the Fisher criterion, we will test the found regression model for the appropriateness of the source data (Green, William G., 2016). According to formula (3), the calculated value of the Fisher criterion in model 2 (see Table 4) is 142.87, i.e. more than the table value, at all levels of significance. This corresponds to condition (2)

$$F_{calc} > F_{table} \quad (2)$$

$$F_{calc} = \frac{\sum_{i=1}^n (Y_{i,calc} - Y_{av,calc})^2}{m} * \frac{n-m-1}{\sum_{i=1}^n (Y_i - Y_{i,calc})^2} \quad (3)$$

It should be noted that when analyzing time series, the problem of multicollinearity often arises, which is considered a frequent occurrence. This assumption requires some verification. To quantify multicollinearity, we calculate VIF by the formula:

$$VIF_j = \frac{1}{1 - R_j^2}, \quad (4)$$

$j \in 2\{, \dots, k\}$ , where  $R_j$  is the coefficient of multiple determination in the regression of factor  $X_j$  on all other factors. If at least one of  $VIF_j$ ,  $j \in 2\{, \dots, k\}$  is large enough (greater than 8), then this indicates the presence of multicollinearity. The table below shows that none of the VIFs exceeds 5, which means that multicollinearity is not observed in this model.

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	3631152	10.35484	NA
X1	0.002025	11.56278	1.274152
X2	80.04712	10.40857	1.687553
X3	2.11E-05	2.164927	1.369703

*Table 2: Test data for multicollinearity  
(Source: Author's calculations using E-Views software)*

*Table following on the next page*

## Heteroskedasticity Test: White

F-statistic	1.862545	Prob. F(9,3)	0.3314
Obs*R-squared	11.02661	Prob. Chi-Square(9)	0.2739
Scaled explained SS	3.425306	Prob. Chi-Square(9)	0.9450

## Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

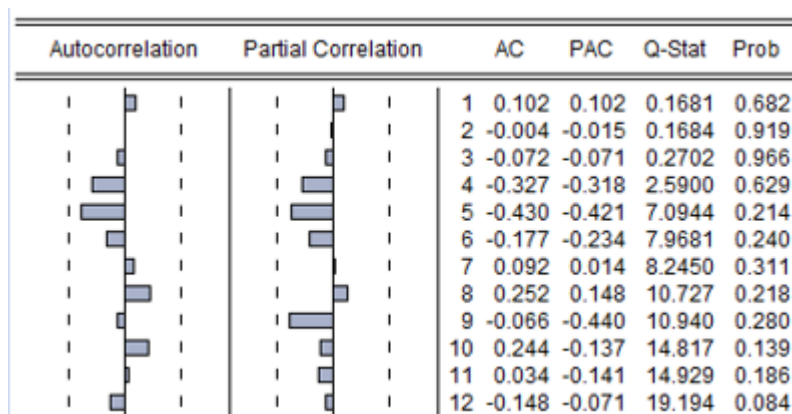
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Sample: 2006 2019

Included observations: 14

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	28061445	26129562	1.073935	0.3615
X1	-6392.247	2849.287	-2.243455	0.1106
X1^2	-0.008836	0.026434	-0.334265	0.7602
X1*X2	45.23840	14.54561	3.110106	0.0529
X1*X3	0.003204	0.019498	0.164342	0.8799
X2	-600965.8	318235.8	-1.888429	0.1554
X2^2	2316.318	1136.503	2.038110	0.1343
X2*X3	-33.89972	10.93840	-3.099148	0.0533
X3	4158.582	1893.707	2.196001	0.1156
X3^2	0.010175	0.003298	3.085099	0.0539
R-squared	0.848200	Mean dependent var		3156048.
Adjusted R-squared	0.392802	S.D. dependent var		3739980.
S.E. of regression	2914302.	Akaike info criterion		32.68028
Sum squared resid	2.55E+13	Schwarz criterion		33.11486
Log likelihood	-202.4218	Hannan-Quinn criter.		32.59096
F-statistic	1.862545	Durbin-Watson stat		3.212796
Prob(F-statistic)	0.331355			

*Table 3: Heteroscedasticity testing model*  
*(Source: Author's calculations using E-Views software)*



*Figure 5: The general and particular autocorrelation function of model residues*

The test results for the presence of autocorrelation in the residues of the model (see Fig. 5) showed that the values of the general and particular autocorrelation functions do not exceed the reliability limits. This indicates the absence of autocorrelation in model 1.

To further verify the Gauss-Markov theorem (Green, William G., 2016), we use the White test to check for homoscedasticity in the regression model (Wooldridge J.M., 2012). Table 3 shows the statistics of the White test.

## 5. CONCLUSION

According to the data in Table 3, the probability of F-statistics is 0.3314, which is greater than the value  $\alpha = 0.05$ . Therefore, the hypothesis about the existing homoclasty is accepted. This result is confirmed by the Obs \* R-squared value shown in Table 3. Thus, the probability (Obs \* R-square) of 0.2739 is also greater than  $\alpha = 0.05$ . As a result of the econometric analysis, the authors of the article constructed a multiple regression model that fully satisfies the Gauss-Markov theorem. Hence, the estimates obtained with the power of the model are unbiased, consistent and efficient. The constructed three-factor regression model is appropriate for the tourism sector and can be used to analyze and predict market interactions.

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## LIFE (DIS)SATISFACTION AND INTENTION TO EMIGRATE IN AZERBAIJAN: MEDIATING ROLE OF INSTITUTIONAL TRUST

**Khatai Aliyev**

*Department of World Economy, Baku Engineering University, Baku  
UNEC Empirical Research Center,  
Azerbaijan State University of Economics, Azerbaijan  
khatai.aliyev@unec.edu.az*

**Ilkin Gasimov**

*Department of World Economy, Baku Engineering University, Baku,  
Institute for Scientific Research on Economic Reforms under  
Ministry of Economy of Azerbaijan Republic,  
UNEC Empirical Research Center,  
Azerbaijan State University of Economics, Azerbaijan*

### ABSTRACT

*Intention to emigrate has been one of the most challenging issues in the world during the last decade, for both migrant sending and receiving countries. Rising emigration intentions trigger migration attempts and brain-drain. However, migrant receiving countries are interested to accept “happy applicants” whom social integration to local conditions became relatively easy. From both perspective, association between life satisfaction and intention to emigrate looks essential to consider for effective policy planning. This research aims to explore direct and indirect effects of life (dis)satisfaction through institutional trust over individuals’ intention to emigrate in case of Azerbaijan. Using social survey data ( $N = 4092$ ,  $n_{\text{Male}} = 2106$ ,  $n_{\text{Female}} = 1986$ ,  $\text{Mean}_{\text{Age}} = 31.82$ ) and mediation analyses tools, we reveal existence of significant negative causality from life satisfaction and intention to emigrate. The impact happens directly, and indirectly through institutional trust. Azerbaijan government should pay more attention to development of well-being policies and building trust to public institutions in order to minimize emigrate intentions and control brain-drain attempts. Findings are highly useful for policy purposes and can be replicated in other cases.*

**Keywords:** *Life satisfaction, Well-being, Intention to emigrate, Institutional trust, Brain-drain*

### 1. INTRODUCTION

There is common view that migration significantly affects the socio-economic development of home and host countries. For some countries, remittances play a significant role in overall economic activity (Gurung, 2019). On the other hand, socio-demographic, economic and environmental factors such as better job, education, climate variation and etc. behind the emigration decisions have been largely studied (Stark and Wang, 2000; Dustmann, 2003; Stark, 2006; Naude 2010; Feng et al. 2010; Kennan and Walker, 2011; Gibson and McKenzie, 2011; Feng and Oppenheimer, 2012). According to number of scholars, political instability and conflicts, as well as wars (Sirkeci, 2005; Dreher et al. 2011; Bohra-Mishra and Massey, 2011), institutional factors such as corruption, low level of democracy, civil liberties and political rights (Bertocchi and Strozzi, 2008) also can be listed as determinants of intention to emigrate. Recent studies on emigration points out that individual emigration decisions can not be only explained by above mentioned factors (Otrachshenko and Popova, 2014). Hence, role of elements such as life (dis)satisfaction, subjective well-being, happiness and etc. on individual’s emigration decision also started to be explored during the last decade (Graham and Markowitz, 2011; Cai et al., 2014; Chindarkar, 2014; Ivlevs, 2016). The relationship between life (dis)satisfaction and intention to emigrate at the individual level is not broadly investigated in

the economic literature. However, it should be noted that there is generally consensus on negative link between life (dis)satisfaction and intention to emigrate. Findings by Cai et. al. (2014) also confirm this argument. Otrashchenko and Popova (2014) indicates that individuals with similar characteristics from Central and Eastern European countries are more intended to emigrate compare with Western European country citizens. Ivlevs (2015) states that least and most satisfied individuals are more intend to emigrate and claims for validity of “happy moves”. Similar results also were obtained by Polgreen and Simpson (2011) indicating that emigration rates decreases for relative unhappy countries, while rises for happy countries. Impact of personal characteristics on intention to emigrate was researched by Papapanagos and Sanfey (2001). According to results, there is positive link between education and intention to emigrate while males tend to have greater emigration aspirations. However, there is negative relationship between age and emigration decision. Additionally, it is found weak impact of income on the emigration intention. As it mentioned before, political factors also play important role in intention to emigrate. Though there is vast of literature on the determinants of decision of emigration, institutional factors, as well as impact of institutional trust on intention to emigrate is not broadly studied. Most of the existing researches in this topic generally focused on political dimensions of the emigration decision. It is not surprising that there is a negative link between institutional trust and intention to emigrate. In other words, citizens of countries with higher institutional trust are less intended to emigrate (Bertocchi and Strozzi, 2008; Bygnes and Flipo, 2017; Gugushvili, 2011). Paper by Etling et al. (2020) shows evidence to this fact by revealing that political discontent increases the intention of emigration among young people aged 15-29 in Arab Mediterranean countries. Additionally, authors find evidence on the fact that perception of democracy and shaping the government policies ability are another significant determinant of emigration intentions. In his turn Hiskey et al. (2014) identified that implementation of basic governance activities also significantly and negatively impacts the intention to emigrate among individuals. To our best knowledge, the only study on life satisfaction – emigration intention relationship for the case of Azerbaijan is Aliyev et al. (2020) who founds evidence for the negative association or “unhappy moves”. The aim of this paper is to investigate the link between life (dis)satisfaction and intention to emigrate for case of Azerbaijan in a different context. Originality of the paper is that it does not only examines the impact of life (dis)satisfaction on intention to emigrate directly, but also indirect effect via institutional trust. We hypothesize that (1) greater satisfaction with life decreases emigration aspirations of individuals, and (2) trust to public institutions mediates the relationship between life satisfaction and intention to emigrate. Employing large scale survey data, results from mediation analyses confirm validity of both hypotheses in case of Azerbaijan.

## 2. DATA AND METHODOLOGY

To assess the relationship between life satisfaction and individuals’ emigration intention in Azerbaijan, the research employs pool of two representative social survey data (ASERC, 2018; ASERC, 2019). To assess simultaneously direct and indirect effects of life satisfaction over emigration intentions among people living in the country, we employ mediation analyses framework advanced by Hayes (2018). Figure 1 displays mediation model of institutional trust in the relationship between life satisfaction and intention to emigrate. Methodologically,  $c$  shows the direct effect of life satisfaction over intention to emigrate.  $c$  is expected to be negative, i.e., higher satisfaction with life decreases emigration aspirations. However, intention to emigrate is also a function of trust to institutions. Higher institutional trust is expected to discourage people from emigration desires. Therefore,  $b$  is expected to be negative. On the other hand, a bilateral relationship exists between life satisfaction and institutional trust. Life satisfaction is expected to increase as a result of more trust to public institutions and vice versa, happier people tend to report greater institutional trust.

In this context, we expect  $a$  to be positive. Indirect effects of life satisfaction over intention to emigrate through institutional trust equals to  $a * b$ . Therefore, indirect effect of life satisfaction over intention to emigrate via institutional trust should be negative as well.

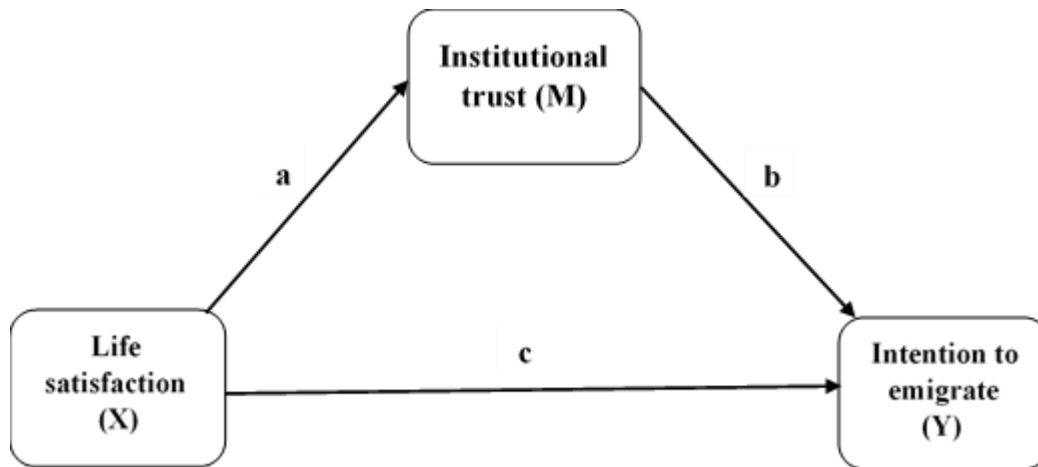


Figure 1: Mediation model of institutional trust in the relationship between life satisfaction and intention to emigrate

## 2.1. Sampling

Dataset used for empirical estimations is obtained from Social Survey-2 ( $N = 2208$ , conducted during 01.10.2018-01.01.2019), and Social Survey-3 ( $N = 1884$ , conducted during 01.03.2019-01.06.2019) by ASERC (2018, 2019). Total sample size (including observations with missing values) equals 4092 ( $n_{Male} = 2106, n_{Female} = 1986$ ) within 17-88 ages ( $Mean_{Age} = 31.82, SD_{age} = 12.41$ ).

## 2.2. Variables

### 2.2.1. Dependent variable

Intention to emigrate (hereafter IE) measures self-reported willingness of a respondent to emigrate, ranging from 1 to 7. Variable displays the responses to statement of “I would like to emigrate and live in a foreign country” on a seven-point Likert scale (1 = *totally disagree* to 7 = *totally agree*). Higher IE value means greater emigration aspirations.

### 2.2.2. Independent variable

Life satisfaction (hereafter LS) denote self-reported satisfaction with life for each respondent according to Satisfaction With Life Scale (hereafter SWLS) methodology advanced by Pavot and Diener (1993, 2009). It is noteworthy to mention that SWLS methodology is a good measure of individuals’ subjective well-being, evaluates life satisfaction and goal accomplishments of each respondent on the basis of responses to 5 statements (see Pavot and Diener, 1993, p.172) on a seven-point Likert scale (1 = *totally disagree* to 7 = *totally agree*). The corresponding statements are (1) In most ways, my life is close to my ideal, (2) the conditions of my life are excellent, (3) I am satisfied with my life, (4) so far I have gotten the important things I want in life, and (5) if I could live my life over, I would change almost nothing. LS score for each respondent equals to the sum of quantified responses to all statements ranging from 5 (if a respondent chooses “strongly disagree” option in all cases) to 35 (if a respondent chooses “strongly agree” option in all cases). Greater LS score implies more satisfaction with life. A high Cronbach’s Alpha value ( $\alpha = 0.82$ ) confirms reliability of the scale to assess self-reported life satisfaction of individuals.



### 2.2.3. Mediator variable

Institutional trust (hereafter IT) represent trustworthiness of selected public institutions for individuals. Here, trust of individuals to health system, education system, courts and internal security forces has been assessed. In the surveys, respondents are asked to show their trust level for doctors (as proxy for health system), teachers (as proxy for education system), judges and court staff (as proxy for courts), and polices (as proxy for internal security forces) on a five-point Likert scale (1 = *totally not trust* to 5 = *totally trust*). IT is the sum of trustworthiness score to each selected public institution, changing between 4 and 20. Higher IT score means greater trustworthiness of an individual to selected public institutions. Reliability of the scale has been confirmed with a high Cronbach's Alpha value ( $\alpha = 0.83$ ).

Variables	No. Obs.	Mean	Min	Max	Std. Dev.
IE	4027	5.05	1	7	2.108
LS	4045	18.51	5	35	7.242
IT	3870	11.66	4	20	4.030
Gender	4092	0.49	0	1	0.500
Age	4083	31.83	17	88	12.413
School	4092	0.25	0	1	0.433
College	4092	0.14	0	1	0.347
Bachelor (Ref.)	4092	0.45	0	1	0.498
Master	4092	0.13	0	1	0.342
PhD	4092	0.03	0	1	0.160
Unmarried (Ref)	4092	0.49	0	1	0.498
Married	4092	0.47	0	1	0.499
Widowed	4092	0.04	0	1	0.199
Religious	3954	0.21	0	1	0.408
Believer	3954	0.67	0	1	0.471
Non_believer (Ref.)	3954	0.12	0	1	0.327
SS3	4092	0.46	0	1	0.498

Table 1: Descriptive statistics of variables  
(Source: Authors' own creation)

### 2.2.4. Control variables

A set of individual specific independent variables are included to the model for robustness of research findings. These variables include:

- $Age_i$ : denotes age of each individual attended to the surveys;
- $Gender_i$ : a dummy variable equals 1 for females, and 0 for males;
- Dummy variables displaying the highest educational attainment level ( $School_i$ ,  $College_i$ ,  $Bachelor_i$  (left as the base group),  $Master_i$ , and  $PhD_i$ );
- Dummy variables to take into account marital status of individuals ( $Unmarried_i$  – equals 1 for those never married before and left as the base group,  $Married_i$ , and  $Divorced_i$  – equals 1 for those are divorced / widowed);
- Dummy variables displaying religiosity level of individuals ( $Religious_i$  – equals 1 if the respondent consider himself / herself as a religious person),  $Believer_i$  – equals 1 if the respondent consider himself / herself not a religious person while believe in God and left as the base group, and  $NonBeliever_i$  – equals 1 if the respondent do not believe in God);
- $SS3_i$ : a dummy variable equals 1 for the observations belongs to the Social Survey -3, and gets 0 for the observations belongs to Social Survey -2.

Descriptive statistics of all variables are given in table 1.

### 2.3. Model

Baseline empirical model specification is as following:

$$IE_i = \alpha_0 + \alpha_1 * LS_i + \alpha_2 * IT_i + \sum_{k=1}^{11} \gamma_k * Z_k + u_i$$

Note that,  $\alpha$  and  $\gamma$  are parameters of the regression model.  $Z_k$  covers all control variables.  $u$  is the error term while  $i$  stand for  $i$ -th observation. We run mediation analyses in SPSS Process Macro version 3.4.1 advanced by Hayes (2018).

## 3. RESULTS

### 3.1. Preliminary analyses

Initial analyses of the dataset show high level of emigration aspiration among people living in Azerbaijan.

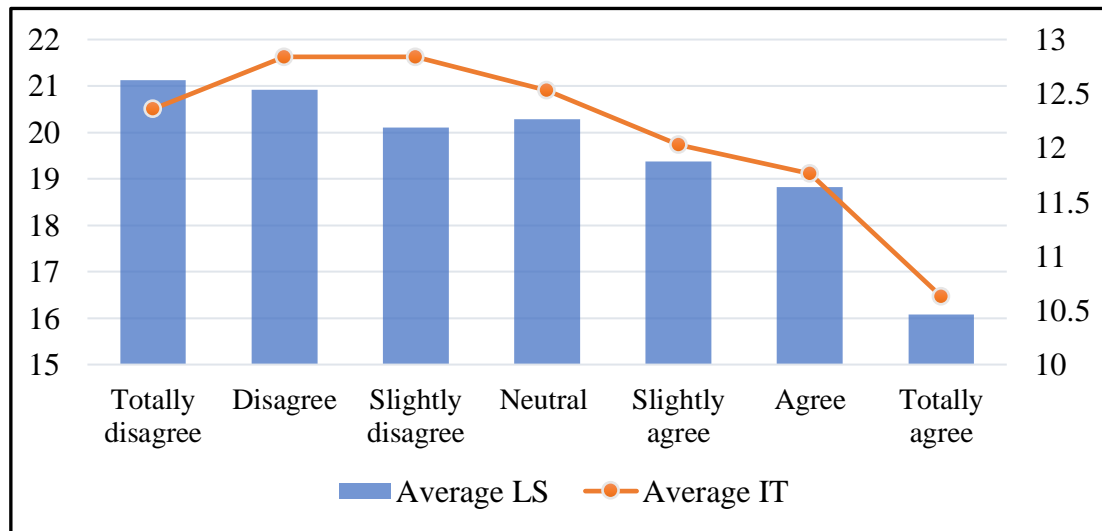


Figure 2: Average life satisfaction (left vertical axis) and institutional trust (right vertical axis) vs intention to emigrate (horizontal axis)

(Source: Author's own creation based on survey data)

Considering the statement of “I would like to emigrate and live in a foreign country”, the response is negative (disagree) among 21% of total respondents disagree while the response is positive (agree) among 67% of participants. Figure 2 displays average life satisfaction and institutional trust score at different levels of emigration aspirations. We observe a negative trend between average life satisfaction and emigration aspirations. Average LS score of those who has the highest emigration aspirations (response is “totally agree”) is 5.4 point (nearly 24%) less compared to those who have least intention to emigrate ( $\frac{21.12-16.08}{21.12}$ ). This confirms unhappiness motive behind emigration aspirations in Azerbaijan. Similarly, the association between institutional trust and intention to emigrate seems also to be negative. Fall in trust to public institutions is associated with increasing intention to emigrate, especially after “slightly disagree” stage of emigration aspirations.

### 3.2. Mediation analyses

Results of mediation analyses are presented in table 2. To observe changes in indirect and direct effects of life satisfaction over emigration aspirations in Azerbaijan, we use multi-stage

estimating strategy and add covariates step-by-step. Model 5 includes all covariates and was considered as the final model specification to interpret.

	$\beta$	$SE /$ <i>Boot SE</i>	$t$	$p$	$LLCI /$ <i>Boot LLCI</i>	$ULCI /$ <i>Boot ULCI</i>
<b>Model 1: Covariates (<math>SS3_i</math>)</b>						
<i>Total effect</i>	-0.0742	0.0046	-15.998	0.0000	-0.0833	-0.0651
<i>Direct effect</i>	-0.0654	0.0048	-13.609	0.0000	-0.0748	-0.0560
<i>Indirect effect</i>	-0.0088	0.0013	-	-	-0.0114	-0.0063
<b>Model 2: Covariates (<math>Age_i, Gender_i, SS3_i</math>)</b>						
<i>Total effect</i>	-0.0663	0.0044	-14.929	0.0000	-0.0750	-0.0576
<i>Direct effect</i>	-0.0596	0.0046	-12.979	0.0000	-0.0686	-0.0506
<i>Indirect effect</i>	-0.0067	0.0011	-	-	-0.0090	-0.0046
<b>Model 3: Covariates (<math>Age_i, Gender_i, School_i, College_i, Master_i, PhD_i, SS3_i</math>)</b>						
<i>Total effect</i>	-0.0673	0.0044	-15.135	0.0000	-0.0696	-0.0516
<i>Direct effect</i>	-0.0606	0.0046	-13.144	0.0000	-0.0696	-0.0516
<i>Indirect effect</i>	-0.0067	0.0012	-	-	-0.0091	-0.0045
<b>Model 4: Covariates (<math>Age_i, Gender_i, School_i, College_i, Master_i, PhD_i, Married_i, Widowed_i, SS3_i</math>)</b>						
<i>Total effect</i>	-0.0681	0.0044	-15.301	0.0000	-0.0768	-0.0593
<i>Direct effect</i>	-0.0614	0.0046	-13.308	0.0000	-0.0704	-0.0523
<i>Indirect effect</i>	-0.0067	0.0012	-	-	-0.0091	-0.0046
<b>Model 5: Covariates (<math>Age_i, Gender_i, School_i, College_i, Master_i, PhD_i, Married_i, Widowed_i, Believer_i, Religious_i, SS3_i</math>)</b>						
<i>Total effect</i>	-0.0671	0.0045	-14.867	0.0000	-0.0759	-0.0582
<i>Direct effect</i>	-0.0607	0.0047	-13.007	0.0000	-0.0698	-0.0515
<i>Indirect effect</i>	-0.0064	0.0012	-	-	-0.0088	-0.0042
<i>Note: Level of confidence is 95% for all confidence intervals; Number of bootstrap samples for percentile bootstrap confidence intervals is 5000; Cribari-Neto heteroscedasticity consistent standard errors and covariance matrix estimator were used.</i>						

Table 2: Results of Mediation Analyses: direct and indirect effects of life satisfaction (X) on intention to emigrate (Y) considering individuals' institutional trust (M)  
(Source: Author's own creation)

Regardless the content of covariates, mediation analyses reveal significant direct and indirect effects of life satisfaction over the intention to emigrate. Total effects, as well as direct and indirect effects are statistically significant at 95% confidence level. In line with preliminary analyses outcome, mediation analyses' results also confirm the validity of unhappiness motive behind emigration aspirations. Negative association exists between life satisfaction and intention to emigrate among Azerbaijani people. While holding other factors fixed, in average, 1-point increase in life satisfaction score decreases individuals' intention to emigrate by nearly 0.07 point. Decomposition of total effects is also interesting. Majority of the impact happens through direct channel. According to model (5) results, direct channel nearly 90.5% ( $\frac{-0.0607}{-0.0671} = 0.9046$ ) of total effects while remaining 9.5% ( $\frac{-0.0064}{-0.0671} = 0.0954$ ) comes from the indirect channel through institutional trust.

#### 4. CONCLUSION

Migration issue has been one of the most critical problems in the last decade. The motives behind individuals' emigration aspirations can play a key role to understand roots of the problem and address adequately to find a possible solution. It is believed that individuals look for better life and greater well-being and make a decision to emigrate. However, migrant receiving countries are not willing to accept unhappy individuals. This paper aims to explore the association between life satisfaction and intention to emigrate in case of Azerbaijan where

survey results display very high level of emigration aspirations. Using a pool of two representative survey datasets, we apply mediation analyses techniques to estimate direct and indirect effects of life satisfaction via institutional trust over emigration aspirations of Azerbaijani people. Research findings present significant evidence of negative association or “unhappiness” motive behind intention to emigrate among individuals living in the target country. Direct and indirect effects via institutional trust are negative and statistically significant at 95% confidence level. Around 90% of the effects happens in a direct way from life satisfaction to emigration aspirations while an indirect channel through institutional trust explain approximately 10% of the negative association. Findings may have solid policy applications within the country and brings a novelty to the literature by revealing mediating role of trust to public institutions over the causality from life satisfaction to intention to emigrate. Considering the greater chance of skilled labour force to emigrate, high level of emigration aspirations is also a brain-drain threat for the country. Azerbaijan government should grant research projects to identify determinants of self-reported happiness in the country, design and implement policy actions accordingly. Aliyev and Agayeva (2019) identify very strong impact of family values and hopefulness over life satisfaction of students in the country. According to Aliyev, Nadirov and Dehning (2020), absolute income has no unidirectional impact over subjective well-being in Azerbaijan, depends on the level of income. Meanwhile, another study shows unemployed people to be highly vulnerable with very low level of life satisfaction (Aliyev, 2020). Government should focus on managing determinants of subjective well-being in the country. Building mutual trust, enhancing trustworthiness of public institutions should be also at the focus of policy decisions. Enhancing quality of public services and legal system can have a positive role in decreasing emigration aspirations of individuals.

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# MACROECONOMIC ANALYSIS AND DIAGNOSTICS OF AZERBAIJAN'S TRANSITION TO THE CONCEPT OF INCLUSIVE DEVELOPMENT

**Mahish A. Ahmadov**

*Professor and Head of the Department of "Regulation of the Economy",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
ahmadov\_28@mail.ru*

## ABSTRACT

*The essence of inclusive development determining the characteristic level of economic, social, demographic, ecological factors, indicators taking into consideration the interests and benefits of present and future generations, world experience and national realities, from the theoretical, methodological and practical point of view have been revealed in the article. At the same time, it is emphasized that the opportunities for each country's transition to an inclusive development model are determined first and foremost by the country's economic, social, scientific, technical, financial potential and infrastructure development model,. Ultimately, ensuring the transition to sustainable inclusive development of the country is the characteristics of the sustainable development strategy implemented at this stage and it is followed by the successful implementation of the principles. It is evident that ensuring sustainable development in each country requires the formation and implementation of an effective regulatory and management mechanism at the global, national and regional levels. Based on the concrete statistical materials of Azerbaijan, the specific aspects, priorities, opportunities and potential of the country's transition to inclusive development are analyzed and evaluated by SWOT. It is concluded that in the modern condition, the necessary material-financial, institutional and regulatory framework has been created for the transition of our country to the concept of inclusive development. This is due to the sharp increase in GDP per capita in our country over the past 15 years, inflation, poverty, the dynamics of human capital development, the level of demographic indicators, the positive balance of donations, the ratio of public debt to GDP is becoming more and more effective in global value chain, as well as the successful implementation of targeted state programs on economic and social development in our country, etc. have been confirmed in the article. The concrete proposals and recommendations have been given at the end of the article for the improving the regulatory and legal framework to ensure our country's transition to the concept of inclusive development.*

**Keywords:** *Inclusive development, Sustainable economy, Human capital, Concept, Transition, Infrastructure*

## 1. INTRODUCTION AND THEORY OF INCLUSIVE DEVELOPMENT

In the second decade of the XXI century; A new approach to the nature of economic development - a qualitatively new theory of inclusive development began to form in the world economic literature, which in turn reflected itself in the development strategies of many national economies. In such conditions, ensuring the interests of every citizen of the country, improvement of the quality of life, better living of present and future generations becomes the goal of economic and social development. During past 15 years, in Azerbaijan, the successful results achieved in the field of socio-economic development, the created economic, social, financial potential, human capital, infrastructure, institutional base, as well as the level of social welfare of population have allowed to present the transition to inclusive development as a practical problem and to implement it step by step. At the same time, the recent global financial crisis and the sharp decline in world crude oil prices, the devaluation of the manat, the relatively limited role of oil in the development of the national economy, increasing global pressure on

the nature of economic development as a whole, determine the factors, criteria, social orientation, driving forces, principles and realization mechanisms of economic growth. This, in turn, made development and implementation of appropriate strategic roadmaps an objective necessity, in order to ensure the transition to the concept of inclusive economic development in accordance with the changing situation and economic realities in our country for the near future. It should be noted that the inclusion, social orientation, in other words, the legal basis for the formation of a social state based on fundamental principles is defined by the Constitution of the Republic of Azerbaijan adopted in 1995: "Economic development in the Republic of Azerbaijan serves to increase the welfare of the population based on various forms of property. The Azerbaijani state creates conditions for the development of a socially oriented economy, guarantees free enterprise, prevents monopolies and unfair competition in economic relations on the basis of market relations. Experience shows that the transition to the concept of inclusive development is a long-term and multifaceted process. At the same time, the duration and effectiveness of the transition to inclusive development depends crucially on the country's level of economic development, potential, the nature of the chosen economic development model, as well as national and global problems, that determine the economic situation as a whole, the degree to which economic and political conditions are favorable. Thus, inclusive development, being an integral part of the sustainable development model, requires the interactive and interdependent solution of economic, social, demographic and environmental problems simultaneously (Ahmadov, 2018). In addition, many scholars have focused on innovation for inclusive development in their research (Ali & Son, 2007; Carayannis & Rakhmatullin, 2014; George v a s. 2012; Hall et al., 2012; Mazzucato, 2013; Planes-Satorra & Paunov, 2017). In the world practice and existing economic literature, there is no single approach to the inclusive economic growth's concept, indicators, opportunities, ways and mechanisms for providing them. Inclusive development not only creates new economic opportunities, but also provides equal access to opportunities created for all sections of society, especially the poor ( Ali and Son, 2007). In addition, inclusive development distributes dividends from rising welfare fairly in society, both in monetary and non-monetary terms, that create opportunities for all segments of the population (Planes-Satorra and Paunov, 2017). However, in the opinion of the commission preparing the "Europe 2020" strategy, inclusive economic growth is the full use of the country's labor potential, full employment, reduction of poverty and its consequences, minimization of income disparities between different social groups, overall social development, elimination of existing disproportions between the regions of the country, etc. In our opinion, such an approach to the concept of inclusive development attracts more attention. At the same time, some researchers have recently taken a broader approach to the concept of inclusive economic development, believing that inclusive economic development along with above mentioned, should include the comprehensive development of human capital, increasing the share of people who generate income in society in the national income, their active participation in the economic life of the country, access to education and medical services for low-income groups, reduction of unit costs of products and services, as well as efficient use of natural resources, effective solution of environmental problems (Alakbarov, 2015). The possibility of the transition of various countries to the concept of inclusive economic development and the analysis of the real situation show that, the provision of inclusive economic development in post-Soviet republics that have gained independence in recent decades, as well as in countries involved in national conflicts, are often more influenced by global and political factors. More formally, inclusive growth requires the following: positive growth rates in per capita income; growth rates of initial income for predetermined, disadvantaged groups (Klasen, 2010 ). In countries with transition economies, in general the harmonious solution of economic and social development problems at this stage makes the application of the state and market mechanism in an optimal ratio an objective necessity (Todaro, 1997).

As noted by Professor A.L. Hillman (2009), world experience also confirms that the state plays an important role in the formation and implementation of economic policy related to the optimal distribution of GDP, ensuring social justice in accordance with the principles of the social state, as noted by Professor A.L. Hillman (2009). At the same time, the scale, speed and nature of the transition of the national economy to sustainable inclusive development can significantly depend on the development model chosen by the country, the degree of social responsibility of business structures, measures taken to form a "green economy" and national mentality.

## **2. MACROECONOMIC ANALYSIS OF AZERBAIJAN'S TRANSITION TO OF INCLUSIVE DEVELOPMENT**

In modern times, the need to strengthen the social and humanitarian aspects of sustainable development in the international arena and the practical realization of these goals has become even more urgent. Thus, in order to ensure the implementation of the sustainable development goals in accordance with the sustainable development goals adopted at the UN Summit in September 2015 (UN Summit), with a special emphasis on the need for a complex institutional and economic approach to the problem and ensure effective implementation of those goals, The National Coordinating Council for Sustainable Development was established in Azerbaijan. Today, Azerbaijan has entered such a stage of economic development that its future inclusive development should be based not on the involvement of natural resources in circulation, but on the efficient and optimal use of all the country's resource potential, especially human capital (Hajizada, 2018). Today, our national economy has the opportunity to develop itself, increase its competitiveness, ensure its security and most importantly, solve its social problems. It is also a fact that, in modern conditions of Azerbaijan's active integration into the world economy, it is impossible to move to the concept of inclusive economic growth without the necessary systematic, logical reforms in all areas and directions. At the same time, in order to strengthen the practical nature of the pursued economic policy in order to ensure the transition of our country to inclusive development, economic growth and the factors that ensure it, quality indicators that characterize employment and social development as a whole must be analyzed. Taking into account the above mentioned, a reform strategy has been developed and is being implemented in accordance with the changing economic situation and economic realities in our country. Reforms implemented in our country in recent years in general can be grouped by following directions: investment-innovation; improving the business environment; investment promotion; implementation of structural and institutional reforms; increasing the competitiveness of the national economy; stimulating the development of the non-oil sector and exports; state support for the development of profitable labor-intensive industries and productions; improvement of the salary, pension and social benefits system; Promotion of "Made in Azerbaijan" brand, etc. It is a logical consequence of all this, that in the World Bank's "Doing Business - 2019" report, Azerbaijan was included in the list of 10 most reformist countries in the world and in 2019 was declared the most reformist country in the world. It is necessary to emphasize such a principled approach of the President of the country to the direction and nature of the reforms carried out in our country. In order to formulate and implement a strategy and system of measures for all economic reforms to be implemented, the security of the national economy must be ensured, and national interests and interests must be anticipated. World experience shows that the effectiveness of each country's transition to inclusive development ultimately depends on the effectiveness of the economic policy and regulatory measures of the state implemented for this purpose. This is because the market mechanism alone, as it is known, does not have the power to solve the unequal distribution of income in society, the problems of poverty and employment, and environmental problems in line with global challenges. Therefore, the improvement of the management and regulatory system to ensure the optimal transition of national economies to inclusive development is



becoming an objective necessity. The analysis also shows that the existing potential is not enough to ensure the transition to inclusive development. The main problem is to ensure as much as possible the interest of all groups of the population in ensuring economic sustainability, stable economic development, which is a key factor in ensuring the activities of human society in the country. To this end, it is extremely important to ensure social sustainability and to provide environmental sustainability in order to minimize the negative impact of the environment, including biodiversity, and global climate change on economic development. Based on the fundamental provisions of the formation and development of the national economic development strategy in our country, as well as the fundamental principles and priorities of the UN concept "Future Development", the President of the Republic of Azerbaijan issued a decree on March 16, 2016, "On the main directions of the strategic road map for the national economy and key sectors of the economy". In this decree, for the first time, he set as a strategic task the harmonious solution of economic and social development, the joint solution of the interests of present and future generations, as well as increasing the inclusion of the economy. This program document is reflecting our country's economic development strategy until 2020, action plan and the main goals and objectives until 2025, the system of views in the period after 2025 by identifying the country's competitive advantages, philosophy, paradigm, principles of inclusive economic development as a whole, taking into account the strengths, weaknesses, opportunities, possible threats of economic development on the basis of SWOT analysis and 360-degree diagnosis of the Azerbaijani economy. At the same time, in order to ensure the implementation of the main strategic goals and objectives of the country in 12 strategic roadmaps for 11 sectors, approved by another presidential decree dated December 6, 2016, improving the structure of the national economy in response to changing conditions and demand, maintaining an optimal balance between the real and financial sectors, in particular, the effective use of fiscal and monetary mechanisms in the regulation of socio-economic processes is an important task. While assessing the opportunities for our country's transition to the concept of inclusive economic development, it should be noted that this is primarily determined by the oil strategy successfully implemented in our country in recent years. Thus, the "Contract of the Century" signed in accordance with the oil strategy of Azerbaijan and its subsequent extension and implementation, in fact, allowed to create the financial basis for the transition to the concept of inclusive economic development of our country. Suffice it to say that, as a result of the realization of the contract of the century, the State Oil Fund received more than \$135 billion. It is known that on September 14, 2017, an amended and restated agreement on the Azeri-Chirag and deepwater Gunashli fields and production sharing was signed and extended, and the previous agreement was extended until 2050 on more favorable terms. Unlike the oil contract signed in 1994, the share of the State Oil Company of Azerbaijan (SOCAR) will increase from 11.6% to 25%, as well as the level of oil profits of Azerbaijan will increase to 75%. According to the "Contract of the New Century", \$ 3.6 billion in bonuses will be paid to the State Oil Fund by foreign companies. It should also be noted that, if 90% of the employees working in the realization of initial contract were foreigners, where 10% were Azerbaijani citizens, during the implementation of the new contract, 90% of the employees are Azerbaijani and 10% are foreign citizens. If in the initial contract, Azerbaijani citizens worked in the oil fields as a labor force, today the vast majority of them are qualified specialists, and many of them are working in foreign branches of relevant companies outside Azerbaijan. So that, over the past 15 years, Azerbaijan's economy has ranked high among the world countries in terms of development. Thus, in recent years, Azerbaijan's gross domestic product has increased 3.8 times, the non-oil sector increased 3.1 times, non-oil exports increased 4.5 times, industrial potential increased 2.8 times, and agricultural production increased 2.3 times, wages increased 8.1 times, pensions increased 8 times, unemployment fell to 5%, poverty fell to 5.1%, our foreign exchange reserves increased 25 times by being \$ 52 billion, \$ 250 billion was

invested in the country's economy, 2 million new jobs were created against the 1,5 million increase of population. In 2004-2019, more than 3,400 schools and 680 medical institutions were reconstructed or overhauled in our country. 44 Olympic centers have been established, 17,000 kilometers of roads have been built. Gas supply to the population has reached 97%, numerous projects have been implemented to improve the supply of drinking water, especially in the regions, as a result, the supply of drinking water to the population is at 80%. In general, the results of the socio-economic development programs of the three regions implemented in 2004-2019 are more significant. It is enough to show that over the years, 52 billion manat has been spent on the implementation of these programs from all financial sources, as well as the state has provided more than 2 billion manat in soft loans to entrepreneurs through the National Fund for Entrepreneurship Support (Nuriyev, 2017). The analysis also shows that due to the results of socio-economic development in all areas over the past decade, macroeconomic stability was further strengthened in 2019, the stability of the national currency was maintained, as a result of curbing inflation, it was reduced by 10 points compared to the same period last year, social expenditures from the budget increased by 7.8% in 2019 compared to 2017 and reached 31.9%. Public investment promotion programs are of special importance in ensuring inclusive economic development in Azerbaijan. It is enough to mention that, 107 projects are being implemented in our country until January 1, 2019, and 332 projects are planned to be implemented current year. The implementation of all these projects will create 12,000 new jobs in our country. The role of the self-employment program successfully implemented in our country in ensuring inclusive economic growth is also noteworthy. This program has reached 7,000 people in 2019 and improved their level of employment. It is obvious that the development of small and medium enterprises is important in ensuring inclusive economic development in the country. For this purpose, the establishment of "Simplified Support for Family Business" "ABAD" centers will increase the level of employment in our country. The analysis shows that in modern times, the Azerbaijani economy is in the process of transition from quantitative to qualitative changes, to an efficiency based economy. Thus, due to the intensive development of intensive factors in economic growth, especially scientific and skilled labor, the share of intellectual capital in economic growth tends to increase, the share of the non-oil sector in GDP increases, the structure of imports and exports improves, the competitiveness of the national economy is gradually rising, in general, due to the creation of new industrial parks and neighborhoods the process of modernization of the economy is observed. A very important aspect of ensuring inclusive economic growth in the context of our country's entry into the post-oil era is the development and diversification of the non-oil sector. As a result of systematic measures and government programs implemented in this direction in recent years, the share of the non-oil sector in GDP has reached 65%. It is obvious that today Azerbaijan has a well-diversified transport and logistics infrastructure. Thus, the commissioning of the Baku-Tbilisi-Kars, Astara-Astara railway, the Baku International Sea Port in the basin of the Caspian Sea will dramatically increase the country's ability to earn additional income. As a logical result of all the work to be done, as noted in the strategic road map, the creation of more than 450,000 new jobs in the country by 2025, increasing the share of foreign direct investment in non-oil sector in non-oil GDP from the current level of 2.6% to 4%; Increasing exports of the non-oil sector from \$170 per capita in 2015 to at least \$450 in 2025 will create 150,000 additional jobs in the trade goods and services sector, products, manufacturing and tourism sectors, which will significantly reduce the dependence of the state budget on oil fund transfers. The analysis shows that the results achieved by our country in the field of economic development in recent years and the existing potential have significantly increased its competitiveness. According to the World Economic Forum's Global Competitiveness Report 2017-2018, Azerbaijan's economy has risen two places in the global competitiveness index, ranking 35th among the world's countries.

This index once again shows that Azerbaijan has the most competitive economy in the region. World experience shows that in modern times, human capital has become a driving force for the development of national economies, increasing competitiveness, increasing labor productivity and most importantly, the transition to the concept of inclusive economic growth (Progress, 2012). The results achieved in the socio-economic development of our country in all directions and areas over the past 15 years, have allowed the President of Azerbaijan to implement very serious social programs to increase the inclusion of economic development. Thus, by the decree of the President of the country dated February 25, 2019 "On additional measures to strengthen the social protection of the population" increased social benefits for large groups of the population and another decree on February 26, 2019 "On single monthly benefit for IDPs and those equal to them" sharply increased the amount of single monthly benefits. By the Presidential decree "On raising the minimum wage" dated February 8, 2019, the minimum wage increased by 38.5% from 130 to 180 manat, so that the minimum wage was fully adjusted to the level of subsistence minimum. On April 19, 2018, decree was signed to pay a one-off lump sum of 11,000 manat allowance to the heirs of the martyred servicemen. According to the decree dated February 14, 2019 "On granting scholarships to doctoral students, students studying at higher education, secondary special and vocational education institutions, as well as master's degree students of the Azerbaijan National Academy of Sciences", in order to improve their social status, scholarships were set at AZN 300 for doctoral students in doctor of sciences training and for doctoral students in PhD trainings at AZN 180, also increased scholarships for masters and bachelors. The number of students studying at the expense of public finances increased from 31% to 50% next year. Access to health care for all groups of population in the country is important for ensuring inclusive development. By taking this into consideration, the decree of the President of the country dated December 20, 2018 "On a number of measures to ensure the use of mandatory health insurance in Azerbaijan" envisages the completion and implementation of all activities related to the introduction of mandatory health insurance in 2020. By another presidential decree dated February 27, 2019 "On labor pensions", social and labor pensions were significantly increased. In general, in recent years, significant progress has been made in improving the social welfare of the population of our country. As a result of that, the great work done in recent years to implement the "Millennium Development Goals" in our country has been positively assessed by the UN. It is obvious that the development and adoption of an effective economic development strategy is a prerequisite for ensuring the inclusive development of the national economy. The analysis of specific materials shows that the transition to the concept of inclusive development is impossible without ensuring the long-term sustainable development of our country. That's why, the goals, objectives, priorities, regulatory mechanism of the strategic development strategy developed in our country for the near future should serve this purpose. Because, eventually the success of the development concept, which is to be implemented, depends crucially on how effective and optimal the existing regulatory system in the country is. Thus, taking into account the existing financial and economic potential of the country and the multiplier effect should be one of the most important conditions in developing an economic development strategy. Given the importance of an objective assessment of the impact of legislation on the nature and dynamics of socio-economic development, the Azerbaijani state always strives to have a strong enough intellectual burden of all normative legal acts adopted in connection with socio-economic development. We would also like to emphasize that, all the programs, projects, goals and measures adopted by the Azerbaijani government in recent years in connection with inclusive economic growth have been implemented in a timely and quality manner. As a result of this, in the report of the DAVOS Economic Forum for 2017-2018, Azerbaijan was ranked third among 80 developing countries in terms of inclusive development. Assessing the socio-economic development of our country over the past 15 years based on the SWOT analysis and 360-degree diagnostics

identified the main priorities of President Ilham Aliyev's inclusive development strategy: first, the formation and implementation of innovation-oriented investment policy to achieve inclusive economic growth; second, the creation of appropriate infrastructure to ensure sustainable inclusive growth in our country in the long run; third, the formation of a national innovation system in Azerbaijan that meets world standards and criteria; fourth, a sharp increase in the share of intellectual capital in the country's gross domestic product; fifth, making necessary institutional changes in accordance with changing market conditions, demand and economic realities.

### 3. CONCLUSION

In recent years, the results of socio-economic development in Azerbaijan, SWOT analysis and diagnosis of the nature of GDP distribution and redistribution give grounds to conclude that sufficient economic, social, financial potential and institutional framework have been created for the country's transition to sustainable inclusive development. The above mentioned is also positively assessed by the world's leading economic development ranking institutions. Thus, the report of the World DAVOS Forum held in 2018 shows that Azerbaijan ranks third among countries with economies in transition. In our opinion, the development strategy developed by taking into account the balance of resources of our country in modern times, the degree of their use, the potential of scientific and technological progress to be mobilized in the near future within the existing opportunities, will ensure the dynamic and sustainable development of the national economy of our country in the near future, which will allow it to move to the concept of inclusive economic development.

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## THE ROLE OF MARKETING FACTORS IN ENSURING SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT

**Mammadova Simuzar Sultan**

*Azerbaijan State University of Economics (UNEC)*

*45A, Abbas Sahhat str., AZ 1007, Baku, Azerbaijan*

*sima-sultan@mail.ru*

### ABSTRACT

*The role of marketing factors in ensuring of sustainable socio-economic development has been investigated, mutual relations between economic growth and economic development and differences between them have been analyzed, the importance for conducting of definitely planned state policy for providing of continuous economic development has been emphasized in the article. The influence of marketing elements to economic development and its impact to the life level of individuals in the society has been put forward. Moreover, being of rapid development of science and technology as an important factor for economic development has been substantiated. The great importance of these factors for transition to growth of productivity in agrarian field, also to industrialization process, the impossibility of success of economic development policy without technical progress has been emphasized. Consumers distinguish seriously each other for their needs, purchase motives, behaviors, tastes, social statuses, lifestyles and other factors. Therefore, no enterprise has almost to make a product that can fully meet the needs of all consumers. Enterprises, which take it into account, must implement the segmentation of markets and focus their activities on market segments that are more relevant to their capabilities, resources and goals and allow them to obtain more profit. In order to meet fully the needs of the selected market segments, enterprises must make special marketing programs and strategies to carry out the differentiation and identification of products. Finally, the analysis of the principal socio-economic indicators in macroeconomic marketing analysis of processing industry has been conducted.*

**Keywords:** *Economic growth, Economic development, Economic freedoms, Marketing elements, Socio-economic indicators*

### 1. INTRODUCTION

At present, one of the principal duties of all developed and developing countries is rapid economic growth. In order to break a desperate barrier of poverty, to decrease unemployment, to improve profit distribution, to increase the physical and human capital reserves and to achieve the technological innovations, the development policy in the structure that may conform to the country characteristics has been established. The classical liberal economic training constituting the principal background of this policy expressed an independent development of economic progress in parallel to dictate the terms of independent market economy. Thus, it has been put forward that, the sole function of the state in this process is taking aim at economic development by providing the infrastructure terms that needs for private sector. Socialist-based flow of thought expressing non-independent realization of economic development, not being of rational use of resources by individuals in the focus of attention and the necessity for orientation within the centralized plan in this regard took place in the opposite pole of this movement that put forward an automatic occurrence of growing process of humans by means of rational priorities. There is Keynesian school of economic thought taking place between these two poles and keeping both flows in itself. The Keynesian thought adopting the conception of market economy emphasized definitely planned state policy in order to provide continuous economic development and eliminate the contradictions arising as a result of fundamental defects of liberal economy.

The Keynesian policies have been applied actively for a certain period, the role of the state in economic and social field gained importance gradually and economic growth process has become a target of state support. Then, it started to exert negative influence to the change of conjuncture process in the world economy, the state sector increased extremely, oil crises had been in the centre of attention, the inflation risk increased and the world economies met with stagflation (inflation + decay + unemployment). The neo-liberal movements again began to emerge together with this new conjuncture stage, the priorities for providing of economic freedoms with market economy gained an impulse with new outlook to decrease the role of state over economy and to provide the economic development. In order to provide the efficient activity of independent market system and to provide economic freedoms, neo-liberal training emphasizing the necessity for restriction of economic power of the state and revealing the creativity of economic subjects, the owner whose independent activity has been established in economic structure must show his/her power and must express the realization of growth process in this regard. The globalization fact increasing gradually its impact revealed the positive impacts of integration that will be realized in the market of production, trade and finance and took its place in the world agenda as fundamental element of neo-liberal training. It was seen obviously that, economically free and overseas economies had faster growth process together with the changing world system; the planned, controlled and central economic systems lagged behind for a long period and underwent to damages as a result of social conflicts. So, the benefits from establishment of organizational events necessary for economic development, from positions supporting economic freedoms and from active section have become the main agenda of the countries.

## **2. MARKETING FACTORS AFFECTING ECONOMIC DEVELOPMENT**

The economic development is deemed as a process of reaching of less developed country with low profit and bad life condition to higher standards of living by increasing the level of profit. In this regard, economic development expresses the increase of national profit level in one country, the increase of welfare along with structural changes in social, cultural and political fields. So, economic development is generally related to the change process in less developed countries. The increase of welfare of the society, decrease of poverty, use of new technology in production, putting of production methods in action, providing of stable increase of real profit and implementing of structural changes conforming to demographic features of the society are evaluated within development issues. The most important element of economic development with all these processes is structural change made in economy. The structural change expresses a fact of gradual increase of comparative importance of industrial and service sector in economy for agricultural sector. Therefore, economic development emphasizes a change of economic development process, area structure and other structural changes. This change process covers socio-economic dynamics as equality increased in urbanization, demographic change and profit distribution [1]. The economic development process of one country runs in regard to several decisive factors. It is possible to group these factors as follows:

- Level of natural reserve of one country plays an important role in the process of economic development. A country having more natural resources develops rapidly than other countries. But, natural resource in abundant quantity is not enough for development. The existence of enough capital and workforce that will generate natural resources in the country is significant. Moreover, there is a need for scientific and technological innovations for discovery of new reserves;
- Existence of human resources in one country constitutes the principal factor of economic development. Collection of human capital possessed at a sufficient level has great importance in speeding of economic development process. The scientific and technical progress of the country and entrepreneurial features emerge thanks to human sources.

Moreover, existence of human capital gives an opportunity for efficient use of natural resources [2].

The most important element of economic development process is structural change. As an economic basis, it consists of three parts - agriculture, industry and service sector. The specific weight of agrarian area in economy in the first stage of economic development process will quicken gradually in comparison with industrial and service sector. The portion of industrial sector in economy in the process of exchange will be more than agricultural and service sectors, the portion of service sector will increase when the portion of agricultural and service sectors in economy is decreased in future stages of development. The process of scientific and technological development is a vital factor for economic development. These factors have a great importance for transition to industry process besides with growth of agrarian productivity. From this standpoint, it will be difficult to say that, economic development policy is successful without technical development. Other element of development is financial stability. The financial stability emphasizes the arranging of banking system in one country efficiently. Moreover, the existence of money and investment markets organized also is estimated as a factor speeding the process of development. Development plans; determination of purpose targets, orientation of country in the direction of determined targets has a great importance in terms of sustainable development by using of resources in appropriate time and process. The development programs are performed by help of public and private sector for insuring of proper duties. The foreign capital, technology import, international trade and foreign assistances come before us as international factors speeding the process of economic development. Capital accumulation oriented from developed countries to less developed countries, technical development, deposits and foreign assistances are the factors creating stability in the process of development of less developed countries. The factors such as consumption of high calories per capita, high comparison of intellectuals, consumption of high energy per capita, increase of urbanization circumstances, decrease of child death, prolongation of life expectancy, increase of doctor number per capita and improvement of socio-cultural environment are other reasons of development. After these findings, the differences between economic growth and economic development may be determined in this form:

- While economic growth is generally presented as an increase in national income or an increase of product, the economic development expresses a sustainable increase in the living standards of individuals living in a society;
- The economic growth is a one-dimensional process, but it considers the increases in national income. In this regard, economic development is multidimensional. Besides increases in national income, it covers structural changes in social, political and cultural fields;
- The economic growth is characteristic for developed countries, but economic development is characteristic for less developed countries;
- It is possible to realize the growth without development. But, there is a need for economic growth at certain level for process of development;
- While growth is usually accepted as a process occurred under influence of endogenous factors, development is a process warned by exogenous factors. That is to say, while growth is a self-generating condition, the development is a process emerged in the result of warning.

### **3. THE IMPORTANCE OF SOCIO-ECONOMIC INDICATORS IN THE MACROECONOMIC MARKETING ANALYSIS OF PROCESSING INDUSTRY**

In modern conditions, the necessary condition for effective operation of industrial enterprises is the conformability of their production with macro and micro environment of the market economy. The non-existence of clear mechanisms for the formation of operative reaction to changes occurred in consumer behavior and the competitiveness of products sets certain duties



in improving the management of marketing activity of the enterprise. Consumers distinguish seriously each other for their needs, purchase motives, behaviors, tastes, social statuses, lifestyles and other factors. Therefore, no enterprise has almost to make a product that can fully meet the needs of all consumers. Enterprises, which take it into account, must implement the segmentation of markets and focus their activities on market segments that are more relevant to their capabilities, resources and goals and allow them to obtain more profit. In order to meet fully the needs of the selected market segments, enterprises must make special marketing programs and strategies to carry out the differentiation and identification of products. The conducted marketing researches show that the development and preparation of marketing research program, also determination of marketing research methods and methodology in the marketing management system requires the analysis of the range of practical indicators (including input and output). The macroeconomic marketing analysis of processing industry, in our opinion, should be carried out in the following sequence: analysis of the dynamics of the main socio-economic indicators of the republic; analysis of industrial production fields; analysis of main indicators of the industry, including armament with fund and fund capacity; analysis of technological innovation costs of the activity spheres and directions; analysis of the use of investments directed to fixed assets of the industrial field; analysis of the price level of industrial products; analysis of loaded industrial products; analysis of finished product stocks in warehouses of the industrial enterprise; analysis of costs for making product; analysis of costs for consumption products of the population; analysis of prices for consumption products; analysis of export and import operations. First of all, it should be noted that the marketing analysis of processing industry is based on the main socio-economic indicators of the Republic. The state of investigated system mainly depends on their successful development.

*Table 1: Dynamics of main socio-economic indicators of Azerbaijan, in comparison with the previous year, %*

	2005	2010	2011	2012	2013	2014	2015	2016
Gross domestic product (the GDP)	126.4	105.0	100,1	102,2	105.8	102.8	101.1	96.9
Industrial products	133.5	102.6	95,0	97,7	101.8	99.3	102.4	99.5
Of agricultural products	107.5	97.8	105,8	106,6	104.9	97.4	106.6	102.6
Investment in fixed assets	117,2	121.2	127,3	118,5	115.1	98.3	88.9	78.3
Cargo transportation in transport sector	109.4	103.2	103,6	103,6	103.4	101.9	100.2	100.0
Conveyance of passengers in transport sectors	104.8	104.5	107,5	108.4	108,0	104.7	103.5	102.0
Information and communication services	138.1	129.7	113,3	115.9	110.7	115,1	106.8	104.7
Retail sales	113,0	108,8	110,2	109.6	109.9	110.0	110.9	101.5
Catering turnover	126,1	116,3	122,6	118.8	116.0	118.2	114.0	100.1
Payable services to population	126.1	110.8	107,8	108.0	108.2	107.2	105.1	98.9
A monthly salaries	124.3	111.2	109,9	109.4	106.7	104.6	105.0	107.0
Income of the population	122.3	113,3	119.2	113,9	108.0	105.1	105.8	108.7
Expenditures of the population	117.3	110,5	115.2	110,7	114.1	109.9	113.5	113.8
Income remaining on the disposal of the population	123.4	114,2	119.2	114,3	107.2	105.1	106.3	108.8
Per capita GDP	124,9	103.7	98,8	100,8	104.4	101.5	99.9	95.8
Consumer prices	109.6	105.7	107,9	101,1	102.4	101.4	104.0	112.4

*Source: Industry of Azerbaijan. ADSK. Baku 2017, s.12.*

As shown in the table, the economy of the Republic developed stably for 2005-2016. In particular, the index of main socio-economic indicators was in the following range during the given period: Gross domestic product 126,4 – 96,9; industrial product 133,5 – 99,5; agricultural product 107,5 – 102,6; investment in fixed assets 117,2 – 78,3; cargo transportation in transport sector 109,4 – 100,0; retail sales 113,2 – 101,5; income of the population 122,3 – 108,7 etc.

#### 4. CONCLUSION

Economic growth is a process having macro and micro features, and economic development is a macro changeable process. Also, development is a boarder concept and covers growth. Macroeconomic analysis conducted on the processing industry of the Republic allows to raise several results:

- The sustainable development of the republic's economy has significantly expanded the potential opportunities of the country's processing industry;
- The decrease of the processing industry's gross weight from 25,9% to 22,9% is observed in total volume of industrial product in the republic, and it exerts negative influence on the development of this sector.

Despite the decrease of the processing industry's share in total production volume, it prevails the production industry over several important indicators. The improvement of the processing industry's indicators can be considered as a positive case. These include increasing the return on funds. The negative side consists of it that sharp decline is observed in costs for marketing researches and technological innovations, and it also limits the activity of processing industrial enterprises.

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## FORMATION OF INNOVATIVE BUSINESS ACTIVITIES IN THE NON-OIL SECTOR AND THE MAIN DIRECTIONS OF ITS DEVELOPMENT

**Qabil Nadir Manafov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*g.manafov@unec.edu.az*

**Namig Anver Sadigov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*sadiqov\_n55@mail.ru*

### ABSTRACT

*In recent years, quite a large number of regulatory and legal acts have been signed in accordance with innovative business activities in the non-oil sector and in the frame of its subdivisions in Azerbaijan. However, the results of their realization are not quite enough and the innovation activity has not been sufficiently stimulated. Currently, it is of great importance to improve the existing incentive mechanisms and, in general, increasing the resistance of competitiveness in order to ensure sustainable development in the economy of the republic. The development and implementation of new stimulus techniques meeting the requirements and challenges of the modern period, based on the advanced knowledge and breakthrough, are becoming increasingly necessary. Therefore, the economic development is based on the most effective methods of the utilization of innovative technologies and resources. The development of Innovative Business System in the non-oil sector is connected with the determination the goals and objectives of the country and the elimination of emerging systems. While investigating the essence of innovative business activities in the non-oil sector, first of all, it is important to reveal and make the solution of the contradictions between activity and development, sustainability and dynamics, moral development and material development. For this purpose, above all, there is a need for scientific-theoretical and practical investigations for the determination of the legal environment and innovative directions in the formation of these activities. The aim in the research work is to explore the existing scientific, theoretical and practical issues on the formation and development of innovative business activities based on the experience of developed countries. The practical significance of the research is that the results of the research can be used to develop the concept of development of innovative business activities in the non-oil sector, as well as the state's innovative development programs. The scientific novelty of the research is that the research work is based on the experience of developed market economies in emerging economies, including in the non-oil industry of Azerbaijan, the analysis have been carried out on the existing condition of business activity and as a result, appropriate recommendations have been made to improve the government's incentive policy.*

**Keywords:** *Innovative business activities, Non-oil sector, Legal environment of business, Government incentive policy*

### 1. INTRODUCTION

At present, innovations have been performing as the main form of progress in society and being the basis of economic, scientific- technical, and social progress, management of innovative business activities should be approached in terms of compliance of this activity with scientific and technical progress. First of all, technological innovations having product and process innovations fully correspond to this. According to the unanimous opinion of the Oslo leadership, non-technological - marketing and organizational innovations slow down the

scientific and technological progress by prolonging the life cycle of existing products and technologies. We will approach the problems of innovative business management agreeing with opinion of Oslo Leadership regarding the typification of innovations in terms of technological innovations (key product) that provide scientific and technological progress. In modern conditions, innovative business activity is a prerequisite for maintaining and strengthening the position of non-oil industry enterprises in the market. It is based on a multitude of ideas, from simple that implementation of which requires significant investment to the global based on consequences of fundamental exploration of information revolution. However, the development of innovative business activities of non-oil industry enterprise is impossible without an innovative ideology. The innovative ideology of non-oil industry enterprise is mechanism of implementation of management and organizational processes in unity and creates opportunity to form an innovative development concept.

## **2. SCIENTIFIC AND THEORETICAL BASES OF FORMATION OF INNOVATION ACTIVITY**

Since innovation is the final result of innovative business activity, it needs to be considered different approaches to the definition of this concept. According to a number of researchers, innovative business activity is a process aimed at obtaining a real picture of the results of research and development and processing to a new or improved product sold in the market or an improved technological process used in practical activities. The researchers such as G.S. Hamidov [1], P.N. Zavlin [2] rightly interpret innovative business activity more broadly, not just equating it with the process of creating innovation. G.S. Hamidov considers that innovative business activity is a systematic type of human activity directed to implementation of new scientific knowledge, ideas, discoveries and inventions, as well as implementation of social practice based on utilization and application of available and checked scientific technologies, systems and equipment.[1,p.8]. P.N. Zavlin offers innovative business activity as an activity directed to consequences of scientific research and processing for expanding the range of products, renovating, improving quality, improving production technology on condition that it is applied later and effectively in foreign and domestic markets. [2, p.14]. According to another approach, the innovative business activity of an enterprise means a system of measures for the use of scientific, scientific-technical and intellectual potential in order to obtain new or improved products (services) and new methods of their production to meet the needs of society as a whole.[3, p. 30]. In our opinion, each of these approaches can be considered logically correct. According to Article 2 of the Law of the Republic of Azerbaijan "On investment activity", scientific - Innovative business activities can be implemented as a form of investment activity to apply the achievements of technical progress. In this regard, a number of studies examine the structure (4), objectives (5; 6; 7) and other aspects of innovative business activity. The National Strategy for the Development of Science in Azerbaijan for 2009-2015 and the State Program for its implementation state that the main goal is to make a serious turn in education, science and intellectual spheres in the coming years and to intensify the process of building information and knowledge economy. [8, p. 8]. In our opinion, due to the special importance of innovative business activities of enterprises, it is advisable to complete the concept of mission as a factor in increasing their flexibility in the face of market instability, i.e. the mission of enterprises engaged in innovative business is to ensure innovative business activities. It should be clarified that, first of all, such a statement of mission is important for enterprises operating in industrial markets and their customers. This guarantee can both indirect (in turn, not to slow down their innovative business activities) and direct (to create conditions for such activities, to initiate their innovative projects). Thus, an enterprise's innovative business activity must be based not only on supporting its traditional production activities, but also on

pre-determining the innovative business activities of its customers. In this case, we can talk about the synergistic benefit of the innovative business of the innovator enterprises.

### **3. BUSINESS ENTITIES AS ONE OF THE MAIN COMPONENTS OF THE INNOVATIVE BUSINESS ACTIVITY OF THE ENTERPRISE**

The innovative development of enterprises acting as business entities is impossible without the innovative ideology expressed in their exactly defined mission. This mission, as a link between the internal and external environment, should be aimed at stimulating customers' innovative business activities in both consumer and industrial markets. Considering innovative business activities as a process of using and commercializing the results of scientific research and development for the creation and application of technological and non-technological innovations in non-oil enterprises, it should be noted that their commercialization begins at the stage of industrial production. At the same time, the ability of commercializing innovations determines the success of innovative business activities. From this point of view, the activity aimed at the distribution of income from the application of innovation as a result of innovative business activity can be interpreted as an innovative business. Thus, the innovation business can be considered the final stage of innovative business activity related to the commercialization of innovations. In its turn, this allows to conclude that innovative business can be considered successful only if it eventually becomes a form of innovative business. In the first years of independence, the industrial enterprises of the republic lost their ability to adapt to new technological developments, their technological potential decreased, their position in the market strategically deteriorated, and sales volumes inevitably fell. The analysis of innovative business activity of the industry in Azerbaijan showed that one of the main obstacles to increasing the innovative activity of industrial enterprises is not only the deficiency of financial resources, but mainly what resources should be directed to the ideas [9, p.71]. The experience of conducting innovative business activities in the enterprises shows that innovative enterprises face interrelated internal and external barriers in the early stages of activity. The main internal barriers include scientific and technical constraints on innovation and appropriation it from the technological point of view, as well as a lack of funding. External barriers include the existing market's resistance to innovation due to psychological and economic factors, the strong reaction of existing competitors to the financial and sales network, and the difficulties in copyright protection. In this case, the state support of innovative enterprises is important in moving the local economy in the direction of innovative development [10, p.126].

### **4. ANALYSIS OF THE CURRENT SITUATION OF INNOVATIVE BUSINESS ENTITIES**

Recently, the participation of states in innovation processes has begun to expand. The United States, the European Union, Japan, and China are now the world's four major science and technology centers. The United States accounts for 36 percent of global research and development spending, the European Union for 25 percent, Japan for 13 percent and 11 percent fell to the share of China. At the same time, the share of research expenditures in GDP of developed countries continues to grow significantly. For 2014, this figure was 2.8% in the United States, 2.9% in Germany, 3.4% in Japan and 4.2% in Israel. Total research and development spending in 2014 was \$ 465 billion in the United States, \$ 284 billion in China, \$ 165 billion in Japan, and \$ 92 billion in Germany. In 2014, 47% of research and development expenditures fell to the share of computer-electronics and health care spheres. Innovative companies reduce costs through the application of new technologies and they are able to maintain their advantage in the market at the expense of others. The successful research and development activities of the enterprise also lead to the creation of new products, the sale of

which opens up a wide range of opportunities for the enterprise by creating new markets or increasing shares in the existing market. Research shows that in 2010-2018, there was an overall increase in the amount of total expenditures on scientific research and technical investigations in the country. Thus, according to the State Statistical Committee of the Republic of Azerbaijan, domestic expenditures on R&D in 2018 increased by 60.2% percent compared to 2010 and amounted to 92.1 million. manat and increased up to 147.5 mln.AZN. (Table 1).

Indicators	2010	2014	2015	2016	2017	2018
Internal expenditures on research and development, mln. Manat, including:	92,1	126,6	120,9	124,7	129,9	147,5
State	67,6	107,1	98,4	106,3	108,2	125,9
Entrepreneurship	18,0	10,1	11,0	6,8	10,2	3,6
Higher education institutions	6,5	9,4	11,5	11,6	11,5	18,0

*Table 1: Distribution of domestic expenditures on R&D by sectors (11)*  
(Source: Statistical Indicators of Azerbaijan 2019, Baku, "Sada", 2019, p.261.)

The distribution of these costs between sectors shows that the role of the state is important in this regard. In other words, the amount of expenditures by the state for this purpose in 2018 increased by 86.2% compared to 2010, and its share increased from 73.3% to 85.4%. Expenditures of entrepreneurs for this purpose in 2010 amounted to 18.0 mln. AZN 3.6 million in 2018 manat (80 percent). Also, the share of this position decreased from 19.5% in 2010 to 12.2% in 2018. Expenditures on scientific research in higher education institutions in 2018 increased 2.8 times compared to 2010 and amounted to 6.5 million. 18.0 million manat manat and the share of domestic expenditures on scientific research as a whole increased from 7.0% to 12.2%.

## **5. THE NECESSITY OF INNOVATIVE DEVELOPMENT IN THE NON-OIL INDUSTRY OF AZERBAIJAN**

The necessity of the direction for innovative development in Azerbaijan's non-oil industry, deepening of economic crises in the world, increasing demand for quality and consumption of products in both domestic and foreign markets, the advantage of new and competitive products in the markets, production of scientific, competitive and export-oriented products, increasing the production capacity of modern technologies, building an innovative infrastructure network, development of modern industries (space, nanotechnology, etc.), creation of industrial complexes and parks have been conditioned with such factors [12]. In accordance with the laws of development of the market economy of industrialized countries, there is a need to fundamentally change the current situation in the innovative development of the engineering industry in Azerbaijan. A lot of local companies have the researches allowing to produce products that meet the requirements of international standards, with the application of efficient technologies. However, achieving significant results in the development of innovation among machine-building enterprises in the near future remains a challenge. In the application of the innovative scenario in the non-oil industry of our country, it is necessary to strengthen the support for the creation of a single legislative framework for the development of innovation activity. Development of organization and regulation mechanism in this field, application of modern depreciation system in production and application of equipment and technologies, application of stimulating financial-credit, tax-fiscal system and regulatory mechanisms for enterprises engaged in innovative activities and research, production of new technologies, innovative products in the country to support the activities, etc. it is important to pay more

attention to such areas [12]. The distinguishing of methods and directions of innovative business activity of the enterprise, as well as the implementation of innovative projects depends on the characteristics of their economic activities, resource, technological and scientific-technical potential, life stages of equipment and technology, marketing strategy of the enterprise, market requirements. Effective management of innovative business activities of enterprises, in our opinion, should be reflected in the adoption of sound management decisions aimed at ensuring continuous innovation of products and technologies, opening new sales markets, increasing the efficiency of production capacity, expanding investment flows to the innovative part of the economy. At the same time, successful innovative business activities of enterprises require a favorable external environment and innovation potential capable of creating highly innovative business activities aimed at creating new organizational and management structures, technologies, goods and services in the long run.

## **6. THE ROLE OF INCENTIVE POLICIES OF THE STATE IN THE INNOVATIVE ACTIVITIES OF BUSINESS ENTITIES**

The goals, objectives and incentive tools of public investment policy (tax incentives, credit support, infrastructure upgrades, etc.) should encourage private companies to increase their innovation costs. Studies show that companies that spend more than 25% of their "innovation" budgets on software for various purposes are growing faster than their competitors. Innovation spending by 1,000 of the world's largest innovation corporations increased 0.04% in 2016 to \$ 680 billion [13]. Let's look at the ranking of the 20 international companies with the highest innovation (innovation) costs in 2016 and their distribution according to different criteria. These companies are mainly from the United States, Germany, Switzerland, Britain, Japan and South Korea, and operate mainly in the computer and electronics, software and internet, automotive and healthcare sectors. Their annual innovation costs range from \$ 6 to \$ 13 billion. The state should promote "public-private partnership" in innovation policy. At the same time, technical and knowledge support should be provided to ensure that innovation strategies in new companies are part of an overall business development plan that is constantly evaluated. The innovation strategy must be built in accordance with market requirements and consumer expectations. The company collects information on specific innovation efforts, identifies new opportunities, and expands the organization's knowledge by constantly reviewing outside perspectives within its sector or other industries. The company must use all internal and external opportunities to commercialize inter-sectorial ideas. Corporations, with the support of the state, should work with current and potential suppliers, distributors, educational institutions and service providers to meet innovation needs and branding goals. Organizations need to properly manage their financial resources to implement their innovation agenda. Appropriate measurements and risk management measures should continuously optimize the investment portfolio and reconsider investment opportunities in different life cycles. The state's innovation policy should also take into account that the probability and risk of failure of individuals, groups or companies in their attempts to form an innovative solution is very high [14]. Easy access to financial resources and ICT infrastructure also help firms in their innovative activity. At the same time, the development of an effective mechanism for government stimulation of start-ups, especially for small firms, the formation of specialized financial mechanisms (risk-tolerant "angel investors" and venture structures), the knowledge, skills and skills of employees, especially young people. Increasing the opportunities, bringing the top management of companies closer to technological progress, more effective protection of intellectual property rights by the state in this area are of particular importance.

## 7. CONCLUSION

- 1) The viability of any business entity in the non-oil sector of the Azerbaijani economy directly depends on the degree of achievement in the innovative reconstruction of work. The process of creating innovations and increasing efficiency in all functional spheres of economic activity must become an integral system of planning, scientific research, project development, production, marketing, in short, the process of entering and strengthening the market. Special departments and services should be established in all economic entities of the country to ensure the expansion of the scope of application of innovation measures and increase the quality of efficiency.
- 2) In order to succeed in the field of innovation, a mechanism should be created for the integration and coordination of the activities of local firms as a whole, and their inter-functional interactions in innovation activities should be regulated. The development of an innovation-oriented economy requires the application of a new concept of staff training, which is based on the formation and development of a creative personality. We believe that in order to continue to compete in the non-oil sector of the Azerbaijani economy and to overcome existing difficulties, enterprises should prefer the application of new management tools to solve problems quickly and efficiently.
- 3) In this regard, we consider it more expedient to apply reengineering as one of the most effective tools of antitrust management in the current situation. One of the current problems in the management of innovative development is that the state budget is not always able to independently finance many large, long-term innovative projects, especially those that are important for the engineering industry and the country's economy as a whole. In this regard, there is a need to attract financial resources from private investors based on the principles of public-private partnership envisaged in the Strategic Roadmap. In the process of implementing innovative projects of social importance, including in engineering, all participants have the opportunity to achieve certain results as a result of the interaction of the state, society, science and business. In the long run, public-private partnership will increase the competitiveness of the country's economy in the non-oil sector and improve the quality of life of the population.

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## INNOVATIVE POTENTIAL OF A HUMAN-WORKER AS A FACTOR OF THE HUMANIZATION OF ECONOMY

**Melek F. Ismailova**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*mimax1977@mail.ru*

### **ABSTRACT**

*Modern economics is characterized by anthropocentrism aimed at the humanization of economic knowledge. The moral-psychological, moral-spiritual, social characteristics of a person have a direct impact on economic processes. Economic benefits can lead to both humanization and dehumanization of the economy, while the moral and personal potential of a human worker, which includes values such as morality, kindness, justice, etc., is initially the bearer of the tendency to humanize a society as a whole, and an innovative economy in particular. Improving the quality of human life is expressed not so much in maximizing the satisfaction of his material needs, but in the possibility of developing his personal qualities, maximum self-realization as a professional and personality. The article summarizes the terminological interpretations of the semantic content of the concepts of “innovation”, “innovative potential of enterprise personnel”. The essence of the concept of “innovation” as a product of the economy of thinking is revealed, the conditions for its formation are identified, the properties are determined taking into account social assessment. The definition of the concept of humanity of innovation is given. The important role of personnel potential as the main generator of innovative ideas and the main driving force of the innovative economy is substantiated, and the essence and content of its most important component, the innovative potential of the enterprise personnel, are determined. The content of the basic elements of the innovative potential of industrial workers is considered. The primary value of the moral subpotential, on which the formation of its remaining subpotentials and their use in the economy is introduced and justified.*

**Keywords:** *Humanization of the economy, Humanity of innovation, Innovative potential of enterprise personnel, Sub potentials of innovative potential of personnel*

### **1. INTRODUCTION**

For successful competition, modern enterprises are faced with the need to introduce new, innovative products to the market. The modern process of diffusion of innovations is continuous and requires continuous improvement of the development of new types of industries, technologies in order to create popular products that would meet the needs of customers. Innovative activity provides and guarantees a modern organization of long-term competitive advantages in the market of goods and services, as well as promising economic development. One of the most important factors in the innovative activity of enterprises is its employees as carriers of new knowledge, generators of ideas, which also ensure their promotion and implementation.

### **2. INNOVATION AND INNOVATIVE HUMAN RESOURCES OF THE ENTERPRISE**

The transition of the economy to an innovative development path is carried out through radical changes in all its fields, including in the sphere of organization and management of labor activity. The personnel potential of a modern enterprise striving for successful activities should be innovative. The ability of enterprise personnel to generate, produce, use innovations guarantees significant competitive advantages. The term “innovation” in the economy is no synonymous with the “new invention” or even “novation”.

The main condition for the metamorphosis of a new invention or process into innovation is the possibility of its commercialization and market demand. In other words, if the introduction of a new invention (products, services, technologies) on the market does not lead to a qualitative and quantitative increase in the efficiency of the current system, then this invention is not an innovation at this stage. For example, inventions such as a round iMac USB mouse in the form of a yo-yo or Apple TV media box did not have sales success. Therefore, these new inventions are not innovative. Innovation in its development must go through the stages of growth from idea to product:

*Investment - Production - Development - Commercialization*

Being the creation of human intellectual, creative, rationalization, moral and ethical activity, the innovation is a new product, method or process that leads to increased efficiency, is useful and has a demand in the corresponding market. The activity of the enterprise, which includes activities of a scientific, technological, organizational nature, which lead to the latest, progressive, innovative changes in the organization, i.e. innovative activity, involves the competent use of a combination of production and intellectual resources. The modern period of the economy is characterized by the fact that in the classical market the main productive forces of the economy were material and monetary resources, now it is “innovative thinking oriented to cognition of the meaning of new knowledge and its increment in innovation” [1, p. 97]. Innovative thinking breeds an innovative idea. An idea is shaped into knowledge. The knowledge formed on the basis of an idea tends to become obsolete over time, while the “idea” itself is continuous and renewable. Consequently, the personnel potential of enterprises, as a generator of ideas, is an important strategic factor on which the success of the economy depends. Professionalism, initiative, innovation, staff motivation of enterprises determine the possibilities for the emergence of innovative ideas, the introduction of modern production and management technologies, innovative transformation of jobs, etc. The period of transition of the economy to an innovative level of development is characterized by constant competition of ideas. Today, the task of learning about an emerging innovation and introducing or copying it requires not several years or even months, as before, but only a few days. Innovation is continuous. In these conditions, the enterprise personnel, as the main productive force, are presented with special non-standard requirements. The new economy requires the formation of personnel potential, taking into account the intensive improvement of the latter, positively perceiving and generating innovations to achieve the goals of the organization, and as its component, the innovative potential of the employee. In other words, the most important component of human resources is innovation potential, which is manifested in the ability to generate and timely implement valuable competitive ideas, quickly make innovative decisions in the performance of traditional tasks, increase the level of knowledge, skills and abilities for implementing innovations in new products, technologies, continuously engage in self-education, show creative initiative and creativity. The decisive role in enhancing innovative activity belongs to the anthropocentric factor represented by the modernized type of human worker, not so much highly qualified, highly intelligent and highly productive, as most business leaders believe, how much creativeness, able to promptly generate, develop, apply new ideas, technologies, products and put them into practice. It is also important that the components of the innovative potential, its sub-potentials are system-forming, i.e. they cannot exist separately and, closely intertwined with each other, form a model that makes it possible to understand the category of “innovative potential of personnel”.

### **3. THE STRUCTURE OF THE INNOVATIVE POTENTIAL OF THE ORGANIZATION'S PERSONNEL**

The innovative potential of personnel, as an integrated economic category, is subdivided, according to N.V. Borovsky and E.A. Kipervar, to the following subpotentials [2, p. 20-23]:

1. Educational subpotential - the level of education, its nature, knowledge of foreign languages, computer programs, as well as the ability to self-education;
2. Professional production - the ability to apply extraordinary professional knowledge, constantly update and develop them;
3. Scientific - the ability to collect, analyze the necessary information, the ability to put it into practice; ability to track scientific and technological innovations;
4. Creative - the presence of extraordinary creative thinking; initiative, ability to generate and realize new ideas.

The model of personnel's innovative potential has traditionally been a synthesis of labor, intellectual, professional, creative and entrepreneurial potentials. In other words, according to the authors, the innovative worker must have labor skills to carry out his job functions, professional and scientific knowledge, not be afraid of risks, and be an innovator of ideas, creative and constructive. However, following this definition, involuntarily remember war crimes against humanity carried out by highly educated inventors, innovators who invented new technologies and products for violence and murder, professionals who bring these inventions into action, etc. The development of nuclear science and technology, which is the basis of the energy industry, as well as the entire modern industry, solves many problems of medicine and health, food and agriculture, other areas of science and technology on the one hand, and represents a danger to all mankind on the other. Moreover, nuclear weapons of mass destruction and nuclear energy are based on the same processes occurring in the core of matter. It turns out that forming and developing innovative potential, humanity poses a threat to itself?

### **4. THE HUMAN -WORKER'S MORAL AND PERSONAL POTENTIAL AS A CARRIER OF THE TREND OF HUMANIZATION OF ECONOMY**

Modern economics is characterized by anthropocentrism aimed at the humanization of economic knowledge. The moral-psychological, moral-spiritual, social characteristics of a person have a direct impact on economic processes. The development of human innovative potential is the main source, as well as the ultimate goal of economic development. Improving the quality of human life is expressed not so much in maximizing the satisfaction of his needs, but in the possibility of developing his personal qualities, maximum self-realization as a professional and personality. The innovative potential of a person is considered not only from the point of view of economic science, but also psychology, sociology, ethics and cultural studies. Thus, it is worth noting another important element of the employee's innovative potential, the formation and development of which is so necessary from the point of view of humanity - the moral and personal subpotential. In the definition of the properties of the concept of "innovation", in addition to usefulness and commercialization, it is recommended to include such an important property as the humanity of innovation. The moral and personal potential, in our opinion, is the primary component of a person's innovative potential, on which the formation of his remaining subpotentials and their use depend. It consists of two elements - moral potential, including moral attitudes, and personal, representing the value orientation of the carrier. Philosopher-economist Malashkhia G.M. noted that "The trends of humanization and dehumanization in economic facts, processes and relations are related to the ambivalence and relativity of goods (goods and services), they can be beneficial or harmful depending on the direction and nature of use."

Economic benefits are transformed into economic good or social evil:  
 The economic benefits & Moral Values → Social goods;  
 The economic benefits & Anti-values → Social evil; [7, p. 157].

From the above it follows that economic benefits can lead to both humanization and dehumanization of the economy, while the moral and personal potential of a human-worker, which includes qualities such as morality, kindness, justice, etc., is initially the bearer of the trend humanization of innovative economy and the whole society.

## 5. CONCLUSION

In today's economy, survival is guaranteed for those who choose the path of active innovation. In these conditions, the need for the formation and development of innovative human resources of the enterprise, as the main creator of innovation and the main force of innovation, is growing. Moreover, one should not ignore the important place of the moral and ethical aspect in the system of innovative potential of a human-worker and make adjustments to the key concepts of this category. After all, history knows numerous cases of inhumane results of innovative activity of people. The innovative potential of personnel should be considered as an integrated system, the elements of which are closely interconnected and intertwined with each other. The primary component of the innovative potential of a human-worker should be noted moral and personal subpotential, which is a factor in the humanization of the economy and society.

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# THE STABILITY OF COMMERCIAL BANKS OF THE REPUBLIC OF AZERBAIJAN AND ITS IMPACT ON THE ECONOMIC DEVELOPMENT OF THE COUNTRY

**Alida Huseynova**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*alida\_gusenova@unec.edu.az*

## **ABSTRACT**

*The state of the banking system of Azerbaijan has not yet returned to normal, and it is early to talk about their active participation in the real sector of the economy. The state of the banking system of the Azerbaijan Republic reflects the state of the economy as a whole, the financial sector and legal regulation. The main task of reforming the banking sector is to create favorable conditions for the sustainable development of the banking system. For the further development of commercial banks, it is necessary to disclose the main problems of individual credit organizations that operate in the country, and it is also necessary to develop ways to increase the sustainability of the banking system. At the present stage, it is crucial to solve the problems of commercial banks at the state level, develop the state approach to these problems and the legislative allocation of these banks. Also, further prospects for the development of the practice of Republic's commercial banks are directly related to the development of the country's economy. The next main problem of Azerbaijani banks is the problem of lending. Currently, the most efficient allocation of resources is lending to the real sector of the economy, which create favorable conditions for increasing the stability of commercial banks. To date, commercial banks have enough free cash. But banks do not invest these funds in loans to enterprises and organizations, although this is the main source of their income. The insolvency of many enterprises in the country and high credit interest are the main reasons that negatively affects lending to the real sector of the economy. In general, the main reason for small contributions to the real sector of the country's economy is the financial condition of industry. Currently, the main drawback of the banking system is the incapacity to invest. The main reason for this is considered to be that the banking system of Azerbaijan is a universal credit organization that provides a full range of banking services. Commercial banks of the country cannot make long-term investments in large volumes for the reconstruction and development of many sectors of the economy due to the lack of clients who invest their funds for the long term. So, the revealed problems of the banking system of the Azerbaijan Republic testify to its functioning in difficult political, social and economic conditions. In the current economic environment, the main task of reforming the banking system is the formation of a modern, sustainable banking sector of the country. To do this, it is necessary to develop measures aimed at improving the sustainability of commercial banks. The sustainability problems of commercial banks are the problems associated with the socio-economic characteristics of the country and the degree of participation of banks in the economy.*

**Keywords:** *Insolvency, Incapacity, Investment, Lending, Reform, Reconstruction, Sustainability*

## **1. INTRODUCTION**

At the present stage of social development, the problem of ensuring the sustainability of commercial banks is acquiring key importance. The difficult financial situation of credit organizations, on the one hand, and the necessary expansion of investment in the economy, on the other hand, identify problems, turn them into one of the most relevant theoretical and practical issues of the national economy. The economic life of the country shows that banks are dependent on the economy.

The state of the banking system of Azerbaijan has not yet stabilized, and it is early to talk about their active participation in the real sector of the economy. Also, the level of population deposits in the formation of the resource base of banks is not high. The state of the banking system reflects the state of the economy, the financial sector and legal regulation. At the present stage of development of the economy of the republic, the banking system is in a state of searching for ways to survive and adapt to new conditions. Today, the state of the banking sector can be described as moving from an unstable position to relative stabilization. The stability of commercial banks is not only an attribute of the modern policy of their survival, but also a strategy for the development of credit institutions.

## **2. SUSTAINABILITY OF COMMERCIAL BANKS OF THE AZERBAIJAN REPUBLIC**

The main task of reforming the banking sector is to create favourable conditions for the sustainable development of the banking system. For the further development of commercial banks, it is necessary to disclose the main problems of individual credit organizations that operate in the country. To activate the banking system, it is necessary to solve the following important problems:

- Recapitalization of many commercial banks;
- Formation of banking infrastructure;
- Creation of conditions for equal competition;
- Improving the level and effectiveness of asset management;
- Attraction of long-term resources by the bank.

Currently, the banking system of Azerbaijan needs to be reformed into a single policy of modernizing the economy, which is aimed at strengthening the internal stability of the banking sector, the formation of new financial instruments, integration with other sectors of the economy. Strengthening and forming the banking system of the republic is a matter of national importance. Therefore, at the present stage, an important task is to solve the problems of commercial banks at the state level, the state approach to these problems and legislative allocation of these banks.

### **2.1. The problems of stability of commercial banks and their impact on the economic development of the Republic of Azerbaijan**

The stability problems of commercial banks are associated with the socio-economic characteristics of the country and the degree of participation of banks in economic development [4, p. 49]. The main problem of Azerbaijani banks is the problem of lending. Currently, the most efficient allocation of resources is lending to the real sector of the economy, which creates favourable conditions for increasing the stability of commercial banks. To date, commercial banks have sufficient free cash accumulated in correspondent accounts, but banks do not place these funds in loans to enterprises and organizations, although this is the main source of their income. The main reason that negatively affects lending to the real sector of the economy is the insolvency of many enterprises in the country that are not able to repay the loan received upon maturity. Also, most enterprises in the regions of the country are in a state of bankruptcy and operate at a loss. Only a small number of enterprises are able to repay the loan within the specified period. In addition, for enterprises, the credit percentage, which is used in the banking system of the republic, is very high. In general, the main reason for small contributions to the real sector of the country's economy is the financial condition of the industry. Currently, the main drawback of the work of the banking system is the inability to invest. The main reason for this is considered to be its institutional feature. The banking system of Azerbaijan is a universal credit organization that provides a full range of banking services.

Commercial banks of the country cannot make long-term investments in large volumes for the reconstruction and development of many sectors of the economy due to the lack of clients who invest their funds in the long term. The main goal of all commercial banks is to make a profit mainly through customer service. So, the revealed problems of the banking system of the Azerbaijan Republic testify to its functioning in difficult political, social, and economic conditions.

### *2.1.1. Causes of stability problems of commercial banks*

The main problems of the country's banking industry are related. The reasons for their occurrence are as follows:

- Unilateral development of the country's economy, aimed at 1-2 industries;
- High level of unprofitable agricultural enterprises;
- Great dependence of regions on external sources of financing;
- Monopoly of export and import operations and access to the international financial market.

Also, further prospects for the development of the commercial banks of the republic are directly related to the development of the country's economy and, above all, to the financial situation of enterprises in districts and regions. Thus, the problems of commercial banks are closely related to the following factors:

- Due to the insolvency of many enterprises, which have accumulated huge amounts of debt, lending to the real sector of the economy is weak in many regions;
- The growth of non-payments, the increase in the number of unprofitable enterprises is the main reason that impedes the normal functioning of banks, which leads to a decrease in the stability of the bank;
- Due to the unstable economic situation in the country, commercial banks cannot attract long-term deposits from legal entities and individuals; therefore, cannot issue loans for the long term, as a result of which the volume of production and technical re-equipment of enterprises cannot increase.

## **3. WAYS TO IMPROVE SUSTAINABILITY OF COMMERCIAL BANKS AND ITS INFLUENCE ON THE ECONOMIC DEVELOPMENT OF THE AZERBAIJAN REPUBLIC**

Considering the problems that commercial banks are currently facing, we consider it necessary to identify ways to increase the sustainability of commercial banks. They can be grouped in the following areas:

1. Creating favourable conditions for the interaction of banks with the real sector of the economy;
2. Intensification of the modernization of investment activity;
3. Enhanced interaction of banks with executive authorities;
4. Formation of equal competition in the banking sector.

### **3.1. Creating favourable conditions for the interaction of banks with the real sector of the economy**

In the current conditions of the country's economic development, it is necessary to strengthen the connection of commercial banks with the real sector of the economy. The main factor in the country's economic growth is the creation of favourable conditions for banks to invest in the real sector of the economy. In Azerbaijan, the number of stable enterprises capable of taking a bank loan and repaying their debt on time is not large. In addition, the underdevelopment of laws regulating the collateral relationship makes lending to the real sector of the economy a very risky business.



At present, international financial bodies are proposing the adoption of a law “On Bank Loans,” which regulate bank lending. It is impossible not to agree with this proposal since currently credit relations between the bank and customers are regulated by the Regulation of the Central Bank of the Republic of Azerbaijan. Also, it is necessary to develop a legislative act aimed at legal support for the repayment of the borrowed funds. Currently, it is also necessary to make a number of changes to the regulatory acts governing collateral relations. It is necessary to simplify the procedure for registering collateral and withdrawing them from an unscrupulous borrower. Today, registration of property rights to property due to bail can drag on. It should be noted that each delay of the term not only freezes funds but also brings loss to the bank. Until the institution of protection of the rights of the creditor is provided to banks from by the state, no measure taken to develop lending to the real sector of the economy will have a positive effect. In general, to reduce credit risks, it is necessary to open “credit bureaus” in the country that would deal with the disclosure of information on the conscientious fulfilment by the borrower of obligations to the bank. Credit bureaus can function as independent organizations that will work in the interests of credit organizations and their customers. In this regard, it is necessary to adopt a law that ensures the rights and obligations of participants in these relations. In order to increase the role of commercial banks in the development of the country's economy, it is very important to stimulate the pooling of credit resources in the form of a syndicated loan, which will help reduce risks. However, in our country, banks do not trust each other, and therefore this method of allocating resources is practically not used. Also, in the legislative framework of the Azerbaijan Republic, there is no normative act that would be devoted to this form of credit. Due to the absence of a regulatory act, syndicated lending cannot develop at the proper level. So, the implementation of the above-proposed measures can help to reduce credit risks and the development of credit relations between banks and enterprises.

### **3.2. Intensification of modernization of investment activities**

The problem of increasing investment activity for the economic development of Azerbaijan is the main one, since the development of the real sector of the economy, financial stability and economic growth of the country depend on it. The main factor in the development of investment activities of regional commercial banks is the level of investment activity of investors and the degree of investment attractiveness of business entities. At present, it is considered necessary to create favourable conditions in the region for the development of investment activity. Executive authorities should direct their actions to create favourable conditions for enhancing innovation, introducing new equipment and technologies, implementing new products, conducting reconstruction and modernization of production. To increase investment activity, it is necessary to refine the system of providing state guarantees for banks' investments in the industry. We consider it appropriate to develop and adopt a law at the state level, which should provide for a certain period of tax and levy incentives for enterprises that invest their resources in the development of the region, as well as control the investment and give a guarantee from the local authorities. The creation of consulting centres could help increase investment activity in the country, the main work of which would be the development of investment projects, analysis of investment activity in the country, insurance of investment risks, etc. So, the implementation of the measures proposed above will increase investment activity in the country, increase the number of attracted funds of banks from legal entities and individuals, which ultimately will increase the stability of commercial banks.

### **3.3. Strengthening the interaction of banks with executive authorities**

A stable banking system can be formed through the participation of executive and legislative bodies. The intervention of such institutions in the banking system will lead to the development of the activities of commercial banks.

Transparency of the economic and political situation in the country increases the confidence of the banking community in the ongoing economic transformation. The economic development of the country depends on the relationship between government and banks at the state level. Administrations should approach commercial banks as the main part of the country's economy, helping them solve their problems. At the same time, the main task of banks is to find ways and means to support government economic recovery programs. On the part of executive authorities, service by one bank or a holding of enterprises and administrations should not be allowed, as this violates the principle of equal competition. And also, this measure will reduce the risks that may arise when concentrating the local budget financial resources in one bank and increase the competitiveness of commercial banks. The participation of banks in the state investment program depends on the value of their assets and bank equity. Commercial banks should themselves be interested in becoming an initiator in mutually beneficial relations with the administration. So, the coordination of the activities of commercial banks and executive authorities should be aimed at developing the country's economy and, accordingly, at increasing the stability of the banking system.

### **3.4. Formation of equal competition in the banking sector**

All the above-proposed measures to increase the stability of the banking system will not be successful without determining the role of banks in the country's economy. Therefore, the acute problem is the formation of equal competition in the banking environment. In the banking market, the need to maintain competition is long overdue. Therefore, it is advised to issue a law "On equal competition in banking", which would establish the basic rules for the formation of a fair banking environment. This law can counteract all methods of unfair competition, and especially the use of political influences in the country. The largest banks provide services to their customers at dumping prices through their branches, which cannot be done by smaller banks. Antitrust regulation is carried out by state control over banks that occupy a dominant position in the banking market, to prevent these banks from using their dominant position in contradiction with the development of the banking system and competition in the banking services market [2, p. 98]. For antitrust regulation, the state should introduce a territorial restriction on the activities of credit organizations in the provision of a preferential mode of operation for individual commercial banks. To develop a competitive banking environment, it is necessary to publish balances and reports on the financial results of the activities of commercial banks in the country on a quarterly basis, as well as key indicators such as capital adequacy ratio, quality of the loan portfolio and the number of reserves to cover doubtful assets. In general, to enhance the role of commercial banks in the country's economy and create a favourable competitive banking environment, the following issues need to be addressed:

- Ensuring fair competition;
- Adopting the concept of development of the banking system and forming a state policy for its development;
- Ensuring market discipline and observing the principles of equal competition by all participants in banking activities;
- Resolving issues of professionalization of banking personnel and staff development.

## **4. CONCLUSION**

The banking system is considered an important component of the mechanism for the implementation of reproductive relations in the economy. The banking system and material production are interconnected and interdependent. And therefore, the state of the national economy, the social sphere of society, and other aspects of the country's economy depend on the degree of stability of the banking system.

To increase the role of commercial banks in the economic development of the country, it is necessary to increase the capital of banks. For this, it is necessary to create favourable conditions for increasing the equity of commercial banks.

In this case, it would be prudent to implement the following activities:

- Increase bank capital by economic methods, including tax incentives, in particular, establish preferential income tax rates for credit institutions;
- Create a legal climate throughout the country that allows capital to work in a given country with great benefits (tax incentives, legal protection of investors and budget transparency);
- To carry out subordinated lending through the mechanism of state influence (Central Bank of Azerbaijan or international financial bodies).

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## EVALUATION OF NATIONAL WEALTH APPROACHES AND PROBLEMS

**Farhad Mikayilov**

*Associate professor and Senior researcher at  
Scientific Research Institute of Economic Studies,  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
farhad.mikayilov@unec.edu.az*

**Shafiga Mammadova**

*Associate professor at Sumgait State University, Azerbaijan  
shafiga\_mammadova@mail.ru*

**Elman Ibishov**

*Associate professor and Senior researcher at  
Scientific-Research Institute of Economic Studies,  
Azerbaijan State University of Economics (UNEC), Azerbaijan*

**Rafail Rzayev**

*Scientific Research Institute of Economic Studies,  
Azerbaijan State University of Economics (UNEC), Azerbaijan*

**Rashad Huseynov**

*Associate professor at Scientific Research Institute of Economic Studies,  
Azerbaijan State University of Economics (UNEC), Azerbaijan*

### ABSTRACT

*The study of the national wealth of a country has many important, comprehensive and interrelated issues: the essence, analysis, evaluation, effective use, etc. of national wealth. discovery. Given that national wealth is one of the main macroeconomic indicators of the country and is the basis for sustainable development, it is easy to imagine the appropriateness and perspective of a comprehensive study of these issues. Under the concept of national wealth, it is understood that all assets of the country that allow the production of goods, provide services and save lives are understood. At the same time, national wealth is the basis and result of the sustainable economic development of each state. Therefore, a complete and objective assessment of the structure and dynamics of national welfare should be considered as an important and urgent issue for the state of the economy and the development of economic policies. National wealth acts as an indicator of the overall assessment of development outcomes in the country's historical development process. MS is a collection of financial gains accumulated in the country over a period of time. The main problem in the assessment of national wealth is the complexity of each of its constituent elements. Until recently, the methodology used to calculate national wealth was very different and made it difficult to make international comparisons. The National Coordination Appraisal and National Wealth Calculation Method was applied on the basis of the National Accounts System - 2008 (MHS-2008) supported by the UN Statistical Commission. The World Bank's concept of national wealth has become more widespread lately. According to this concept, national wealth consists of the elements that make up the whole system: natural capital, physical capital (produced), intangible (human and institutional) capital.*

*By investigating two different systems, we believe that the structure of the system should be examined in three ways for best results: intangible assets (human capital, intellectual, social and institutional values) and financial assets (financial instruments and instruments).*

**Keywords:** *National wealth, Economics resources, The national wealth of the country, The structure national wealth and its evaluation, Sustainable development, Fixed assets, Natural capital, Physical capital, Human capital, Financial capital*

## 1. INTRODUCTION

The study of a broad aspect of the market economy in modern times requires specific requirements to be identified for the formation and use of national wealth, one of the main macroeconomic aggregates, particularly for the effective development of theoretical and practical approaches to its evaluation. The research of the country's national wealth covers a number of important, broad and interrelated issues: the essence of the national wealth, analysis of its structure, evaluation, efficient use, etc. allows detection. Considering that national wealth is one of the main macroeconomic indicators of the country and the basis of its sustainable development, it is not difficult to imagine the suitability and expectations of a comprehensive study on these issues. On the other hand, it addresses a number of important issues that ensure the new, civilized and innovative economic development of the Republic of Azerbaijan in modern conditions: increasing the efficiency of the country's natural and human resources, energy potential, modernization of fixed assets and production, increasing competitiveness in world markets. and improving the quality of life in the country, etc. directly related to problem solving. In this context, it should be noted that the main purpose of the economic activity of each country is to increase socio-national wealth in any form where it may arise.

## 2. RESEARCH

The term "national wealth" (KB) refers to the sum of all the assets that make up a country's goods, services and people's lives. At the same time, national wealth is the basis and result of the sustainable economic development of any state. For this reason, a complete and hereditary assessment of the structure and dynamics of national wealth, the state of the country's economy and the development of economic policy must be evaluated as important and urgent. At different stages of development of society, there were different approaches to the concept of national wealth (KB), one of the main categories of economy, and to the interpretation and evaluation of economic processes and events in connection with their change and development. This diversity is closely related to the respective aspects of the accumulation and use of national wealth in appropriate developmental stages. As a result, these approaches objectively reflected real social development over a period of time. Concepts and approaches that continue to take shape until the modern period, the features of the National Wealth itself, its sources of evaluation and formation, aspects of effective use, etc. ensures that the period is determined in accordance with the needs. Since ancient times, one of the most important issues in economic resources and theories is the nature of wealth, the evaluation of resources, etc. like identifying questions in this direction. The famous former philosopher Plateau, under the concept of wealth, accepted the abundance of "property" and means enough for a prosperous life and happiness. Another well-known ex-philosopher Aristotle designed wealth as a combination of the state and the family, tools necessary and necessary for life. Physiocrats considered the land as wealth and saw the result of the peasant and his labor as real wealth. Thus, during the agricultural society, soil and raw materials were considered to be the main wealth, and in the approaches of the mercantilists (XVI-XVII centuries), only the accumulation of gold and silver was considered wealth, and they saw the source of wealth in trade. Starting with A. Smith, classical economists constantly valued the nations' three wealth resources: land, labor, and capital [2].

The classics saw labor as the main source of goods produced and accumulated in all areas and as natural, human resources and wealth. As a partner of the theory of value, the classical political economist Marx saw wealth as material production or as a result of labor. He pointed out the dual nature of wealth: its social form and material content. Marx accepted all material values as material wealth and capital as social wealth. Thus, capital acted as an economic category as a series of relationship types [1; 35]. In the nineteenth and twentieth centuries, however, Western economists focused on accumulated capital rather than national wealth. Under the concept of accumulated capital, they accepted only the produced capital - machinery, equipment, raw materials and structures (this capital, which can later be used for production). Accordingly, the cost of increasing these reserves has been evaluated as investment. Environmental protection, education, etc. Costs lower than most costs and potential savings opportunities. Well-known economist and statistician Raymond Goldsmith also considered only real assets (for example, land, equipment, buildings, etc.) as Wealth. However, the increasing sustainable and sustainable development of society made it necessary to take into account the growing role of natural and especially human capital in national wealth. In modern times, since the National Wealth is the main source of any country's economic potential and sustainable development, it is difficult to say whether the economic assessment method of natural and human capital is still fully implemented. However, it allows us to draw specific conclusions about the progressive development of world countries, legitimate changes in the national wealth structure and the practical measurement of their sustainable, unsustainable development. In the Soviet economic literature, stocks of material goods created by labor and used for production and consumption were accepted as National Wealth. In this case, natural resources and labor act as a resource and condition for the creation of national wealth. Many Soviet economists have included natural resources in the National Wealth. There was an idea to include intangible assets in the National Wealth [3]. Therefore, in terms of the potential and power of the state, national wealth is considered as a series of material benefits that are involved in the reproduction of natural resources at the disposal of society and created by the labor of all generations. In a broad sense, national wealth includes natural resources, forests and water resources, the value of agriculture, intangible assets, the development, level and ability of the working population, the achievements of science and technology, NOW, cultural and moral values and past experiences. The national wealth serves as an indicator of the overall assessment of the development results of the country in its historical period. MS is the sum of material goods accumulated for a certain period of time in the country. In the period up to the beginning of the twentieth century in Azerbaijan as in the CIS and Russia, the valuation of national wealth includes fixed assets, working capital and household assets. External statistics in many countries of the world consider the following components when estimating the value of national wealth: non-financial productive assets (fixed assets, working capital reserves), tangible assets (land, mineral resources, natural, biological and groundwater resources), intangible resources (inventions, licenses, NOW, goodwill, etc.), financial assets (monetary gold, currency, shares of industrial companies, government bonds, external debt). In this context, national wealth is defined as the reduced sum of the financial liabilities of a country's economic assets. The main problem in the evaluation of national wealth is the complexity of evaluating each of its components individually. Until recently, the method of calculating national wealth was very different, making it difficult to make international comparisons. An internationally accepted method for calculating and calculating national assets has been implemented on the basis of the National Accounts System - 2008 (IFRS-2008). This document is supported by the UN Statistical Commission as an international standard. National wealth is the most important indicator used to evaluate a country's level of economic development. Based on this document, National Wealth is defined as the net value of the capital of all residents at the beginning (end) of the period [4].

The World Bank's Concept of National Wealth has become more common lately. According to this concept, national wealth consists of the following elements that make up the whole system [5]: natural capital, physical capital (produced), abstract (human and institutional) capital [6-8]. According to the World Bank's concept, it includes natural capital, energy and material resources, industrial and non-industrial forest resources, arable land, pastures and protected areas, physical capital, machinery, equipment, buildings and structures, as well as urban land, intangible capital: Other assets of the country are defined as the difference between physical and natural capital sum. In this case, national wealth is defined as an indicator obtained from national income and interest rates. Based on all of the above, it should be noted that first of all, the composition or structural elements of the National wealth can be given as shown in the proposed scheme. In our view, the most convenient way to evaluate the Member State is to examine its structure in three directions and indicate its components: intangible assets (fixed and natural capital), intangible and living assets (human capital, intellectual, social and institutional values). and financial assets (financial instruments and tools). It should be noted that the Azerbaijan National Wealth Index was calculated only by the State Statistics Committee between 1990 and 2004 in the following sections [10]: fixed capital, fixed assets, non-fixed production funds, working capital, long-term consumption goods use (household property of the population), material non-current assets. In our view, the reasons why country statistics have not been applied to national wealth ever since: lack of financial resources, natural resources, human capital, cultural values, etc. the complexity of calculating the value of national wealth components and their adaptation to international standards, etc. can be associated with problems. However, some economists have recently tried to estimate the value of the Azerbaijan National Wealth over some elements [11]. Therefore, since 2005, due to the lack of data on the statistical evaluation of Azerbaijan's national wealth, the results of a number of components derived from the relevant structural bodies and some sources are as follows: 182788.5 million manats [14], according to the State Statistical Committee of the Republic of Azerbaijan, According to the State Oil Fund of the Republic of Azerbaijan, as of 30 June 2019, the value of the fund assets is 42463.7 million manats. According to the US Central Bank, as of 30.09.2019 the gold reserves of the fund are 95.47 tons, the official international money reserves of the country according to State Oil Company of Azerbaijan Republic (SOCAR) 01.01 is 6034.1 million USD [15]. As of 2019, oil balance reserves are 4.47 billion tons and balance oil reserves are 1.66 trillion m<sup>3</sup>. [11] According to the source, the country's hydroelectric reserves are 37,000,000,000 kW. It should be noted that the evaluation of national wealth is a very complex process, both methodologically and in terms of gathering and obtaining information. Lack of data about national wealth and related information in country statistics increase this complexity.

*Figure following on the next page*

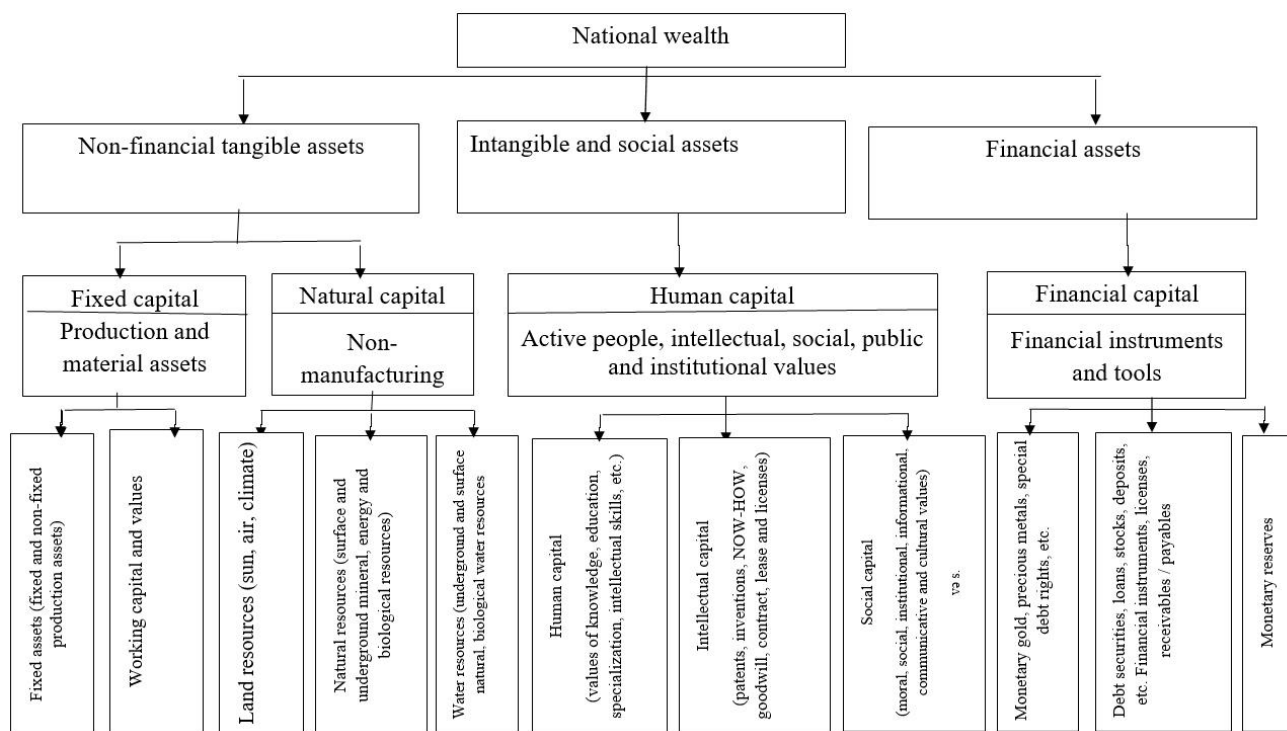


Figure 1: National wealth and its full structural elements

### 3. CONCLUSION

Recently, the role of human capital in the Member State has been widely discussed. The concept of Sustainable Human Development, introduced by the world countries at the UN General Assembly at the end of the last century, reflects the leading role of human capital in the innovative development of human resources, their health, intellectual abilities, knowledge, creativity, in short, the country and society as a whole. The World Bank's methodology sets out three main components of the Member States: human capital, physical capital and natural capital [12]. At the end of the twentieth century, the World Bank estimated that the share of human capital in the creation of MS was 64%, the share of natural capital was 20% and the share of physical capital was 16%. Today, as a result of the development of competitive innovation-oriented economies in many developed countries, the share of human capital in creating Member States has increased to 80-90% [13]. Canada, USA, Japan, etc. It is among the countries with this indicator. takes a special place. Thus, the increasing share of human capital in the Member State once again makes it necessary for its effective evaluation and development.

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# THE IMPROVEMENT PROBLEM OF THE STATE FINANCIAL - BANKING SYSTEM ROLE IN PROVISION OF SUSTAINABLE DEVELOPMENT

**Mushrevan Ali Aliyev**

*Associate professor at Department of «Regulation of economy»,  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
musrevan.aliyev@mail.ru*

## ABSTRACT

*Budget-tax and monetary systems play an exceptional role in the sustainable development and diversification of the economy, improving the welfare of the population and reducing poverty in general. For this reason, developing and implementing the progressive measures in the financial and banking sector in the formation of a system of sustainable economic development of the country have a great importance. In this article, we assess the current state of the financial and banking system of Azerbaijan and try to reveal the peculiarities of the formation of financial and banking priorities of our national economy in the context of modern globalization. In this article, we assess the current position of the financial and banking system of Azerbaijan and try to reveal the peculiarities of the formation of financial and banking priorities of our national economy in the context of modern globalization. The goals and objectives of ensuring macro-financial stability in countries with transition economies, sustainable trends in the global economy, recent oil price fluctuations, economics, and public finances have been grounded in the research. The need for economic growth, full employment, low inflation, small budget deficits, low public debt, and a stable current account balance are highlighted in terms of increasing the role of the financial and banking system in macroeconomic stability. Central Bank's interest rate corridor continues to decrease inflation as it decided on discount rates. The factors such as the growth rate of the nominal income of the population over the rate of growth of the overall price level, the improvement of the balance of payments, and the positive dynamics in economic activity were also taken into account. The carried out research has shown that in recent years, an acceptable level of inflation, the stability of the national currency, and the relevant foreign exchange reserves have been maintained in the country. At the same time, the governments' monetary and exchange rate policies are aimed at further strengthening the banking system and improving the monetary security of the economy. Ensuring the sustainable economic development of the national economy depends to a large extent on the success of the state's implemented fiscal policy. First of all, the provision of sustainable economic development is a priority of the government, and the fiscal policy plays an important role in the overall economic policy of the state. The incorrect fiscal policy can lead to many undesirable consequences.*

**Keywords:** *sustainable economic development, budget-tax system, monetary system, national economy, macro-financial stability*

## 1. A VIEW OF SUSTAINABLE ECONOMIC DEVELOPMENT IN THE WORLD

Prolonged trade and geopolitical tensions and unresolved traditional problems in some Developing Countries led the global GDP to its lowest level since the financial crisis. On the other hand, the decline in unemployment in many countries, the trade transaction between the United States and China and the Brexit agreement have recently created positive expectations in the financial and banking system in many countries. The decline in global economic activity, which began in the second quarter of 2018, continued in 2019. According to the International Monetary Fund (IMF), global economic growth has fallen to its lowest level since the global financial crisis.

Growing trade and geopolitical tensions have a negative impact on business confidence, global trade and industrial production. The slowdown in economic activity in the face of growing uncertainty is synchronous with developed countries (DCs) and developing countries (DCs). The updated Global Economic Review of IMF for January 2020 downloaded its global economic growth forecast for 2020 to 3.3%. Compared to the report of January 2019, the economic growth forecast was reduced by 0.3% percentage points (for - developed countries 0.1%, for developing countries - 0.5%). Economic growth in Developed Countries is projected at 1.6% in 2020 and 2021. Compared to the October 2019 report, the economic growth forecast for 2020 decreased by 0.1% percentage points, and remained stable in 2021. Economic activity in the United States is expected to slow down due to fiscal stimulus. Economic growth in Developing Countries is projected at 4.4% in 2020 and 4.6% in 2021. This is 0.2% percentage points lower than the October 2019 report. Despite the recent decline in protectionist tendencies, according to international organizations and experts, the risks in the global economy continue to grow. Geopolitical tensions, especially US-Iran tensions, uncertainty in domestic political decisions, natural disasters caused by climate changes, and intensification of social unrest in many countries refer to these risks. In particular, growing geopolitical tensions between the United States and Iran could reduce oil supplies and global investment. In addition, rising social tensions in many Developing Countries could complicate reforms and thus lead to lower-than-expected economic growth. At the same time, the slowdown in 2019 by the world's largest economies United States, the Eurozone and China, makes risks for 2020. Thus, the emergence of stagnation in any of these economies may weaken the economic prospects of other countries through trade relations, commodity prices and financial channels.

## **2. ANALYSIS OF THE STATE FINANCIAL AND BANKING SYSTEM IN ENSURING SUSTAINABLE DEVELOPMENT IN AZERBAIJAN**

The main driving force of economic growth in Azerbaijan are the factors of domestic demand. The increasing trend of economic activity continues. Economic growth in the non-oil sector was mainly taken place due to trade sectors.

### **2.1. Monetary policy and inflation of the state.**

The monetary policy of the state is of great importance in increasing the role of the state financial and banking system in ensuring sustainable development. Thus, the main goal of the state's monetary policy is the provision of the price stability in the national economy. Low and stable inflation is one of the main conditions for maintaining the living standards of the population, creating a favorable environment for business, improving access to financial resources for the population and business, and confidence in the national currency (Ioannou and Serafeim, 2017). Due to the implemented purposeful economic policy and structural-institutional reforms, the positive dynamics of economic activity in Azerbaijan has been maintained, and the surplus balance has created conditions for the growth of strategic foreign exchange reserves. The formation of the inflation rate within the target corridor, which has been accepted for years, has provided significant support to economic activity by creating certainty in economic conditions. The active monetary and exchange rate policy implemented by the Government has played a decisive role in the formation of price stability and inflation expectations (Aragón-Correa and Rubio-López, 2007)). Consistent normalization of the monetary conditions for the neutralization of a number of important internal and external inflation factors, at the same time with the aim of supporting the economic activity and employment, has achieved balanced results towards growth and stability. The monetary policy implemented by the state's financial and banking system is aimed at strengthening the results achieved in the direction of price stability and keeping inflation at a low single-digit level. At the same time, the main external and internal factors affecting economic dynamics and, in

particular, price stability were kept in focus (Waas et al., 2011). The rise in world food prices, the dynamics of energy prices, the growth rate of credit activity, especially consumer credit, channels and other factors influencing the price stability of fiscal policy and fiscal deficit financing sources implementing in monetary policy have been taken into consideration. The state financial and banking system implements the comprehensive measures to strengthen financial stability in the country, in order to develop the financial sector and increase access to finance for the real sector. With the utilization of macroprudential instruments, the financial sector will be protected from systemic risks, and a framework of control based on best practices has been applied (Hinson et al., 2015). The stability and development of the financial sector, along with economic growth, has had a positive impact on the conduct of monetary policy. The forms and methods of communication policy, which is an important tool of monetary policy, have been further improved and its role in shaping inflation expectations has been strengthened (Carroll and Shabanna, 2010). At the same time, both the acceleration of economic growth in the country and the main factors in ensuring macroeconomic stability, including price stability, depend on the close coordination of various economic policy directions, important structural and institutional reforms. It should be noted that, positive trends in the external and internal balance of Azerbaijan continued in a complex global economic environment in 2019. The balance of payments was in surplus, and the recovery in aggregate demand had a positive effect on economic growth. In the past period of 2019, prices for goods of strategic importance in the global commodity markets tended to increase. World food prices rose by 9.5% in November compared to the same month last year. In the world market, Brent oil rose in price by 28% in the past period of 2019, with an average price of \$ 64.2 per barrel. Weak growth in global demand (mainly in Developing Countries), technological innovations in oil production and the use of energy carriers are the reducing factors of oil prices. The extension of the agreement between OPEC and non-OPEC members to reduce oil production and sanctions against some major oil producers are having an increasing effect on oil prices. In general, the global situation was favorable for Azerbaijan, and although the average oil price decreased compared to last year, positive trends in the balance of payments were maintained. During the year, inflation in Azerbaijan remained at the target range and was one of the lowest among the CIS space and partner countries. The policy started in 2018 to bring the monetary situation closer to neutral level has been continued. According to official statistics, in November 2019, 12-month inflation was 2.6%, below the center of the target range. Over the past year, the prices of 8.8% of products included in the consumer basket remained unchanged, while the prices of 15.4% fell. The price increase of 46.4% of the expensive products was less than 2%. The price index for food products with significant weight in the consumer basket increased by 4.8% on an annualized basis in November. Strengthening of growth trends in world food prices is one of the main factors influencing domestic food inflation through the inflation import channel. On the other hand, seasonal factors have an increasing effect on the prices of some local agricultural products. Reduction in annual inflation rates for non-food products and services (1% and 0.9%, respectively) have a limiting effect on overall inflation.

*Table following on the next page*

*Table 1: Price indices of consumer goods and paid services provided to the population*

Years	Total products and services	Of which :			1\$=manat
		Food products	Non-Food products	Paid services	
2000	101,8	102,3	101,9	99,5	0,91
2001	101,5	102,7	100,2	98,8	0,95
2002	102,8	103,7	102,3	99,8	0,98
2003	102,2	103,3	101,0	99,7	0,99
2004	106,7	110,0	101,5	100,8	0,98
2005	109,6	110,9	105,4	109,7	0,92
2006	108,3	111,9	105,3	102,6	0,87
2007	116,7	116,2	110,5	125,3	0,84
2008	120,8	128,6	111,5	111,4	0,8
2009	101,5	98,5	103,4	107,1	0,8
2010	105,7	107,2	102,3	104,3	0,8
2011	107,9	110,4	102,6	104,7	0,79
2012	101,1	100,8	101,0	101,2	0,78
2013	102,4	102,2	100,8	103,5	0,78
2014	101,4	101,0	103,2	100,3	0,78
2015	104,0	106,1	103,8	101,2	1.04
2016	112,4	114,7	116,7	105,8	1.55
2017	112,9	116,4	111,6	109,3	1.65
2018	102,3	101,7	102,6	102,7	1.70

Source: <https://www.stat.gov.az>

In general, the revival of consumption and rising food prices on world markets effect on inflation, while exchange rate stability, monetary conditions, the dynamics of administrative prices and low inflation expectations have had a stabilizing effect. Average annual core inflation, excluding regulated prices, as well as seasonal agricultural prices, was 3.2% in 2010-2019. The financial and banking system of the state kept the actual dynamics of inflation and equilibrium in the minimum level in foreign exchange market. Household inflation expectations were low and stable. Inflation expectations for the non-oil refining industry and the service sector were also close to actual inflation. The exchange rate of the national currency has proved to be one of the most stable currencies not only in the region, but also in the currency group of developing countries, acting as the main anchor of macroeconomic and financial stability in the country. However, the supply exceeded the demand in the domestic currency balance, and the exchange rate of the manat was under increasing pressure in 2019. Currency supply, mainly the balance of payments surplus, have been supported by oil revenues used for fiscal purposes and de-dollarization trends. The foreign exchange rates determined by the banks were close to the official exchange rates. The official exchange rate is determined on the basis of the weighted average exchange rate in the interbank market. The volume of foreign exchange transactions in the interbank market increased by 15%. It is evident that inflation level in Azerbaijan is significantly lower than the average inflation in trading partner countries has supported the competitiveness of the manat by reducing its impact on the real effective exchange rate. Since the end of 2014, the real effective exchange rate of the manat has depreciated by more than 33%. Taking into account the achieved macroeconomic stability and neutralization of a number of internal and external factors of inflation, the easing of monetary conditions both in the direction of reducing the value of money and increasing the amount of money have been implemented.

## 2.2. Interest corridor

The parameters of the interest rate corridor were discussed 8 times and a decision was made to reduce the discount rate in stages from 9.75% to 7.5%, in 2019. Overall, discount rate has been reduced for 2 times since the beginning of 2018. The expansion of the money supply has also played an important role in approximation of monetary conditions to neutral. The monetary base in manat has increased by 23% since the beginning of the year. The growth of broad money supply in manat (monetary aggregate M2) was 13.8%. The easing of monetary conditions has a reducing effect on interest rates. In general, since the beginning of 2018, the average interest rate on new deposits attracted in manat decreased by 2.9 percentage points, and the average interest rate on new loans in manat decreased by 3.4 percentage points. Interest rates in the government securities market also fluctuate in parallel with the dynamics of the Central Bank's interest rate corridor parameters. The de-dollarization process continued in the context of low inflation and a balanced foreign exchange market. Dollarization of deposits of individuals fell from 62.5% at the beginning of the year to 54.1%. For the effective management of liquidity in the economy and the banking system, the Central Bank has adequately used the monetary policy instruments at its disposal. Starting in September, the periodic diversification of sterilization instruments with placement of 84, 168 and 252 day notes and support of the formation of interest rates in the short-term period of the yield curve are important. Despite the decline in interest rates over the period, a significant excess of supply over demand at auctions shows that the banking system remains a large structural surplus in terms of liquidity.

## 2.3. Financial stability and development of the financial sector

The maintaining policy of financial stability in Azerbaijan covers banks, non-bank credit institutions, capital and money markets, and the insurance system. Although the balance of systemic risks in the financial sector remains fragile, financial stability has been maintained and lending activity is recovering. As part of the restructuring of the state banking sector, capital injections were carried out on several banks and changes have been made in prudential regulations to increase the efficiency of the risk management system. In general, the restructuring process in the financial sector has not yet been completed. In connection with the implementation of the Decree dated February 28, 2019 "On additional measures to resolve problem loans of individuals in the Republic of Azerbaijan", 602,000 citizens were reimbursed within the framework of compensation, and more than 300,000 citizens were restructured their loans. 644.5 million. manat compensation have already paid to the citizens. As of the last date, loans of 123.1 thousand borrowers in the amount of 242.3 million manat were restructured on favorable terms (1% for 5 years). The amount of interest and penalties written off under the decree amounted to more than 205 million manat, and the loans of 42,000 borrowers were fully repaid. Execution of the decree had a positive impact on the quality of bank assets. In November of this year, the share of overdue loans in the sector in the portfolio decreased by 3 percentage points compared to the end of 2018. However, problem loans are one of the fragility of the stability of the financial system. By the end of 2019, the capital adequacy ratio of the indicators of financial stability was 22.6%, the ratio of liquid assets to total deposits was 40%. Consistent efforts are being made for increasing financial literacy in the country, covering various target groups and regions. From the beginning of the year, credit investments increased by 16.1%, which was mainly due to a 21% increase in loans to households. The share of loans to households in the loan portfolio reached 50.4%. Bank deposits of the population, which are the main source of resources of banks, increased by 3.7% from the beginning of the year and amounted to 8.7 billion. manat. 84.4% of deposits are protected by the Deposit Insurance Fund.

*Table 2: Credit investments in the economy and attracted deposits from the population*

	<b>Credit investments in the economy</b>	<b>Attracted deposits from the population</b>
<b>2000</b>	<b>466,4</b>	<b>79,3</b>
<b>2001</b>	<b>486,2</b>	<b>117,0</b>
<b>2002</b>	<b>520,2</b>	<b>153,4</b>
<b>2003</b>	<b>670,3</b>	<b>251,9</b>
<b>2004</b>	<b>989,6</b>	<b>403,1</b>
<b>2005</b>	<b>1 440,9</b>	<b>494,5</b>
<b>2006</b>	<b>2 362,7</b>	<b>819,5</b>
<b>2007</b>	<b>4 681,8</b>	<b>1 468,4</b>
<b>2008</b>	<b>7 191,3</b>	<b>1 905,3</b>
<b>2009</b>	<b>8 407,5</b>	<b>2 334,9</b>
<b>2010</b>	<b>9 163,4</b>	<b>3 029,8</b>
<b>2011</b>	<b>9 850,3</b>	<b>4 119,8</b>
<b>2012</b>	<b>12 243,7</b>	<b>5 113,4</b>
<b>2013</b>	<b>15 422,9</b>	<b>6 395,8</b>
<b>2014</b>	<b>18 542,6</b>	<b>7 188,4</b>
<b>2015</b>	<b>21 730,4</b>	<b>9 473,9</b>
<b>2016</b>	<b>16 444,6</b>	<b>7 448,7</b>
<b>2017</b>	<b>11 757,8</b>	<b>7 561,2</b>
<b>2018</b>	<b>13 020,3</b>	<b>8 375,4</b>

Source: <https://www.cbar.az>

Incomplete restructuring processes in the financial sector have been one of the factors slowing down the improvement of the deposit insurance system. Financial market development measures have focused on improving securities clearing and settlements, attracting foreign investors, promoting the issuance of new financial instruments through securitization, as well as optimizing the tariff regime. The volume of trades in the secondary market of government securities increased by 4 times, in the secondary market of corporate securities by 38% and in repo transactions by 81%. The issues have been carried out for developing the insurance sector and improving control over the sector and protect consumer rights. Sector assets have increased by 13.5% since the beginning of the year. The volume of insurance payments increased by 8.6% compared to the same period last year.

### **3. PANDEMY, FINANCE-BANKING SYSTEM AND SUSTAINABLE ECONOMIC DEVELOPMENT**

Due to the pandemic, economic activity in the world's leading economic centers has fallen sharply, and unemployment is rising significantly. Influential international organizations have made significant adjustments to reduce the global economic growth forecast for 2020. The International Monetary Fund forecasts a 3% global recession this year. High fluctuations are observed in energy markets amid a significant contraction in global demand. Although a new OPEC ++ agreement was gained in April, oil prices continued to fall. Global financial markets, including the foreign exchange markets of major trading partners, continued to fluctuate. International organizations and individual countries have begun to implement large-scale support programs to support economic activity during the pandemic period. According to the dynamics of inflation and inflation expectations in Azerbaijan, although annual inflation rose slightly as expected, it remained below the center of the target range. According to official statistics, annual inflation in March was 3.3%. Over the past 12 months, inflation was 6% for food, 1.2% for non-food and 1.2% for services. The increase in food inflation is mainly explained by the short-term increase in demand for food in the context of tightening the quarantine regime, as well as a local increase in production and transportation costs. According to the monitoring of real sector enterprises, inflation expectations remained unchanged in March compared to the previous month, decreased in trade, increased in the non-oil industry

and services. The slight increase in household inflation expectations is temporary. While maintaining the current macroeconomic policy framework, recent forecasts show that inflation will remain in the target range ( $4 \pm 2\%$ ) in 2020. Monetary conditions were affected by the surplus in the state budget and measures taken to stabilize the situation in the foreign exchange market. The dynamics of the monetary base is a factor supporting stability in the foreign exchange market. The dynamics in April show that the situation in the foreign exchange market has returned to normal condition. Depending on the situation, monetary policy instruments are adequately applied to meet the liquidity needs of the economy and ensure the stability of the foreign exchange market. Necessary changes have been made in the framework of the formation of the term and interest rates of sterilization instruments, taking into account the latest trends in the money market. Interest rates in money market segments fluctuate in different directions. Interest rates in the interbank money market tend to increase. The average interest rate in the interbank REPO market rose from 4.5% in March to 8% in April. There has been no significant change in interest rates on new savings and deposits, as well as new loans in manat over the past month. The attractiveness of manat assets for economic entities is maintained in the context of low inflation. Although the dollarization of deposits increased slightly in the last month of the first quarter, the opposite process was observed in April. The extension of the law "On full insurance of deposits" will not only protect the deposit base of banks, but also support the process of de-dollarization. The main source of growth of the loan portfolio is business loans. Consumer loans are declining and the share of consumer loans in the loan portfolio is declining. The measures taken by the Central Bank to support the population and businesses affected by the pandemic will allow easing lending conditions while maintaining financial stability. As in most countries around the world, the negative effects of the coronavirus pandemic on economic activity are observed in Azerbaijan. The Central Bank's monitoring of real sector enterprises shows that the positive dynamics of economic activity in the non-oil industry, construction, trade and services in January-February was replaced by a decline since March, with a sharp decline in trade activity. As a result of the effects of the coronavirus, economic growth in the first two months of 2020 fell to 1.1% in the first quarter from 2.8%. In particular, economic growth in the non-oil sector in the first 2 months was 6.7%, and at the end of the first quarter - 3.5%. The government's economic support package and synchronized macroprudential measures, which exceed 4% of GDP, should allow to slow down demand contraction – jobs and employment should be protected. Uncertainty about the prospects for changes in the risk balance of inflation remains high. Global economic activity and the situation on the world oil market mainly affect our country through channels such as export revenues and expectations. On the other hand, the restriction of imports of goods and services by social isolation measures applied on a global scale is a balancing factor. The country's flexible macroeconomic maneuverability in line with the new realities, foreign exchange reserves that significantly exceed the norms of adequacy, and the ongoing economic assistance package help to reduce the negative effects of the pandemic. The reduction of macroeconomic risks will depend on the recovery of the global economy after the easing of the quarantine regime and the acceptable stabilization of oil prices on world markets.

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## **CURRENT PROBLEMS OF THE BANKING SYSTEM OF AZERBAIJAN IN THE CONDITIONS OF THE GLOBAL FINANCIAL CRISIS AND THE DIRECTION OF IMPROVING THE MECHANISMS OF SOLUTION**

**Muslum Mursalov Mursal Ogli**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*muslum-murselov@mail.ru; mursalovmuslum@gmail.com*

### **ABSTRACT**

*The global financial crisis that began in the spring of 2007 undoubtedly affected the banking system of Azerbaijan. This article analyzes the consequences of the crisis for the banking system, noting the steps taken by the government and the central bank, and presents new approaches towards a way out of the situation. The study also reflects the state of the banking system in the period after the devaluation, concludes that problems persist, and makes suggestions for improving their comprehensive solutions. The author is trying to argue that not all factors cited as the causes of the global financial crisis are typical of the banking system of Azerbaijan. He is trying to defend this opinion with the help of an analysis based on the reports of the Central Bank of the Republic of Azerbaijan and the State Statistics Committee of the Republic of Azerbaijan, as well as on the recommendations of the IMF mission in Azerbaijan on the banking system in 2008. In general, the author emphasizes that the problems of the banking system of Azerbaijan are still ongoing, grouping them according to the periods of creation. Then, after a detailed analysis, he combines the problems of the banking system into two important blocks because of their urgency. After that, proposals are made to improve the problem-solving mechanisms for each block. The author noted that solving problems united in the first block will help to solve problems in the second block. Thus, it can be said that the article considers issues of current problems of the banking system in Azerbaijan, their causes and improvement of mechanisms for solving from a slightly different context. The author's many years of experience in various positions in the banking system of Azerbaijan further contributes to the comprehensive level of elaboration of the problem and the practicality of the package of proposals.*

**Keywords:** *bad loans, capital investment, deposits, discount rate, legal and regulatory instruments, loan agreement, open currency position*

### **1. INTRODUCTION**

The global financial crisis of 2007-2008 and its second wave in 2011 were accompanied by the collapse of the banking system of developed countries, the announcement of the bankruptcy of some banks, the forced nationalization of some by the state and the acquisition of assets by others. Thus, the economic literature shows that the first phase of this crisis, called the Anglo-Saxon financial crisis (spring 2007 - March 2008), began with problems in the US mortgage market and ended with the rescue of Bear Sterns, one of the largest US mortgage banks. The bank was rescued by another American investment bank, JP Morgan Case, by acquiring the money needed to purchase the latest Bear Sterns from the US Federal Reserve. In addition, in September 2007, Northern Rock, the fifth largest mortgage bank in the United Kingdom, was one of the first to suffer financial turmoil. The bank's policy was based on financing long-term mortgage loans through short-term interbank loans and household deposits. An influx of depositors came to the bank amid expected problems with timely repayment of mortgage loans. However, the problems of Northern Rock were resolved by announcing the nationalization of the bank and its acquisition by the British government.

Although the causes of this crisis, which is growing in the economic and geographical areas, are explained differently in different literature, we consider it worthwhile to mention some of the reasons why everyone came to a general conclusion. Several reasons at the same time (and sometimes together) caused a crisis. First, the real estate industry hoped that housing prices would rise unreasonably quickly. Many investors used most of their debt in the hope that the profit outweighed the debt. As property prices began to rise slowly and even fall in parts of the United States, those who invested in debt securities were left out of business. If the real estate market continued to grow, the income from the sale of mortgage-backed securities would be \$ 30 per \$ 1 investment. The risky behavior of investors can be explained as follows: in the end, the expected profit is high, and the risk of a collapse in the real estate market is relatively small. But there was one thing that investors did not take into account: if the real estate market even falls slightly, investors who invest their money in a mortgage lose their ability to pay off their debts. Secondly, a large number of unscrupulous mortgage lenders have attracted future property owners to mortgages with variable (flexible) interest rates. Borrowers were promised low-interest rates for the first two to three years, after which interest rates and required payments rose sharply. Many lenders who encourage high housing prices sell high-risk mortgages, even for low-income people and illegal immigrants. As a result, mortgage payments have become more complex. This is also due to the fact that the investment of pension funds in mortgage-backed securities led to a decrease in the savings of the population. Although banks suffered the most from the mortgage crisis, they had a significant negative impact on the construction industry and the economy as a whole and left a deep mark on taxation. In general, a number of authors, especially Gramlich and Krugman, explain all this by the absence of any federal regulation and control over independent creditors. In this context, the article presents research on the study of urgent problems of the banking system of Azerbaijan and proposals on how to get out of this situation.

## **2. FACTORS CONTRIBUTING TO THE EMERGENCE AND GROWTH OF PROBLEMS OF THE BANKING SYSTEM OF AZERBAIJAN DURING THE CRISIS AND THE SEARCH FOR SOLUTIONS**

### **2.1. Analysis of key factors**

Undoubtedly, the global financial crisis, which we mentioned above, also affected the banking system of Azerbaijan. The study shows that not all factors called the causes of the crisis are typical for the banking system of Azerbaijan. Thus, an analysis of the structure of credit investments in the banking system by sector in a statistical bulletin prepared by the Central Bank of the Republic of Azerbaijan shows that credit investments in the construction and real estate sectors in 2007 amounted to 312.3 thousand manat or 6.7%. 461.4 thousand manat or 6.4 percent in 2008, including credit investments in the construction and purchase of real estate (including mortgage loans) in 2007, 171.6 thousand manat or 3.7 percent, in 2008 197.6 thousand manat or 2.7%. Until 2012, the share of loans in the construction and real estate sector in the total volume of loans amounted to single digits, and the share of loans in construction and real estate purchase (including mortgage loans) in the total volume of loans remained unambiguous until 2016. In addition, the report of the State Statistics Committee of the Republic of Azerbaijan shows that in 1995-2008 64.6% was invested in industrial development, 7.7% in housing construction, 13.1% in transport and communications. Over the years, 135.4 thousand new apartments with a total area of 13.8 million square meters were built and commissioned. 5.0 million square meters (35.9 percent) of commissioned houses were built in rural areas. Over the years, 9.8 million sq. M (up to 71.0% of all houses) of individual houses. If we add to the above that the Azerbaijan Mortgage Fund was re-created during the crisis, as well as the fact that the securities market was not fully formed in those years, the economy of Azerbaijan is growing, it is clear that the crisis in most developed countries is not typical for

banking systems of Azerbaijan. Here we can only talk about an incorrect assessment of debtors in real estate lending, a significant reduction in the initial cost of mortgaged real estate by the end of the loan term, and further extension of the average term for selling real estate. This is confirmed by the recommendations of the International Monetary Fund (IMF) to the Azerbaijani government in 2008 on strengthening the banking supervision system. This was stated at a press conference by the head of the IMF mission in Azerbaijan, Valeria Fikera. “We met with the leadership of the National Bank of Azerbaijan (now the Central Bank). In general, we value the banking supervision system in Azerbaijan, but currently, there are certain trends in the banking sector that can create certain problems in the future. “In 2007, the volume of lending by banks doubled compared to 2006, which could lead to the emergence of bad loans in the future,” said Fikera. According to her, Azerbaijani banks should strengthen the policy of evaluating debtors. In addition, the IMF gave the National Bank specific recommendations on capital markets and banking supervision. In general, given that the problems of the banking system of Azerbaijan still persist, they can be divided into two periods depending on the period of their occurrence:

- 1) Problems of the period from the global financial crisis to devaluation;
- 2) New problems after devaluation.

*Table 1: The structure of credit investments in the economy by credit organizations (at the end of the period)*

Year	Total credit investments	State banks		Private banks						Non-Bank Credit Organizations	
				Total		including banks with foreign capital		of which banks are 100% - with foreign capital			
		mln. manat	specific gravity, %	mln. manat	specific gravity, %	mln. manat	specific gravity, %	mln. manat	specific gravity, %	mln. manat	specific gravity, %
2005	1441,0	748,3	51,9	653,1	45,3	263,5	18,3	25,9	1,8	39,6	2,7
2006	2362,7	1068,3	45,2	1229,7	52,0	545,8	23,1	55,8	2,4	64,7	2,7
2007	4681,8	1990,7	42,5	2563,0	54,7	1437,6	30,7	216,2	4,6	128,1	2,7
2008	7191,3	3027,5	42,1	3989,0	55,5	2024,9	28,2	379,9	5,3	174,8	2,4
2009	8407,5	3911,7	46,5	4318,7	51,4	2074,4	24,7	386,6	4,6	177,0	2,1
2010	9163,4	3901,9	42,6	5069,9	55,3	2306,3	25,2	464,2	5,1	191,6	2,1
2011	9850,3	3300,0	33,5	6298,8	63,9	3002,0	30,5	586,2	6,0	251,5	2,6
2012	12243,7	4137,1	33,8	7785,5	63,6	3394,0	27,7	759,3	6,2	321,1	2,6
2013	15422,9	5300,4	34,4	9689,4	62,8	4612,5	29,9	1034,7	6,7	433,1	2,8
2014	18542,6	6143,8	33,1	11873,6	64,0	5580,1	30,1	1388,6	7,5	525,2	2,8
2015	21730,4	7289,3	33,6	13875,2	63,8	6394,1	29,4	1564,5	7,2	566,0	2,6
2016	16444,6	5749,2	35,0	10222,0	62,2	4328,8	26,3	1248,8	7,6	473,4	2,9
2017	11757,8	1916,2	16,3	9421,4	80,1	3456,3	29,4	1063,6	9,0	420,2	3,6
2018	13020,3	2098,4	16,1	10529,8	80,9	3349,5	25,7	1071,3	8,2	392,0	3,0
2019	15298,2	2561,5	16,7	12339,4	80,7	3655,8	23,9	1107,4	7,2	397,2	2,6

\* -Decrease in credit investments due to restructuring measures carried out at International Bank of Azerbaijan OJSC

\*\* Indicators are calculated in accordance with the methodology of the Monetary and Financial Statistics of the International Monetary Fund  
(Source: Central Bank of the Republic of Azerbaijan)

As can be seen from the table, credit investments doubled during the crisis and continued to grow in subsequent years. An increase in lending is accompanied by an increase in past due loans. This would lead to problems with liquidity in banks; therefore, the National Bank decides to lower the required reserve ratio.

*Table 2: Mandatory reserve requirements of the Central Bank, in%*

Duration of activity	On funds raised from legal entities		On funds raised from non-resident banks and financial institutions, including international financial organizations		On funds raised from individuals	
	in national currency	in foreign currency	in national currency	in national currency	in national currency	in foreign currency
01.10.1992-30.04.1993						
- As required	15	15	-	-	15	15
- From 1 month to 1 year	12	12	-	-	12	12
- more than 1 year	10	10	-	-	10	10
01.05.1993 - 30.05.1993						
- As required	15	15	-	-	15	15
- From 1 month to 1 year	12	12	-	-	12	12
- From 1 to 3 years	10	10	-	-	10	10
- more than 3 years	8	8	-	-	8	8
31.05.93 - 19.12.93	12	5	-	-	12	5
20.12.93 - 30.04.94	12	25	-	-	12	25
01.05.94 - 30.06.94	12	5	-	-	12	5
01.07.94 - 31.12.94	18	5	-	-	18	5
01.01.95 - 31.03.95	12	12	-	-	12	12
01.04.95 - 28.02.97	15	15	-	-	15	15
01.03.97 - 01.11.99	12	12	-	-	12	12
02.11.99 - 31.12.2002	10	10	-	-	10	10
01.01.2003 - 31.01.2006						
- up to 1 year	10	10	-	-	10	10
01.02.2006 - 15.07.2008	10	10	-	-	10	10
16.07.2008 - 13.10.2008	12	12	5	5	12	12
14.10.2008 - 30.11.2008	9	9	0	0	9	9
01.12.2008 - 31.01.2009	6	6	0	0	6	6
01.02.2009 - 01.03.2009	3	3	0	0	3	3
01.03.2009 - 01.01.2011	0,5	0,5	0	0	0,5	0,5
01.01.2011- 01.05.2011	0,5	0,5	0,5	0,5	0,5	0,5
01.05.2011-01.07.2011	2	2	2	2	2	2
01.07.2011-31.01.2012	2	3	2	3	2	3
01.02.2012-31.07.2014	3	3	3	3	3	3
01.08.2014 -01.03.2015	2	2	2	2	2	2
01.03.2015 - 02.03.2016	0,5	0,5	0,5	0,5	0,5	0,5
From 03.03.2016	0,5	1	0	0	0,5	1

In 2009-2011, this indicator sharply decreased compared to 2008 to 0.5%. However, contrary to the expectations of the National Bank, instead of holding on to the released funds to solve the expected liquidity problem, they directed them to issue new loans. Later, this led to the provision of funds necessary to solve this problem through expensive deposits and short-term expensive interbank resources and serious financial losses of banks. The study shows that the credit policy of banks with a high degree of risk led to large losses. Some banks continue to attract “expensive resources” due to the rapid decline in asset returns, while interest rates are not sufficient to finance not only reserves, but also interest payments on deposits. In order to prevent such situations, that is, to cover losses and provide additional funds necessary to restore capital adequacy, the Board of the Central Bank on July 25, 2012, decided to establish a minimum total capital in banks in the amount of 50,000,000 manat. However, most bank owners who did not want the majority of shareholders tried to collect this amount by other illegal means, rather than real money. To justify our opinion, just look at the information published by the General Prosecutor's Office of the Republic of Azerbaijan on November 29, 2017. According to the information provided on the Report.az website, the former chairman of the board of Atrabank OJSC, which is in the process of liquidation, deliberately contradicts its official authority in order to gain an illegal advantage for itself in connection with the

performance of official duties to prevent the revocation of the bank's license and to continue activities of the bank in violation of applicable laws in the banking sector, including the provisions of the decision of the Board of the Central Bank of July 25, 2012 on establishing the minimum total capital in banks in the amount of 50,000,000 manat. In order to increase the authorized capital in connection with the issuance of illegal loans in the amount of 6.700,000 manat for the names of 3 private enterprises that do not carry out activities. Some banks even "go further" to solve the problem of capital and loans to related parties once and for all, that is, to hide an illegal operation, one bank gives a loan for the same amount at a lower interest rate in another, and the other in the first.

## 2.2. Assessing other factors

Undoubtedly, in addition to the above, other factors also contributed to the deterioration of the situation of banks. This list includes unsatisfactory bank management results (inability to take into account the country's main macroeconomic indicators, especially real per capita income when lending, incorrect assessment of both national and external factors when developing banking policy, etc.), difficulties in court resolution of problem loans (extension of time as a result of trials in all three instances in connection with the treatment of debtors using their rights, inflexibility and non-compliance transparency of the auction and enforcement processes, nihilism in the law, and etc.), and the devaluation that occurred twice in 2015. The fact that banks account for household incomes, which are the main source of repayment of retail loans, was insignificant. If this were not so, one could see that after deducting part of the final consumption and obligatory payments from the average monthly nominal income, the remaining part was not enough to make annuity payments on short-term loans.

*Table 3: The main macroeconomic indicators ("part of the nominal income of the population")*

Year	Nominal incomes of the population		Average monthly nominal wage		Consumer price index	
	Total, mln. manat	Growth rate, %	Total, manat	Growth rate, %	compared to the previous month, %	average annual, %
2005	7792.3	125.7	117.9	121.9	2.2	9.6
2006	9949.8	123.4	141.3	119.8	2.1	8.3
2007	14305.6	140.3	214.0	142.0	2.5	16.7
2008	20058.2	137.8	268.0	124.2	-0.4	20.8
2009	22396.1	108.0	298.0	108.6	0.8	1.5
2010	25605.6	113.3	331.5	111.2	1.4	5.7
2011	30633.5	119.6	364.2	109.9	0.9	7.9
2012	34723.9	113.8	396.0	108.7	0.7	1.1
2013	37555.5	108.0	420.5	106.2	1.9	2.4
2014	39360.7	104.8	444.3	105.7	0.5	1.4
2015	41738.6	105.7	464.4	104.5	4.4	4.0
2016	45395.1	108.7	498.6	107.4	3.0	12.4
2017	49162.9	108.3	528.2	105.9	0.5	12.9
2018	53688.6	109.2	544.1	102.9	0.8	2.3
2019	57035.0	107.4	634.8	116.6	0.5	2.6

*(Source: Central Bank of the Republic of Azerbaijan, State Statistics Committee of the Republic of Azerbaijan)*

As can be seen from the table, after deducting part of final consumption and obligatory payments (in all reports of the Cabinet of Ministers of the Republic of Azerbaijan this indicator was at least 70%) of the nominal average monthly wage per capita, some of which remain at the disposal could not be repaid on time high-interest and short-term loans offered by banks. It is also necessary to take into account the sharp increase in the consumer price index in 2007-2008 and in the period after the devaluation. With the exception of loans from the Mortgage and Credit Guarantee Fund of the Republic of Azerbaijan and the National Entrepreneurship

Support Fund of Azerbaijan, high interest rates and low repayment periods (at best from 1 to 3 years) of funds raised by banks from other sources force banks to comply with these conditions during granting loans. This does not coincide with the incomes and desires of the population, so the problem of “problem loans” remains relevant. Another important issue that banks did not take seriously, but which subsequently led to the greatest financial losses for them, which led to the bankruptcy of many, was a sharp deterioration in the open foreign exchange position. Thus, banks directed most of the foreign currency attracted from non-residents to loans in national currency, did not take into account the subsequent conversion of household deposits into foreign currency at their request, and as a result suffered significant losses during the devaluation of 2015. This can be seen more clearly by comparing the data in the following tables:

*Table 4: Currency structure of the total deposit base (at the end of the period)*

Year	Total deposits	including:			
		in manat		in foreign currency	
		as required	on term	as required	on term
2007	4127,2	962,8	939,4	754,2	1470,8
2008	6460,2	1054,1	1240,1	1025,3	3140,7
2009	6379,1	1133,0	1220,3	1057,8	2968,0
2010	7625,8	1486,3	1719,0	1438,6	2981,9
2011	9447,0	1756,6	2524,1	1671,9	3494,4
2012	10699,2	1981,1	3081,4	1645,1	3991,6
2013	12475,8	2326,6	4084,3	1441,7	4623,2
2014	15453,4	2734,4	5009,1	1798,8	5911,0
2015	23431,4	2233,2	2068,5	5739,5	13390,2
2016	22091,0	2635,1	2823,9	4803,3	11828,7
2017	20599,1	3287,8	2397,8	7015,3	7898,2
2018	21870,4	4935,5	2646,2	7078,3	7210,4
2019	24746,0	6440,1	3217,5	7083,4	8005,0

*\*) Calculated according to the methodology of the International Monetary Fund “Money and Financial Statistics”. Including contributions from non-residents, state bodies, municipalities and public organizations*

*(Source: Central Bank of the Republic of Azerbaijan)*

*Table following on the next page*

Table 5: Credit investments of credit organizations by terms (at the end of the period)

Year	Total	including:	Loans in national currency					
		overdue	Total loans	including: overdue	Short-term	including: overdue	Long-term	including: overdue
2005	1441,0	68,2	542,9	20,6	353,1	15,8	189,8	4,8
2006	2362,7	77,7	1170,5	23,1	597,4	18,6	573,1	4,5
2007	4681,8	100,3	2513,7	44,9	1066,4	35,7	1447,3	9,3
2008	7191,3	159,8	3672,9	93,2	1346,9	56,0	2326,0	37,2
2009	8407,5	303,5	4886,2	195,1	1452,7	92,1	3433,5	103,1
2010	9163,4	492,9	5865,3	342,1	1523,8	156,8	4341,5	185,3
2011	9850,3	633,8	6326,5	452,1	1901,0	233,8	4425,5	218,3
2012	12243,7	748,8	8422,8	575,7	2514,3	304,7	5908,5	270,9
2013	15422,9	792,8	11076,7	627,4	2297,4	287,9	8779,3	339,5
2014	18542,6	976,3	13505,7	767,6	2494,2	301,0	11011,5	466,5
2015	21730,4	1508,5	10994,5	840,2	1773,8	268,2	9220,7	572,0
2016	16444,6	1472,6	8663,1	682,4	1362,4	147,3	7300,8	535,1
2017	11757,8	1626,7	6953,6	789,3	1030,6	164,5	5923,0	624,8
2018	13020,3	1585,0	8073,6	774,1	1510,2	157,9	6563,3	616,2
2019	15298,2	1273,1	10000,8	702,4	1659,6	106,0	8341,2	596,4

Year	Loans in foreign currency					
	Total loans	including: overdue	Short-term	including: overdue	Long-term	including: overdue
2005	898,0	47,6	560,1	32,8	337,9	14,8
2006	1192,2	54,6	544,6	34,7	647,6	19,9
2007	2168,1	55,3	583,1	33,8	1585,0	21,5
2008	3518,4	66,6	949,0	40,7	2569,4	25,9
2009	3521,3	108,4	907,2	66,1	2614,0	42,3
2010	3298,1	150,8	1043,3	82,4	2254,8	68,4
2011	3523,8	181,7	1050,2	92,4	2473,6	89,3
2012	3820,9	173,2	994,0	80,7	2826,9	92,5
2013	4346,3	165,4	1038,1	74,2	3308,2	91,1
2014	5037,0	208,8	1437,2	90,6	3599,8	118,1
2015	10735,9	668,3	3523,5	304,8	7212,4	363,5
2016	7781,4	790,2	2115,6	192,9	5665,9	597,3
2017	4804,2	837,5	1070,7	158,7	3733,5	678,8
2018	4946,7	810,9	1184,9	171,4	3761,8	639,4
2019	5297,4	570,7	1259,1	120,0	4038,2	450,7

\* -Decrease in credit investments due to restructuring measures carried out at International Bank of Azerbaijan OJSC

\*\* Indicators are calculated in accordance with the methodology of the International Monetary Fund "Money and Financial Statistics".

(Source: Central Bank of the Republic of Azerbaijan)

As can be seen from the tables, the growth dynamics of deposits in foreign currency since 2007 has always exceeded the dynamics of lending in foreign currency, and in 2015 during the devaluation it reached its peak. So, in 2015, the share of demand deposits of the total deposit base (23431.4 thousand manat) in national currency amounted to 2233.2 thousand manat, fixed-term part - 2068.5 thousand manat, part of demand deposits in foreign currency - 5739.3 thousand manat and the urgent part was 13,390.2 thousand manat, that is, the amount in foreign currency was about five times more than the amount in national currency, and the loan amounted to 21,730.4 thousand manat - short-term in national currency 1,773.8 thousand manat, long-term 9,220.7 thousand manats, short-term 3,523.5 thousand manats and long-term 7212.4 thous. manat in foreign currency. When assessing the situation, it is necessary to take into account the reduction associated with the toxic portfolio transferred to "Agrarkredit NBCO" CJSC as part of restructuring measures carried out at the International Bank of



Azerbaijan. However, the current unsatisfactory situation in 2015, that is, the fact that the deposit base in foreign currency almost doubled the volume of lending in foreign currency, indicates that the open foreign exchange position was seriously violated, and the banking system will suffer serious financial losses. The central bank, which receives various daily and monthly reports from banks about its activities, could not ignore this trend, and without regulating the above, the devaluation decision was apparently aimed at punishing unhealthy banks and removing them from financial markets.

### **2.3. Regulatory measures carried out by the government**

The need to strengthen the banking system and solve existing problems led to government intervention, and on February 3, 2016, by Decree of the President, the Financial Market Supervisory Authority (FMSA) was established as a public legal entity. Nevertheless, during its work (February 3, 2016 – November 28, 2019) FMSA was remembered only by tough decisions on the banks' credit policy and the revocation of licenses of 15 banks. The powers of the FMSA, which were cancelled on November 28, 2019, were returned to the Central Bank. Follow up-to-the decision of problem loans to individuals, 639 million manats from the state budget was used to repay overdue loans.

### **3. CONCLUSION**

The study concludes that the problems of the banking system are still ongoing and should be combined in two important blocks: I. The existence of a legal and regulatory framework that indirectly contributes to the problems of the banking system and does not currently regulate its flexible, efficient activity (nihilism in the legislation, deficiencies in the regulatory acts of the Central Bank, the lack of a full-fledged mechanism for the functioning of the securities market, etc.); II. Lack of a low interest, long-term resource base. To eliminate the above, improve the mechanisms for solving problems, we consider it expedient to implement the following.

For block I:

- 1) The development of a new approach to the concept of credit in civil law - a methodology that provides for the issuance of a "loan" at the expense of others, as opposed to a "debt";
- 2) Amendment of conflicting articles of the Civil Code of the Azerbaijan Republic, the Tax Code of the Azerbaijan Republic and the Law on Banks (special attention should be paid to the concept of "bank secrecy" in order to further strengthen the cooperation of customers with banks, setting limits on bank accounts, debiting funds from bank accounts on the basis of orders, etc.)
- 3) Exclusion or replacement of articles in the Tax Code of the Azerbaijan Republic that contradict international financial standards (here should be reviewed: the concept of "non-deductible expenses", harmonization of depreciation rates with international standards, calculation of interest income in cash, not the calculation method in calculating tax profit, various approaches to the recognition of reserves for possible loss of assets).
- 4) Elimination of deficiencies in regulatory legal acts regulating the banking system, articles that contradict the Law on Banks; making serious changes to the "Rules for the provision of loans in banks", etc.

One of the most important issues here is the inclusion of the fixed capital account in the calculation base in the "Rules of norms, calculations and maintenance of required reserves", the establishment of a special rate (for example, 10%), due to the growth of the loan portfolio of banks, especially due to the amount and dynamics of losses, it can be increased or decreased, thus supporting certain funds by the Central Bank in order to prevent possible future losses. It should be borne in mind that ultimately, share capital is also a liability. Another problem is the inconsistency of the "Rules for the classification of assets and the creation of special reserves

to compensate for possible losses” with the provision on the continued accrual of interest and other charges on bank assets in the Bankruptcy Section of the Banking Law, the application of a low reserve ratio for restructured and supervised unstructured loans (as if this is done in order to hide the amount of bad bank loans, intentionally reduce the amount of reserves so that their profitability does not fall). It is not recommended to restructure long-term unpaid loans; it is only necessary to provide this opportunity to customers who have difficulty repaying their contractual payments but continue to pay. One of the highest priority issues is the application of the credit scoring model for lending to individuals and its provision in the “Bank Lending Rules”. This model takes into account many characteristics of the client, including gender, age, marital status, number of children, education, profession, position, legal form of the employer, working hours, income, place of registration, other loans, car and real estate availability, probability of inheritance in future, the number of guarantors and etc. The best practice is to consider 8-12 variables in a model. The results of a risk assessment based on credit scoring can be taken into account when determining a credit limit (the higher the scoring score, the larger the loan size), when determining the loan interest rate (the higher the scoring score, the lower the interest rate), as well as in determining underwriting strategies. This can be done under the supervision of the Central Bank or specialized agencies that will operate independently (for example, Credit Bureau LLC).

For block II:

- 1) Maintaining a register of movable and immovable property, as well as securities pledged by banks as collateral for loans in a separate institution under the Central Bank. Yes, this information is placed in a centralized credit register maintained by Credit Bureau LLC. However, it does not contain information on the price, location, purpose, etc. of collateral. A full, more detailed and regular update of information will allow the Central Bank to allow banks to issue securities in the amount of a certain percentage of the value of these guarantees. This, in turn, opens up great opportunities for banks to attract resources, that is, a kind of secured deposits, at a time when bad loans cause liquidity.
- 2) Development of the securities market. Today, banks offer their customers only about 20 of the 70 banking products offered by banks in developed countries. Incomplete formation of the securities market deprives banks of operating income in this area. The large amount of income that can be obtained as a result of these operations through risk management can allow a part of the raised funds to be credited with a small margin.
- 3) Elimination of restrictions on foreign capital.

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## ROLE OF MANAGEMENT ACCOUNTING IN THE ORGANIZATION

**Namig Alizadeh Zahid**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
namiq.alizade.2020@bk.ru*

**Leyla Mammadova Vagif**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
leyla-m-4@inbox.ru*

### ABSTRACT

*Management accounting serves as the organization's management tool, which allows not only improving the quality and efficiency of information received and management decisions, but also maximizing the results of operations, controlling risks, and making development forecasts for the short and long term. In the course of studying the interpretations of the concept of "managerial accounting", three approaches were identified in the interpretation of this definition, which differ in the breadth of the structural elements included in it. Existing definitions of management accounting reflect its functions, list actions and disclose differences from financial accounting. In the article, the authors disclosed the concept of "management accounting" of the enterprise, which is a system for collecting certain information and its use within the enterprise. The essence and role of management accounting can be defined as an integrated system of cost and income accounting, rationing, planning, control and analysis, which systematizes information for operational management decisions and coordination of problems of the future development of the enterprise. Also, the essence of management accounting is determined by its principles, functions and tasks. The main principles of management accounting are responsibility, manageability, reliability, interdependence and relevance. The article describes the essence of management accounting in enterprises, and also considers the goals and objectives of management accounting. The authors studied the relationship between managerial and financial accounting. Particular attention is paid to the importance of management accounting in the development of tactics and strategies of the organization in modern conditions.*

**Keywords:** *management accounting, financial accounting, accounting functions, accounting system*

### 1. INTRODUCTION

Currently, increased competition in the production and provision of services in the markets of world and domestic industries, the rapid development of technologies and integrated systems, business diversification and the complexity of business processes in the management of commercial organizations lead to the need for transformation and harmonization of accounting, control and analytical systems at all levels, and productions. Any enterprise, regardless of the legal form of ownership, is considered a complex economic system, the results of which depend on the effectiveness of the enterprise's management. Without qualified management based on specially prepared information in a competitive environment, the very existence of the organization is threatened (Etrill, 2020). In the conditions of market relations and competition, it became necessary to create such an information system that would form information for analysis, selection and justification of decisions made, operational management of the organization. And this system has become management accounting, the data of which is intended only for internal users (Baryshev, 2007).

The development of managerial accounting is characterized by the strengthening of the role of strategic planning and management, the use of economic and mathematical methods of planning, and the use of electronic computer technology that allows solving new and previously unavailable tasks.

## **2. MODERN APPROACHES TO UNDERSTANDING “MANAGEMENT ACCOUNTING”**

In the economic literature there are various approaches to determining the content and goals of management accounting. In the course of studying the interpretations of the concept of “managerial accounting”, three approaches were identified in the interpretation of this definition, which differ in the breadth of the structural elements included in it (Gushchina, 2004). Proponents of the first approach consider management accounting as a holistic system with inherent tasks, goals and functions. The second approach is more narrowed, since it considers management accounting as a field of activity that allows providing the organization's internal needs both in resource and in information terms. The third approach (systemic) allows you to focus on both the external and internal environment of the studied concept, highlighting in it the strengths and levels of application in practice. This approach considers management accounting as a dynamic, open, regulatory system with internal and external relations, which is based on the information base of economic entities at various levels of the organizational and financial management structure, aimed at making optimal management decisions. Existing definitions of management accounting reflect its functions, list actions and disclose differences from financial accounting. In our opinion, common to all approaches is that management accounting is part of accounting, which includes the functions of planning, control, management and provides the organization's management personnel with the necessary information for making operational management decisions and contributes to the achievement of tasks. Thus, the management accounting of the enterprise is a system for collecting certain information and its use within the enterprise. It is from this point of view, i.e. within the meaning of a certain system of collecting and processing information, the word “accounting” should be used with reference to information for management purposes. This information cannot be delivered financially, since it has completely different goals and objectives. The main information, which is formed in financial accounting and reporting, focuses mainly on financial performance indicators (sales volumes, net profit, profit quality assessment, etc.). As part of management accounting, planning, control and evaluation of the organization's production activities are carried out.

### **2.1. Comparative characteristics of management and financial accounting**

Consider the relationship between management and financial accounting, which is presented in table 1. In contrast to financial accounting, based on the principles of double entry, business isolation, integrity, business continuity, etc., management accounting is oriented on general principles. This is due to the fact that, within the framework of this accounting, approximate estimates and indicative indicators are possible in order to more quickly present information to the administrative staff of the enterprise.

*Table following on the next page*

<b>Scope</b>	<b>Management Accounting</b>	<b>Financial Accounting</b>
Application	Decisions on the possibility of application are determined by the management of the enterprise in order to provide informational and analytical support	The need for application is enshrined in accordance with the law in order to provide information to external users regarding the financial condition and financial result
Goals	Providing information to internal users for decision making	Reporting to external users for decision-making in the investment, credit areas of the enterprise
Structure	The structure is determined by the goals in using the information base	Assets, liabilities, equity
Information Base Form	Value and natural expression	Value expression
The objects	A specific area of activity, the presence of responsibility centers, managerial tasks in various areas	Enterprise as a whole

*Table 1: The ratio of management and financial accounting for a number of research areas*

The information that is generated in management accounting is much more diverse. The indicators that are formed in the management accounting system include, in particular, the maximum time to complete an order, the cost of a unit of output, the level of staff qualification and its growth rate, etc. If financial accounting is regulated by external institutions (for example, the Ministry of Finance of Azerbaijan), management accounting is a purely internal business of the entrepreneur, and his data is considered a trade secret. Therefore, each enterprise independently develops a management accounting system based on its own ideas about the information necessary for making rational management decisions. Financial accounting reflects information that is completed, that is, as it answers the question “What happened in the past?”, and management accounting reflects completed information and contains plans for the future, answering the question how it should be. The financial accounting reports provide information on the activities of the enterprise as a whole, and the management accounting reports on individual sites and areas of activity, for example, by type of product, by department, etc. Thus, accounting as a source of information includes two important information systems: external - in the form of financial accounting and internal - in the form of management accounting. The basis for their differentiation is the difference in the tasks they solve.

### **3. ROLE AND SIGNIFICANCE OF MANAGEMENT ACCOUNTING IN ORGANIZATIONS**

The essence and role of management accounting can be defined as an integrated system of cost and income accounting, rationing, planning, control and analysis, which systematizes information for operational management decisions and coordination of problems of the future development of the enterprise. Also, the essence of management accounting is determined by its principles, functions and tasks. The main principles of management accounting are responsibility, manageability, reliability, interdependence and relevance. Enterprises in market conditions need analytical information characterizing the use of production resources, the feasibility of investing in them, the return on investment. These tasks can be solved using management accounting, as evidenced by the existing practice of economically developed countries. Awareness of managers is the most important factor in increasing the effectiveness of the entire management system from the lowest to the highest (Kaverina, 2004). In modern conditions, the possibility of independence in terms of organization and management accounting, the lack of documents regulating the accounting for internal needs of management, the availability of organizational and computer technology, it seems possible to solve the above problems by reorganizing production accounting into management.

When developing a management accounting system, its fundamental feature should be cost accounting for areas of activity inextricably linked to determining the effectiveness of each area. This approach to the organization of accounting allows the allocation as components of management accounting:

- supply and procurement activities;
- production activities;
- accounting of production costs and production costs;
- accounting for financial and marketing activities;
- management accounting of organizational activities;
- controlling.

The role and importance of management accounting also lies in the fact that with its help it becomes possible to provide information support in the case of choosing the optimal management process taking into account the specifics of the enterprise.

### **3.1. Management accounting system**

All components of management accounting are interconnected, the list of information formed in them characterizes the level of organization and improvement of management accounting at the enterprise and the management system as a whole. Depending on the purpose of the organization's development, the ways to achieve it, the information needs of management, the management accounting system in various organizations has its own characteristics. Among the main factors affecting the features of building a management accounting system, we can name the following:

- features of legal regulation of the organization;
- Nature of activity;
- scope of activities;
- organizational structure;
- internal performance standards.

In our opinion, the management accounting system should include the following main elements: responsibility centers; controlled indicators; primary documents of management accounting; accounting registers for grouping data; forms of management reporting; accounting procedures for the collection, processing and presentation of information to users. The organization of accounting by responsibility centers allows you to measure performance, quickly track deviations of actual values of indicators from normative ones and identify their causes. In order for management accounting data to be formed purposefully, it is necessary to clearly define the composition of the controlled indicators by responsibility centers (Drury, 2012). Accountants of various levels, leading management accounting, are involved in making strategic, tactical and operational decisions. To accomplish their tasks, they establish and support methods and technologies for the provision of management information in accordance with certain requirements. In addition, their duties include:

- planning - providing current and forecast information, setting goals, monitoring their achievement;
- assessment - providing information on the impact on the financial and economic activities of certain events and phenomena, participating in the selection of optimal solutions;
- control - ensuring the integrity of information regarding the activities of the organization as a whole and its structural divisions;
- ensuring the reliability of reporting - participation in the development of principles and methods of accounting, on the basis of which reliable internal reporting is formed.

Thus, the management accounting system provides specific targeted assistance to management and provides answers to the most important questions:

- 1) At what stage of sustainable development is the organization?
- 2) What are the most important goals for further development?
- 3) What set of actions will contribute to the speedy implementation of the goals?

In addition, the functions of management accounting include warning management about the problematic situations that exist at the enterprise, which may occur if the goals are not achieved (for example, in the organization of production), as well as at various levels - both at the middle and lower levels, in various departments and functional services. Regulation is the most important requirement for the effective functioning of the management accounting system in the organization. In the process of setting management accounting in parallel with the approval of the accounting policies of the organization, a provision should be developed for management accounting and reporting. It should reflect:

- goals and objectives of the management accounting system, the basic principles of its construction, basic concepts;
- a description of the structure of responsibility centers;
- the composition of the controlled indicators for responsibility centers and the algorithm for their determination;
- forms of primary documents and reporting documents;
- procedures for the preparation and processing of primary documents;
- The schedule of document management accounting.

It seems that the main criterion for the effectiveness of the system is the effective management of financial and human resources, management accounting provides the necessary mechanism for this. In our opinion, specialists in the field of management accounting should be engaged, first of all, in the processes of harmonization of two main problems - ensuring stability in the work of the enterprise with the effective implementation of the goals. Ensuring stability should be coordinated with ongoing verification of activities within accepted boundaries or existing constraints. Moreover, the established limits are associated with the budget policy of the enterprise, the system of loyalty and motivation of employees, and other restrictions adopted by the company. In this sense, the importance of management accounting is increasing significantly. Thus, compliance with the goals in the direction of further sustainable development of the enterprise requires the constant presence of management accounting in order to be able to observe and track all progressive moments (Horgren, 2003). The obtained results of the enterprise must be monitored and compared with the standards defined at the planning stage. Standardization is also one of the components of the model of managerial activity in the system of interconnection with managerial accounting. It provides an opportunity to compare the results with indicators and indicators set by the development goal. Standards allow you to evaluate ideas about what is possible to get from a particular business process.

#### **4. CONCLUSION**

In general, on the basis of the study, we can conclude that the purpose of the application of management accounting is to ensure harmonization of the functioning of the enterprise. Thus, the role of the management accounting system in any company is very large and the introduction of this system is necessary for the leader, managers and all personnel, since the importance of the correct management accounting provides information that is necessary to strengthen attention and prioritize the organization's tasks aimed at planning and forecasting its future activities. On the basis of managerial accounting, the development and application of effective managerial decisions will serve as a fundamental prerequisite for a company's

competitiveness in the market and the implementation of a clearly defined personnel policy. Consequently, the results from the implementation of the management accounting system will exceed all expectations, because they will form analytical information for assessing prospects with emerging opportunities, provide the necessary mechanisms for monitoring the implementation of decisions made.

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## ASSESSMENT OF INSTITUTIONAL MECHANISMS OF COMPETITION POLICY (THE CASE OF AZERBAIJAN)

**Nazim Hajiye**

*Davis Center for Russian and Eurasian Studies, Harvard University,  
Department of Economics and Business Management,  
Development Economic Research Center,  
Azerbaijan State University of Economics (UNEC),  
Istiglaliyyat str. 6, AZ1001, Azerbaijan  
n.hajiye@unec.edu.az; nazimhajiye@gmail.com*

### ABSTRACT

*The aim of the research is to prepare scientifically and practically substantiated proposals and recommendations towards analytical generalization and harmonization of the country's competition legislation and institutional mechanism of competition policy in comparison with the world experience. The Research was fulfilled under the research methods as a scientific abstraction and systemic analysis and logic generalization. As a result of the research, the theoretical foundations of formation of the competitive environment were studied and its impact factors were identified, the modern approaches to competition policy were studied, the theoretical and methodological issues of assessing the level of monopoly were considered, the competition legislation and institutional mechanism of the competition policy in Azerbaijan were analyzed and assessed in comparison with the world experience. Limits of the Research: requires more extensive practical information in the world level. Practical importance of the research: The key provisions of the research, the obtained results and suggested proposals may play a positive role in researches made in this field and in enriching of scientific and practical knowledge of young doctoral candidates and students, as well as the specialists working in this field. Scientific innovation and originality of the research: it was found that the development level of the institutional structure of the competition policy is also unsatisfactory. Thus, participation of several agencies in the country in implementation of the competition policy causes various problems: duplication of functions and coordination of activity. At the same time, it should be taken into consideration that when sectoral competition bodies are engaged in the economic activities, they hinder creation of a competitive environment. As these institutions are often monopolistic and take advantage of this position, they are not interested in entry of new competitors in the market.*

**Keywords:** *Competition policy, Competitive environment, Competition legislation, Institutional structure of competition policy, Protection of competition*

### 1. INTRODUCTION

Presently, the problems related to establishment of the legal-organizational and economic conditions necessary to ensure formation, development and protection of the competition mechanism in Azerbaijan are more urgent and pressing matter. The necessary framework has been formed in the republic to create a legislative framework for development and protection of competition. The issues related to development of sound competition have influenced all aspects of the measures to change the economic system and are reflected in the mechanisms of the institutional framework. The Constitution of the Republic of Azerbaijan specifies that economic progress is based on free enterprise, and the restriction of competition, monopolies and unfair competition are emphasized as one of the main tasks of the state in the field of economic development. The legislation of the Republic is mainly aimed at implementing a soft antitrust policy in the country economy as a whole. Presence of high monopolies in various fields, barriers to market entry, quasi-state concern and economic associations, low

opportunities of enterprises to expand production, and emergence of new monopolies as a result of liberalization of foreign trade make the creation of a competitive environment urgent in the country and require implementation of effective competition policy. Implementation of an effective competition policy requires presence of an institutional mechanism for realization of an improved legal and regulatory framework and policy.

## **2. ANALYSIS AND EVALUATION OF THE COMPETITION LEGISLATION IN AZERBAIJAN**

Presently, the current legislation on competition in the country mainly consists of the Constitution of the Republic of Azerbaijan, international agreements to which the country is a party, the Laws of the Republic of Azerbaijan on “Antimonopoly Activity”, “Unfair Competition”, “Protection of Consumer Rights” and “Natural Monopolies”. At the same time, a draft version of “Competition Code” has been developed in the country. The aim of the existing legal and regulatory documents related to competition, especially the above-mentioned laws, is to increase both economic and social efficiency. This means a positive legal and social approach on one hand, and creation of the necessary conditions for establishment of a sound competitive environment and improvement of the activities of market participants, on the other hand. This can be clearly observed in the Article 8, paragraphs 1, 2 and 3 of the Law on Antimonopoly Activities and in the Law on Protection of Consumer Rights as a whole. Thus, protection of the interests of consumers is sufficiently justified in these laws. In the draft version of the Competition Code, the focus of competition policy on increasing social efficiency, along with economic efficiency, can be assessed a positive development. So, according to the Article 10.0.4, the duty of the competition body is to monitor compliance with the legislation on protection of consumer rights within its powers and to carry out state protection of consumer rights. The Article 11.0.4 stipulates development and implementation of programs (measures) in the field of de-monopolization, creation of a competitive environment and protection of consumer rights in the functions of the competition body. Also in the cases where manipulations in artificial or speculative ways are kept and the necessary goods and products are in lack, prohibition of application of high prices in contrary to the interests of consumers (Article 18.2.1) reaffirms considering of protection of interests of consumers in the code. We consider it expedient to conduct a comparative analysis of the competition legislation in the country with the world experience in the following directions:

### **2.1. Abuse of the dominance position**

The world experience shows that there are different approaches regarding abuse. In some countries (USA, Australia), abuse is considered a behavior only to push competitors out of the market. In these countries, it is not illegal to set a high monopoly price, as well as to reduce production in order to increase prices. And in other countries (European Union, Japan, Turkey, China, India, Russia, etc.), abuse is prohibited both because it aims to push competitors out of the market and because it is against the interests of consumers. According to the current legislation in the country, the illegal activity that leads restriction of competition of the economic subjects having dominance position in the market and touch to the the interests of other economic subject and consumers includes changing the volume of production and removing goods from circulation in order to create artificial deficiency or increase prices, creating barriers to the market access, manipulating in prices to obtain additional advantage in the market (their raising, reduction or keeping on the same level), price discrimination etc. (Law on “Antimonopoly Activity”, Article 8). And in the draft version of the Competition Code, in addition to the issues specified in the existing legislation, refusal to supply a competitor with an important object and defective goods despite it is possible and useful, sale of the goods in mandatory additional assortment, sale of goods or services lower than their cost, except for the out-of-date goods and other similar behaviors are considered abuse of dominance (Article 18).

Both the existing law (Law on “Antimonopoly Activity”, Article 4) and the draft version of the newly developed Code (Article 18, paragraph 18.1) specify the level of dominance at 35%. This limit is at different levels in different countries. Thus, when the market shares of companies is 50% in the European Union, 25% in India, 35% in Russia etc., those companies are considered dominant. The competition laws of a number of countries (USA, Turkey, Australia, Japan, etc.) do not set a limit of dominance. However, in the United States and Turkey, a company is considered dominant if it has a market share of 50% or more. But Australia and Japan generally have no limit in dominance. In these countries, only the abuse of market power is illegal. The world experience shows that there are two approaches to application of the competition law. According to the first approach, the competition law applies to all companies operating in the market (USA, Japan, etc.), and according to the other approach (European Union, Turkey, some CIS countries, Latvia, etc.), only companies with a dominant position. The reason the competition law does not apply to non-dominant companies is that such companies do not have the ability to influence competition. The analyses show that the second approach is preferred in the existing legislation of the country (Law on “Antimonopoly Activity”, Article 8) and in the draft Competition Code (Article 18.2).

## 2.2. Mergers

The world experience shows that mergers are controlled depending on their market share and financial performance. If a company's market share in the European Union as a result of merger is less than 25% and the HFI (Herfindahl-Hirschman Index) is less than 1000, the company is not controlled by the Commission, because the Commission considers that the merger in these cases does not adversely affect competition (Global Competition Review, The European Antitrust Review, (2005)). Mergers in the European Union are controlled when the companies have a total turnover of more than Euro 5 billion and at least two companies each with a turnover of more than Euro 250 million. When a company's assets in the United States exceed USD 100 million and HHI exceeds 1,000, when the value of the company's assets in Russia exceeds 200,000 times of the minimum wages, when the company accounts for 25% of the market in Japan, when the HHI is higher than 1,000, when the company's carrying value exceeds USD 85 million, when the concentration ratio of the three companies is 70%, and when the market share of the companies participating in the merger as a result of concentration in Turkey is more than 25% or their total domestic turnover is more than 14 million Euros approximately, they are controlled. In many countries (European Union, Turkey, USA, Japan, etc.), when controlling mergers, first of all, the significant negative impact of mergers on competition is studied. Thus, the new rules for control of associations have come into force in the European Union since 2004. The difference between the new rules and the previous ones is that under the new rules, mergers are analyzed in terms of their impact on competition, while previously the mergers were studied when they reach dominance level or strengthened their dominance position (Global Competition Review, The European Antitrust Review, (2005)). The studies show that in the recent years, in order to increase the competitiveness of companies in the world market, it is observed the process of increasing the control threshold for mergers and in parallel, penalties for competition violations. According to the current legislation in Azerbaijan, mergers are controlled when the company's share in the respective commodity and financial markets exceeds 35% or the total value of assets exceeds 75 thousand times of the minimum wage (Law on “Antimonopoly Activity”, Article 13). Note that according to the current legislation, the competition authority should analyze the merger not later than 15 days and inform the applicant in writing about the decision made. But in the draft version of the Competition Code, this term is set at 20 working days and, if required, an additional 10 working days are provided (Article 21.5). The analyses show that according to the Competition Code (Article 20.1), if there is a need to analyze a merger, especially when a dominant position is formed or strengthened, the

Competition Authority should first determine the possibility of such merger preventing or restricting competition by assessing factors. Also the Article 20.2 of the Code specifies that when it is known that a merger is likely to significantly prevent or restrict competition, the Competition authority should take into consideration that the impact of the relevant technological, rationalizing or other competition support outcomes of the merger is greater than or compensates for the impact of significantly preventing or limiting competition, and that the impact of the results cannot be achieved by other methods. When analyzing whether a merger significantly prevents or restricts competition, the Competition authority shall assess the following factors under the Code (Article 20.3): - actual and potential competition in import in the market; - barriers to market access; - level and directions of concentration in the market and date of agreement; - characteristics of the market dynamics, considering growth, innovation, product diversity and other factors; - the case where a merger leads to pushing off an effective operating competitor, etc.

### 2.3. Cartel

The world experience shows that there are different approaches to the analysis of cartels. The first approach focuses mainly on concluding cartel agreements. The European Union countries may be referred to the countries that have adopted the mentioned model. Thus, in the European Union, conclusion of cartel agreements is studied more than their impact on competition (Simon Bishop, Mike Walker (2002)). When the market share of contracted companies is less than 30%, including less than 25% in research and development in the European Union, the cartel bans do not apply to such contracts (Simon Bishop, Mike Walker (2002)). However, the contracts may be considered lawful if they improve production or supply of a product, promote economic or technical development, and accordingly allow increasing consumer welfare (for example, an increase in product quality or a decrease in price), in addition to restricting competition. Presently, the analyses show that in addition to conclusion of contracts, there is a tendency to further study their impact on competition in the European Union. However, the contracts are deemed illegal in all cases if they have the following purposes (Global Competition Review, Cartel Regulation (2005)): - setting of prices; - determination of production volume; - distribution of markets, consumers or supply sources; - tender agreements. In the United States, contracts are mainly assessed in terms of their impact on competition. However, contracts that set a price, divide territory and consumers, and aim for a tender agreement are prohibited in all cases (Global Competition Review, Cartel Regulation (2005), Russell Pittman (1992)). In Japan, vertical violations have not been historically considered as a cartel. However, recently there observed a tendency to consider both vertical and horizontal agreements as cartels. In Japan, cartels are generally not banned in their own right, they are banned only when they have a significant impact on competition and are contrary to the public interest, and establishment of cartels are even supported in some cases to increase long-term economic efficiency (Global Competition Review, Cartel Regulation (2005)). Cartel bans in the legislation of a number of countries are relatively softly applied in some sectors. These sectors include agriculture and transport in the European Union, banking and insurance in Italy, banking, insurance, communications, health, energy, exports in the USA, banking, insurance, small and medium enterprises in Germany, and insurance, maritime transport, small business, import and export in Japan (Global Competition Review, Cartel Regulation (2005)). Also, in many countries, cartel bans apply to both individuals (directors, employees, officials, etc.) and organizations. Thus, in the USA, Australia and Canada, cartel bans apply to organizations and individuals, while in the European Union, Germany, Great Britain and Japan, only to organizations (Global Competition Review, Cartel Regulation (2005)). The legislation of many countries specifies criminal sanctions for the individuals participating in violation. It is obvious from the analysis of the existing legislation in the country that currently the main focus is on concluding cartel agreements.

However, according to the Articles 16.2 and 17.2 of the Competition Code, the analysis of contracts mainly studies their impact on competition. Thus, it is studied by these articles whether the relevant technological, rationalizing or other competitive support outcomes of the agreement outweigh the negative effects. The analyses show that the cartel bans are provided in the Law on “Antimonopoly Activities” and have been produced in an improved form in the draft Competition Code. The cartel bans specified in the Code are as follows: - directly or covert determination of the sale or purchase price, tariff, discount or surcharge or any other terms of trade; - determination or setting of the volume of products made (works performed and services rendered); - market distribution through distribution of consumers, suppliers, territories, or some specific types of goods or services between themselves; - acceptance or determination of the price at auctions or other trade deals (except for the cases of single bid); - significantly preventing or restricting competition in the market.

## **2.4. Natural monopoly**

The experience of classical and modern development of natural monopolies, and the recent processes in this area make it an important factor to improve the operation of natural monopolies, increase the efficiency of their economic bases. The lack of a clear approach to natural monopolies in the section of purpose and concept of natural monopolies in the existing legislation strengthens the administrative mechanism in operation of natural monopolies, which in its turn, affects the lack of broad economic efficiency and transparency in their activities. The Article 5 “Areas of activity of the participators of natural monopoly” of the current law defines the areas herewith as strict state management and regulation according to the areas of economic activity. Also, it is not considered expedient to regulate the areas of activity with antitrust legislation. However, the draft Competition Code has removed this problem. Thus, in accordance with Article 12.0.7 of the Code, if a natural monopoly or state monopoly entity does not comply with the rules of regulation established by law, the Competition Authority shall be authorized to issue binding instructions to a natural monopoly or a state monopoly entity with regard to price, production volume and service terms in order to prevent or eliminate violations of competition. In the Law on “Natural Monopolies”, the natural monopoly fields include the situation of the commodity market where meeting of the need to technological properties of production without competition is more fruitful and a product made (sold) by monopoly entities cannot be replaced with other commodity in consumption. The Competition Code also defines natural monopolies in a manner similar to the existing legislation. According to the Code, natural monopolies are considered to be a situation arising from the characteristics of the production technology of the commodity market, where one economic entity can serve to meet demand at a lower cost than two or more economic entities (Article 4.3.31). As seen, both the existing legislation and the Competition Code have taken the scale effect as a main criteria for identifying natural monopolies. However, the studies show that from the years 70s and 80s of the last century, this approach began to be rejected in the Western countries. Thus, K.McConnell and S.Brew note the technological features (existence of a network structure) as its main criteria. The technological conditions of the industry are so that it is considered expedient to provide services to consumers by one company only. For example, water management: though it is possible to build two water lines in one apartment and create competition between two companies for this service, it is more expedient from the economic and aesthetic point to build one water line in one apartment (A.Y.Butyrkin (2003)). We think that it is expedient to improve the problems and features of the approach to define natural monopolies both in the Law on “Natural Monopolies” and in the Competition Code. Especially, it is important to distinguish the subjects representing the characteristics and factors of the completely natural monopolies as natural monopolies, and to refer the subjects deviating from such characteristics and factors to the ordinary economic entities from the point of economic

development. For example, it is appropriate to separate many entities operating in the field of communication and information technologies from natural monopolies, especially those that have recently emerged and are competitive in terms of their activities and organizational characteristics. It also seems unreasonable for economic entities (subsidiary sectors) and relevant executive bodies, which are included here under the name of natural monopolies, but have nothing to do with the core and nature of natural monopolies, to remain in this register.

## 2.5. Sanctions and penalties

As known, two types of measures are implemented for violation of the competition legislation: sanctions and penalties, measures to restore the competitive environment. The first type of measures includes financial and criminal sanctions, and the measures that restore the competitive environment include sale of the company's assets or break-up of the company, etc.. For abuse of dominant position: the European Union legislation specifies both sanctions and penalties, as well as restoration of a competitive environment. Under the legislation, a company can be fined up to 10% of the total turnover of previous year, as well as behavior of the dominant company may be restricted, assets of companies may be sold or a company may be divided (Global Competition Review, Dominance (2005)). But in other countries, the US Competition Authority does not impose financial sanctions on abuses of dominant position, in which case the role of the agency is to restore the competitive environment. However, private entities can claim damages in the form of compensation. In Japan, criminal sanctions up to three years in prison or a fine of about 30,000 euros are applied. The competition authority may also require the dominant company to end its monopolistic behavior and transfer part of it to another company in order to restore competition. In Russia, both a competitive environment restoring actions and penalties are stipulated. In the Russian Federation, the amount of penalties is set at 13-14 thousand euros, regardless of the size of the company. According to the legislation of most countries (European Union, USA, Germany, China, Estonia, France, Italy, Latvia, India, Russia, Turkey, etc.), those who suffer from abuses can claim compensation from the company for their loss. For mergers: the amount of penalty in the European Union and Turkey is set up to 10% of the total turnover of companies, in Japan – 13 thousand Euros, in the USA – 11 thousand Dollars per day, and in Russia - 3400-17000 USD for legal entities. For cartels: the maximum penalty in the European Union is set at 10% of the cartel's turnover in the previous year. However, the amount of the penalty also depends on the level of competition violations. Violations are grouped into three groups here: minor, serious and very serious. To determine the level of violation, first of all, its nature and market impact are taken into account. In the cases of minor violations (where trade restrictions affect only a small part of the total market), penalties range from 1 thousand Euros to 1 million Euros, in the case of serious violations, from 1 million Euros to 20 million Euros, in the case of very serious violations (where price fixing or market-sharing cartels affect great part of the European Union), penalty is more than 20 million Euros. The amount of the penalty also depends on duration of the violation. Thus, if a violation lasts from 1 to 5 years, the penalty will increase by 50%, if it lasts more than five years - by 10% per year. The European Union does not provide for criminal sanctions against cartels. The USA imposes penalties of up to 100 million Dollars for companies and 1 million Dollars for individuals. In addition, those involved in the preparation, organization or implementation of the cartel are sentenced to up to 10 years in prison. In Turkey, 10% of the turnover is applied, in Japan, 6% of the turnover during the cartel violation (maximum 3 years) applied, individuals are sentenced to 3 years in prison and about 49 thousand Dollars and companies - 4.9 million Dollars. In many countries, cartels are subject to financial sanctions and penalties, as well as certain concessions. The purpose of these concessions is to more effectively identify cartel violations. However, the companies participating in an illegal contract may be fully or partially exempt from penalties for cooperating with the competition authority.

The analyses show that in the European Union, the concessions are based on two principles: the first applicant is given more concessions; the degree of concession depends on the correctness of the information provided. But full amnesty applies only to the first applicant company. The company applying for a full exemption from the penalty shall:

- terminate its participation in illegal contracts, until the cartel is discovered;
- fully cooperate with the Agency;
- not be an organizer in the formation of the cartel.

Also, for the companies that do not apply first, but cooperate with the Agency, the penalty can be reduced by up to 50%. It is obvious from the analysis of the competition legislation in the country that both the existing and the draft Competition Code provides for penalties and sanctions, as well as measures to restore the competitive environment. Thus, the Article 15 of the Law on “Antimonopoly Act” specifies that if dominant economic entities engage in monopolistic activities and their activities lead to significant restrictions on competition, the relevant executive authority may make a resolution on mandatory division of them if organizational, technological and territorial conditions allow. Also, according to the Article 18 of the law, the economic entities are fined up to 5 thousand times of the minimum wage (150 thousand AZN) for abuse of their dominant position and implementation of illegal mergers. The economic situation of economic entities is also taken into account when determining the amount of the penalty. We think, not the economic situation of an enterprise, but the impact level of penalties on the market should be taken into consideration when imposing such penalties. However, elimination of this issue in the Competition Code can be noted as a positive case. But in case the heads of economic entities do not submit the merger-related and other necessary information and documents to the relevant executive authority, they are subject to a warning or an administrative penalty of up to 150 times of the minimum wage (AZN 4500). Also, the economic entities violating the law are obliged to compensate for the damages occurred (Article 17). The current legislation does not provide for any penalties or sanctions related to cartel agreements. The analyses show that the Competition Code provides for financial sanctions of up to 5 percent of the income earned in the last 3 months for illegal mergers of market participants (Article 40.1.2). Besides, the financial sanctions up to 10 percent of turnover, excluding taxes and other obligatory payments to the state budget during the period of violation of competition is applied for unfair competition and prohibited actions (abuse of dominant position, cartel), and up to 20 percent in case of repeated actions in the following year (Article 41.0.2). The Competition Code sums up these penalties in a more specific way. Thus, according to the Article 42 of the Code, if a natural monopoly entity are fined in the amount of up to 10 percent of the turnover (not more than 3 times a calendar year) if it does not comply with the regulations established by law and for changes in prices (tariffs), excluding the taxes paid to the state budget.

### **3. INSTITUTIONAL MECHANISMS OF IMPLEMENTATION OF THE COMPETITION POLICY**

One of the factors determining the effectiveness of the competition policy is the level of development of the institutional structure. As known, the decisive place in implementation of the competition policy belongs to the Competition Authority, which is one of the key elements of the institutional structure. In terms of subordination, the Competition Authority are independent in different countries (USA, Germany, Russia, etc.) or as part of governing bodies (Switzerland, Belgium, Estonia, Belarus, etc.). The first antitrust policy body in the country was established in 1992 as the State Committee for Antimonopoly Policy and Entrepreneurship Support, and in 2001 as the Department of Antitrust Policy within the Ministry of Economic Development.

In 2006, the Department of Antimonopoly Policy was abolished by the decree of the President and the State Antimonopoly Service was established on its basis. At present, it operates as the State Service for Antimonopoly Policy and Consumer Protection under the Ministry of Economy of the Republic of Azerbaijan. The Competition Authority regulates activities of monopolies in the country, protects competition and defends the rights of consumers. The purpose of the authority is to create markets and effective competitive environment that serves the interests of consumers. Currently, the State Service for Antimonopoly Policy and Consumer Protection consists of the sectors of regulation of the natural monopolies and the services under state monopoly, protection of consumer rights, protection of competition, legal and analytical information, personnel and office work, accounting and economic sectors. The world practice shows that in many countries, competition agencies have the power to investigate, track, and conduct unexpected control. However, the absence of these powers of the Competition Authority in Azerbaijan limits its ability to intervene promptly and unexpectedly to prevent and remedy violations. At present, along with the competition authority, other government agencies are involved in implementation of competition policy in the country:

*Table 1: Institutional system to ensure the competition policy*

<b>Regulation level</b>	<b>Governing authority</b>	<b>Objects and subjects of regulation</b>	<b>Aim of regulation</b>	<b>Regulation mechanisms</b>
Legislation	Milli Mejlis Cabinet of Ministers	Economic environment	To create sound competition environment	Laws and other regulatory acts
Special authorized agency	State Service for Antimonopoly Policy and Protection of Consumer Rights under the Ministry of Economy	Market of goods and services, economic entities	To prevent abuse of dominant position, to keep control on economic concentration, to protect consumer rights, etc.	To take measures in control, demonopolization, provision of competition, etc. in advance
Functional state bodies	Central bank, Ministry of Finance	Financial market, Stock market	Control over competition	Development of rules and guides, inspections, regulations
Sectoral state bodies	Ministry of Transport, Communication and High Technologies, Ministry of Energy	Natural monopolies service market	To follow the specified norms and rules, to prevent abuse of monopolistic position	Rules and regulations, inspection

*Source: the table is compiled by the author*

The studies show that existence of several institutions in implementation of the competition policy causes various problems: duplication of functions and coordination of activities. At the same time, it should be taken into account that when sectoral competition bodies are engaged in economic activities, they hinder creation of a competitive environment. As these institutions are often monopolistic and take advantage of this position, they are not interested in new competitors entering in the market. Besides, the independence of the Competition Authority creates the basis for its more efficient operation. However, according to the Competition Code, implementation of inspections by the Authority with the consent of the relevant executive authority reduces its operativeness. One of the key elements of the institutional structure in implementation of the competition policy is the judiciary system. Considering the complexity of antitrust proceedings, antitrust courts operate in many countries to ensure the objectivity of legal resolutions. But in Azerbaijan, antitrust proceedings are heard in general courts. The low experience of judges in general courts in the field of competition law has a negative impact on accuracy of their resolutions.



#### 4. CONCLUSION

It is clear from the analysis of the competition legislation in the country that the shortcomings in the existing legislation have been removed in the draft Competition Code. However, it would be expedient to take into consideration the following provisions of the draft Code: 1. The Article 18.2.1 of the Code specifies the monopolistic pricing as an abuse of dominant position in case of the lack of the necessary goods and products. We think, application of high prices, contrary to the interests of consumers, not only in necessary cases, but in the absence of all goods and products, should be defined as an abuse of dominant position; 2. The Article 18.2.3.5 of the Code states that the sale of goods or services at a price below their cost is an abuse of dominant position, except for obsolete goods. We believe that, as an exception, the sale of goods at low prices due to the season, changes in the direction of production and closure of the business should be taken into account; 3. The world experience shows that in some cases it takes a long time (3-4 months) to analyze the mergers. From this point, it is expedient to extend the analysis period of mergers in the Article 21.5.1 of the Code; 4. Providing the competition authority with the authority to investigate, monitor and conduct unexpected inspections in the Code would allow for more prompt detection of competition violations; 5. Adding a clause related to the more lenient application of the competition law to the private sector; 6. Taking into consideration the clause 8.2 of the Code (the activity of the Competition Authority is carried out independently not depending on the state authorities), the clause 62.6 (carrying out inspections with the consent of the relevant executive authority) should be cancelled; 7. In case of violation of the requirements of the Code, responsibility and financial sanctions should be applied not only to market entities, but also to individuals; 8. When applying a financial sanction, it is more expedient to take into account the severity of the violation committed by the market entity rather than the economic situation (Article 40.2); 9. In order to increase the responsibility of market entities, the amount of financial sanctions applied for non-submission of documents and information during the investigation of mergers should be extended from 5% to 10%, and the calculation period should be extended from 3 months to 1 year (Article 40.1.2); 10. Taking into consideration the market shares of the companies related to application of cartel bans; 11. In determining the dominant position, along with the market shares of companies or mergers, taking into consideration of the HHI, etc. We think, taking into consideration of these provisions will play an important role in upgrading the effectiveness of the competition policy in the country by further improving competition legislation.

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## SUSTAINABLE SOCIO-ECONOMIC DEVELOPMENT OF REGIONS IS THE BASIS OF NATIONAL ECONOMY SECURITY

**Nazim Mammadov**

*Scientific Research Institute of Economic Studies (UNEC),  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
nazim\_mammadov@unec.edu.az*

### **ABSTRACT**

*Sustainable socio-economic development of regions in the modern conditions of socio-economic transformation in our country is the task of ensuring the independence and security of the national economy, its stabilization and stability, constant renewal and improvement. The article reviewed the problems of sustainability of regional socio-economic development, justified the conditions necessary for the sustainability of its development. The definition of the concept of sustainability of regional socio-economic development is given. Problems hindering the sustainability of regional development have been revealed. Based on the results obtained, the main priority directions of the regional economic policy on ensuring the sustainability of the regional socio-economic development were determined and the management instrument was proposed. Ensuring the sustainability of the socio-economic development of the regions requires new approaches in the determination of regional economic policy, working forms and methods of management. During the development of the regional economic policy to ensure the sustainability of socio-economic development, it is necessary to take into account the specific features of the region, determined by the share of the region's basic industries in the total volume of the country's output, the availability of the export sector in the economy of the regions, the provision of resource potential, the level of income and the mentality of the population.*

**Keywords:** *Regional policy, Socio-economic development, Sustainable development*

### **1. INTRODUCTION**

One of the main components that influence the processes of socio-economic transformation in the country is the regional factor. In this regard, the concept of "sustainable development" is of particular interest. The concept of sustainable development was widely adopted after the publication of the report "Our Common Future" (1987), prepared by the UN Commission on Environment and Development ("Brundtland Commission"), and its conclusions formed the conceptual basis for the decisions taken at the UN conference on environment and development in Rio de Janeiro in 1992. It identified global problems of sustainable development, adopted and approved by all participants (179 countries) the program document "An Agenda for the 21st Century" (Bossel, H. 2008). Sustainable development means development that meets the vital needs of people living today and preserves the ability of future generations to meet their needs. This term is now beginning to be perceived throughout the world as a universal concept, as a model of civilized development. Some authors associate sustainable development with the concept of stability, thus causing controversy with scientists who believe that stability is not synonymous with sustainability. From their point of view, these concepts are inadequate, since the stability of development is determined by the dynamics of indicators, and not by indicators of its static position (the system may have a stable unsteady position). (Szell, G. 2014) Dynamic development of the socio-economic system is constantly characterized by its approximation or removal from the state of poise. Due to the fact that any socio-economic system is open, it is exposed to the influence of the external environment, therefore, the state of poise in this system is relative and temporary. The concept of sustainability of socio-economic development should be considered systematically, because the interpretation of this term only from the economic,

social or environmental side is not able to reflect all the aspects that ultimately affect the target indicator – the quality of life of the population (Jacobs, G. 2010). At the present stage, the concept of "sustainable development" in our country is relevant and the role of regions in ensuring sustainable development of the country is constantly increasing. This requires new approaches to defining regional economic policy, developing new forms and methods of managing the sustainability of socio-economic development in the region. Sustainable development of a particular region along with the common laws of functioning and development of the national economy of the country has its own specific features, defined by specific weight of products of basic industries of the region in total production volume in the country, the presence of the export sector in the region's economy, availability of resource potential, mentality of population, etc.

## **2. SUSTAINABLE DEVELOPMENT OF THE REGION**

Sustainable development of the region is determined by the stability of the functioning of structure-forming industries. The sustainability of an economic entity's production development refers to its ability to resist and prevent impacts that could lead to a decline in production. Steadily growing can be a production that provides the necessary range of consumer goods at the lowest cost with the effective use of production factors and in the required time (Лебедефф-Донской, М.М., Редько, М.Д. 2013). The stability of reproduction of the territorial and economic complex of the region is determined by ensuring continuous maintenance of stability or economic growth at minimal cost, economic and social security, contributing to a more complete satisfaction of the material and spiritual needs of the population of the region. The sustainability of socio-economic development of the region depends on the level of self-sufficiency, self-financing, self-providing and economic independence (Tekker, S., Guner, A. 2016). The level of self-sufficiency means self-sufficiency of the territory with resources (production, labor, natural, financial) that allow ensuring a stable positive trade balance of export and import of the region's products, including foreign economic relations. A necessary level of self-sufficiency of the territory is the basis for an independent economic policy aimed at ensuring the sustainability of the socio-economic development of the region. The stability of the self-financing of the regional economy achieved through the implementation of effective fiscal, financial, credit, tax and price policy, development of the mechanism of regulation of investment and innovation, increase exports, the income level of the population. Self-providing of the region is achieved by obtaining income from the economic activities of territorial structures in order to ensure an expanded reproduction process based on self-providing of expenses, obtaining maximum profit. The economic independence of a region expresses the degree to which it is provided with economic (primarily financial) resources that allow it to pursue an independent economic policy aimed at ensuring the sustainability of the socio-economic development of the region. The absence of one of the above conditions becomes one of the important problems in ensuring the sustainability of the socio-economic development of the region. Sustainable development of the region involves ensuring the internal and external sustainability of the regional system (Van Zeijl-Rozema, A. 2011). Internal sustainability refers to the sustainable development of production, maintaining a stable positive balance of exports and imports of products, providing employment and an appropriate standard of living for the population. External sustainability refers to the stability of the region's balance of payments, a stable foreign trade balance, the stability of equal inter-budgetary relations, and the region's place in the overall division of labor. Thus, sustainable development of the region is its ability to resist to impacts of different nature, return to the original state in the event of a violation, or achieve a higher point of development, increasing the quality of life of the population and ensuring a continuous expanded reproduction of territorial-economic complex.

### 3. PROBLEMS OF SUSTAINABLE DEVELOPMENT OF THE REGION

A special approach is required to solve the problem of sustainable development related to the structure of the region's economy. The abolition of the old industry management structures of enterprises located in the region requires regional management bodies to search for new forms and methods of managing cooperation between industry and regional producers in the unified structure of the region's economy. The formation of large inter-branch complexes for the production of competitive products on the basis of such cooperation increases the stability of the region's development. Such inter-branch complexes can solve the problems of reducing unemployment by providing new jobs, and increase the revenues of territorial local budgets through tax deductions from profits obtained from the sale of products of these enterprises in the domestic and foreign markets (Югман, Л.Г. 2009). Lack of financial resources is becoming a hindrance in ensuring the sustainability of the region's development. Based on this, it is necessary to develop the circulation of financial resources in the region in order to study trends in the structure of education, primary distribution, redistribution and final use of income in the region. Based on this, it is necessary to identify "bottlenecks" that prevent the normal circulation of financial resources and make proposals for their elimination. The problem of social stability of society is the growth of unemployment, stratification by income of the population living in the region. A serious problem remains the formation of a stable structure that takes into account the interests of the center and regions to achieve maximum overall results based on a favorable division of labor, which makes it difficult to develop forecast scenarios for the sustainable development of the region's economy, and to determine its quantitative criteria for sustainability (Дуканова, И.В, Морозова, Т.Н., Суковатова, О.П., Терехин, В.И. 2016). In general, we can identify the following problems facing the regions in ensuring the sustainability of socio-economic development:

1. Division of powers in the economic sphere, between the center and the regions, especially in the budgetary sphere.
2. Non diversification the structure of the economy of the region.
3. Financial disproportions (deficit of finance in the real sector).
4. Structural adjustment of the region's economy in accordance with the requirements of the new paradigm of "sustainable development".
5. Increasing social tension (stratification of society, increasing the proportion of the population living below the poverty line in the region).
6. Insufficient development of intraregional and interregional relations.
7. Search for investment sources for structural adjustment of the economy.
8. Ensuring environmental safety.
9. Lack of a clearly developed system of quantitative target indicators of regional development sustainability.
10. Lack of effective state regulation of sustainable socio-economic development of the region.
11. Lack of a modern, science-based concept of sustainable development of the region.
12. Insufficient competitiveness of regional products, displacement of domestic producers from the domestic market as a result of imports of foreign products.
13. Threat to food security in the region due to the import of cheaper goods from abroad.

### 4. PRIORITY DIRECTIONS OF SUSTAINABLE DEVELOPMENT OF THE REGION

The solution of these problems requires new approaches in determining regional economic policy, developing effective forms and methods of managing sustainable development of the territory. Regional policy priorities for sustainable development should be:

1. Implementation of institutional changes that help coordinate the actions of public institutions to ensure sustainable development of the region.
2. Formation of a management system for sustainable development of the territory.

3. Development of state measures to support the development of high-tech and competitive basic industries and economic sectors that contribute to the sustainable development of the territory.
4. Creating a favorable investment climate that ensures the inflow of foreign investment.
5. Active social policy aimed at reducing the property differentiation of the territory's population.
6. Promotion of investment activity in the region.
7. Improving the quality of life of the population.
8. Carrying out structural adjustment of the economy, ensuring the expansion of production of competitive products.
9. Ensuring more efficient use of the region's resources.
10. Organization of training of personnel in modern methods of analysis of economic activity of the enterprise and making management decisions on sustainable development of economic entities.

## 5. CONCLUSION

Sustainable development of the region is managed through the development of forecasts and programs for socio-economic development. No less important is the assessment of the economic potential, which is the starting point for the formation of a scientifically based concept of sustainable and safe development of the territory. Forecasting plays an important role in developing a program for sustainable socio-economic development of the region. It covers various areas of life in the region: demographic situation, resource potential, including natural resources, consumer demand, production dynamics by industry and region, the results of innovation in the economy, and so on. The forecast is completed by a consolidated economic forecast that summarizes the macroeconomic situation in the region, the pace and main proportions of economic development. The problem is not to give a simple statement of the possibilities of future development, but to aim the forecasting procedure at choosing a reasonable sustainable and safe socio-economic development of the region. To this end, it is necessary to form an integral model of the reproduction process of the region's economy and on its basis determine a mutually balanced system of basic parameters of safe and sustainable socio-economic development, develop tools for managing the sustainable development of the region.

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# LEASING IN AZERBAIJAN: THE REGULATORY PROBLEMS AND PROPOSED SOLUTIONS

**Aslanova Nigar**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
nigar.r.aslanova@unec.edu.az*

## ABSTRACT

*A lease is a contract outlining the terms under which one party agrees to rent property owned by another party. It guarantees the lessee, also known as the tenant, use of an asset and guarantees the lessor, the property owner or landlord, regular payments for a specified period in exchange. In the terms of Azerbaijan leasing might become almost the most profitable instrument for fitting out small and middle entities (SME) with technical equipment. Despite an external attractiveness of leasing it is still not fully applied within country and till now was not able to find adequate application in the practice of existing and newly created entities, because of some reasons. The reason of such situation should not be explained as an economical inefficiency or an absence of favourable climate for the implementation of leasing operations, but most likely, it is a matter of subjective factors which the article is dedicated to submit for consideration. The article researches the problems in legal, tax and accounting regulation of leasing in Azerbaijan and offers appropriate steps for resolving such problems. It reveals and substantiates the existence of complex moments in the practice of leasing operations in Azerbaijan, which include the accounting problems for a lessee and a lessor, determination the useful life of leased asset under the redemption and non-purchased leasing, problems of deduction of value-added until the transfer of ownership to the leased asset to the lessee and as a part of advance payment.*

**Keywords:** *accounting of leasing, customs declaration, financial leasing, import and export of leasing equipment, Value-Added Tax*

## 1. INTRODUCTION

The freedom of contracts provided by law, the availability of tax preferences, the absence of the need for additional guarantees in the form of collateral and other possibilities inherent only to leasing make it possible to draw an unambiguous conclusion that leasing in the conditions of our republic is the most profitable mechanism for technical equipment of small and medium enterprises. However, the main paradox of leasing is that, due to some circumstances, it has still not been able to find worthy application in practice of existing and established enterprises. The most acute problem in practice of domestic leasing enterprises and users of leasing services to date, there is a lack of clarification on accounting and taxation of leasing operations, as well as recommendations on the calculation of leasing payments. But the preconditions for the development of leasing were observed back in 1994, when the Law “on Leasing” was adopted, after which the first leasing enterprises of the republic began to appear. From this time until today, the legislation on leasing has been supplemented and changed until the force of the said law and a number of by-laws are lost, however, strangely enough, no real steps have been taken to develop methodological recommendations or instructions for the accounting of leasing operations and tax issues, as well as the calculation of leasing payments according to methods known in international practice. Before, to propose an approximate accounting scheme for leasing operations, it is necessary to clarify certain provisions of the Tax Code of the Azerbaijan Republic that are directly or indirectly related to leasing.

## 2. THE PROBLEMS OF TAX REGULATION AND ACCOUNTING OF LEASING OPERATIONS IN AZERBAIJAN

In general, when analyzing our Tax Code, it is easy to notice that it is built on the so-called principle of conservatism or caution, which opposes the natural optimism of the entrepreneur. This consists, firstly, in the fact that some norms related to leasing, due to insufficiently clear presentation, can be perceived ambiguously. Secondly, some tax preferences provided for leasing seem to be such only at first glance. A more detailed analysis reveals that they are not leasing benefits at all. Thirdly, Article 140 of the Tax Code places too explicit restrictions on financial leasing, such as, "the leased property is made by order of the tenant and at the end of the lease term cannot be used by any person other than the tenant." Meanwhile, The Civil Code leaves the subjects of a leasing transaction the right to return the leased property to the lessor at the end of the transaction. Or, for example, article 140.4 explicitly limits the interest rate on lease payments, which should be strictly equal to 125% of the credit rate determined by the interbank credit auction of the National Bank of the Azerbaijan Republic. The question is, why this rate cannot be less in order to stimulate leasing? So, today, for leasing companies, the common problem remains compliance with the Tax Code, which are, as a rule, are either contradictory or not clearly stated. The accountants of leasing organizations fear that tax inspectors may not agree with the interpretation of the vague rules proposed by the company, and this will entail significant fines, even despite all their efforts to strictly follow regulatory documents. Let us analyze, for example, the procedure for withholding tax on income from leasing operations. If a non-resident acts as a lessor, the procedure for paying income tax is regulated by clause 125.1.3. of the article 125 of the Tax Code, according to which "leasing payments of a resident enterprise or entrepreneur, including payments on financial leasing operations, are subject to income tax in the amount of 4 percent at the source of payment". The contradiction lies, firstly, in the interpretation of the norm itself, and secondly, in its economic essence. As far as we know, only financial leasing received legislative support in Azerbaijan, that is, only financial leasing operations are actually possible today. Therefore, the clause "including payments on financial leasing operations", in our opinion, is simply superfluous. As for the logic of the above norm, we agree that the lessor is the recipient of the leasing income, and for some reason tax on his income is paid at the source of payment, that is, at the lessee. The interest rate of tax on income from leasing payments (only 4%), at first glance, may seem a very tempting benefit in favor of leasing. However, after analyzing this norm in more detail, we can conclude that it is not a leasing benefit at all. The fact is that the following elements are included in the total amount of leasing payments:

- payments for amortization of the leased object;
- the necessary expenditures associated with the acquisition of the leased object;
- interest on a loan received to acquire a leased object;
- amount of the lessor's premium;
- the amount paid for insurance of the leased object;
- payment for additional services of the lessor

It is clear that the object of taxation in accordance with Article 125.1.3 is the weight of the income of a non-resident equal to the sum of all the listed elements of leasing payments, without reducing the amount of expenses associated with obtaining such income. This statement is also supported by the clause 104.3 of the article 104 of the Tax Code, according to which "gross income of a non-resident not related to its permanent establishment is taxed at the source of payment without deducting expenses". Note that of the total amount of the lease payment, the actual lessee's profit is only the amount of his commission, which, in theory, should be subject to taxation as an object of taxation for the lessor. As you can see 4 percent calculated from the total amount of the lease payment and due to be transferred to the budget at the source of

payment, that is, the lessor, gives a rather noticeable amount that does not allow calling this norm a profit tax exemption. And if, in addition, we take into account that the total amount of the lease payment also includes the amortization amount with an acceleration coefficient of 2, then the amount of taxable income increases almost by half. In addition, the element of costs associated with the acquisition of the leased asset also includes the amount of VAT paid by the lessor in the event of the acquisition of a leased asset in the territory of the republic. It turns out that the amount of VAT paid by the lessor is reimbursed with the amount of the lease payment and additionally taxed on income, which contradicts the economic nature of value added tax, since it is intended for settlements with suppliers and subsequent reimbursement from the budget, and not for the formation of a tax base. The Tax Code does not have a single norm governing the procedure for levying tax on income from leasing payments in case the lessee and lessor are residents of the Republic of Azerbaijan. Meanwhile, in paragraph 140.1 it is determined that when a lessor leases tangible property under a financial leasing agreement, the lessee is considered as the owner of the property, and rental payments are considered as payments on a loan provided to the lessee. In a certain clause, this clause equates lease payments to rent payments on the one hand, and to loan payments on the other. Therefore, it remains unclear what to take for the tax base: the rent paid at a rate of 10% at the source of payment, or interest on a loan excluded from income in the amount of a limiting amount, the calculation formula that is given in paragraph 110.2. We also note that the concept of a loan involves not only a bank loan, but a wider range of obligations related to the provision of money in debt. Therefore, we believe that 149.1 it would be advisable to clarify what exactly is meant by payments on a loan in a particular case. According to Article 164 of the Tax Code "the provision of financial services in the republic, as well as the import of property that is the subject of financial leasing, are not subject to VAT." This means that, firstly, leasing payments of lessees within the country are not subject to value added tax, and secondly, recipients of imported equipment in the republic, i.e. lessees, do not pay 18% of its customs value at the time of import. At first glance, this may seem to be another benefit provided for leasing. But the fact is that, according to the article 174.1 of the Tax Code, the amount of VAT to be paid to the budget is determined as the difference between the tax amounts received from buyers for goods sold (works, services) and the tax amounts actually paid by suppliers for the purchased materials and capital investments made. Therefore, it can be argued that the abolition of VAT on leasing payments and imports does not at all reduce the lessee's obligations for payments to the budget. Let us prove this statement by example. For clarity, consider 2 alternative options and compare their results: at the option 1 - the lease payment is exempt from VAT; at the option 2 - VAT is calculated on the lease payment at a rate of 18%; Suppose that the lessee from the sale of their products at the end of the reporting year must pay 300 thousand manats to the budget. And let's say the lessee's lease payments are: in option 1 - 1,000 thousand manats; in option 2 - 1,180 thousand manats, including VAT of 180 thousand manats. So, in the first option, the lessee is required to pay to the budget all 300 thousand manats. Due for VAT, in the second option, he will reduce this obligation by 180 thousand manats. So, in the first option, the lessee is required to pay to the budget all 300 thousand manats, due for VAT; in the second version, he will reduce this obligation by 180 thousand manats, which he has already made as part of leasing payments (as required by the article 174 of the Tax Code), which will result in 120 thousand manats. (300 thousand - 180 thousand). Thus, regardless of whether or not VAT is taken from leasing services, payment by a lessee of VAT in both cases will cost him the same amount of 300 thousand manats. Let's touch on another problem. The cost of leased property acquired by the lessor in the republic is subject to VAT at a rate of 18%. However, according to article 176.6 "when purchasing goods (work, services) by persons who have completed operations that are exempted from VAT or not subject to VAT, the amount paid is not reimbursed". Meanwhile, the Code does not clarify where does this amount go?

In our opinion, the above norm is devoid of logic, because, firstly, it casts doubt on the itself economic nature of the value-added tax. Secondly, this ambiguity creates difficulties in accounting, which are as follows. The fact is that the amount of VAT paid upon acquisition of the leased asset is taken into account in the debit of account “VAT on acquired values” in correspondence with the credit of account “Calculations with suppliers and contractors”. Subsequently, at the time of actual repayment of debt to the supplier for this amount, it, in accordance with the article 174.1 of the Tax Code, should be reimbursed by reducing debt on the amounts of VAT due to payment for goods, works, services sold, i.e., is written off to debit to the account “Calculations with the budget”. However, on the other hand, the article 176.6 prohibits writing off the VAT amount from the credit of account “VAT on acquired values” to the debit of account “Calculations with the budget”. It is not clear where then this amount is written off? It remains only to assume that it relates to an increase in the value of the acquired leasing property and should subsequently be reimbursed by the lessee as part of the lease payments, thereby increasing the total cost of leasing for the lessee. It cannot be denied that, along with the shortcomings of the Tax Code regarding the regulation of leasing, there are also benefits. Thus, the Tax Code provided a benefit in terms of amortization of leased property by providing an acceleration coefficient of 2. Since amortization deductions are deducted from income for tax purposes in accordance with the rules provided for in Article 114 of the Tax Code, this accordingly leads to a decrease in tax liabilities to the budget by profit and property tax on the leased object.

### 3. CONCLUSION

Due to the peculiarities of leasing operations their reflection in the accounting of subjects of a leasing agreement should have its own specifics. Recall that in our republic the uniform accounting procedure for leasing operations has not yet been worked out. In this regard, some leasing organizations of the republic, and they constitute the majority, are forced to keep records of leasing operations by analogy with accounting. But in accounting of rental operations cannot be reflected stages, characteristic only of leasing such as a preliminary acquisition of leased property by import or in the territory of the republic by leasing organizations, as well as payment of customs duties on this property, reflection of the transfer of the leased object to the lessee in financial leasing, that is, with the right of subsequent redemption and the procedure for reflecting withholding of income tax on leasing interest at the source of payment, VAT, calculating of accelerated amortization and other features. Other leasing organizations of the republic reflect leasing operations according to the methodology provided for leasing structures of the Russian Federation. However, here domestic leasing organizations should not blindly copy from Russian sources the methodology of binary records in accounts due to differences in the accounting, tax and legal laws of the two countries. From all the leasing operations of the republic, only “Azerleasing” JV made an attempt in 1999 to develop its working chart of accounts and accounting procedures for leasing operations and submitted it for approval to the Ministry of Economy and the Ministry of Finance of the Republic of Azerbaijan. However, in this document was not reflected the tax aspect, and it was only emphasized that tax payments to the budget from leasing operations will be carried out in accordance with the Tax Code. So, for the successful implementation of leasing in the economy of the republic, it is necessary firstly to regulate the issues of taxation and accounting of leasing operations.

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## OPTIMIZATION OF THE STRUCTURE OF TAXATION IN THE STATE

**Ramiz Maharramov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
ramizvergil@rambler.ru*

**Rauf Salayev**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
salayev@mail.ru*

**Nigar Allahverdiyeva**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
spi-999@mail.ru*

**Dinara Ramazanova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
rdina98@gmail.com*

### ABSTRACT

*The tax system as an instrument of state management of the economy should provide a solution to conflicting and simultaneously related problems. This is the filling of the state budget and ensuring the balance of its revenue and expenditure parts. An equally significant task facing the tax system is to increase the efficiency of production and economic activities of economic entities, improve the quality of life of the population, create conditions for the innovative development of enterprises and increase the investment attractiveness of the regions of the state. In reforming and optimizing the tax system, the state must follow the principles of building the tax system. Thus, the establishment of taxes should be fair and contribute to their uniform distribution between taxpayers. The methods for calculating and paying taxes should be convenient and understandable, and the deadline for paying all taxes should be reflected in the Tax Code. A well-constructed tax system allows not only to solve the issues of adequacy of financing of the state budget, but also makes it possible to develop social, social and economic processes within the state.*

**Keywords:** *Tax Code, tax system, taxes, economy, state, budget*

### 1. INTRODUCTION

The systemacity of taxation is provided with integrity and inter-conditionality of functioning of all structural elements of a tax. System approach to creation of a tax system excludes also double taxation of taxable bases, illegibility of legal mechanisms of distribution of cumulative tax burden on taxpayers, types of activity, the industries, state regions. The elasticity of a tax system is provided with an opportunity to specify rates of taxes and to pursue tax policy taking into account the changing political, economic situation on the basis of the laws regulating economic, financial, budgetary, credit and other forms of relationship. The social orientation of a tax system is reached by creation of the mechanisms regulating the level of regional economies and solvency of citizens. The increase in public expenditure requires a certain increase in revenues, and thus in the tax burden on tax collectors. However, this trend cannot be indefinite and there is a limit that objectively limits the growth of the tax burden. Growth of the public expenditures demands a certain increase in income, so, and increases in tax burden of taxation subjects. However, such trend cannot be infinite and there is a limit which objectively limits growth of tax burden.

In the first principle, the State acts as the accumulating centre of tax revenue. From this perspective, the State is indifferent to which entities and taxes will be collected. What is important is how much tax revenue a State can accumulate over a period of time, usually for an entire year. This amount should not be arbitrary but should be justified on the basis of the costs to be borne by the State. In the second principle, the State acts as an integral part of society, as its instrument to express in a concentrated manner the interests of its citizens, which may be formed by dominating the interests of the most powerful, and on the basis of consensus among the diverse interests of different social strata and groups. This State cares a great deal about which taxpayers and through which taxes it will receive the money it needs, since the structuring of taxes, payers and their types largely determines both the efficiency of public production in general and the social dimension of the distribution of income in society, with all its social, political and demographic implications. Since budgetary planning takes place practically in the form of legislative adoption of the annual budget.

## **2. OPTIMITY CRITERION FOR PUBLIC EXPENDITURES AND THE AMOUNT OF TAX INCOME**

The system's effectiveness of taxation is defined by a role of taxes. This role is positive if the potential of taxation is realized to the maximum extent possible and a relative balance between functions is achieved. This is reflected in the optimization of the level of tax exemptions, namely, the creation of a State budget that does not infringe on the interests of payers. Usually, the analysis of the functions of taxes is not only theoretical but also practical, since it is based on the determination of the amount of tax revenue required by the State for each period of time to be generated in the collection process. The determination of this value is the result of the distribution of the monetary income of a society in one form or another, in one proportion or another. However, income distribution in the form of taxes is an integral part of the distribution of all income in society at all levels of the economy. Thereby, taxes and the tax economic relations do not become isolated on themselves (such danger always exists not only in financial science, but also in activity of financial and tax structures of the state), and are connected as an organic component to the system of the distributive relations of society, and already through it - to all system of public reproduction. Public expenditure, in one form or another, at a particular stage in the development of a society, as has been the case throughout economic history, may be determined on the basis of the following criteria [5]:

1. the criterion of the necessary minimum, the reduction of which leads to social chaos and the disintegration of the State;
2. the sustainability criterion of the State and society, according to which public expenditure should be sufficient to sustain the existence of the State as a political complement to society in the face of internal and external threats;
3. the criterion of optimum public expenditure from the point of view of the well-being of the society, sustainable effective growth of the economy, stability of the State;
4. the criterion of excessive expenditure by the State, subjectively determined but arbitrary by the authorities.

Attention is drawn to the following objective sequence of State action:

$$\text{CGS} \rightarrow \text{VGS} \rightarrow \text{VGR} \rightarrow \text{VT} \rightarrow \text{VNRS (Lim - TC)}$$

where:

- **CGS** – criterion of government spending;
- **VGS** – value of government spending;
- **VGR** – value of government revenue;
- **VT** – value of taxes;

- **VNRS** – value of non-tax revenues of the state.;
- **Lim-TC** – limitation in the form of tax collection.

Extraordinary circumstances may force a State to apply the first and second criteria for the formation of its expenditure, hence its revenue, including taxes. However, they may also be used as an element of the wrong policy of the authorities. The 2nd and 3rd criteria are acceptable for the state in terms of extent of involvement of the state in economy. As for the fourth criterion, which is excessive public expenditure, it is the result of an arbitrary exercise of public authority that is not subject to any substantial public control. In the conditions of development of economy, the state has to be oriented on an optimality criterion of the public expenditures. Only following to this criterion is capable to provide optimum taxation on the scale of the state:

- on its absolute value;
- on a share in the cost of gross domestic product;
- on a share in structure of total revenues of the state.

The determination of the absolute value of taxes on the basis of the amount of public expenditure to which public revenues are tied, which is the basis of the above-mentioned formulas, may be objectionable on the grounds that the State (as an economic entity) should determine its expenditure on the basis of its income. There are a number of arguments to the effect that the absolute value of taxes should be based on the amount of the intended public expenditure (and not vice versa, the amount of expenditure within income). The functions of the State are aimed at ensuring the survival of the State and society at a minimum, and at the sustainable and efficient development of the economy, and at improving the well-being of the population at the maximum. In order to carry out these functions, the State must, to the extent possible, increase its revenue base through taxes. The State, through various fiscal policies, including tax policies, can vary quite widely in the level of its revenues, including in the form of taxes, imposing (cancelling) taxes, reducing (increasing) tax rates, fixing the objects of taxation, etc. This variation should be based on planned government expenditure. The relative value of taxes is determined by formula:

$$RT = \frac{A}{GDP} \times 100\%$$

where:

- **RT** – relative taxes for the year;
- **A** – absolute amount of taxes for the year;
- **GDP** – gross domestic product produced for the whole year.

If the extreme living conditions of the state and society (war, environmental disasters, economic crisis, etc.) correspond to an extremely high level of taxation, then under normal conditions the state should focus on the optimal amount of government spending, accordingly, striving for the optimal amount of taxes collected. The principled approach of calculating the value of the taxes collected, along with other (non-tax) State revenues, according to the amount of the planned State expenditure cannot be absolute, it must be implemented to the extent possible. It is obvious that, however much the State needs a certain amount of expenditure and however necessary or appropriate it may be for the successful socio-economic development of the country, but the authorities will be forced to limit their spending to limits that dictate the extent of the State's potential revenues, including in the form of monetary issues, domestic and foreign borrowing.



However, the state always has a choice of the size of its income, including in tax form, from a very wide range, which can be expanded as a result of effective monetary and financial policies of the state. We have compiled a model for optimizing the planned amount of taxes at the state level, when considering which we must keep in mind the following: [5]:

1. The value of taxes and payments assimilated to them is derived from the effect of the determining factors. Sequences are numbered by predetermined and determinant factors.
2. The determining factors, in their order of importance and impact, are highlighted:
  - firstly, the strategy of socio-economic development of the country;
  - secondly, an indicative plan for socio-economic development for the medium term (approximately 5 years);
  - thirdly, the specification of the indicative medium-term plan for socio-economic development in relation to the coming year;
  - fourthly, planning the amount of government spending with the determination of income in their equal amount.
3. The determining factors are taken into account when optimizing the amount of state taxes. These predetermining factors are taken as a prerequisite for optimizing the value of taxes.
4. Planned state revenues for the coming year are the final, resulting factor.
5. Before determining the desired amount of taxes, it is necessary to mobilize as much as possible non-tax revenues of the state, first of all, revenues from state-owned objects (revenues from existing enterprises and organizations, revenues from privatization of state assets, revenues from state property abroad, rents for real estate and other).
6. Other State revenues are then raised that do not include any form of income on its property. As an example, interest payments on external loans extended to other countries may be cited.
7. Revenue from the issuance of money, but not of any kind, is a critical factor in the generation of government revenue, which may well compete with State property and other State revenues, the result is an increase in the number of factors of production available in the country, resulting in an additional output that provides commercial cover for the money being issued.
8. The next factor is customs duties, which in their economic essence are taxes, in other words, taxes for crossing the state border, differentiated by groups of goods by export and import.
9. Taxes and equivalent payments, but the sequence we have established relates to the determination of the revenue of the State budget. This means that after the mobilization of the previous revenue-generating factors of the State budget, the revenue shortfall must be covered by taxes. This amount is subject to adjustment for the amount of tax credits granted, repayment of earlier tax credits, tax incentives that reduce the total tax revenues, consequently, this amount should be increased by the amount of tax relief granted.
10. The state should very carefully and cautiously resort to government loans, bearing in mind the possible reduction in borrowing by increasing the amount of taxes collected.

With the exception of special circumstances, the state should resort to loans (internal and external) only within the framework of increasing its income in the future to a level that allows servicing and paying off state debt.

### **3. SUSTAINABLE DEVELOPMENT OF THE ECONOMY OF AZERBAIJAN AT THE ACCOUNT OF OPTIMIZATION OF THE TAX SYSTEM**

The stable development of the Azerbaijani economy allows you to first form the optimal amount of expenses, and only then, under it to mobilize income, including taxes, distributing them between taxpayers and types of tax payments. In the case of miscalculations in the ongoing

economic reforms, it is necessary to intensify and finally begin to fully and effectively use the objective opportunities of the country for its sustainable and rapid economic growth. Then, tax optimization in accordance with approaches and recommendations may be on the agenda of practical actions in the field of taxation and its regulation. From today's perspective, however, these developments are forward-looking, not at present, but an alternative for the future. This does not mean, however, that the designs proposed in the article are indifferent to the present time. On the contrary, taxation in it assumes meaning and purpose only if the prospects for future development are sufficiently substantiated and elaborated. The tax system allows not only to distribute the tax burden taking into account the social structure of society, but also to adjust the tax policy when the economic situation changes, providing the state with financial resources. At the same time, an excessive amount of taxes negatively affects the ability of taxpayers to make timely and correct payments to the state budget. Since, in a market economy, the main objective of taxpayers is to earn income, the tax system should be as focused as possible on determining the generation of income in any activity and in any form, establish a method for calculating the corresponding income without overburdening a particular income. The latter is particularly important, as the tax system, while ensuring that a portion of revenues is deducted from the State budget, should not distort the motivations of market actors. It is crystal clear, that the data in Table 1 reveals an increase in tax revenues to the state budget of Azerbaijan, both in total and for certain types of taxes.

Indicators	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues-total	10762.7	10325.9	11403.0	15700.7	17281.5	19496.3	18400.6	17498.0	17505.7	16516.7	22508.9
Value Added Tax	1910.9	2012.8	2082.5	2222.7	2366.9	2710.0	3119.6	3454.7	3623.5	3668.6	4287.6
Excise	486.9	485.1	514.9	480.2	531.5	593.3	797.3	647.8	625.1	612.6	728.6
Profit tax of legal entities	2862.3	1329.2	1429.9	2134.0	2252.0	2374.8	2302.7	2211.1	1983.2	2285.9	2499.7
Land tax	30.6	26.2	35.3	35.3	30.6	33.1	35.4	48.7	50.3	50.4	50.6
Tax on income of individuals	627.2	581.9	590.2	715.7	813.0	859.7	980.3	982.5	1145.7	1040.3	995.9
Tax related with foreign economic activities	449.7	418.1	291.8	433.1	592.5	675.2	684.7	934.5	861.2	903.0	1143.7
Property tax	112.9	66.2	101.8	103.9	105.1	125.1	141.3	148.2	174.7	178.6	182.2
Other taxes	96.8	86.8	90.3	140.6	157.6	161.5	192.7	247.7	457.0	505.7	561.6
Other returns	4037.7	5197.7	6136.2	9305.4	10306.5	11842.1	10030.4	8706.7	8474.7	7160.5	11921.6
Tax on mining	147.7	121.9	130.1	129.8	125.8	121.5	116.2	116.1	110.3	111.1	137.4

*Table 1: Receipt of taxes and other payments to the state budget of Azerbaijan for 2008-2018. amount in million manats [5]*

As a result of the targeted policy and structural reforms carried out in 2019, our country achieved macroeconomic stability, accelerated economic growth and sustained economic development. In 2019 13.5 billion dollars of investments were invested in Azerbaijan. Since 2003 till present the economy of Azerbaijan grew in general by 3.4 times. It is record level in the world. For these 16 years industrial production grew by 2.7 times, agriculture – twice, a foreign trade turnover – by 6.4 times, export – by 7.6 times, including not oil export - by 5.2 times. Our currency reserves grew by 27 times. In 2003 currency reserves made 1.8 billion dollars, following the results of 2019 – 51 billion dollars [6]. The surplus of the state budget of Azerbaijan for January-February 2020 was 283 million manats, or 2.2% of GDP.

Indicators	2017			2018			2019		
	Plan	Fact	%	Plan	Fact	%	Plan	Fact	%
Total	7112,0	7118,0	100,1	7010,0	7016,0	100,1	7210,0	7645,0	106,0
Including:									
Oil sector	2300,0	2090,0	90,9	1610,0	1610,0	100,0	1755,0	1840,0	104,0
Non-oil sector	4812,0	5028,0	104,5	5400,0	5406,0	100,1	5455,0	5805,0	106,0

*Table 2: Tax revenues from the oil and non-oil sectors to the state budget of Azerbaijan for 2017-2019. amount in million manats [5]*

In the first two months, state budget revenues exceeded 3.613 billion manat (an increase of 2.3% compared to January-February last year), expenditures - 3.330 billion manat (an increase of 12.1%). Azerbaijan's nominal GDP for January-February amounted to 12.578 billion manat. The forecast for state budget revenues for 2020 is more than 24.134 billion manat, expenditures - 26.895 billion manat. It should be noted that the tax system, including income and property taxes, VAT, fishing tax and some others, is more stable and stable compared to less diversified taxation. It is the circumstance, despite differences in historical heritage, that led to the relative proximity of tax systems in developed countries, as evidenced by comparative studies of the International Monetary Fund [3]. Moreover, since the economy of Azerbaijan is not isolated from the global economy, it is important that the tax system is closer to its European counterparts. Creating a tax system that is significantly different from others can create problems for foreign investors and foreign companies operating in Azerbaijan, as well as for local companies entering global markets. In particular, such a tax system will automatically lead to the impossibility of using double taxation avoidance agreements, since they are applicable only to similar taxes that are simultaneously operating in the contracting states. That is why the tax legislation of Azerbaijan considers a number of provisions relating to international tax relations. So, for example, articles 2.5, 2.6, 2.7 and 2.7-1. The Tax Code of Azerbaijan provides for the following: if international treaties to which the Republic of Azerbaijan has acceded establish tax provisions that are different from those stipulated by the Tax Code and normative legal acts adopted in accordance with it, then the provisions of these international treaties apply [1]. If the international double tax treaty to which the Republic of Azerbaijan has acceded is used by a person who is not a resident of the state that has concluded such an agreement, to receive benefits and privileges, then with regard to tax benefits and privileges provided by the said agreement to a resident of the state that has concluded such an agreement, the provisions of article 2.5. Tax Code does not apply. If agreements and laws on the share of production, on the main pipeline, etc., approved before or after the entry into force of the Tax Code, including laws on the oil and gas activities of export direction and on special economic zones, oil and gas, provisions other than those provided for in the Tax Code and other legal acts on taxes are established, the provisions of the said agreements or laws are applied [1].

In the conditions of rapid development of the world market, the tax systems of most developed countries are unified, which creates the conditions for a free cross-country overflow of investment capital and its integration. It is unlikely that Azerbaijan should deviate from the general trend, since this will inevitably lead to its isolation from the general integration processes and will hamper the access of foreign investors to the local market. Equalizing the tax burden on market participants ensures the neutrality of the tax system, which is important for the development of free market competition. Ignoring it can lead to a deformation of the investment structure, as well as to a weakening economy. It is known that tax incentives are provided through tax incentives. Tax benefits are recognized benefits provided to certain categories of taxpayers provided by tax legislation compared with other taxpayers, including the ability to not pay tax or pay it in a smaller amount. On the one hand, tax benefits reduce the revenues of the State budget, but at the same time reduce its economic and social expenditures. Tax relief is justified by the principle of tax equity. The system of tax incentives is determined by the main directions of state economic and social policy. Nevertheless, foreign experience shows that flexible tax regulation with the help of tax incentives ensured the creation of a progressive economic structure, the competitiveness of products on the world market and made it possible to abandon many benefits at present. Therefore, the widespread use of tax incentives is typical mainly for countries with developing economies. Tax incentives increase the economic opportunities of economic agents, equalize the initial operating conditions, expand the scope of productive investment and thus create favourable conditions for its further growth, as well as affecting the sectoral and territorial structure of the economy, the development of

infrastructure and, as a result, the broadening of the tax base in the future. One of the most important elements of the tax policy pursued in our country is the creation of a favorable business environment, the focus of the business on developing the economy, and meeting the economic interests of not only the state, but also entrepreneurs, farms and citizens. The adopted strategic government programs contribute to the development of the business environment and the relationship between tax authorities and taxpayers. Strategic Roadmaps for the national economy and main sectors of the economy are designed to ensure the competitiveness of the economy, its inclusion and increase of social welfare based on sustainable economic development in Azerbaijan [2]. The adoption and enactment of the Tax Code of the Republic of Azerbaijan made it possible to systematize the existing norms and regulations governing the taxation process and bring them into an orderly, unified, logically integral and coordinated system. A characteristic feature of the Tax Code of the Republic of Azerbaijan is the introduction of special tax regimes. It should be noticed that, foreign investors are much more interested in the stability of the tax system, which allows predicting activities for a long period. With this in mind, Azerbaijan has concluded a number of international agreements in the area of taxation. In order to stimulate the attraction of foreign investment in the economy, accelerate the development of the richest oil fields, a special tax regime has been established for foreign companies engaged in hydrocarbon activities in the Republic of Azerbaijan in accordance with oil contracts, the tax rate on the income of foreign legal entities in the form of dividends and interest from sources in Azerbaijan has been reduced from 15 per cent to 10 per cent, etc. In order to support the development of entrepreneurship and increase the benefits of doing business, amendments to the Tax Code of the Republic of Azerbaijan were also introduced in 2019, How to reduce the degree of simplified tax the granting of term tax credits for retail trade and non-cash catering, exempting small entrepreneurs from income and expenditure tax on dividend income, deducting from income the non-profit expenses of taxpayers, including a certain portion of subsidies allocated to health, education, culture and sports. According to amendments to the Tax Code of Azerbaijan from January 1, 2019 for a period of 7 years, a 100% tax benefit is provided for the collection of income tax on the salary of an employee working in the non-oil and gas and private sectors. This tax benefit applies to salaries of up to 8,000 manat. If the employee's salary exceeds 8,000 manat, then in this case the employee pays income tax in the amount of 14% of the amount exceeding 8,000 manat. In addition, amendments to the law "On Social Insurance" were adopted. Amendments to the system for collecting compulsory social insurance contributions provide for the application of a differentiated rate for non-state companies operating in the non-oil sector. In particular, if the employee's salary is up to 200 manat, then the employee directly pays 3% of the salary for social insurance, the employer - 22%. If the employee's salary exceeds 200 manat, then he will pay 6 manat for social insurance + 10% of the amount in excess of 200 manat. In this case, the employer will pay 44 manat + 15% of the amount in excess of 200 manat [5]. Long-term tax incentives for micro, small and medium-sized enterprises have been adopted. In particular, companies in the small and medium business cluster (SME) for 7 years from the date of registration in the SME register are exempt from income tax, land tax and VAT. Tax incentives were adopted for individuals and legal entities engaged in retail trade or operating in the field of catering, which stimulate non-cash payments. Benefits apply to income tax, income tax and simplified tax. According to the changes, when calculating the tax of a natural or legal person engaged in retail trade or a public catering facility, a portion of the tax on profits or income derived from transactions made through POS terminals will be included. The benefit for this part of the tax is 25%. For a similar period, it is proposed that VAT be exempted from import by the companies of the SME cluster of machinery, technological equipment and devices for production or processing. In addition, part of the income from the services provided by entrepreneurs participating in the SME cluster, aimed at capital expenditures, is exempted from

income tax for 7 years. Incentives for micro-entrepreneurs include tax and profit tax exemptions for 75 per cent of income and profit from business activities. In addition, legal persons and private entrepreneurs who are micro-entrepreneurs are exempt from property tax. The amendments to the Tax Code also provide for the exemption of income and profits from the innovative activities of startups engaged in micro and small business activities from the payment of income and income tax for a period of 3 years from the moment they receive a certificate for startup activities. Thus, the state seeks to give an impetus to the development of startups in Azerbaijan. Amendments to the Tax Code also affected the simplified tax, which provides for both tax benefits and restrictions. So from 2019 the single simplified tax rate will be set at 2%. Earlier, the simplified tax rate was 4% in Baku and 2% in other cities and regions, as well as in the Nakhchivan Autonomous Republic [7]. The exemption of subsidies and taxes from agriculture, the provision of machinery and fertilizers on favorable terms, the promotion of investment and exports, and other state support mechanisms play an important role in accelerating regional development. Another indicator of this development is the increase in tax revenues by region. As a result of systematic measures taken in 2019 on revenue transparency and clarity of accounting, funds in the state budget in the amount of 817 million manat or more than the forecast of 163 million manat were secured. This is 25 percent more than the forecast [6]. It should also be noted that tax incentives for agricultural producers have been applied in Azerbaijan since 2001. Along with reducing the tax burden of entrepreneurs in order to save their working capital, as well as stimulate export, the period for returning the already paid VAT from operations carried out by persons involved in export has been reduced. These and other changes will create conditions for reducing the tax burden of taxpayers, efficient use of working capital, support the development of entrepreneurship in the agricultural sector. In the Doing Business report, Azerbaijan was included in the list of twenty most reforming countries in 2019 [6]. In the market economy, the basic rules for taxation of income of individuals should not practically differ from the rules for taxation of income of legal entities. To tax the income of individuals and individuals in many countries, a single system model of income tax is used, for which there is a simple theoretical justification. Legal entities are organizational forms of doing business, allowing to distinguish between property liability of participants and the right to income of individuals. In this case, the tax system should not determine the choice of the form of activity, establishing similar taxation regimes for all forms permitted by law. Azerbaijan's tax legislation prohibits the establishment of differentiated tax rates depending on the form of ownership, or citizenship of individuals or the place of origin of capital. In this regard, from January 1, 2010, the corporate income tax rate was reduced from 22% to 20%. An addition to Article 101.3 of the Tax Code was also adopted: taxable income is levied on taxable income of individuals engaged in entrepreneurial activities without creating a legal entity at a rate of 20% [1]. From the standpoint of the efficiency of social reproduction and economic growth, the interests of the state, it is fundamentally important not only to optimize the amount of taxes collected at the state level, but also to optimize the structure of tax payments in the following areas:

- distribution of the total amount of taxes levied on a state scale between taxpayers - organizations and the public;
- distribution of the total mass of taxes by their specific types.

Optimization of the distribution of the total mass of taxes between taxpayers is carried out by optimizing the distribution of the total mass of taxes between legal entities and individuals. It is known that in the theory and practice of taxation there are two diametrically opposite approaches to the taxation of legal entities and individuals. According to one approach, the center of gravity of taxation should fall on individuals, and in accordance with another, on legal entities.

It is obvious that the centre of gravity of taxes can be placed on individuals only in countries with a sufficiently rich population. In poor countries, it is not possible to place the tax burden on individuals. In principle, taxation of natural persons, not by income but by property, has two very important advantages:

- taxes are almost impossible to evade;
- property tax administration is easier than income tax administration.

It is noteworthy that in countries with poor or underprivileged populations, there are social strata with extraordinary wealth. These sectors can be fully taxed at a level that is by an order of magnitude higher than that of the vast majority of the population. However, excessive taxation of the very rich may encourage them to leave the country, buy real estate in other countries. In our view, in determining the optimal balance in the taxation of natural and legal persons, it is first necessary to determine the taxability of natural persons and, consequently, the amount of possible fiscal revenues of the budget. Then transfer the remaining tax amount to legal entities. However, in the current context of low real wages for workers, it is advisable to maintain the current procedure for taxing the income of natural persons. In principle, having determined the total amount of the supposed optimal taxation of legal entities, we are faced with the problem of its distribution. Here again, there is a fundamental contradiction in the taxation of legal persons. This contradiction should be clearly defined, first, and second, the most rational ways and means of counteracting its negative effects on the national economy should be found [4].

#### **4. CONCLUSION**

One of the most important elements of the tax system in Azerbaijan is the creation of a favorable business environment, the focus of business on the development of the economy, and compliance with the economic interests of not only the state, but also entrepreneurs and citizens. The mechanism of tax regulation in Azerbaijan is characterized by the application of reduced tax rates. In our country, the state through the reduction of tax rates supports entrepreneurs who have switched to a simplified taxation system. An increase in the incentive investment effect of lowering tax rates, in this situation, in our opinion, is possible only by reducing the corporate income tax and personal income tax rates, or by providing large investment deductions. Strengthening the investment orientation of taxes in the mechanism of economic incentives also involves the adoption of decisions on reforming the tax system for certain types of activities that are an integral part of the investment process, contribute to the development of a favorable investment climate or participate in the formation of investment resources in the economy, which requires a separate study. Such types of investment activities include operations in the financial market, leasing activities, etc. In the process of transforming taxation in Azerbaijan, it is imperative to take into account the development trends of tax systems in developed countries. In the context of a globalized economy, the tax systems of these countries are unified on the principle of neutrality with respect to business, which creates the conditions for free flow of capital between states and its integration. To optimize the distribution of the total amount of state tax revenues by type of tax, it is advisable to carry out such optimization on the basis of an analysis of tax revenues in state revenue over the course of several years by type of tax, respectively reducing the rates for one tax and leaving the rates unchanged for the other, thereby achieving optimization in relation to the current period of socio-economic development of the state. Objective requirements to the tax system, expressed in the principles of its construction, should be the basis for determining the strategy of tax reforms, as well as their most important tasks. At the same time, the following areas should be highlighted as priority:

- establishment of the most vital tax system;
- creation of an effective tax administration system;

- systematization and unification of tax legislation with the definition of common basic concepts and categories.

In line with these fundamental directions, the most important tasks of the stage of development of the tax system can be distinguished:

- further reduction in the number of taxes and their unification;
- equalization, whenever possible, of taxation conditions for all taxpayers, first of all, due to the abolition of unreasonable benefits;
- improving tax administration and increasing the level of tax collection through the use of additional mechanisms and tools in tax legislation, especially in connection with the improvement of tax control;
- correction of inconsistencies, inaccuracies, etc. in the rules for determining the tax base of existing taxes;
- acceleration and simplification of procedures for appealing decisions and actions of tax authorities;
- reducing the tax burden of taxpayers;
- legally guaranteed permission to take into account when determining the base of income tax all necessary and documented expenses associated with its extraction.
- simplification of the tax system by unifying tax bases and rules for calculating individual taxes, as well as methods for calculating them and the procedure for their payment.
- optimization of the procedure for the distribution of tax revenues and tax powers between government and administrative bodies.

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## SOCIO-ECONOMIC ASPECTS OF VOLUNTARY HEALTH INSURANCE

**Ramis Azizov**

*Azerbaijan State Economic University (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
ramis.nahmedoglu@gmail.com*

**Saida Huseynova**

*Azerbaijan State Economic University (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
a\_sayka@hotmail.com*

### ABSTRACT

*Voluntary health insurance is a form of commercial insurance, that is carried out on a paid basis and belongs to the class of personal insurance, which allows to obtain additional medical services. According to the definition of the World Health Organization, voluntary health insurance is a cost paid out of personal income, along with out-of-pocket payments. The concept of voluntary health insurance began to be applied in the countries of the Commonwealth of Independent States (CIS) in the early 1990s with the beginning of establishing various insurance companies and non-state funding of medical institutions. The essence of this type of insurance is that the insured voluntarily (on his/her own initiative) enters into a contract with the insurer (a company licensed to carry out insurance activities) for himself or for the benefit of a third party. However, the fact that health insurance is based on the principle of voluntariness does not mean that insurance is always provided by private companies. This article notes the different ways of combination of two forms of health insurance by various organizations, including government. The article notes the main tendency of implementing voluntary type of health insurance in the majority of European countries. Furthermore, the purpose of the paper is to expand the idea of health insurance and to compare the voluntary form of insurance with it compulsory one. The role of voluntary health insurance in the scheme of universal health system is also briefly touched. The final part of the article is noted the importance of conducting widespread resulted-based analyses regarded to the transparent data in the relevant countries, currently implementing voluntary health insurance as an additional tool to provide health services to the population.*

**Keywords:** *European countries, healthcare funding, out-of-pocket payments, policymaker, population*

### 1. INTRODUCTION

Voluntary health insurance is a form of commercial insurance, that is carried out on a paid basis and belongs to the class of personal insurance, which allows to obtain additional medical services. According to the definition of the World Health Organization, voluntary health insurance is a cost paid out of personal income, along with out-of-pocket payments. The concept of voluntary health insurance began to be applied in the countries of the Commonwealth of Independent States (CIS) in the early 1990s with the beginning of establishing various insurance companies and non-state funding of medical institutions. The essence of this type of insurance is that the insured voluntarily (on his/her own initiative) enters into a contract with the insurer (a company licensed to carry out insurance activities) for himself or for the benefit of a third party. However, the fact that health insurance is based on the principle of voluntariness does not mean that insurance is always provided by private companies. This type of insurance can be provided by various types of organizations, including commercial and non-commercial



health insurance companies. As in the principle of compulsory health insurance, the main purpose of voluntary health insurance is to provide medical care to the population. Proceeding from this general purpose, the tasks of voluntary health insurance are following:

- protection of public health;
- ensuring reproduction of the population;
- development of medical services;
- financing of health care and improvement of material and technical base;
- protection of income of citizens and their families;
- redistribution of funds for the payment of medical services among different groups of the population.

Voluntary health insurance is carried out on the basis of a voluntary health insurance contract between the insurer and the insured. A voluntary health insurance contract is an agreement between the insured and the insurer (here: health insurance company). In this context the insurer is a party responsible for the provision of medical care and financing of other services under the voluntary health insurance program, a legal entity that provides health insurance and has a license to engage in health insurance. Insured in this form of relationship can be individuals, foreign citizens or stateless persons, those who conclude insurance contracts in favor of or in favor of third parties, or legal entities that conclude health insurance contracts for their employees [1]. The package of voluntary health insurance services is mainly broader than the package of compulsory health insurance services, and in many cases allows for the provision of additional services, such as outpatient, dental, doctor's home visits, which are not included in the package of compulsory health insurance services. This type of insurance provides insurers with a wide range of opportunities to provide higher quality medical services that meet the individual needs of the client. As with any type of insurance, in the context of health insurance there are certain risks associated with spending of required funds in or after the time of insured event had taken place, that is the object of insurance. There are two types of risks associated with the provision of medical care. The first type of risk includes the costs of caring for and rehabilitating patients, and the second type of risk is the loss of funds due to the inability to engage in professional activities during the post-rehabilitation period. The main consideration when choosing the principle of insurance is to determine the existing differences between voluntary and compulsory health insurance. The main differences between these two types of insurance are as follows [1]:

- Obligation of the insured in compulsory health insurance is based on the law, but in voluntary medical insurance it is based only on the relations established in the contract;
- The existence of a voluntary insurance contract does not preclude the existence of a compulsory health insurance contract;
- Compulsory health insurance is carried out mainly to ensure the interests of citizens, employers and the state, and voluntary health insurance is carried out mainly to ensure the social interests of citizens and employers;
- In compulsory health insurance, state organizations mainly act as insurers, and non-governmental organizations act as insurers mostly in voluntary insurance;
- The source of funds in voluntary insurance is the personal income of citizens and organizations, and in compulsory cases, the state budget.

## **2. THE ROLE OF VOLUNTARY HEALTH INSURANCE IN PUBLIC HEALTH: AN APPROACH FROM A GLOBAL CONTEXT**

Some argue that voluntary health insurance can bring more money to the health care system and encourage investment in new technologies. At the same time, the expanding middle class with disposable income increases the demand for voluntary health insurance in many low and

middle income countries. This group wants to use better quality medical services and is often dissatisfied with the existed health care system. In this case, the mechanism of voluntary health insurance is activated, and only in this case it replaces the compulsory health insurance. Voluntary health insurance, in turn, seeks to list only the good (less likely) risks, which exclude people with higher health risks. This is known as risk option or "cream skimming". Therefore, voluntary health insurance is not considered a good tool to close health gaps, especially for the sick and the elderly. These people in need of insurance need government intervention and subsidies. The potential and limitations of voluntary health insurance in universal health insurance are more pronounced in the context of low- and middle-income countries. There is currently no global study on the coverage of voluntary health insurance, but available data suggest that the share of voluntary health insurance is less than 10 percent, especially in low- and middle-income countries as a substitute form of insurance. According to the analysis conducted by the World Health Organization in 34 European countries [2], when looking at the costs of voluntary health insurance, it is clear that voluntary health insurance plays a more marginal role in countries for all types of income. However, the share of voluntary health insurance expenditures in total health expenditures is increasing year by year in low- and middle-income countries [3]. From a regional perspective, the share of voluntary health insurance is higher in Latin America and South Africa. The main reasons for this are inequality and segregation in such countries. The increase in the share of voluntary health insurance in many countries is explained by insufficient public funding of the health care system, limited investment opportunities in the public sector, the dominance or growth of the private health sector. For example, in some countries, voluntary health insurance is often regulated not by the Ministry of Health, but by agencies responsible for special health development [4]. The legal basis of voluntary health insurance in Azerbaijan is reflected in the Law of the Republic of Azerbaijan "On Medical Insurance" dated October 28, 1999. According to the legislation, voluntary health insurance is carried out on the basis of a voluntary health insurance contract between the insurer and the insured. [5] According to Article 4 of the Law of the Republic of Azerbaijan "On Medical Insurance", a voluntary medical insurance contract is a written agreement concluded between the insured and the insurer in accordance with the legislation and determines the financing and organization of medical care provided to the insured in accordance with the health insurance program. A voluntary health insurance contract is considered valid from the moment the first insurance premium is paid. A citizen who is a subject of a voluntary health insurance contract is provided with a health insurance certificate (police). According to the legislation of the country, the certificate is a document that guarantees the insured to receive medical care in the entire territory of the Republic of Azerbaijan.

### **3. VOLUNTARY HEALTH INSURANCE IN THE CONTEXT OF FINANCING OF THE HEALTH SYSTEM**

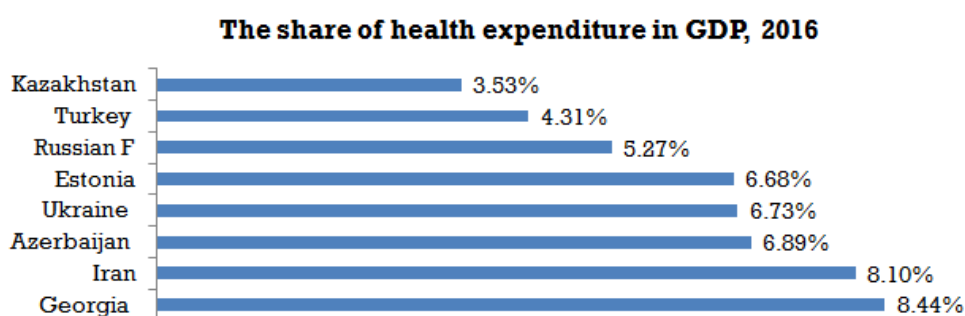
According to the accepted division in the world, some health systems are financed from health insurance funds, while others are financed through tax revenues. There are four main forms of income in health care: taxation, social insurance, voluntary insurance and out-of-pocket payments. In some countries, tax policy is based on the application of general and targeted (targeted) taxes. Health expenditures can be defined as the ratio of revenues from targeted taxation policies. In France, for example, health spending is primarily defined as a fixed portion of the total social tax revenue. In developed countries, health care is financed mainly through medical and social insurance contributions. Here, medical social insurance is mandatory and is separated from other mandatory payments. In many cases, medical and social insurance contributions are made by official bodies that are somewhat separate from the state and have appropriate independence. The rates of insurance premiums collected in the fund vary from country to country using different approaches.

For example, in Holland, insurance premiums are a single form of payment, in Austria they vary by type of employment, while in Germany and Luxembourg there are upper and lower limits [6]. As noted above, voluntary health insurance is a source of health financing. In many EU countries, the share of voluntary health insurance payments is 10% of total health expenditures. France and Holland are exceptions. In these countries, the cost of health care through voluntary health insurance is fixed at 12 and 18 percent, respectively. In countries such as Belgium, Denmark and Germany, this figure does not even exceed 5 percent. Voluntary health insurance plays a very small role in Central and Eastern European countries. However, as noted above, voluntary health insurance is able to cover all or part of the services that the state cannot cover, and in many cases expands consumer choice. Thus, in Germany, people with a monthly income of more than 3,500 euros can leave the health insurance system offered by the state and join the voluntary health insurance scheme. Statistics show that every 4th German chooses in favor of voluntary insurance. The amount of macroeconomic investment in health care in the general taxation system is often determined by political will. Thus, if there is a type of targeted tax on health in the country, the amount of these investments is known in advance. There may be some mutual concessions in the distribution of funds between the state and the social sphere, including health and other areas. In the case of the application of social health insurance, insurance payments are targeted. In this regard, investments in health care depend on insurance revenues. Such investments are vulnerable to economic cyclicity because they depend on income levels. That is, the main logic here is that as the income of the population decreases, the amount of social payments decreases in proportion to it. As for the voluntary health insurance market, investment in health care is determined by how willing citizens are to pay. In private health insurance, operating costs are relatively high, as due to high administrative costs, the organization of accounts, making contracts, the analysis of the use of services and marketing are included in this type of costs. In this case, the assessment of the degree of risk, determination of insurance premiums, preparation of a package of benefits (underwriting costs), consideration of insurance claims require the participation of a sufficiently large administrative staff. This, in turn, leads to an increase in costs and an increase in the value (price) of the product (insurance) offered in private health insurance market. European health systems are often funded from a variety of sources, including taxes, social health insurance premiums, voluntary health insurance premiums, and out-of-pocket payments. However, in most European countries, tax and social insurance funds are predominant, while voluntary health insurance still plays an additional role. The large number of sources of funding, which is typical for many countries, makes it difficult to conduct a comparative analysis of the performance of the insurance system. The role of voluntary health insurance in the process of financing health differs. Voluntary health insurance can take the form of substitute, supplementary and additional health insurance [7]:

- Substitute voluntary health insurance covers groups of the population that are not funded by the state, are not covered by the insurance system, or are directed to voluntary health insurance (on a voluntary basis) by deducting insurance premiums from the compulsory insurance system;
- Voluntary health insurance in a complementary form covers services for the purpose of paying for some services within the framework of compulsory health insurance and not provided for in the compulsory health insurance package;
- Voluntary health insurance provides access to additional forms of insurance (no queues /waiting), a higher level of inpatient conditions and, unlike compulsory health insurance, the large number of service providers and thus the opportunity to expand the choice.

#### 4. THE SHARE OF OUT-OF-POCKET PAYMENTS IN THE GLOBAL HEALTH SYSTEM

Development of healthcare in the Republic of Azerbaijan, provision of the population with medical care in accordance with world standards is one of the priorities of the socio-economic policy implemented in the country. According to the World Bank study, overall health expenditures in Azerbaijan are moderate in terms of income, but the health care system is still largely funded out-of-pocket. For example, in 2018, out-of-pocket payments in Azerbaijan accounted for 79% of health expenditures [8]. According to the calculations of the above-mentioned financial institution (taking into account the indicators of 2016), the share of health expenditures in the GDP of Azerbaijan is at a level comparable to that of model countries and neighboring countries. According to the World Bank, the share of health expenditures in GDP in Azerbaijan was higher than in Estonia, Ukraine, Russia and Turkey. However, the main problem of the system is the high share of out-of-pocket payments by Azerbaijani citizens [9].



*Figure 1: The share of health expenditure in GDP, 2016  
(Source: World Bank)*

According to the World Health Organization (hereinafter referred to as WHO), out-of-pocket payments (OOPs) are defined as direct payments made by individuals to health care providers at the time of service delivery and use. This excludes any prepayment for health services, for example in the form of taxes or specific insurance premiums or contributions and, where possible, net of any reimbursements to the individual who made the payments. In recent years, a number of countries have begun to implement health care reform and targeted policies to reduce out-of-pocket payments. The main coverage of policies adopted in the area is the abolition of user fees and charges in public health facilities, exemption of specific population groups such as the poor and vulnerable, pregnant women and children from official payments, delivering a range of health services such as maternal and child care from official payments and deliver them free of charge. As noted in the WHO recommendations, the implementation of such strategies need political support, decision-making and proper preparation. User fee abolition and exemption can have a large impact on both demand and supply of health services. They likely increase the demand for services which subsequently affects the workload of health workers. On supply side, they can have drastic impact on the income of public health facilities. Unless substitutive sources for user fee revenues are not found, health service availability, quality, and supply of medical products will suffer and deteriorate. For this reason, the effective implementation of the proposed strategies has a major commitment to finding alternative sources for financing a number of health services. Identification of new sources of funding is an important factor in terms of preventing side effects such as restricting access to health care services, lowering the quality of services, and declining supply, which could result from cancellation of payments in public health facilities [10]. According to a report by the WHO published in 2018 and comparisons between 24 OECD countries, 1% to 9% of households in Europe have been hit by poverty and therefore resorted out-of-pocket payments.

Between 1% and 17% of households were forced to spend large amounts on health care, thus not meeting their minimum requirements for food, housing and heating. According to the report, high health care costs are among the more than 20% of the poor and occur during outpatient visits. Thus, pocket payments among European countries accounted for 22% of total health care costs. The lowest rate among the analyzed countries was in France where out-of-pocket payments account for 7% of health care costs. In Germany, this figure was at 12% level, 14% in the United Kingdom and 23% in Estonia [11].

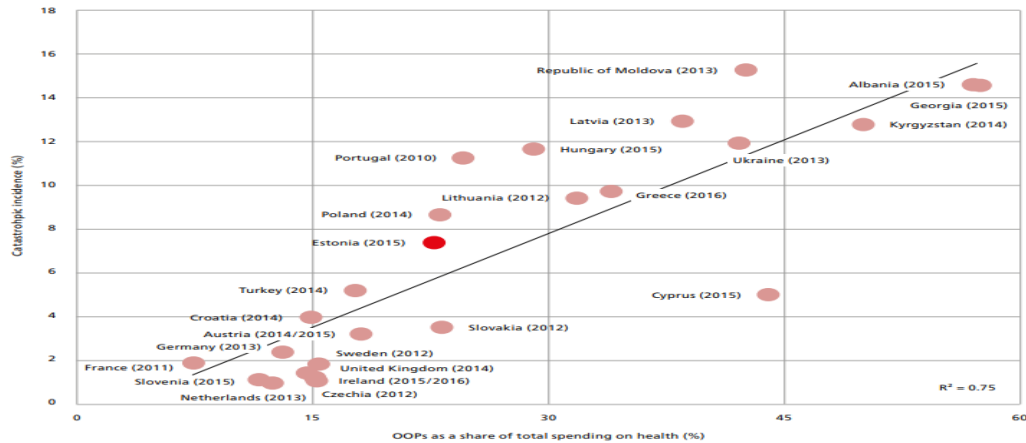


Figure 2: OOPs as a share of total spending on health (%)  
(Source: official page of WHO)

## 5. CONCLUSION

While it is said that voluntary health insurance contributes to the introduction of new health technologies in the health sector in the long run, looking at the trend of using this system, the scope of services provided for a limited part of the insured population is expanding. The main concern is that there is an increase in insurance coverage for high-income people and a decrease in insurance coverage for people with lower incomes and higher health risks. As a result, individuals at high risk of illness are less covered by insurance and coverage is declining, resulting in a reduction in the scale of risk distribution and thus inequality. Thus, the activity and impact of the voluntary health insurance market, especially in the market of European countries, requires in-depth analysis. Systematic data collection in the voluntary health insurance market and regular analysis of this type of information by health insurance policymakers are important factors. Ensuring transparency in the operation of voluntary health insurance markets and expanding the range of health insurance products offered through these markets makes it possible to make this voluntary health insurance package accessible to different segments of the population. When developing health policy, the impact of voluntary health insurance on the overall health care system in terms of equality and profitability should be taken into account.

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## EFFICIENT INNOVATION POLICY POTENTIAL IN GROWTH OF AZERBAIJAN NON-OIL SECTOR

**Rashad R. Maharramov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
rashad\_maharramov@unec.edu.az*

**Tahmasib Huseynov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
tahmasib.huseynov@unec.edu.az*

### ABSTRACT

*After Azerbaijan's independence oil revenues have boosted its economic growth considerably. And the state budget started to make major changes in this region, at the cost of revenue. The country has great potential for non-oil sector growth and regional socio-economic and infrastructure development despite the rapid growth of the oil industry. The key directions of Azerbaijan's future development strategy are the establishment of a strong economic structure, the development of the country's non-oil sector, the development of different economic sectors, the attainment of sustainable economic growth and the diversification economy. To this end, the creation and growth of strong incentive mechanisms to minimize the natural resource factor and ensure non-oil predominance in the country's GDP, as well as the formulation of the state budget, and the promotion of economic innovation. To ensure the sustainable growth of the non-oil sector within the context of state regional development programs, create favorable conditions for the development of the country's creative and high-tech industries, build industrial facilities based on modern technology, increase employment of industrial parks and industrial areas in the regions. Creation, increased innovation investment, accelerated the country's sustainable long-term economic growth, producing new creative and profitable goods. It is evident from the research that the sub-index on "Innovation Capital", which represents the degree of accessibility to innovation, is no less relevant than the sub-index on "Innovation Ability". This study aims to define the non-oil policy goals and growth prospects for the state, taking into account the current economic situation in the Republic of Azerbaijan's socio-economic development programs. The research work is focused on statistical evidence, methodology quantitative and empirical. The list of literature includes references from several authors, various stylish works on the issue, official documents and relevant government agencies' records. The study findings are expressed in the author's recommendations.*

**Keywords:** *innovation, non-oil sector growth, sustainable growth*

### 1. INTRODUCTION

Innovation policy could be a set of approaches and measures of the state that have an effect on the innovation method. Thus, this policy primarily involves the event and application of innovations in merchandise and production processes. the most goal of this policy are often economic prosperity (economic growth, productivity growth, employment, and competitiveness), also as cultural, social, environmental and military growth goals. The state ought to have access to analysis infrastructure, investment markets and trade relations of innovation processes and activities with its innovation policy, and stimulate the answer of issues within the field of the regulative setting and correct transfer of technologies within the place wherever all this takes place [Chaminade, C., & Edquist, C. ( 2006), p. 7]. These principles of organization and operation of innovation systems are often hand-picked by the states

themselves and delivered to a big level supported national resources, social science parameters of society, supported the national variety of governance and also the model of innovation development. The main directions of innovation policy within the world square measure as follows: formation and optimization of the national innovation system, optimization of public funding within the field of science and innovation, development of basic analysis, strengthening domestic business and science innovation cooperation, large-scale state science and innovation. the attraction of capital and personal capital, stimulation of personal sector innovation activity by attracting foreign capital to innovation, stimulation of scientific sector innovation initiative, integration into international innovation network, technological specialization, the institution of domestic innovation network, stimulation of regional innovation initiative, integration of science and education, innovation Involvement of tiny and medium business within the field, hi-tech field prioritization, etc.

*Table 1: The key policy directions for state innovation in the world*

<b>Innovation Policy Direction</b>	<b>Specificity</b>	<b>Country</b>
<b>Optimization of the structure of a national innovation system</b>	Optimization of the state system of management and planning in the field of innovation	Japan, Norway, India, Chile
	Optimization of state financing of science and innovation	USA, France, UK, Denmark, Norway, Sweden, Taiwan, Australia
	Development of basic research	UK, Sweden, Slovenia
<b>Stimulation of innovative cooperation between business and science (universities) within the country</b>	Promoting symmetrical convergence of universities and corporations	USA, France
	Large public investments in science and innovation and the attraction of national private capital	Israel, Finland
	Stimulation of innovative activity of the private sector with the involvement of foreign capital in the innovation sphere	UK, Ireland, China, Korea, Malaysia, India, Israel
	Stimulating an innovative initiative of the scientific sector	Germany, Japan, New Zealand, Denmark
<b>Integration into international innovation networks</b>	Integrated Integration	Finland, Israel, Netherlands, China
	Technological specialization	Korea, Malaysia, Singapore, Taiwan, India
<b>Establishment of internal innovation networks</b>	Creation of special conditions for the formation of ties in the innovation sphere	USA, Norway, Ireland
	Stimulating the initiative of national regions	France, Germany, Finland
	Restructuring Public Sector A Science	Bulgaria, Poland, Lithuania
<b>Formation of a national innovation system</b>	Initiation of the integration of science and education	Latvia, Estonia, Czech Republic
	Involvement of small and medium businesses in the innovation sphere	Romania, Czech Republic, Slovakia, Latvia, Estonia, Turkey, Chile
	Identification of high-tech export priorities	Czech Republic, Romania, Chile, Turkey

*Source: Final report, Baku 2015*



When we look at the world experience, we can see a number of models of innovation development. They can be systematized as follows:

*Table 2: Basic models of innovation development*

<b>Model</b>	<b>Characteristics</b>	<b>Countries</b>
Traditional	The model of the complete innovation period-includes all components of the framework of the innovation system, from the development of the invention concept to the production of the finished product; fundamental and applied research, preparation of experimental samples, manufacturing, financial process, training of staff;	USA, England, Germany, France, Italy, Sweden, the Netherlands, Switzerland, Finland
East Asia	In the era of innovation, this model lacks a fundamental and rather applied science portion. The goal of this model is to export high-tech products from the "traditional integration model" countries.	Japan
Alternative	The model is used in countries with limited agricultural economies. This model does not have a basic and applied science component, a high-tech component in the age of innovation. The innovation policy of these countries is aimed at the acquisition and dissemination of high technology, the training of staff, the light industry and the development of creative industries.	Thailand, Turkey, Chile, Jordan, Portugal

*Source: Final report, Baku 2015*

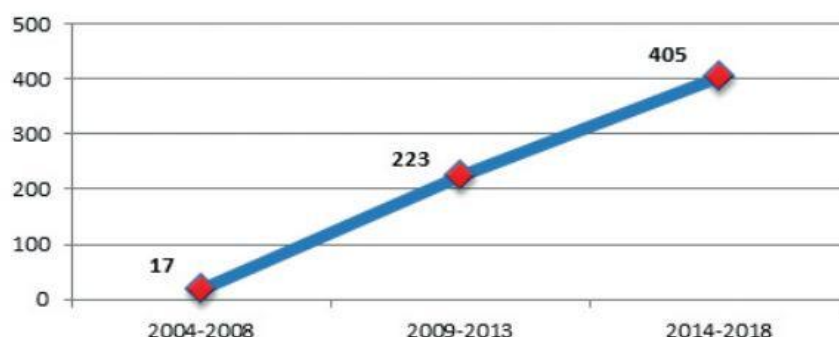
The "Alternative" model attracts our attention within the creation of some regional innovation systems within the country. during this form of country, agriculture is developed within the regions, and therefore the discipline and advanced parts seem comparatively weak. In our opinion, the "Alternative" model is a lot of relevant for Asian country within the creation of regional innovation systems at the initial stage. Thus, the model focuses on national culture and national psychological science, traditions and national options. In some regions of Asian country, the region's innovation potential may be developed because of Model III, as an example, the utilization of recent technologies, education and coaching, services and business. The examination of the parameter gauges shows that organizations furnished with data from advertise sources and from inside sources just as firms engaged with science-based cooperation for their item advancements are bound to acquaint new with the market developments, while data originating from contenders appears to affect the level of curiosity of development (Mention, A.L., 2011). Realizing that we have a tendency to board extremely competitive world these days, we have a tendency to additionally perceive that it'll be terribly tough for economies to survive while not innovation. For this reason, these day`s Asian country should outline its medium and long term innovation methods.

## **2. DEVELOPMENT OF THE NON-OIL SECTOR AS A MAIN OBJECTIVE OF AZERBAIJAN'S ECONOMIC DEVELOPMENT STRATEGY.**

The main goal of Azerbaijan's economic development strategy is to attain property economic process and diversify the economy through the event of the non-oil sector. to the current finish, the official state policy envisages the creation and development of robust psychological feature mechanisms to expand the applying of innovations within the economy. as a result of the applying of innovations is one in every of the factors of economic process, and it will have a positive impact on economic process. As already mentioned, new innovations will be enhancements to existing product or a brand new product, method and business model supported utterly new information. The advanced world expertise shows that versatile and effective management mechanisms, application of innovative solutions play a crucial role

within the socio-economic development of every country, its regions, cities and villages. Azerbaijan's long economic development strategy permits the property and balanced development of the country's regions, together with the formation of a competitive economy supported the principles of property development, welfare that meets high standards, economical use of natural resources and reliable environmental protection. aims to form a good atmosphere. The state programs adopted for the socio-economic development of the regions (2004-2008, 2009-2013 and 2014-2018) are of nice importance within the implementation of this strategy, further as in raising the socio-economic development of the country's regions to a brand new qualitative stage. These programs, that are with success enforced since 2004, have radically modified the face of cities, cities and villages within the regions, opened opportunities for regional capability building, infrastructure, utility quality, business and investment climate and welfare.

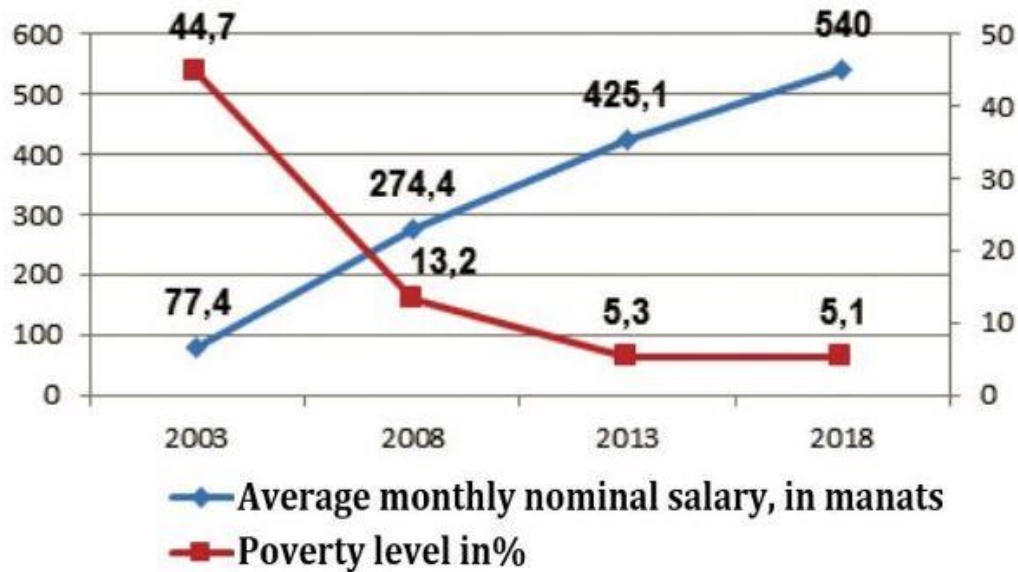
*Figure 1: Infographics showing the number of decrees signed by the President of the Republic of Azerbaijan in the direction of regional development*



*Source: State Program Of Socio-Economic Development Of The Regions Of The Republic Of Azerbaijan For 2019-2023*

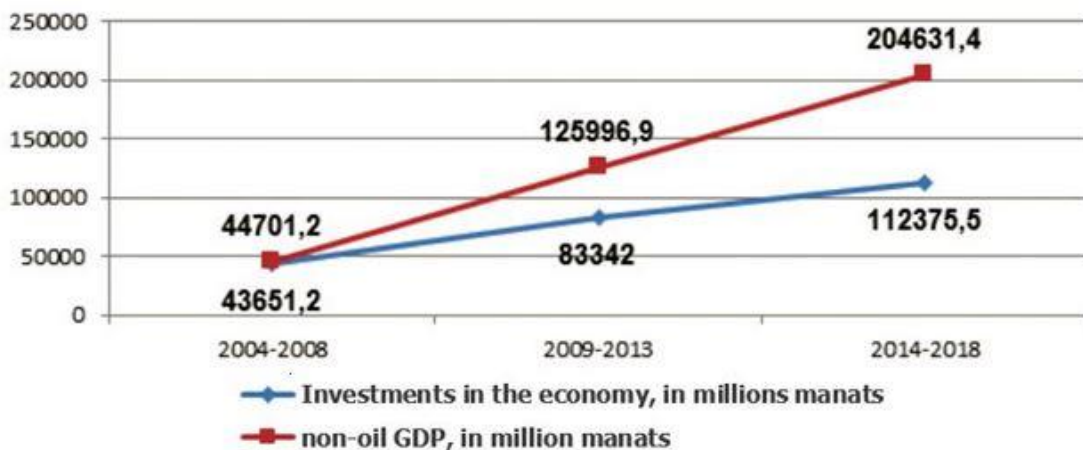
To ensure the sustainable development of the non-oil sector within the state programs for regional development, to create favorable conditions for the development of competitive industrial production in the country based on innovative and high technologies, to organize industrial enterprises based on modern technologies, to increase employment in the regions. A lot of work has been done to create. Thus, Sumgayit Chemical Industrial Park and Mingachevir Industrial Park, as well as Neftchala, Masalli, Hajigabul and Sabirabad industrial districts were established by the relevant decrees and orders of the President of the Republic of Azerbaijan, which support the activities of industrial entrepreneurs, including small and medium entrepreneurs in the regions, is important in terms of creating a favorable business and investment environment, creating new jobs.

*Figure following on the next page*

*Figure 2: Dynamics of average monthly wages and poverty level (2003-2018)*

*Source: State Program Of Socio-Economic Development Of The Regions Of The Republic Of Azerbaijan For 2019-2023*

Promotion and stimulation of investments in the economy of Azerbaijan have become mainline of the implemented economic policy strategy, \$ 244.9 billion was invested in the country's economy in 2004-2018. At the same time, to ensure sustainable socio-economic development, state capital investment expenditures in the state budget have increased dynamically, and investment expenditures have played a significant role in the state budget.

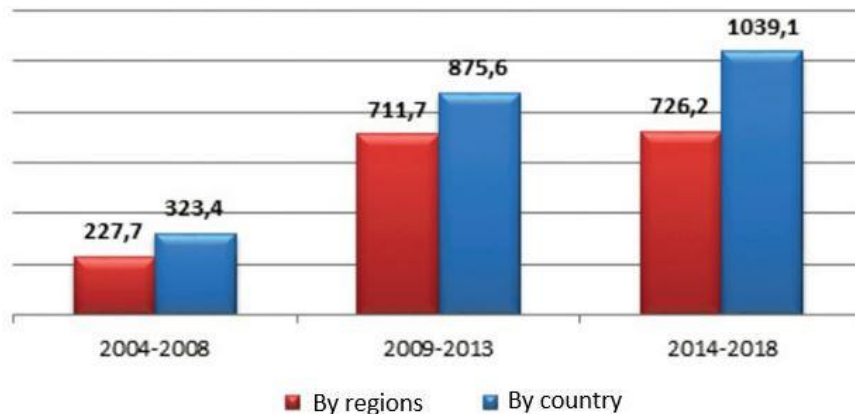
*Figure 3: Growth dynamics of investments in the economy and non-oil GDP (2004-2018)*

*Source: State Program Of Socio-Economic Development Of The Regions Of The Republic Of Azerbaijan For 2019-2023*

Also, the Decree of the President of the Republic of Azerbaijan dated December 28, 2017, on further improving the management of small and medium enterprises to improve the investment and business environment in the country, improve the system of regulation of entrepreneurial activity and the application of effective coordination, micro, small and medium enterprises (hereinafter - SME) to increase its role and competitiveness in the country's economy, bring the management system in line with modern requirements, expand access to financial resources for SMEs and form institutional support mechanisms, strengthen the legal framework for

entrepreneurship and ensure sustainable development in the regions To Azerbaijan Re The “Small and Medium Business Development Agency of the Republic of Azerbaijan” with the status of a public legal entity was established under the Ministry of Economy of the Republic of Azerbaijan. At the expense of the Entrepreneurship Development Fund established in the Republic of Azerbaijan in 2018, 2.3 billion manat soft loans have been issued to more than 35,600 entrepreneurs with projects worth 5 billion manat across the country. As a result of the implementation of investment projects using these loans, more than 165,000 new jobs were created. 1 billion manat of soft loans were provided from the budget, 1.3 billion manat from repayable funds.

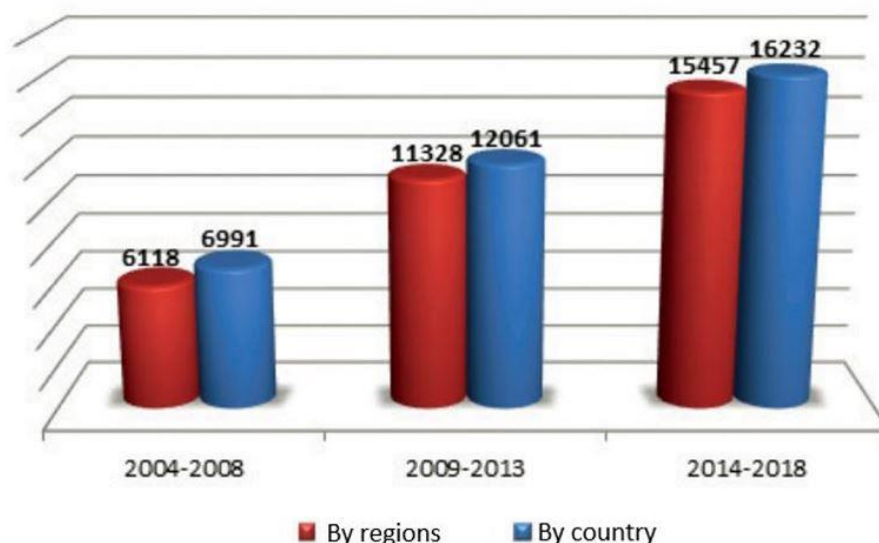
*Figure 4: Volume of soft loans issued (in million manats)*



*Source: State Program Of Socio-Economic Development Of The Regions Of The Republic Of Azerbaijan For 2019-2023*

If we pay attention to the schedule, in 2018, compared to 2004, the volume of soft loans issued by regions and the country increased by 3.2 times. 68% of soft loans were directed to the development of the agricultural sector, 32% to various industries, and other sectors. 75% of the loans fall to the regions and 25% to Baku settlements.

*Figure 5: Number of entrepreneurs provided with soft loans*



*Source: State Program Of Socio-Economic Development Of The Regions Of The Republic Of Azerbaijan For 2019-2023*

## 2.1. The effectiveness of reforms related to the development of the non-oil sector

As a result of the work done, in 2019, GDP increased by 2.2% in real terms and amounted to 81.7 billion manats in current prices. The GDP per capita amounted to 8247.0 manats. In 2019, the non-oil sector of GDP increased by 3.5% in real terms compared to the same period last year. During this period, the non-oil industry increased by 14.5%, information and communication sector by 15.9%, tourist accommodation, and catering by 6.4%, trade by 3.6%, agriculture by 7.3%, transport, and warehousing by 1.0%. In the oil and gas sector, an increase of 0.4% was recorded in 2019 compared to the same period in 2018. The share of this sector in GDP was 38.3%. In 2019, 68.1% of the total investments in fixed assets in the country were used in the development of the non-oil sector, and 31.9% in the oil sector. Reforms related to the development of the non-oil sector have had a positive impact on the Azerbaijani economy, and non-oil export revenues have increased. According to the State Statistics Committee of the Republic of Azerbaijan, in January-November 2019, foreign trade turnover amounted to 30040.5 million US dollars, including exports 17655.8 million US dollars, imports 12384.7 million US dollars and a positive trade balance of 5271.1 million US dollars. During this period, non-oil exports increased by 16.3% compared to the same period last year. As of November 30, 2019, the volume of loans provided to the economy by financial and credit organizations increased by 20.3% compared to the corresponding period of 2018 and amounted to 15116.4 million manats. As of November 30, 2019, the volume of loans in national currency increased by 24.2% compared to the same period in 2018, and the volume of loans in foreign currency increased by 13.8%. In 2019, the total volume of products and services sold to the population in the consumer market increased by 2.9% compared to the same period last year and amounted to 50654.2 million manats. Compared to the corresponding period of 2018, the retail trade turnover increased by 3.6%, and the volume of paid services provided to the population increased by 3.1%. In 2019, the nominal income of the population increased by 7.4% and amounted to 57.0 billion manats, while the nominal income per capita increased by 6.5% and reached 5758.6 manats. In January-November 2019, the average monthly salary of employees in the country's economy increased by 15.4% compared to the same period in 2018 and amounted to 623.1 manats [7].

About the development of the non-oil sector in Azerbaijan in 2019 The value-added created in the non-oil sector of the country's economy in 2019 increased by 3.5% compared to the same period last year. The share of value-added in the non-oil sector in GDP was 61.7%. The most positive contributors to GDP in the non-oil sub-sectors were construction, trade, vehicle repair, social and other services. According to the information published by the Ministry of Economy of the Republic of Azerbaijan on the development of the non-oil sector in Azerbaijan in 2019, the growth rate of value-added in most areas of the non-oil sector was higher than the same period last year. Compared to the corresponding period of 2018, 7.3% in agriculture, forestry, and fisheries, 3.6% in trade and vehicle repair, 1% in transport and warehousing, 6.4% in tourist accommodation and catering, 15.9% in information and communication %, social and other services increased by 3.3%. To increase economic activity in the country, support the production of export-oriented products, stimulate investment, in 2016-2019, 421 investment promotion documents were submitted to 355 business entities. At the expense of the Entrepreneurship Development Fund of the Ministry of Economy in 2019, 175 million manats were given to 1573 entrepreneurs with a total cost of 638 million manats, including 40.3 million manats for 1527 small and medium-sized projects. Due to these loans, 5363 new jobs were created. 74% of soft loans were given to the agricultural sector, 26% to the development of production and processing of various industrial products. 65% of the loans fall to the regions of the country, and 35% to the settlements of Baku. The application of new models in the non-oil industry, advanced mechanisms such as industrial parks and neighborhoods, agro-parks open up great opportunities for the creation of innovative enterprises and the expansion of production of export-oriented products.

It should be noted that currently there are 5 industrial parks in Azerbaijan - Sumgayit Chemical, Balakhani, Mingachevir, Garadagh, and Pirallahi industrial parks. At the same time, the Neftchala and Masalli industrial districts, where the state has created all the necessary infrastructure for entrepreneurs, are functioning. At the same time, under the relevant instructions of the President, work is underway to establish 51 agro-parks and large farms in 33 regions of the country. 48.3% of the total investment was made by state and 51.7% by private sector investors. 65.4% of the funds directed to the fixed capital were spent on construction and installation works. The value of funds directed to fixed capital from domestic sources amounted to 69.8% of total investment. In 2019, 68.1% of total investments in fixed assets in the economy were directed to the non-oil sector.

## **2.2. Azerbaijan's position in global rankings**

Azerbaijan ranked 85th out of 128 countries in the Global Innovation Index in 2016 and 84th in 2019. According to the Global Competitiveness Index, our country has shown a real example of competition. Thus, although our country ranks 69th in the Global Competitiveness Index 2016-2017 innovation sub-index, in the following years, more precisely, in the Global Competitiveness Index 2019, Azerbaijan moved up 11 places from last year to 58th place among 141 countries. Based on 12 indicators, it was determined that our country has achieved high results among the CIS participants on 8 of them. One of the areas in the report is the protection of intellectual property, and the country's performance in this area can be considered very positive. Thus, according to the sub-index "Protection of Intellectual Property" of the "Institutions" indicator, Azerbaijan ranks 30th with 70.4 points. According to this indicator, our country ranks first among the CIS countries and lags behind many Central and Eastern European countries. Our country is the undisputed leader among the countries of the South Caucasus, 35 points ahead of Armenia, and 64 points ahead of Georgia. For comparison, the Russian Federation ranks 90th and Ukraine 118th. It should be noted that according to the Global Competitiveness Index for the last five years, Azerbaijan's indicators on the sub-index "Protection of Intellectual Property" (in 2015 - 92nd place, in 2016 - 71st place, in 2017 - 37th place, and in 2018 - 36th place) changed on the ascending line. It should be noted that the level of protection of the intellectual property is closely linked to attracting foreign investment to the country. The "innovation" indicator is also to some extent related to intellectual property. Azerbaijan's rating on the report's "Patent Applications" sub-index has risen, which has led the country to 68th place in the "Innovation" index, up to three places from last year. The Global Innovation Index - the ranking of 2019 consists of 7 groups of indicators of innovation activity, which are included in two final sub-indices. The sub-index "Innovation Resources" divides the elements of the national economy in which innovation processes take place into five groups (1 - institutions; 2 - human capital; 3 - infrastructure; 4 - domestic market development and 5 - business development). The sub-index "Innovation Results" reflects the actual results of innovation activity by dividing it into two groups - 6 - technology development and knowledge and 7 - results of creative activity. According to this sub-index, Azerbaijan ranks 77th in the CIS, ahead of Ukraine, Armenia, Kyrgyzstan, Moldova, and Tajikistan. According to the indicators of the "Innovation Resources" sub-index "Universities and Industrial Cooperation", "Cluster Development" and "University Alumni", our country ranked 32nd, 33rd, and 38th, respectively. According to the "Business Environment" indicator of the "Institutions" block of "Innovation Resources", Azerbaijan was in the 33rd place. In general, our country has improved its position in the "Institutions" block of the "Innovation Resources" sub-index compared to last year's rating. Like the Innovation Resources sub-index, which reflects the level of accessibility to innovation, the Innovation Results sub-index, which shows achievements in the field of innovation, is no less important. In connection with this sub-index, it should be noted that the results of his block "Results of creative activity" have increased.

In this sub-index, the indicators of intellectual activity were quite high: residents on the patent claims for inventions - 60th place, residents on the patent claims on utility models - 53rd place. It should be noted that the attention of the country's leadership to the field of intellectual property, the improvement of the management structure of the field is yielding positive results.

### 3. CONCLUSION

In line with the World Bank's innovation policy recommendations for developing countries, innovation policy in Azerbaijan should become a primary responsibility of the entire government, mechanisms should be developed to identify and support innovative individuals and companies, and the necessary regulatory framework for venture capitalization should be established. The growth of labor costs should be stimulated more at the expense of non-governmental and foreign financial sources, the education system should be redesigned to support innovative thinking, and foreign trade and investment activities should be liberalized. All kinds of innovative activities should be linked to each other to explain the success of product development and innovation in this process. In both cases, this should be linked to labor productivity, and we would even point out that it is an important factor. Moreover, systematically investing in research and development can be an additional benefit to labor productivity. These results show that not only research and development but also investment in various types of innovative activities and internal activities systematically contribute to the innovative and economic activities of firms. Future innovation policy measures, together with the necessary changes in the country's regulations, can contribute to the formation of an "innovation ecosystem".

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## DIGITAL PLATFORMS IN THE CONTEXT OF PRIORITY USE OF INTELLECTUAL CAPITAL

**Rasul Balayev**

*Azerbaijan State University of Economics, Istiglaliyyat str., 6, Baku, Azerbaijan  
rasul.balayev@unec.edu.az*

**Matlab Ali zadeh**

*Azerbaijan State University of Economics, Istiglaliyyat str., 6, Baku, Azerbaijan  
matlab.alizada@unec.edu.az*

**Sevda Hajizada**

*Azerbaijan State University of Economics, Istiglaliyyat str., 6, Baku, Azerbaijan  
s.hacizade@unec.edu.az*

**Sevda Badalova**

*Azerbaijan State University of Economics, Istiglaliyyat str., 6, Baku, Azerbaijan  
Sevda\_Badalova@unec.edu.az*

### ABSTRACT

*The article explores the place and role of digital platforms in the formation of intellectual capital and the priority of their use. One of the factors that determine the priorities for using intellectual capital is the need to ensure the competitiveness of innovation, including innovation. Thus, digital innovation in the present tense is an important area of innovation development. The active use of intellectual capital and the management of this process do not justify themselves in the traditional framework. Invisible resistance to innovation in organizational systems, attempts to solve problems in other areas (economic law, information asymmetry, etc.) Using technological knowledge and technological support, they slow down the formation of a priority environment for using intellectual capital. Digital platforms practically exclude the influence of the territorial factor in the supply and demand relations, concentrating the economic activity of business entities in a single information environment. In practice, the factor of economic and mathematical modeling in the formation of the digital economic environment is often underestimated. The reasons for this are the high labor intensity of the creation and implementation of these models and the long difficulty with the initial provision of information about modeling. Digital platforms have recommended themselves at all levels of management. The relationship between national economies is intensifying, with some authors believing that digital platforms acquire new qualities as a modern technical base. Our research provides sufficient foundations to suggest that the choice of technology, which determines the cost of conversion to digital platforms, determines the structure of transactional traceability. In turn, transactional editions limit the choice of alternative production technologies. Being a high-tech business model, the digital platform expands the possibilities for the realization of intellectual capital, facilitating exchanges between interdependent market participants. The technological support capabilities of digital platforms for economic regulation are becoming more and more evident in the areas of science-based activities. Digital platforms, which algorithmize mutually beneficial relationships between market participants, create a favorable starting point for the next stages of innovative development.*

**Keywords:** *intellectual capital, digital platform, digital environment, intellectual resources, intangible assets, innovation, economic and mathematical modeling, information, management*



## 1. INTRODUCTION

In addition to services and products, the digital economy implies unique approaches to resources and technologies. From this point of view, in our opinion, it is advisable to study the place and role of digital platforms in the formation of intellectual capital and the priority of their use, as well as the criteria for creating these platforms. Research in this direction is almost the first step. The relevance of intellectual capital management in the digital economy is due to a number of factors.

## 2. PRIORITY IN THE USE OF INTELLECTUAL CAPITAL

One of the factors determining the priority of the use of intellectual capital is the need to ensure the competitiveness of innovation, including digital innovation. Thus, digital innovation is currently an important area of innovation development. It is difficult to disagree with the position that “innovation in the digital economy is increasingly becoming the only factor in competitiveness. From this point of view, it is necessary to focus all incentive systems, primarily on innovation, in other words, on strengthening the national innovation system. In this case, the promotion of research and development, cooperation between universities and industry, start-ups, etc., is of great importance” (Muradov, 2020). Indeed, it is difficult to ensure the effective use of intellectual capital in an environment isolated from scientific innovation. Intellectual active use of capital and management of this process does not justify itself in the traditional framework. Pessimistic attitude to innovations, non-obvious resistance to innovations in organizational systems, technological knowledge and other areas with technological support (right to farm, asymmetry of Agriculture, etc.) attempts to solve the problems arising and the priority of the use of capital is to slow the formation of the environment. However, it is expected that the efficiency obtained from the improvement in the management of intellectual capital in technological assurance (then, literally, digital platforms) will further increase the focus on intellectual potential in the near future. Currently, the optimism of many authors regarding the strategic possibilities of managing intellectual capital can be considered quite reasonable. “Intellectual capital management has great potential for a successful future strategy. Managers of the new millennium must distinguish between tangible and intangible components of intellectual capital. ... These managers will have to behave in such a way that intellectual capital is found, evaluated and then managed as an asset of the organization” (Yuri Dukhnich, 2005). According to the subject of our study, the factors that determine the environment for managing intellectual capital are firstly the reasons why resources in the digital economy differ from the traditional economy, the degree to which these reasons are due to objective factors. In the context of innovative development, where the implementation of intellectual capital is the most important condition, it is necessary to clarify these resources and theoretical provisions for their use. Otherwise, it is impossible to provide unambiguous and transparent approaches in the process of promoting the implementation of intellectual capital (as well as financial incentives). As expected, in the corresponding sources there are completely different approaches to the concepts of intellectual capital and the digital platform. Considering that the diversity we are talking about is largely due to the goals and objectives of the study, as well as the fact that the concepts in question are part of the scientific community from scientific journalism, we do not see the need for extensive discussions around it. However, we present a position that we consider acceptable in relation to the concept of intellectual capital. “Until recently, scientists relied on two main models: models presented by E. Brooking, L. Edvinson, and M. Mellow. In his model, E. Brooking represents the following components of intellectual capital: market assets, intellectual property, human and infrastructure assets” (Brooking, 2001). In connection with this issue of the other authors mentioned, the requirements of the experimental aspect are put forward, which, in our opinion, can be theoretically justified. The purpose of highlighting the practical aspect in the distribution of intellectual capital to a

component is to expand the ability to adapt to environmental requirements along with functional requirements along with functional requirements. For these and other reasons, “L. Edvinson and M. Mellow call intellectual capital human and structural capital, which is divided into organizational and consumer capital” (Makarova, 2001). The unambiguous adoption of the concept of intellectual capital is advisable from the point of view of any regulatory and stimulating impact on the process of its formation and implementation. The unambiguous adoption of this concept in practical terms, in our opinion, implies, firstly an unambiguous approach to the components of intellectual capital (its constituent elements). In this regard, the position of the aforementioned author regarding the components of intellectual capital is noteworthy. “Intellectual capital consists of: human and market assets, brand, reputation.” Intellectual capital consists of: human and market assets (brand, reputation, ongoing relationships with customers), intellectual property (know-how, trade secrets, copyrights, copyrights) and infrastructure assets (technologies, structures, methods that determine the existence of an enterprise” (Brooking, 2001). In the initial approach, intellectual capital includes the knowledge, skills and work experience of specific people, as well as intangible assets. Intangible assets include databases, software, patents, trademarks, etc., used to increase profits and improve a number of economic and technical results. It is intended. In encyclopedic sources, the emphasis on the legal aspect of intellectual capital is justified from the point of view of managing the use of this capital. Intellectual capital is divided into four components in encyclopedic sources: “1. Intangible assets legally recognized as purchased patents, copyrights and franchises. 2. Legally realized and protected intangible assets, such as trademarks, brands, customer lists and orders. 3. Structural intangible assets, such as data systems and databases used by companies. Information systems, accounting systems, purchasing and sales systems can be examples of these systems. 4. Intangible assets of human capital in the heads of people and working for the company” (5). Exchange, legal, structural and human capital manifestations of the intangible nature of intellectual capital in a market environment do not remain unaffected by the priorities of the development of digital technologies in terms of ensuring their overall effectiveness. Uniqueness in relation to resources in the digital economy, first of all, the uniqueness of information resources (not completely alienated when selling, dual influence of asymmetry factor and quantitative characteristics, exponential pace of growth, etc.). At the same time, the growth of information resources in the process of transformation into knowledge and technology and the fact that the use (consumption) of these resources does not consume attention. The last sign, in our opinion, indicates the inefficiency of viewing the resource both in the digital environment and separately from the dynamics of its development. In other words, the management of informational resources in the digital environment should be viewed as a special case of informational capital management. Thus, in most cases, properties such as constant updating of informational resources, self-replenishment and hence inexhaustible are put forward. The fact that intellectual resources as an object of market relations imply the realization of information, knowledge, technology and spiritual potential does not increase the importance of the fact that it is tangible or intangible. In short, in our opinion, the following approach to intellectual resources can be considered acceptable. “Intellectual resources are accumulated intangible, essentially self-generating, constantly updated and, therefore, inexhaustible resources that can create new intellectual assets. In the process of reproduction, a part of intellectual resources can be materialized and used by other entities, regardless of the media of these resources. The rest of these resources (unclear knowledge) cannot be separated from the carriers. No traditional type of resource has such quality as a whole” (Tyukhmatiev, 2010). In a number of cases, the difference between the concepts of intellectual resource and intellectual capital is almost negligible. This, as a rule, manifests itself in relation to the digital economic environment. Even from the initial approach, it seems difficult, and sometimes even impossible, to clarify relations in the digital market without paying attention to the specific role and role of informational resources in

the Re-production process. It should not be forgotten that one of the important signs that distinguishes digital economy from other stages of economic development is the transformation of scientific innovations and knowledge engineering into a leading factor. Naturally, in this case, the transfer of knowledge and the expected multiplication effect in this process are directly related to the degree of sensitivity to creativity in the educational system. From the point of view of interpretation, we consider the following position expedient. One of the important features that distinguishes the digital economy from other stages of economic development is the transformation of scientific innovation, knowledge engineering into a leading factor. Of course, in this case, the transfer of knowledge and the expected effect of multiplication in this process are related directly to the degree of sensitivity of the education system to creativity. From the above point of view, we consider the following position appropriate. “The digital economy differs from the previous stages of development in the following features: firstly, most of the cost of goods, works and services are created using intellectual resources, the market for intellectual goods and services are developing; secondly is the intellectualization of professions that previously did not require new knowledge and skills; thirdly, it is necessary to transfer this knowledge through the educational system or by alternative methods” (Fedosova, 2018). In the digital economy, as in any set of economic relations and processes, opportunities and results should be evaluated comparatively, and in this connection, they should be quantified. Regarding the necessary quality of the relevant data, we consider it appropriate to agree with the following position. “Measuring the digital economy, increasing the number of types of economic activities available through digital technologies, and therefore increasing their economic importance, is becoming a priority. However, there are many difficulties. The process of making the right political decisions, tax policies and resource allocation requires quality data. Currently, this component does not exist in the digital economy, and therefore public policy is unlikely to fully support the development of the digital economy” (Bucht, Hicks, 2018). In our opinion, it is difficult to accept the last statement unambiguously. Let's not go far. The development and implementation of state programs for the development of the digital economy in some countries of the post-Soviet space provides sufficient grounds for determining the priority of state policy in this area. By the way, the development of a state program for the development of the digital economy has begun in Azerbaijan. It is undeniable that the digital economy is spreading rapidly and digital technologies are being used in a wider area. However, questions of a quantitative assessment of the development of this sector of the economy are relevant for its regulation (stimulation, etc.) to one degree or another. In this regard, we can say that the following considerations deserve attention. Measuring the scale of the digital economy is complicated by the complexity of determining its boundaries, the lack of accurate data, pricing problems and the “invisibility” of most types of digital economic activity. With many notes, we can say that the digital economy, in our opinion, makes up 5% of the world GDP and covers about 3% of the world labor market ”(Bucht, Hicks, 2018). To comment on the place and role of digital platforms in the context of the priority use of intellectual capital, it is necessary to study the evolution of organizational forms in response to changes in the management of modern business processes. The fact is that organizational changes in the digital economy are directly related to the formation of digital platforms. It is difficult to disagree with the position that “digital platforms that create conditions for the interaction of participants, in themselves, represent a multi-level digital structure ... At the same time; digital platforms structure and facilitate the interaction of economic agents in society” (Richter, Pakhomova, 2018). Of course, the growing role of digital platforms in the context of the priority use of intellectual capital will not go unnoticed in the knowledge economy. Studies show that improving digital platforms plays a crucial role in developing a knowledge economy. We can agree that “innovative management of digital platforms is a tool for such an improvement” (Shabanov, 2018).

### 3. DIGITAL PLATFORMS IN AN INNOVATIVE ECONOMIC MANAGEMENT ENVIRONMENT

Digital platforms practically exclude the influence of the territorial factor in the supply and demand relations, concentrating the economic activity of business entities in a single information environment. To emphasize the important role of digital platforms in the digital economy, reputable researchers suggest calling the latter the economy of digital platforms. They also believe that digital platforms play the same role as factories in the industrial revolution. We prefer the concept of platform economics, or the more neutral term economics of digital platform, which encompasses growing digital operations in business, politics, and social interaction. If the industrial revolution was organized around the factory, today's changes are organized around well-defined digital platforms. Indeed, we are in the process of reorganizing our economy when platform owners have developed governments that can be more dangerous than factory owners at the start of the industrial revolution can.” (Kenney, Martin, John Zysman, 2016) We believe that the main goal of researchers who call the digital economy the economy of digital platforms is to emphasize the importance of these platforms in a business where digital transactions are growing rapidly. In practice, the factor of economic and mathematical modeling in the formation of a digital economic environment in most cases does not provide the necessary assessment. The reasons for this can be explained by the fact that the construction of these models and the implementation of figures are time-consuming, as well as long-standing difficulties in the initial informational purpose of modeling. We should not forget that “digital management platforms can be based not on conventional information systems, but only on economic and mathematical models. Otherwise, the concepts will be distorted again, and everything will be limited to the creation of registers and databases” (Evtyanova, 2017). Digital platforms have proven themselves at all levels of management. From a technical point of view, the characteristics of information services, along with hardware and software, among the organizers of these platforms are likely to expand the use of intellectual capital as the number of users’ increases. As relations between national economies are strengthening, some authors believe that digital platforms are acquiring new qualities as a modern technical base. “Improving the interconnectedness of national economies, the rapid growth of relations between individual corporations require a qualitatively new technical basic digital platforms ... Digital platforms technically include digital devices, software products and information services” (Grigoryev, Maksimtsev, Uvarov, 2018). The distinction between transactional and transformational costs in a digital environment is important in terms of evaluating innovation in that environment, including the cost-effectiveness of digital innovation. Our study gives sufficient reason to argue that the choice of technology that determines the cost of conversion on digital platforms, in turn, determines the structure of transaction costs. In turn, transaction costs limit alternative options in production technologies. It should be noted that digital platforms are also considered as a set of key tools that distinguish between digitalization strategies (digital automation) and digital conversion strategies (Gribanov, 2019). As a high-tech business model, the digital platform expands the possibilities for realizing intellectual capital, facilitating exchanges between interdependent market participants. Thus, digital platforms create a more favorable technological and organizational environment for the use of human and market assets, intellectual property and infrastructure assets that are the organizers of intellectual capital. Studies show that “the ability of digital platforms to provide technological support for economic regulation is evident in more knowledge-intensive areas of activity. The fact is that these areas claim a leading role in shaping the digital environment” (Balaev, 2019). Digital platforms that optimize mutually beneficial relationships between market participants create a favorable starting point for the next stages of innovative development. Intellectual capital also plays an economic role in this process for digital platforms that accelerate the transformation of knowledge into company value and

competitiveness. The role of digital platforms in optimizing business processes is determined by their ability to activate intellectual capital. The fact that intellectual capital can be perceived as a relatively simple in formation, unambiguous and easily transferred set of knowledge that the company employees possess (this approach, in our opinion, is practically acceptable), expands the possibilities of taking into account current reality and short-term prospects. The digital characteristic of the current reality is the production and management skills of the staff. The point is that there are serious differences in skill levels between people who have acquired the same theoretical knowledge and have gained experience in the same environment. Despite all the wishes and attempts, in many cases, high practical habits are always transmitted to other people. Given the priority use of intellectual capital, digital platforms must take into account the requirements of innovative development. These requirements are characteristic of the digital interaction of participants in innovation processes in the network. "Digitization of the innovation process in the interaction of networks - involves the use of digital technologies, solutions for the search, creation, processing and transmission of various kinds of information, the implementation of financial transactions between partners in joint projects" (Bykovskaya, Kafiyatullina, Kharchilava, 2018). An innovative factor in the development of the digital economy has a direct impact on the efficiency of using intellectual capital. The level of these costs plays an important role in the cost-effectiveness of innovative approaches that increase transaction costs in the digital environment. Therefore, the level of transaction costs should be considered as one of the main indicators in assessing the effectiveness of digital platforms in an innovative digital environment in which the use of intellectual capital is preferable. Resource sharing is critical in innovation management. From this point of view, we agree with the idea that the consolidation of intellectual and production resources in organizational systems should be based on digital platforms. "An important task of innovative management is the consolidation of the intellectual and productive resources of the organizational system based on digital platforms" (Shabanov, 2018). Finally, it should be noted that in the practice of innovative management of digital platforms, usual property objects are in the spotlight. Objects of intellectual property on methods and centers in the field of management of organizational systems as innovative methods of managing digital platforms; objects of intellectual property on methods, complexes and devices in the field of robotics objects management; In the field of integrated management systems, attention is paid to intellectual property in terms of methods, complexes and devices (see, For example: 10). In the current environment, when the use of intellectual capital is an important area of innovative development, the issue of assessing the development priorities of digital platforms can be brought to the forefront of forecasting the prospects for the mutual development of a group of technologies used in specialized digital interaction systems. The essence is the sum of knowledge of the collective, collective brain, the sum of intellectual assets and so on. So far, we can only assume that the requirements for digital platforms, even in the near future, as a technological and organizational form of using intellectual capital is expressed in concepts.

#### **4. CONCLUSION**

Managing intellectual resources in a digital environment should be considered as a special case of intellectual capital management. In the digital economy, as in any combination of economic relations, it is necessary to compare and measure opportunities and results, and in this connection, they need to be quantified. To comment on the place and role of digital platforms in the context of the priority use of intellectual capital, it is necessary to study the evolution of organizational forms in response to changes in the management of modern business processes. The fact is that organizational changes in the digital economy are directly related to the formation of digital platforms. Improving digital platforms plays a crucial role in the development of the knowledge economy.

In practice, the factor of economic and mathematical modeling in the formation of a digital economic environment in most cases does not provide the necessary assessment. The reasons for this can be explained by the fact that the construction of these models and the implementation of figures are time-consuming, as well as long-standing difficulties in the initial informational purpose of modeling. Resource sharing is critical in innovation management. From this point of view, it is advisable to set the task of consolidating intellectual and production resources in organizational systems based on digital platforms.

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# PAYMENT SERVICE PROVIDERS AS PLAYERS OF PAYMENTS INDUSTRY: THE CASE OF AZERBAIJAN

**Ruslan Q. Talibov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
rtalibov@gmail.com

## ABSTRACT

*Payments industry impacts the economy in various ways acting as a transmission mechanism of it. In this paper firstly, the brief overview of the payments industry in Azerbaijan will be discussed. Then the factors affecting payment service providers (aka self-service payments kiosks companies) – one of the main players of retail payments industry, alongside with banks, their role in payments industry will be examined by analysing scholarly articles, journals, reports by national and international organizations. The data used for this research is comprised of primary (survey) and secondary data. In the paper mainly the use of cash for utility, mobile, ISP and other relevant payments, its determinans, the questions like why the payment service providers became one of the main players in payments industry? How self-service payment kiosks is helping people in rural areas? and other questions are discussed. This paper is explanatory for understanding the payments industry landscape, companies acting as payment service providers and gives a good insight into the payment behaviour of local people and use of both cashless and cash payments through the self-service payment kiosks in Azerbaijan.*

**Keywords:** *Payments industry, Payment service providers, Payment systems, Self-service payment kiosks*

## 1. INTRODUCTION

Payments are the financial instruments that people and businesses around the world use to transfer funds and this makes them one of the most important parts of a company's financial operations. The subject can become complex because there are often many different payments systems in a given country – and most countries have their own unique currency. Further challenges come with the continual introduction of newer payment systems such as PayPal, Bitcoin and various mobile payment options. The result is well over 750 payment systems throught the world; systems that are constantly changing due to new technology or government regulation of the currency (Fundamentals of Payment Systems (2014), pp. 1-2). With the evolution of e-commerce and technological advancement, electronic cashless payments are now used conventionally even though having being set in the 1960s. The research community has made relentless efforts resulting in the development of various online models like the N.Asokan model and JW model. In JW model – a conventional payment system, sellers as well as buyers require some kind of involvement for carrying out a specific transaction. The N.Asokan model was launched in 1998 and involves the participation of a bank besides the seller or buyer in transaction processing lest one of them is missing any transaction. Another model viz.3e model that is built on the N.Asokan model includes electronic cheque, electronic cash and credit card payment models, the most popular being the credit card mode of payment (Khan B.I. et al (2017), p. 258).

## 2. THE PAYMENT SYSTEMS

The convoluted payments landscape is growing even more complicated as new market participants, emerging technologies, and changing customer expectations spur disruption among industry stakeholders. This includes banks and other payment services providers, acquirers, card networks, processors, and infrastructure providers.

The number and diversity of organizations gaining ground within the non-cash transactions market have grown significantly in recent years. They now include newcomers such as GAFA (Google, Amazon, Facebook and Apple) and BigTechs, FinTechs, and innovative digital payment platforms (World Payments Report (2019), p. 7). The main components of the National Payment System of Azerbaijan (NPSA) are AZIPS (Real Time Interbank payments systems for large-volume and rapid payments) and SCSSP (Settlement and Clearing System for Small payments). In AZIPS, operations can be conducted both on SWIFT platform and Local Telecommunication Network and this ensures the sovereignty of NPSA and reduces the risk external threats to NPSA operations. To use the NPSA components more effectively and accept payments for taxes, duties, budgetary and all other type of relevant payments, the “Government Payments Portal” was established by the Central Bank of the Republic of Azerbaijan, and state information resources such as “Electronic Government” portal, “ATIS” (Automated Tax Information System), and “IADSS” (Interagency Automated Data Search System), “ASAN payment” system have been integrated into the system. To ensure the effectiveness and safety of card payments, in 2017 the Interbank Card Center was established. Significant growth has been observed in the payment card infrastructure over the past five years ([www.cbar.az](http://www.cbar.az)). In recent years, alongside with the above-mentioned systems, the PSPs (self-service payment kiosk company) accepting both cash and card payments via their cash-in kiosks started playing important role in the life of people in Azerbaijan. In the simplest case involving traditional banking system, payments involve four participants (Fundamentals of Payment Systems (2014), p. 3):

- The payer: Makes the payment and has its bank account debited for the value of transaction.
- The payer's financial institution: Processes the transaction on the payor's behalf.
- The payee's financial institution: Processes the transaction on behalf of the payee and generally holds the value in an account.
- The payee: Receives value of the payment by credit to its account.

In the case of self-service cash payment kiosks as PSP the process is as below:

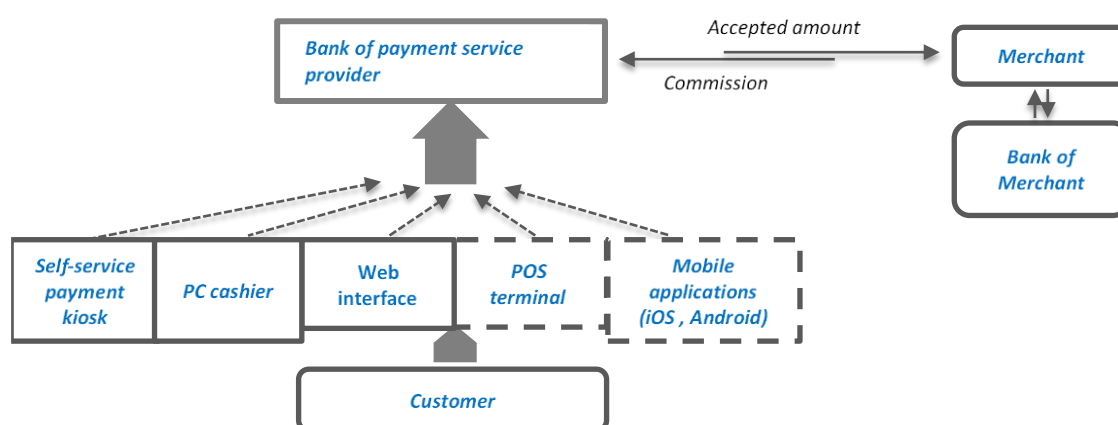


Figure 1: PSP cash payment financial architecture (compiled by the author)

### 3. THE ROLE OF SELF-SERVICE PAYMENT KIOSKS AS PAYMENT SERVICE PROVIDER IN AZERBAIJAN

In recent years PSPs became very popular in Azerbaijan. Along with other channels, particular PSPs are using self-service payment kiosks to accept all kind of payments all over the country. Taking into account that in Azerbaijan cash payment is very widely used and these self-service payment kiosks are accepting both cash payments and cards, then it becomes clear that why these PSPs positioned themselves so good in the market.



Year	Number of people per terminal, thousand persons			Monthly average operations per 1000 payment card	
	ATM	POS	POS in trade and service	number operation	volume, manat
2010	4,8	1,14	1,29	1238,4	178366,5
2011	4,3	0,69	0,78	1106,5	168348,5
2012	4,1	0,25	0,26	1148,8	186285,0
2013	3,9	0,28	0,29	1268,5	202625,2
2014	3,7	0,13	0,13	1346,2	208749,5
2015	3,6	0,12	0,12	1380,1	220837,6
2016	4,0	0,14	0,14	1513,4	243438,5
2017	4,1	0,15	0,15	1629,2	266573,5
2018	4,0	0,15	0,15	1795,7	282052,1
2019	3,8	0,15	0,15	2536,2	380587,5

Table 1: No of ATM and POS per people, [www.cbar.az](http://www.cbar.az)

According to the Table 1, in Azerbaijan one ATM serves to about 3800 people, whereas 1 self-service payment kiosk serves to approximately 1250 people. Moreover, the following table of transactions with debit and credit cards shows that the most popular transaction on ATMs are cash withdrawals:

Year	Number of payment cards, thousand (end of period)	Transactions with debit and credit cards		Operations inside the country			
		Number of transactions, thousand	Amount of transactions, mln. manat	Cash withdrawals			
				via ATMs		via Post-terminals	
				Number of transactions, thousand	Amount of transactions, mln. manat	Number of transactions, thousand	Amount of transactions, mln. manat
2010	4231	46502	6056	42768	5283	444	255
2011	4580	50954	7230	45410	6263	327	281
2012	5008	57169	8827	48118	7457	349	421
2013	5673	67810	10297	51008	8371	318	594
2014	5965	79228	11870	54453	9566	310	727
2015	5659	85218	12472	56307	9736	342	816
2016	5334	83383	12781	54888	9867	364	763
2017	5800	96770	14729	59674	11281	235	709
2018	6511	117644	17773	65772	12967	205	795
2019	7266	162285	23241	75412	16328	230	957

Table 2: Transactions with debit and credit cards, [www.cbar.az](http://www.cbar.az)

As Table 2 shows, 46.5% of all transactions with debit and credit cards are cash withdrawals from ATMs. In terms of amount of transactions, it is 70% of all amount which implies to high cash usage level in the country. In 2018, 52 billion AZN of the 180 billion AZN total turnover produced by consumers, 49 billion AZN of which were recorded in C2B transactions. According to the results of the field researches, 46 billion AZN of this turnover were carried out in cash form, showing that cash payments are high across all consumption areas (State Program on Expansion of Digital Payments (2018)). To accelerate formation of cashless economy in Azerbaijan, the State Program on Expansion of Digital Payments in the Republic of Azerbaijan for 2018-2020 was adopted. As a result of realization of the Program, annual volume of cashless payments is expected to increase by approximately 17 billion AZN, corresponding to 7% improvement in share of cashless payments annually. As a consequence, the total share of cash payments in economic transactions is expected to decrease from 74% to

40% in 5 years upon implementation (State Program on Expansion of Digital Payments (2018)). A key characteristic of a retail payment is that at least one of the parties to the transaction, either the payer or the payee, is not a financial institution. In this context, users of retail payments can be broadly categorized into consumers, businesses and government agencies. All of them have a dual role, being the payer for certain transactions and the payee for others. Depending on the payer-payee combination, retail payments can be categorized into different types. The possible combinations area shown in Table 3 below (Payment aspects of financial inclusion (2016), [www.bis.org](http://www.bis.org)):

Payer \ Payee	Person	Business	Government entity
Person	P2P	P2B	P2G
Business	B2P	B2B	B2G
Government entity	G2P	G2B	G2G

*Table 3: Types of retail payment, Payment aspects of financial inclusion (2016), [www.bis.org](http://www.bis.org)*

Particular types of PSPs firstly started emerging in post-soviet countries in late 2000s due to several reasons (Гарипов Г.В. (2010), Платежные агенты и их роль в системе расчетов на территории Российской Федерации):

- Payment of mobile top-ups, and all kind of other payments like P2P, P2B, P2G;
- Self-service kiosks cost 8-10 times cheaper than ATMs;
- Basic infrastructure of countries including electricity and road infrastructure was relevant for such businesses.

Moreover the following reasons enhanced the position of Self-service kiosk companies in CIS countries including Azerbaijan:

- Cash payments were very popular in post-soviet countries, especially offered innovative services nevertheless challenging the dominance of cash for P2P payments;
- Bank coverage of territories was not wide enough and the number of unbanked population was higher;
- These self-service payment kiosks gave access to payments in remote areas of the country;

Based on the survey (currently it is an unlicensed, and companies are operating as limited liability companies) among PSPs it is estimated that at the end of 2019 there were about 8000 such self-service payment kiosks in all over the Azerbaijan. People can pay mobile top-ups, transport card top-ups, utilities, landline, ISPs, TVs, bank loans, games, taxes, fines, and etc. These self-service kiosks are providing good benefits for its owners and ensuring easy and convenient access of customers to all kind of payment services. Also all information and requests through self-service payment kiosks is encrypted and this provides high level of protection for customers and increases their trust. Moreover, several years ago utility services were facing serious problems in collecting utility payments. To prevent these problems they decided to apply smart meters for gas and water which will operate based on prepayment via smart cards. And citizens can top-up their smart cards on these self-service payment kiosk. And this feature made self-service payment kiosks more demanding and helped the business flourish with higher speed. Also on December 16, 2016 the Law on Cashless Settlements was adopted in Azerbaijan and payments (including cash payments) via payment terminals (including self-service payment kiosks) are considered as cashless payments in article 3.1.2 of the Law opening these companies new opportunities in the market.

#### **4. WHAT ARE THE MAIN FACTORS CUSTOMERS CONSIDER TO USE SELF-SERVICE KIOSKS IN AZERBAIJAN?**

The main factors that affect customers behaviours in using self-service kiosks are determined by the private market research by ACT, which was conducted with 1800 customers (age 16+) in Baku city and Absheron representing about 2 million population. The result of the survey showed that 87% of respondents used self-service payment kiosks at least once during last months. 26% uses everyday, 48% uses several times during a week, 13% at least once a week. The most popular self-service kiosk brands are eManat and MilliOn brands. Interestingly, 78% of respondents said that they don't use online web sites. However, Hesab.az online payment portal was the most popular among the population. 27% of respondents stated that they make their payments at the entry to the markets, while 30% pays after shopping. The rest 43% make their payments both before and after shopping depending on situations. Survey (every respondent choosed several categories) shows that the most used category on self-service payment kiosks are mobile top-ups (96%), utilities (86%), ISP, TV and landline (49%), banks and money transfer (30%). To contact the self-service kiosk company call centers when difficulties arised while using self-service payment kiosks 79% of customers use telephone channel, while only 4% use sosial media channel. 75% of respondents thinks that optimal period for their difficulties to be solved is 1-2 hour, 25% thinks that within a day is good. How do customers select a self-service payment kiosk to make payment question (every respondent choosed several categories) found out that 51% of respondents chose the kiosk because of its location and closeness to their home or work place, 44% because of simple menu, 16% because of brand loyalty, 10% because it has wide network, and etc. 23% of respondents said that the visual appearance of self-service payment kiosks is very important in their decision for selecting the kiosk to make payments. Regarding the loyal customers, the survery shows that only 34% of respondents said that they will wait in queue to pay at their favourite kiosk, 42% stated that they will pay at available kiosk.

#### **5. WHAT IS NEXT?**

As stated on the article 3.4.4 of the State Program on Expansion of Digital Payments in the Republic of Azerbaijan for 2018-2020 the non-financial institution system providers and e-money institutions, including telecom operators, will be a significant part of the payment ecosystem. By involving mobile operators with a large customer segment into the payment market, modern payment mechanisms such as "mobile wallets" will be created and used more frequently and conveniently. Also, PSPs which has a vast amount of payments data is gradually moving in the direction of mobile payments, developing their own mobile e-wallets to address Z-generation and technologically advance population. Also, banks are leveraging the cooperation with such PSPs in collection of loans in remote areas which helps those people to get rid of indirect transaction costs and opens new horizons for PSPs.

#### **6. CONCLUSION**

At the moment like in all over the world, also in Azerbainan, government is paying high attention to the increase of the portion of non-cash payments in the economy of the country. Self-service payment kiosk companies which play a substantial role in day-to-day life of people was also considered as non-cash payment in the Law on Cashless Settlements. As we discussed in the paper, all kind of payments including mobile top-ups, transport card top-ups, utilities, bank loans, fines and other similar payments are paid via these cash accepting kiosks. Despite the overall increase in the number of customers using online payments and non-cash payments, cash usage level is still quite high in the country and Azerbaijani government is doing its best to decrease this level of cash usage. Self-service payment kiosks are both accepting card payments and cash, but it doesn't seem that cash usage will be decreased in the near future

which is in favor of these PSPs. The Law on PSPs which was drafted by the ex Financial Services Authority and transferred to the Central Bank of Azerbaijan will provide a lot of new opportunities to PSPs after licensing.

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## SOME ISSUES OF THE FORMATION OF THE THEORETICAL AND METHODOLOGICAL BASIS FOR ASSET ACCOUNTING

**Sakit Yagubov**

*Professor and Vice Rector for Scientific Affairs at  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
sakit.yaqubov@gmail.com*

**Vaqif Quliyev**

*Associate professor at Department of "Accounting and audit",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
vaqifquliyev.unec@gmail.com*

### ABSTRACT

*The article emphasizes that in economic theory, accounting, statistics and other functional economic sciences, there are no unified approaches to determining the essence and content of such concepts as "economic resources", "capital", "assets", "economic benefit", "income" and others. Formalization of the same objects or elements that have the same economic essence and function under the different terms makes it difficult to understand their semantics. Moreover, the methodologies used and developed on the basis of such theoretical approaches do not allow forming and applying a single system of indicators for objective assessment and analysis of the economic and social performance of enterprises and companies at the micro and macro levels. The paper attempts to prove that in all economic sciences, the concept of "assets" should be understood as material, intangible, financial and labor resources controlled by enterprises and companies, and the economic benefit from the use of these resources should be determined by indicators of gross value added and net value added. The statement that exists in the system of theory and methodology of accounting claims that capital and liabilities (borrowed funds) are sources of assets and it is criticized. It is proved that capital and liabilities are not sources of assets, but reflect only ownership of assets. The interrelation and interdependence of the theory and methodology of asset accounting are revealed, their functions are formulated and clarified.*  
**Keywords:** *theory, methodology, resources, efficiency, economic benefits, assets, capital, liabilities, income*

### 1. INTRODUCTION

It is known that the main goal of any economy is the production of goods and services to meet the needs of people. The resources of society for this task are controlled and used, as a rule, by enterprises, companies and other formations, the aggregate of which, along with other institutional sectors, constitutes the entire economy. The ultimate goal of such formations is not so much the production of goods and services as the receipt of economic benefits in the form of profit. The resources used to fulfill these goals are limited, so they must be used more and more efficiently. In this regard, the selection and determination of performance and efficiency indicators at all levels is an important subject and object of study of economic theory, as well as branch and functional economic sciences. Questions arise:

- How is the resource content defined? What is included in these resources?
- What indicators are used to measure efficiency/effectiveness and economic benefits from the use of resource allocation?

Economic theory and accounting theory answer these questions differently (table 1).

## 2. RESEARCH

In economic theory resources are understood as factors of production resources needed for the production of goods and services. They are accepted as resources:

- land, labor and capital [1, p. 1320; 2, p. 41];
- natural resources, material resources, labor resources, financial resources [3, p. 285];
- land, capital, labor, entrepreneurial ability, informational and environmental factors [4, p. 217-218].

*Table 1: Content and composition of the main concepts (categories), used in economic theory and accounting theory*

	<b>Resources</b>	<b>Capital</b>	<b>Assets</b>	<b>Efficiency (economic benefit)</b>	<b>Distribution of economic benefits, income by types of resources</b>
1. Economic theory	Earth Work Capital	Buildings Machinery Equipment Machine Tools inventory management	Almost never used or not practiced	Macroeconomic level: GDP, CVP, etc.  Microeconomic level: Income (monetary revenue for a certain period of time)	Land-rent Labor - wages Capital - profit.
Accounting theory (on the basis of IFRS)	Assets (Economic resources, without taking into account of labor resources)	Own equity (Assets minus liabilities of the organization)	Land, tangible, intangible, monetary (financial) resources	Cash flow for a certain period of time, total profit, net profit	Labor-remuneration / expenses, Assets-profit

Modern economic theory takes capital as one of the factors of production and includes machinery and equipment, buildings and structures, and inventory. For example, Paul A. Samuelson and W. D. Nordhaus define capital in this way: "Capital (capital goods, capital property). (1) in economic theory - one of the three production factors (labor, land and capital)" [1, p. 1320]. According to Irving Fischer, capital is a stock of welfare for a certain period [5, p. 52]. In economic theory, the term "Asset" is almost never used and, therefore, it is not defined. The conceptual framework for financial reporting defines the essence of an asset and an economic resource as follows: "An asset is an existing economic resource controlled by an entity as a result of past events. An economic resource is a right that has the potential to create economic benefits" [6, p. 29]. There, equity is taken as a residual interest in the assets of the company, remaining after deducting all its liabilities. It is hardly possible to justify the position when the same machines, equipment, buildings, structures, inventory stocks, having the same essence and function, in economic theory are called capital or capital goods, and in accounting – assets. In our view, this situation creates complexity and sometimes confusion in the semiotics of a common economic language. Therefore, this problem requires additional study and joint discussion on the part of theoretical economists and accountants, as a result of which the positions of the parties can be brought closer, existing discrepancies between economic theory and accounting theory regarding the essence and content of certain economic concepts and categories can be eliminated.

Despite the different approaches to the classification of factors or resources, representatives of economic theory agree that the effectiveness of the resources used is determined by:

- a) at the level of the economy as a whole - the total final output of goods and services on the territory of the country during the year (macroeconomic approach);
- b) at the level of institutional units-income, which is understood as a set of funds received as a result of the use of resources for a certain period of time (microeconomic approach).

According to the general opinion of theoretical economists, the most comprehensive final output of goods and services is measured by the gross domestic product (GDP). This concept has been confirmed and reflected in the system of national accounts (SNA 2008), which emphasizes that GDP is a frequently used indicator of economic performance (7, p. 1). To determine performance or efficiency, in addition to GDP, such macroeconomic indicators as gross value added and net value added are used. These indicators are calculated using methods based on the principles of economic theory. It should be noted that none of these indicators are used in the accounting system, although their component elements are individually important elements of this system. In economic theory, the income is taken as a microeconomic indicator that characterizes the results of economic activity of institutional units over a certain period of time. The received income in relation to the resources used is distributed in the following way: land brings rent, labor - wages, capital-profit. If income is defined as the sum of money received, then it includes not only wages, rent and profit, but also intermediate consumption, as well as depreciation. In this sense, revenue cannot characterize the efficiency of using resources or performing activities. Only the part of income that is determined by deducting the amount of intermediate consumption and depreciation from the total cash inflow can indicate the degree of efficiency of the use of resources or the results of the activities of enterprises and firms. In accounting (financial), the income is defined as an increase in assets or a decrease in liabilities that leads to an increase in capital that is not related to contributions from holders of claims against the organization's own capital [6, p.43]. In general, the comparison shows that the concepts of "resources", "capital", "asset", "economic benefit" and "income" in economic theory and in accounting differ both in content and composition. In the system of accounting theory and methodology, there is a statement that capital and liabilities are sources of assets. This point of view is expressed by many scientists-accountants [8, p. 23; 9, p. 71; 10, p. 16, 18; 11, p. 10]. In reality, the truth is that the concepts of "capital" and "liabilities" in general are not sources of asset creation, but forms of ownership of assets. After all, no one will deny that the concept of "capital" has literally been used historically and is now used as a synonym for private property, and the concept of "obligation" as a synonym for borrowed property. Paul A. Samuelson and W. D. Nordhaus, in considering this question, write: "In a market economy, capital, as a rule, is someone's private property and income from it goes to specific individuals" [1, p. 96], "The ability of people to own capital and profit from its use gave capitalism its name" [1, p.97]. It can be argued that the terms "capital" and "private property" constitute a complete analogy and represent the legal form of assets, that is, they act as symbols of this form. The legal right to assets is not a form of real existence of assets, it acts as a non-tangible, non-visible, i.e., not amenable to empirical feelings side of assets, and therefore-an abstract concept. The form of ownership arises from the creation of assets, since the latter, unlike capital, are real resources. Therefore, the source of asset formation is not the right to property; on the contrary, the created assets become the property of individuals, groups, companies, etc. Forms of private ownership arise from the presence of assets. No assets – there is no right to property at all, including the right to private property. According to Roman law, the final source of legal law content is the material condition of society's life [12, p. 16]. The real carriers of material life are certainly assets, regardless of who owns them. Assets act as substance or content, and any form of ownership is the legal form of assets.

Forms of ownership or legal rights are derived from assets. From the above follows another important circumstance economic benefit acts as a necessary property or the main attribute of all assets. It is obvious that the amount of economic benefit, as well as the amount of an asset, capital and liability, can be measured and reported in accounting and in terms of value. If we proceed from the concept that capital and liabilities are the sources of assets, then it is also legitimate to measure assets by the amount of capital and liabilities. It is clear that real things (assets) cannot be measured or valued in abstract terms (capital and liability). All accountants determine the amount of authorized capital not on the basis of an abstract nominal amount, but on the basis of the value or amount of tangible, intangible and financial assets received. The amount of a Bank loan received is measured not by the nominal amount of obligations, but by the amount of money received. On the basis of asset valuation, not only the initial amount of capital (right to private ownership) and liabilities (right to borrowed property) are determined, but also their fair value. In theoretical and methodological aspects, assets in relation to capital and liabilities are determinants or substances. Therefore, the theory and methodology of the entire accounting and reporting system are being developed, and should continue to be developed and built on the basis of the availability and movement of existing assets. Methodology should always be based on the theory prescriptions, and on the generalization of practical experience. The theory of asset accounting itself is formed on the basis of knowledge obtained as a result of scientific thinking and empirical experience, on the basis of generalization of the actual data. The essence of any theory and methodology can be understood and known by the performing functions by them. In this regard, we believe that the theory of asset accounting should perform the following functions:

- formation of a conceptual and terminological apparatus, i.e. the language of accounting for assets and other elements;
- disclosure of the assets essence, a clear definition of the whole and the particular embodied in assets;
- establishing criteria for asset recognition;
- defining the general basis for asset classification;
- formation of directions of the asset accounting methodology.

The "transformation" of theory into practice or the confirmation of its provisions in practice can occur through methodology. In turn, the methodology should be based on the provisions and prescriptions of the theory. As in other social sciences, in accounting should use both scientific thinking and empirical methods. But in our view, the methodology should be more theoretical than empirical. This is due to the fact that empirical facts taken from practice are turned into information using methodology and explained by accounting theory. "To study the fundamental foundations of accounting, it is necessary to turn not to the elements of practice, but to the course of theory" [13, p. 64]. Based on theory and practice, the methodology can perform the following functions:

- be an "intermediary" or "bridge" between accounting theory and practice;
- form the general and private information about the objects being considered;
- generate information about the economic and social benefits of using assets;
- contribute to the confirmation or refutation of the existing theory as a whole, or its individual provisions.

To transform abstract definitions formulated by accounting theory into real values, such elements of methodology as principles, standards, methods, techniques, and rules are used. They are used to calculate the cost of assets, the amount of economic benefits from their use. The reliability of information about the amount of economic benefit received from the use of assets depends not only on the correct choice of elements of the methodology, but also on what



prescriptions are based on the semantics and pragmatics of the concepts of "asset/resource" and "economic benefit". If we proceed from this point, it is not difficult to understand that the Conceptual framework for presenting financial statements clearly states that economic benefits are generated only by an economic resource, that is, tangible (including land), intangible, and financial assets. Financial coefficients used to analyze and evaluate the activities of commercial companies are calculated taking into account the requirements of the regulation in question. In other words is ignored or not taken into account the role of labor in creating economic benefits. Meanwhile, the use of factors of production (resources) is always of a general nature, therefore, the economic benefit from the use of all resources cannot be determined separately by their types or subspecies. To confirm this idea, we can give a simple practical example. Let's assume that an individual or legal entity acquires a license for economic gain, for example, the right to transport passengers on certain routes within the city, then hires drivers, purchases appropriate buses, incurs the cost of maintaining and repairing buses, and rents a plot of land to accommodate buses and other equipment. Here, the license is an intangible asset; drivers – labor resources; buses-tangible assets; expenses for maintaining and repairing buses - monetary assets, therefore, all factors or resources are simultaneously used to obtain economic benefits - labor and assets. There is no general or private scientific or practical method by which to determine the share of each factor (resource) in the creation of a common economic benefit. It follows that the definition of assets as resources, without taking into account the company's labor or labor resources, and therefore, the measurement of economic benefits only on the basis of assets, as well as calculating on this basis many quantitative and qualitative indicators of companies performance, is not appropriate, since it does not allow obtaining reliable information about the degree of efficiency of using all resources or business factors. In addition, in accounting, employee benefits (wages) are considered as an integral part of expenses, and expenses are accepted as a factor leading to a decrease in capital. This approach to the nature and function of wages is one of the reasons for the widening gap between wealth and poverty in the world. It is hardly necessary to prove that wages are not only an economic category, but also an important social one. Hence, it follows that in the accounting and reporting system, it is necessary to apply such indicators that would more objectively characterize both the economic and social efficiency of enterprises and firms. In our opinion, these can be indicators of gross value added and net value added, determined by methods based on the principles of economic theory. Gross value added is calculated as the difference between the cost of output and the cost of intermediate consumption. Net value added is less than gross value added by the amount of the consumed part of the fixed capital, i.e. by the amount of accrued depreciation (7, p. 180). The need to use these macroeconomic indicators at the accounting level is explained by the fact that they can fairly accurately and objectively characterize the degree of effectiveness and efficiency of the use of resources at the disposal and under the control of these institutional units. These indicators reflect both final economic efficiency and net profit for enterprises and firms, as well as other indicators – wages, various taxes, which, along with the profit indicator, are the most important elements of national income. In our opinion, the accounting of net profit and value added should be conducted in parallel, and the financial statements should include items that characterize the value added as a whole and its individual components. Introduction to the theory and practice of accounting of these indicators will allow determining the real contribution of each enterprise and each firm to the formation of appropriate macroeconomic aggregates, that is, generalized economic and social indicators. In our opinion, the most appropriate method for calculating these indicators in the financial accounting and reporting system may be the production method, the application of which does not present any difficulties.

### 3. CONCLUSION

In the economic sciences, there are no common positions on the essence and content of individual concepts, and the same objects are expressed in different terms, which makes it difficult to understand their semantics and pragmatics. At the macro and micro levels, various methodological approaches and indicators are used to measure the effectiveness of the use of assets, which does not allow an objective assessment of the economic and social results of commercial entities' activities. In accounting, obtaining economic benefits is reduced only to economic resources, i.e. tangible (including land), intangible, and financial assets, which in our opinion does not adequately reflect the real truth. Economic benefits can be obtained as a result of the overall use of labor, material and financial resources controlled by institutional units. Capital and liabilities are not sources of assets, but they act as a right to ownership over assets: capital - as a right to private ownership, and liabilities-as a right to borrowed ownership over assets. In developing the theoretical and methodological foundations of resource accounting, it is necessary to take into account not only economic interests, but also the social welfare. This means that the performance of institutional units must be measured not only by the amount of economic benefit, i.e. profit, but also by the value of gross value added and net value added, determined by methods based on the principles of economic theory.

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## MAIN DIRECTIONS OF THE TAX SYSTEM IN IMPROVING THE ECONOMY OF THE AZERBAIJAN REPUBLIC

**Rauf Salayev**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
salayev@mail.ru*

**Emin Rahmanov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
eminrakhmanovs@gmail.com*

### **ABSTRACT**

*One of the most important conditions of maintaining the high rates of economic development in Azerbaijan, strengthening of financial stability is the tax system. Taxes, as well as all of the tax system, are powerful instrument of managing the economy in the conditions of the market. Today in the tax system of the Azerbaijan Republic rather effective mechanism of collection of tax debts is created. Lately, there have been serious advances in reducing tax debts, as well as reducing the number of tax debtors. One of the important factors influencing the formation of safe climate in the economy of Azerbaijan is the system of taxation. The state receives the majority of means through a tax system. The more means the state receives, the steadier and more capable of its development it will be. However, it does not mean that the higher taxes, the more means the state will have and the more developed it will be. The tax system must reflect both the interests of the state, and the interests of its population, and here it is necessary to find the balance that would allow to satisfy the interests of one and others. Among the many economic levers by which the state influences market economy a tax system takes the important place. Taxes act as a source of State budget revenue therefore they are inseparably linked with functioning of the state and directly depend on the level of development of the state. By means of taxes the state withdraws and appropriates a part of the generated national income and therefore the tax system directly depends on the level of development of state mechanism.*

**Keywords:** *state, tax code, tax system, taxes, economy, budget*

### **1. INTRODUCTION**

Attracting large investments into economy of Azerbaijan, macroeconomic stability, creating the legal base that encourages the business sector, and a number of other factors created the conditions for the development of economic growth in Azerbaijan. It is known that the tax system is based on taxes. Taxes are established by acts of the Azerbaijan Republic and collected throughout the territory of the Republic. For overcoming negative consequences of influence of taxes on development of economy there was an objective need of continuation of tax reform, the expression of which was the Tax Code of the Republic of Azerbaijan. The tax transformations provided by it are aimed at implementing the second type of tax policy. The main objectives which have to be solved by means of tax reform, - decrease in a tax burden, simplification of a tax system, increase in level of administration, creation of equal conditions for all taxpayers. The adoption and enactment of the Tax Code of the Republic of Azerbaijan made it possible to systematize the existing norms and regulations governing the taxation process and bring them into an orderly, unified, logically integral and coordinated system. A characteristic feature of the Tax Code of the Republic of Azerbaijan is the introduction of special tax regimes. The main direction of the reforms undertaken in the sphere of a tax system in recent years was its development from the technological point of view that provides success in all its areas. In a tax system the large-scale State program on improvement of tax administration was implemented.

Today in the tax system of Azerbaijan rather effective mechanism for collecting tax debts has been created. Lately there were serious advances in an issue of reduction of volume of tax debts and also reduction of number of tax debtors. In order to support the development of entrepreneurship and increase the benefits through doing business, changes were also introduced in 2019 in the Tax Code of the Republic of Azerbaijan, such as a reduction in the level of simplified tax, provision of urgent tax benefits for retail trade and non-cash payment in public catering, the release of small entrepreneurs keeping records income and expenses from dividend income tax, deduction from income of non-commercial expenses of taxpayers, including a certain part of the subsidies allocated to the sphere of health care, education, culture and sports. The adopted strategic state programs contribute to the development of a business environment and relationship between tax authorities and taxpayers today. Strategic Road Maps on national economy and the main sectors of economy of Azerbaijan are designed to provide competitiveness of economy, its inclusion and increase in social welfare on the basis of sustainable economic development in Azerbaijan.

## **2. MAIN STATE DIRECTIONS FOR IMPROVING THE TAX SYSTEM OF THE REPUBLIC OF AZERBAIJAN**

The main direction of the tax reforms undertaken in the sphere of a tax system in recent years was its development from the technological point of view that provides success in all its areas. In a tax system the large-scale State program on improvement of tax administration was implemented. The stage of development of a tax system began with the order of the President of the Azerbaijan Republic of September 12, 2005 about the approval of "The state program of improvement of tax administration in the Azerbaijan Republic for 2005-2007". So, in 2006 in the Ministry of Taxes the Automated Tax Information System (AVIS), and in 2007 the Internet internal revenue service ([www.e-taxes.gov.az](http://www.e-taxes.gov.az)) was created, also the exchange of electronic documents and the receipt of electronic tax returns has also begun with the banks, computer terminals have been installed in the regions and the coverage of the telephone information service has been extended. In 2008, for the first time in Azerbaijan, VAT deposit accounts were introduced, allowing tax controls to be fully electronic in calculating VAT. Introduction of deposit accounts of the VAT created conditions for realization of payment of the VAT in an electronic form on the goods (works and services) bought from other taxpayers and also on the goods imported to the country. The use of a single VAT deposit account has made it possible to prevent VAT tax evasion. It should be noted that since January 01, 2020 taxpayers provide in tax authorities not electronic tax invoices, but electronic consignment notes [1]. Currently, work is underway to install electronic transmitting devices in cash registers to strengthen supervision of cash payments. It gives the chance for operational transfer to the database of tax authorities of information on the carried-out cash calculations that, in turn, will create possibilities for increase in efficiency of tax control and transparency of activity of taxpayers. Besides, according to "the Strategic Plan", within the following stage of modernization of tax control the system of "Electronic audit" is introduced. Development of business in our country, is the priority direction of economic policy of the state. The government purposefully realizes the measures aimed at the development of relationship between government institutions and the business sector, the legislative base and administrative procedures is improved, mechanisms of the state support of the private sector are formed. One of such measures was the organization from January 1, 2008, the registration of commercial legal entities on the principle of "Single Window". For December 1, 2019 the total number of the taxpayers staying on the registry about the country made 1055463. From them 139666 or 13.2% are legal entities and other structures. The number of the taxpayers staying on the registry as the legal entity increased by 12.4% in comparison with the corresponding period of 2018. Since January 1, 2017, the Ministry of Taxes of the Azerbaijan Republic started rendering individual and expeditious services for the

disciplined taxpayers on the basis of the principle of "green corridor". For definition of the mechanism of regulation of work with the taxpayers who are carrying out activity on the basis of transparent partnership the corresponding rules were approved. These rules define criteria of identification of the taxpayers who are carrying out activity on the basis of transparent partnership, service which will be rendered to them, an order of consideration of their addresses and a procedure for other questions. The adopted strategic state programs contribute to the development of a business environment and relationship between tax authorities and taxpayers. Strategic Road Maps on national economy and the main sectors of economy are designed to provide competitiveness of economy and increase in social welfare on the basis of sustainable economic development in Azerbaijan. In 2018, tax control over the turnover of excisable goods was strengthened, and the at largest 30 manufacturers excise posts were established on August 1, 2018. Production of one type of products actually under the name of another, use of counterfeit excise stamps and sale of products without excise stamp is prevented. The president of Azerbaijan Ilham Aliyev signed on October 23, 2019 the order "About expansion of functions and structures of the Ministry of Economics of the Azerbaijan Republic" according to which the Ministry of Taxes was included in the structure of the Ministry of Economics and is created the State Tax Administration at the Ministry of Economics of the Azerbaijan Republic. In order to support the development of entrepreneurship and increase the benefits through doing business, changes were also introduced in the Tax Code of the Republic of Azerbaijan, such as a reduction in the level of simplified tax, provision of urgent tax benefits for retail trade and non-cash payment in public catering, the release of small entrepreneurs keeping records income and expenses from dividend income tax, deduction from income of non-commercial expenses of taxpayers, including a certain part of the subsidies allocated to the sphere of health care, education, culture and sports. Acceptance and enforcement the Tax Code of the Azerbaijan Republic allowed to systematize essentially the operating norms and provisions regulating taxation process to bring them into the ordered, uniform, logically integral and coordinated system. Characteristic of a tax system is introduction of the special tax regime. Main objective of improvement of a tax system is registration of the labor relations, an additional impulse to development of non-oil sector and creation of economic motivation among entrepreneurs to open new jobs. To this end, long-term tax benefits have been introduced in the non-oil sector for wage-related payments and the use of unified administration. As a result of the successful implementation of the State program for the socio-economic development of the regions, a high increase in the level of macroeconomic indicators in Azerbaijan was achieved, at the same time, investment in fixed assets from all financial sources gave an impetus to several-fold increase in the construction of infrastructure, communal, social and service facilities in the regions of the republic and improving the quality of the services sector. Regional development, in turn, had a positive impact on tax revenues in the state budget. In spite of the fact that the most part of the population of regions is engaged in agriculture, exemption for many years from taxes of family and country farms and other agricultural spheres, revenues by region increased over the past 10 years by 12 times. In recent years more attention is paid to questions of food security, in particular, to grain-growing and livestock production. Very serious steps connected with development of traditional technical products were taken, numerous meetings at the level of the government are also held. With the support of the state and as a result of the activities of private entities, wheat sowing is expanding, new sowing areas are being included, irrigation work is being provided. Now Azerbaijan provides itself with completely meat and dairy products at the level of 80-90%. Release of agriculture from subsidies and taxes, granting on favorable terms the equipment and fertilizers, encouragement of investments and export, other mechanisms of the state support play an important role in acceleration of regional development of the republic. As a result of State efforts to improve the tax system undertaken in 2019 on the transparency of revenues and the

clarity of tax accounting, funds amounting to 817 million AZN have been provided to the State budget of Azerbaijan, i.e. 163 million AZN more than the projected plan compared to 2018. This is 25 per cent more than the projected figures [2]. Azerbaijan has one of its goals to define the integration of the tax system to the level of standards applied in the European Union. According to the strategy of development of national economy, certain success in improvement of a tax system is achieved in recent years, considerable works with the purpose of bringing the State Tax Administration to modern European standards, creation of the tax law and administration according to modern requirements are carried out. Continuation of these actions is one of the most important aspects of the action plan within neighborhood policy between the European Union and the Azerbaijan Republic. Within this action plan development of a tax system of Azerbaijan is directed to harmonization with the tax system of the EU and generally accepted tax law standards. The adopted strategic state programs contribute to the development of a business environment and relationship between tax authorities and taxpayers. Strategic Road Maps on national economy and the main sectors of economy are designed to provide competitiveness of economy and increase in social welfare on the basis of sustainable economic development in Azerbaijan. Answering global challenges, as a result of mobilization of investments, the favorable environment for free competition, access to the markets and development of the human capital, Azerbaijan will strengthen the positions in global economy and is among the highly profitable countries. The key directions of the strategic road map on national economy and the main sectors of economy were approved by the President of the Azerbaijan Republic Ilham Aliyev on December 6, 2016 and in the appropriate order strategic road maps on national economy and 11 sectors of the economy generally consisting of 12 documents were transferred to the Center of Analytics and Communication with an assignment of carrying out monitoring, assessment and also communications for implementation of these strategic road maps [3]. Within the last 10 years Azerbaijan takes the place on rates of economic growth in the world in the forefront. Thanks to successfully led oil strategy at the expense of the present income infrastructure is modernized, the economy of non-oil resources is developed; social security improved; the state assets increased and also the strategic currency reserves exceeding the GDP level are created.

### **3. ANALYSIS OF THE CURRENT STATE OF THE TAX SYSTEM AND ITS INFLUENCE ON THE ECONOMY OF THE AZERBAIJAN REPUBLIC**

Being one of the main elements of a market economy, the tax system also acts as the main tool for determining the priorities of social and economic development. For ensuring diversification of economy of Azerbaijan in recent years in a tax system a lot of work on creation of infrastructure was carried out, favorable conditions for development of local production are created. Infrastructural state support aimed at specific projects in order to accelerate the expansion of local export production, which is currently creating additional foreign exchange requirements, replacing imports and bringing the country currency, will contribute to faster local production growth, targeted and efficient use of public investment, employment. Reference to these projects of tax benefits according to the signed documents connected with encouragement of investments creates an incentive for their successful performance, raw ensuring production and processing industry as a result becomes stronger, the dependence on external factors substantially decreases. Follows from all aforesaid that the tax system should be reformed in such a way as to develop the country's economy. Holding these actions in the field of improvement of a tax system will create conditions for gain of production, expansion of tax base and thus will increase receipts in the state budget. And for this reason, the state budget has to turn into the main instrument of revival and growth of economy and also it is necessary to strengthen control of expenditure of the State Budget. GDP growth of Azerbaijan in January-November 2019 was 2.1%.

Following the results of 10 months 2019 economic growth also was 2.1%. The nominal volume of GDP for January-November 2019 was 72 billion 852.2 million AZN. In 11 months, 2019 growth in the oil and gas sector was 0.2%, in non-oil sector – 3.5%. GDP per capita in January-November of the current year was 7357.8 AZN. Indicators of execution of the State Budget in 6 months 2019 confirm the dynamic processes happening in national economy. So, expenses of the state budget are executed at the level of 100.2 percent – 10 billion 951 million AZN. Income of the state budget is executed for the sum of 10 billion 406 million AZN. Expenses of the state budget are exceeded for 108 percent. 70 percent of tax revenues made by non-oil revenues [4].

Indicators	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Revenues-total	10762.7	10325.9	11403.0	15700.7	17281.5	19496.3	18400.6	17498.0	17505.7	16516.7	22508.9
Value Added Tax	1910.9	2012.8	2082.5	2222.7	2366.9	2710.0	3119.6	3454.7	3623.5	3668.6	4287.6
Excise	486.9	485.1	514.9	480.2	531.5	593.3	797.3	647.8	625.1	612.6	728.6
Profit tax of legal entities	2862.3	1329.2	1429.9	2134.0	2252.0	2374.8	2302.7	2211.1	1983.2	2285.9	2499.7
Land tax	30.6	26.2	35.3	35.3	30.6	33.1	35.4	48.7	50.3	50.4	50.6
Tax on income of individuals	627.2	581.9	590.2	715.7	813.0	859.7	980.3	982.5	1145.7	1040.3	995.9
Tax related with foreign economic activities	449.7	418.1	291.8	433.1	592.5	675.2	684.7	934.5	861.2	903.0	1143.7
Property tax	112.9	66.2	101.8	103.9	105.1	125.1	141.3	148.2	174.7	178.6	182.2
Other taxes	96.8	86.8	90.3	140.6	157.6	161.5	192.7	247.7	457.0	505.7	561.6
Other returns	4037.7	5197.7	6136.2	9305.4	10306.5	11842.1	10030.4	8706.7	8474.7	7160.5	11921.6
Tax on mining	147.7	121.9	130.1	129.8	125.8	121.5	116.2	116.1	110.3	111.1	137.4

*Table 1: Receipt of taxes and other payments in the state budget of Azerbaijan for 2008-2018, million AZN [5]*

The data in table 1 shows that annually there is an increase in tax revenues to the state budget, both in total volume and for certain types of taxes. The share of the non-oil sector in tax revenues in 2019 reached 104%. This is significantly more than in 2018 by 4 points. In general, the growth rate of revenues in the non-oil sector amounted to 5.9 points for the corresponding period. This exceeds the growth rate of the corresponding sector of the economy, and implementation amounted to 51.1% of the annual forecast. The share of the private sector in the non-oil sector is 77%. As a result of improving the tax system, a significant increase in the number of labor contracts was revealed. In total for 6 months of 2019, 101 thousand new labor contracts were registered, including 77 thousand in the private non-oil sector.

Indicators	2017			2018			2019		
	Plan	Fact	%	Plan	Fact	%	Plan	Fact	%
Total	7112,0	7118,0	100,1	7010,0	7016,0	100,1	7210,0	7645,0	106,0
Including:									
Oil sector	2300,0	2090,0	90,9	1610,0	1610,0	100,0	1755,0	1840,0	104,0
Non-oil sector	4812,0	5028,0	104,5	5400,0	5406,0	100,1	5455,0	5805,0	106,0

*Table 2: Receipt of taxes from the oil and non-oil sectors to the state budget of Azerbaijan for 2017-2019, million AZN [5]*

For six months of 2019, the economy of Azerbaijan grew by 2.4%, and the non-oil sector - by 3.2%. The best indicator is associated with the non-oil industry, an increase of 15.7%. For the six months of 2019, agriculture increased by 13%, mainly due to crop production, where growth

was 25%. Trade turnover has grown - by more than 20 percent. Non-oil exports increased by 15 percent. For six months of 2019, \$ 6 billion was invested in the economy of Azerbaijan. A significant portion of these investments has been made in the non-oil sector. Inflation is only 2.5%. Incomes of the population increased by 6.6%. Budget revenues from the tax and customs authorities increased by 440 million AZN [4]. At the beginning of 2019, there was a social package, and these social initiatives reach over 4 million people. Important steps have been taken - the minimum wage and minimum pension have been significantly increased. The minimum wage was doubled from 130 to 250 AZN. And the minimum pension has been increased from 116 to 200 AZN. The benefit paid to internally displaced persons has been increased by 50%, the issue related to problem bank loans of the population has been resolved, this indicates a stable economic policy of Azerbaijan. The confident economic development of the Republic of Azerbaijan in 2019, the increase in gross domestic product, in turn, affected the performance indicators of the state budget. So, the forecast of revenues to the state budget of 2019 was made in the amount of 24 billion 200 million AZN compared to 23 billion 168 million AZN. This means that revenues of 1 billion 32 million AZN, or 4.5% more, amounted to. The execution of state budget expenditures in 2019 amounted to 24 billion 405 million AZN compared to 25 billion 190 million AZN, or at the level of 97%. Thus, the state budget deficit in 2019 amounted to only 205 million AZN. This means that the forecast of the budget deficit in the amount of 2 billion 22 million AZN, approved in 2018, when adopting the 2019 budget was less than about 10%. A significant reduction in the state budget deficit, primarily due to the fact that the fiscal authorities - both tax and customs - forecasts of budget revenues were made in excess. Revenues of the state budget of the Republic of Azerbaijan for 2020 are projected at 24 billion 134.5 million AZN with an increase of 4.2% compared with the forecast indicator for 2019. Costs should amount to 26 billion 913.7 million AZN (an increase of 6.8%). The budget deficit is projected at 2 billion 779.2 million AZN, or 3.3% of GDP. The price of oil in the state budget for 2020 is set at 55 US dollars per barrel [2]. In accordance with the objectives of the state program, the Ministry of Economy of the Republic of Azerbaijan has prepared over 150 investment projects for the coming years with an initial cost of 1.5 billion AZN, taking into account the economic potential and level of employment of the population of each region. Concessional loans from the National Entrepreneurship Support Fund, local and foreign investments will be attracted to the implementation of these projects. It should be noted from 2003 to 2019, the economy of Azerbaijan grew in general by 3.4 times. During this time, industrial production grew 2.7 times, agriculture - 2 times, foreign trade - 6.4 times, export - 7.6 times, including non-oil exports - 5.2 times. Today, the Republic of Azerbaijan is on the path of economic development, serious reforms that are highly valued in society. These reforms improve people's living standards, accelerate the state's economy, and play a very important role in solving the problems that exist in the country. Improving the business environment and the World Bank. In the Doing Business report, Azerbaijan was included in the list of twenty most reforming countries in 2019 [2]. As a result of ongoing structural changes in the economy, it is required to review the practice of improving taxation on investments. First of all, structural adjustment requires, from the point of view of the interests of the national economy, the closure of a number of unprofitable industries and the direct provision of equal tax benefits to them, along with all other enterprises, and this can further increase imbalances and deformations in the economy. Secondly, it is necessary to consider the real investment opportunities both at the expense of the budget and at the expense of the company's own funds. Since the economy of Azerbaijan has taken the path of a market economy, the approach to attracting foreign investment to revive the country's economy is considered decisive in regulating the tax system. Also, the experience of countries with economies in transition has shown that to stimulate the transition economy of Azerbaijan, it is not enough to be content with certain points adopted by countries with developed market economies in the field of formation and regulation of the tax



system. One of the key links in the mechanism of support and development of small and medium-sized businesses, as mentioned above, is the tax system. The experience of countries with developed market economies suggests that a targeted program to improve the tax system is needed, aimed at strengthening and supporting small and medium enterprises.

#### **4. CONCLUSION**

Today, a rather effective mechanism for collecting tax debts has been created in the tax system of Azerbaijan. Recently, there have been serious advances in reducing tax arrears, as well as reducing the number of tax debtors. One of the most important elements of the tax system in Azerbaijan is the creation of a favorable business environment, the focus of business on the development of the economy, and compliance with the economic interests of not only the state, but also entrepreneurs and citizens. The effectiveness of the tax system is determined on the basis of the correspondence of the principles of its construction and the functions performed by it to the set socio-economic goals at each stage of the country's development. The basic principles of building a modern tax system are simplicity and profitability, stability, legislative regulation, the availability of a tax calculation algorithm, balanced interaction of tax functions, an acceptable amount of tax burden, a combination of the interests of the state, enterprises and the population, and the development of the country's economy. A set of state measures aimed at improving the tax system, leads not only to lower taxes. But it also affects the entire chain of the taxation mechanism, pursuing the interests of the state and taxpayers. The development of strategic roadmaps for 11 major sectors of the economy has created the opportunity to identify priority areas for the development of the Azerbaijani economy. In recent years, reforming the tax system of Azerbaijan has already achieved many positive results, however, for the purposeful development of the state, the process of improving the tax system should always be an integral part of the socio-economic policy of the state. An analysis of the dynamics of tax revenues to the state budget of Azerbaijan over recent years has shown that there are positive trends in the dynamics of revenues of all types of state taxes. It should be noted that improving the tax system in an attempt to improve the economy of the Azerbaijan Republic is one of the main tasks of the state, the solution of which is aimed at optimizing the structure of tax revenues of the state budget of the Azerbaijan Republic. Given the above, it can be pointed out that the process of improving the tax system should be consistent and predictable.

Their main areas should be:

- improvement of tax legislation of the Republic of Azerbaijan;
- implementation of the principle of equal tax burden.
- reduction in the overall level of taxation while expanding the tax base;
- reduction of tax rates and simplification of the tax system;
- adoption of new tax benefits;
- strengthening tax discipline;
- raising the level of legal awareness of taxpayers;
- improving tax collection;
- bringing the tax system of the Republic of Azerbaijan in line with the tax system of developed countries with a market economy.

In conclusion, it should also be emphasized that it is necessary for the Republic of Azerbaijan to form such a tax system that would ensure the necessary volumes of tax revenues to the state budget, activate the competitive forces of the market economy, regulate the expansion and modernization of local production, stimulate the investment activity of entrepreneurs, and ensure social stability in society, the development of production and, stimulated the development of integration economic processes in the republic.

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# TEACHING METHODS IN THE EPIDEMIC PERIOD IN AZERBAIJAN

**Samira Ahmadova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*samira\_ahmadova@unec.edu.az*

## ABSTRACT

*The coronavirus, which spread rapidly around the world, did not pass Azerbaijan. At the state level, all necessary measures were taken and preventive measures were taken at the highest level to prevent the spread of coronavirus in Azerbaijan and protect public health. One of the first measures was the closure of secondary and higher schools. Teachers, administration and the Ministry of Education began to look for suitable ways, so that pupils and students do not lag behind classes. In these circumstances, distance education has become relevant. However, the fact that all classes suddenly began to be held online created certain problems. The lack of high speed internet in some parts of the country is one of the main problems. Therefore, experts have developed a number of methods for this, both based on the experience of developed countries, and the requirements of the current situation. In secondary schools, assignments are given weekly or daily, and are checked by teachers at the end of the day or week. In this process that requires responsibility, pupils also learn to report. One of these methods is TV tutorial project launched by The Ministry of Education. If all students in a class have high-speed Internet access, they can join online classes, both listen to a new lesson, and address their questions to teachers. First, lectures were given to students in universities, and videos on the subject were posted on the YouTube channel. Later, this process was continued by Microsoft Teams, Zoom and other programs. However, secondary and higher schools are still not open due to the epidemic. Exam methods are also considered. During the epidemic in Azerbaijan, there are studied teaching methods and their results, are made comparisons with educational institutions of developed countries, and proposed new methods.*

**Keywords:** Azerbaijan, coronavirus, education, epidemic, internet

## 1. INTRODUCTION

One of the biggest problems of the healthcare is annual flu epidemic, related disease infection and high mortality rates especially among high-risk groups. In mid-December of 2019, Covid-19 which identified in Wuhan, the capital of China's Hubei province, began to spread rapidly. The virus has caused a pandemic in Azerbaijan, as well as all over the world. With the increase of the epidemic, quarantine has been applied since March 3. Due to the pandemic, most workplaces, offices and all educational institutions have been closed and this caused many problems. The main problems arose in the field of education. The restriction of mass events in quarantine led to the transition to distant education.

## 2. EDUCATIONAL INSTITUTIONS IN THE EARLY QUARANTINE PERIOD

In Azerbaijan, the quarantine was carried out in stages. "A decision was made to suspend the educational process and related activities from March 3 through March 9 in all educational institutions across the country (the first school day is scheduled for March 10) to prevent the facts of infection, to increase the effectiveness of measures taken in this sphere, and to intensify medical prophylactic, disinfection and other preventive measures [2]. The decision, adopted by Task Force under the Cabinet of Ministers, included the adoption of appropriate measures to prevent coronavirus infections.

### **2.1. Secondary schools in the early quarantine period**

Since March 3, the educational process has been suspended due to the short-term closure of secondary schools. Teachers gave students assignments in accordance with the weekly program. The goal was to prevent lag in the syllabus. During this period, some activities were carried out to disseminate enlightening information among schoolchildren. These activities included promotion of such prophylactic measures as washing hands, keeping distance with peoples – shooting advertisements, preparation of posters and and so on. Secondary school students were also involved in this promotion activities.

### **2.2. Universities in the early quarantine period**

As the decision was unexpected for universities, almost nothing was done within a week. Students and teachers who waited for a week did not participate in the teaching process. Various student organizations have also carried out propagandistic activities to disseminate methods for controlling coronavirus. There were organized various projects and held competitions with the hashtag #stayhome.

## **3. EDUCATIONAL INSTITUTIONS IN THE LONG-TERM QUARANTINE PERIOD**

According to the decision of the Task Force under the Cabinet of Ministers of Azerbaijan on March 7, the quarantine period has been extended from March 10. With this decision, secondary and higher schools were closed down for a long [3].

### **3.1. Secondary schools in the long-term quarantine period**

Since March 11, teachers began to teach students on a voluntary basis in various ways. However, it was difficult to conduct this educational process regularly with students who have problems with the Internet. Therefore, teachers tried different available methods in the teaching process. One of the most convenient methods was to send students daily or weekly lessons and check them at the end of the day or week. This process is already conducted at the state level. The Ministry of Education of the Republic of Azerbaijan implements various projects. Since March 11, there have been started "Lesson Time" TV lessons on "Culture" channel [4]. TV lessons cover all classes and subjects. Here, experienced teachers explain the lesson topics and give instructions. The class schedule is provided both on the TV channel and on the website of the Ministry of Education ([edu.gov.az](http://edu.gov.az)). In the portal there are also electronic textbooks and video lessons in accordance with the national curriculum. To ensure the interactivity of TV lessons, there was launched the project "Virtual School" (picture 1) from April 2. This project is being implemented in the framework of cooperation between the Department of Education and Microsoft Corporation. Students are assigned to classes on the portal. Teachers conduct classes, and also uploads homework to the portal. Thanks to the video and audio communication between the teacher and students on this portal, the educational process can be considered successful. In the process of distance education parents have a great responsibility. Sometimes it is difficult for parents to manage their children and explain their lessons to them. It is important to encourage children to read in order to improve their outlook and to provide a more comfortable model of behavior at home.

*Picture following on the next page*



Picture 1: "Virtual School" project - <https://virtual.edu.az>

Currently, children's information sources have changed. During the pandemic, it increased even more. Most of students have become Internet users. It makes the problem of raising a quality generation even more urgent. In a times of rapid globalization, we must strive to improve the quality of the young generation. Of course, the role of reading and books is great in high quality. For this, it is necessary to formulate the attitude of our children to the book. As during quarantine period parents and students have a lot of free time at home, it is necessary to take successful steps in this direction. In parallel with increasing students' interest in books, we should try to make them to read more useful literature. In modern age it is impossible to make children to read books. Therefore, there is a need to apply a new approach to create interest in the book. It is possible to conduct online „Reading days“ in order to popularize the important role of books and reading culture in the formation of students as individuals, the enrichment of their spiritual world, the evolution of artistic imagination, figurative and logical mentality, cognitive skills. Here should regularly be organized discussions, relevant lessons, conferences, lectures and literary-artistic works about the life and creativities of prominent Azerbaijani writers.

### 3.2. Universities in the long-term quarantine period

From March 11, teaching in universities began to be held on various portals. Some universities begun this work voluntarily. Each teacher chose the appropriate teaching method and tool. Video lessons were broadcast on university YouTube channels and websites. Teachers who taught via such programs as Zoom and Ekurs.az, later joined the "Microsoft Teams" program under a contract with the university and continued their studies here. Since september, UNEC created "UNEC EXTERN", equipped with modern technologies that can provide distance learning for up to 20,000 students, and thanks to this, it became one of the first universities to join the educational process. In this period, the social activities of students also became more active on the Internet. Various conferences, competitions, contests are held among students. It was possible to achieve the widespread use of modern information and communication technologies in organization of ongoing activities in all areas ( management, education, science, finance, human resources, work with partners and etc.) traditionally implemented in universities till now. Over the past period, meetings of the Scientific Council of universities, meetings of rectors, meetings of academic councils of faculties, meetings of departments and many other

events were held online. With the use of a flexible communication mechanism, the normal functioning of universities as a whole was ensured, and all issues (decisionmaking; conducting classes; organization of scientific activities; wages; pensions; social, tax, utilities and other payments; documentation and clerical work and etc.) provided for in various areas were implemented in a timely manner and in quality. Students are provided with books online by libraries. In order to improve the online library database of universities, the Azerbaijan State University of Economics (UNEC) organized an online webinar on theme "Activities of university libraries in Azerbaijan during the pandemic"[1]. The online webinar was attended by library managers and qualified library specialists from Baku State University, Azerbaijan State University of Oil and Industry, ADA University, Azerbaijan University of Languages, Azerbaijan Technical University, National Aviation Academy, Azerbaijan State University of Culture and Arts and other higher education institutions. Director of the UNEC Library Information Center and moderator of webinar Adila Abdullayeva made a report on the theme "UNEC's online information-resource provision in the conditions of social isolation: current situation, opportunities and prospects". She informed about the electronic resources provided by UNEC in different languages, online library services, activity of library staff in social networks to meet the information needs of students, professors and teachers during the quarantine period. Other reports were about information and resource support for distance education at universities, online and virtual services provided to readers, work with international databases, the exchange of electronic documents, copyright issues and the importance of sharing university information services on social networks in the pandemic period. The experiments conducted in the last courses of bachelor's and master's degrees of universities could not be implemented in the current way. Although the distance education is on the agenda as a way out of the problem, made by the pandemic in the field of education, we should remember that, the Law on Education of Azerbaijan Republic does not recognize a diploma of distance education. This is one of the reasons why distance education is underdeveloped in countries like ours. Of course, there are many reasons for this decision. However, the modern era requires a revision of the Education Law.

#### **4. EXAMS IN THE QUARANTINE PERIOD**

Currently, the State Examination Center has temporarily suspended entrance and final exams. Other grades will be based on the student's previous assessment. It is planned to cancel the thesis and final state exams at universities. In this case, it is advisable to conduct an assessment in accordance with previous years. Exams of other courses are planned in June-July. The form of examinations is left to the choice of universities. However, it is necessary to conduct an assessment to examine the situation after the quarantine period ends. If there is a real need to extend this academic year, then this issue will need to be discussed in detail. Or, if the majority achieves a positive result, it will be known that the students have mastered the educational programs at the required level. In this case, the issue of extending the school year will not be considered. The online education and assessment process in Azerbaijan is based on world-wide teaching bases and will be implemented by selecting possible and accessible methods in existing rules.

#### **5. CONCLUSION**

Thanks to the focused activities of schools and universities and the constant support provided by the Ministry of Education of Azerbaijan Republic secondary and higher schools were able to prepare for innovations related to the fight against coronavirus. More specific, thanks to the use of all possible online communication tools, starting from March of this year, the learning process is based on the distance control model.

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## AZERBAIJAN'S WTO MEMBERSHIP: TO BE OR NOT TO BE

**Sevar Mammadova**

*Azerbaijan State University of Economics, UNEC, Azerbaijan*  
*sevar\_mammadova@unec.edu.az*

### **ABSTRACT**

*In the 1940s of the twentieth century, serious contradictions in the field of trade policy arose in the world. Due to mistakes in trade policy in the 20-30s, in 1945, the United States invited 15 States (Great Britain, China, France, Australia, India, Canada, New Zealand, South Africa, Belgium, Luxembourg, the Netherlands, Czechoslovakia, Brazil, Cuba, and the USSR) to participate in negotiations to determine the factors of foreign trade liberalization. The Soviet Union declined this invitation fearing that the great influence of the United States in these negotiations would not allow its interests to be taken into account properly. The United States understood the need to establish a new international institution responsible for trade development, as a specialized Agency of the United Nations. Initially, it was supposed to be the ITO – an International Trade Organization whose main task was to adopt trade policy rules. However, the ITO Charter was rejected by the US Congress and in 1947 the General Agreement on Tariffs and Trade (GATT) was signed in Geneva, the main purpose of which was to gradually reduce tariff restrictions. The World Trade Organization (WTO) was formed 48 years later on the basis of the GATT in 1995. After the collapse of the USSR in 1990, all 15 member republics began to look for ways to join the WTO. Azerbaijan has been an observer in the WTO for more than 23 years since 1997. The purpose of this article is to analyze the reasons for this status quo for the developing economy of Azerbaijan, to show gains of some developing countries from their WTO membership and to conduct an analysis of the trade turnover of the member and non-member developing countries of the WTO.*

**Keywords:** *GATT, import, liberalization, subsidization, tariffs, trade policy, trade negotiations, WTO*

### **1. INTRODUCTION**

In 1945, to eliminate the consequences of the Second World War, the globe seriously thought about creating an organization that could solve complex contradictions in the field of international trade. To do this, first of all, each country needed to create a solid economic foundation. The world community aimed to provide a close analysis of the trade policy of the 30s, which led to a sharp deterioration in relations between the leading western countries of the world empire. The United States (US) initiated the creation of the International Trade Organization (ITO) as a specialized agency of the United Nations (UN). In 1945, the US invited 15 states (Great Britain, China, France, Australia, India, Canada, New Zealand, South Africa, Belgium, Luxembourg, the Netherlands, Czechoslovakia, Brazil, Cuba, and the USSR) to participate in the international conference on trade and employment. During two years of negotiations, eight more countries (Burma, Lebanon, Norway, Pakistan, Syria, Ceylon, Chile, and Southern Rhodesia) agreed to participate in the discussion of new rules for trade liberalization. Only the Soviet Union declined this invitation fearing the great influence of the US in these negotiations. The U.S. Department of Foreign Affairs was skeptical that the Soviet Union would relinquish its state monopoly over foreign trade and be able to exert a useful influence on tariff negotiations. (Douglas A. I., Petros C.M., Alan O.S., 2008, p.73). The Soviet Union, the main Victor in World War II, was economically weakened and therefore wary of commercial expansion of its territory by its former allies – the USA and Great Britain.



Azerbaijan could not participate in international trade from 1947 to 1997, as it was part of the USSR until August 30, 1991. Six years after independence, in 1997, Azerbaijan applied for WTO membership.

## **2. GATT: BIRTHS AND DEATHS**

The idea of creating the MTO belonged to the American Economist John Maynard Keynes (1942). He presided over the Bretton Woods monetary conference in July 1944, where it became the official position of Great Britain. (George, S. 17.01.2007). The creation of the ITO was supported by the Central Bank, the International Clearing Union (ICU). Fair Trade is a source of income, the well-being of peoples, familiarity with the culture of different nations, lack of scarcity, many jobs, and finally, stable political relations between countries (except military and political conflicts). A discussion of postwar proposals aimed for the future development of liberal trade relations was on the agenda of ITO. The UN International Conference on trade and employment was held in Havana (Cuba) in 1947. All participated sides came together for speedy recovery and liberalization of world trade, signed the ITO Charter, agreed on 45 thousand tariff benefits, etc. However, the US Congress rejected the ratification of the Havana Charter. (Douglas A. I., Petros C.M., Alan O.S., 2008, pp. 103-109) Why did the idea of creating ITO fail? The initiator of the creating the ITO John Keynes died in 1946. (George, S. 17.01.2007). The death of President Roosevelt has complicated the situation inside the USA. According to Roy Santana, a Counsellor of the Market Access Division of the WTO, the countries participating in the GATT negotiations faced an acute balance of payments problems, which meant that American exports to European markets could be stopped. (Santana, R., 2017, pp. 125-126). Quite serious negotiations were held between Will Clayton, the leading American negotiator, and Sir Richard Stafford Cripps, the leading British negotiator. They did not agree on the level of ambition to be achieved in the GATT negotiations. What, then, was the point of ratification such trade agreement that would open the American market only to imports without achieving mutual access of American companies to other markets? (George, S. 17.01.2007).

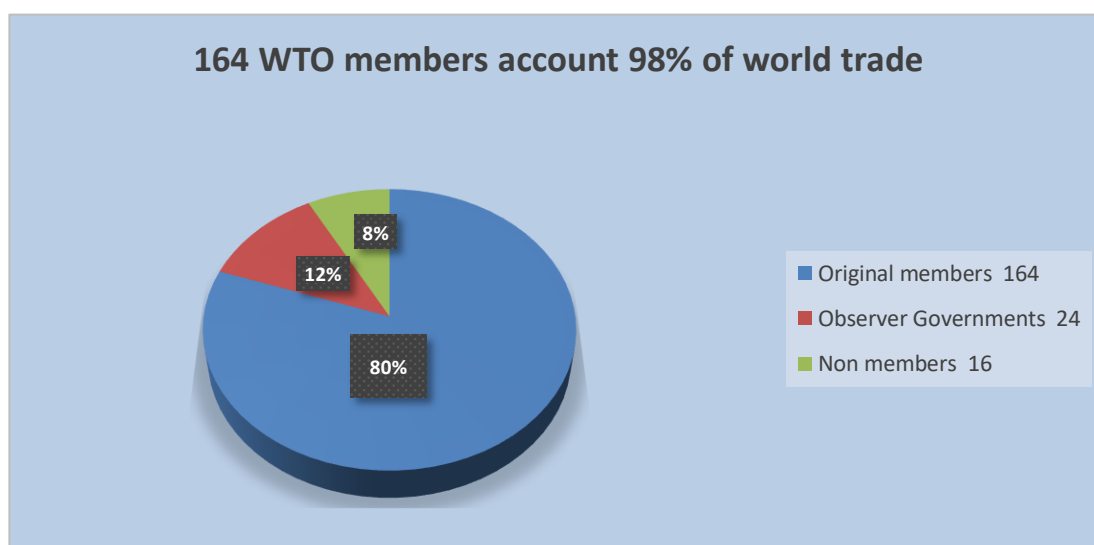
### **2.1. USA and USSR: Cold war after World war**

At the Yalta conference in 1945, the USSR, Great Britain, and the USA failed to reach a consensus on the issue of restoring post-war Europe and ensuring common security. The United Kingdom and the USA sought to establish a security system based on democratic principles and peaceful resolution of conflicts through international organizations, while the Soviet Union, fiercely defending itself from external aggression, preferred to dominate the internal affairs of its neighboring countries, which eventually became known as the "iron curtain". (Santana, R., 2017, p.128). Given the growing influence of the Soviet Union after the victory in World War II and fearing further development of communism, new US President Truman implemented the Marshall Plan to rebuild the economy of postwar Europe and developed the Truman Doctrine in 1947. (Santana, R., 2017, pp.120-137). New American foreign policy was aimed to counter Soviet geopolitical expansion after the war ended. The US government and banking services were busy with the Marshall plan and establishing mutual trade relations only with certain countries. Thus, the idea of establishing the ITO did not meet the interests of the new American political elite. No political party wanted to interfere in the disputed international agreement. In considering Clayton's offer to withdraw from negotiations with the United Kingdom, the Department of State was acutely aware that the Soviet Union was carefully observing the talks, and seemed prepared to take full advantage of the differences. Failure of the GATT negotiations would be disastrous for US foreign policy and would weaken one of their most important strategic partnerships. (Santana, R., 2017, pp.128-129). The USSR's fears do not participate in trade dialogue were justified too.

The World War ended and the long Cold War had begun between former allies. In late 1950, President Truman's administration refused congressional approval of the Charter and no other state ratified the Treaty. Elements of the Charter will later become part of the General Agreement on Tariffs and Trade (GATT). Thus, instead of the ITO, there was a document called the GATT and signed by 23 governments. For 48 years, the GATT has actually become the only agreement regulating foreign trade operations that were formally temporary. The GATT made significant actions on the way of liberalizing the trade climate in the world. GATT was successful in managing reducing industrial tariffs from an average of 50 % to 5 %. (George, S., 17.01.2007). To achieve these results, GATT has conducted eight consecutive rounds of trade liberalization. These rounds contributed to the creation of the liberal trading system and the foundation of a new trade organization. As a result of the collapse of the Soviet Union, a large number of new countries were released from the socialist camp and it was expected that in the near future they would become active participants in the World Trade Organization (WTO). Almost half a century later, Keynes' idea of creating ITO became a reality in the form of the WTO. To cover new fields of world trade, the multilateral rules were expanded. For many years, the GATT has concentrated only on trade in goods and has focused on smoothly removing bureaucratic and other obstacles and ensuring fair trade for all countries of the world. GATT was born in 1947 and died in 1994.

#### *2.1.1. WTO: new opportunities for developing countries*

The WTO was formed on January 1, 1995, on the basis of the GATT agreements. GATT continues to exist in a revised manner along with new rules regarding services and intellectual property. The WTO is the only global international organization that deals with trade rules between nations. The WTO aims to provide smooth, predictable, and free trade streams among the countries. As of July 29, 2016, 164 countries are members of the WTO. (Diagram 1). Its activities cover 98 % of world trade. Almost 2/3 of the 164 WTO members are developing countries. (24). They have become active participants in international trade, as trade is a catalyst for the future development of these countries. Developing countries differ greatly in their level of economic development and political structure. (23). Actually, there are no WTO definitions of "developed" and "developing" countries. The WTO members themselves announce whether they are "developed" or "developing" countries. (15). But other members may object to a member's decision to use the provisions available to developing countries.



*Diagram 1: World countries in the WTO as of 2020  
(Source: self-compiled)*

The WTO meets the special needs of developing countries in three ways:

- 1) The WTO agreements contain special terms for developing countries, such as additional time for developing countries to meet their obligations; conditions for expanding the trade opportunities of developing countries and ensuring their access to markets (for example, in the textile industry, services, and etc.); safeguard the interests of developing countries when making internal or international decisions in the field of anti-dumping, technical barriers to trade, etc.;
- 2) necessary provisions to assist developing countries in the fulfillment of their obligations under the flora and fauna protection standards, technical standards, and the strengthening of their internal telecommunications sectors. (26).
- 3) The Committee on Trade and Development is the main authority dealing with WTO issues and specific topics-trade and debt, as well as technology transfer.
- 4) The Committee reviews the implementation of provisions that favor developing countries, principles of technical cooperation, increasing the participation of developing countries in the international division of labor, etc.; member countries are required to inform the WTO of trade preferences for products from developing countries and of regional agreements between developing countries and preferential agreements among integration associations such as MERCOSUR (a common market for southern Latin America), a common market for Eastern and Southern Africa (COMESA) and the ASEAN free trade area (AFTA). The WTO Secretariat provides technical assistance for developing countries. (Bermann, G., Mavroidis, P. 2007, 130-135). Every year, the WTO conducts dozens of trade policy seminars for developing countries and countries in transition from a former socialist system. Technical assistance is funded from the regular budget of the WTO, voluntary contributions from WTO members, and cost-sharing by either participating countries or international organizations. (15).

The WTO budget is mainly formed by annual contributions from its members. These receipts are calculated according to a formula based on their share in international trade. (16) The WTO receives part of its other revenue from the sale of its printed and electronic publications. To provide technical cooperation and training to the least developed and developing countries, the WTO manages a number of trust funds provided by its members.

### **3. AZERBAIJAN MEMBERSHIPS' LONG WAY**

In 1993-1994, after the collapse of the USSR, eleven CIS countries have filed an application for accession to the WTO. Kyrgyzstan became the first country to become a member of the WTO (1998). This was followed by Latvia (1999), Estonia (1999), Georgia (2000), Lithuania (2001), Moldova (2001), Armenia (2003), Ukraine (2008), Russia (2012), Tajikistan (2013), Kazakhstan (2015). Why did so many post-Soviet countries decide to join the WTO? There are many reasons for this: the collapse of the USSR and all economic ties between the Union republics, economic stagnation, a decline in the production of goods, brain drain abroad, acute shortage of convenience goods, lack of money in the State Treasury, non-convertibility of national currencies, lack of trade links with the world. Why Kyrgyzstan, Latvia, Estonia, Georgia, Lithuania, Moldova, Armenia were the first? Estonia, Lithuania, and Latvia still in the USSR produced a large range of consumer goods, and their desire to join the WTO was quite reasonable. On the other hand, more consistent implementation of liberal reforms, despite imperfect economic and political institutions, lack of access to the sea in Kyrgyzstan, Moldova, and Armenia, military conflicts, the closure of all businesses, and in the short term, poverty... These countries considered membership in the WTO as salvation and expected to receive more financial and technical assistance, create a favorable investment climate and new jobs, saturate the market with consumer and industrial goods, and solve the problem of transit.

Azerbaijan applied for WTO membership in 1997. Why is it so late? In 1988, a year before the collapse of the USSR, there were military clashes with Armenia over Nagorno-Karabakh. The dissolution of the USSR coincided with the loss of 20% of Azerbaijan's territory. The ceasefire that was achieved thanks to the efforts of the President of the Republic of Azerbaijan, Heydar Aliyev, in 1994 was of great importance for the further economic development and strengthening of the country statehood. Then it took some time to understand: "what is the WTO?" The economy of Azerbaijan, being in a state of deep stagnation in 1990-1995, built its socio-economic model on the basis of its own fuel and energy complex. To avoid internal crisis, high inflation the Government conducted an ambitious economic reform supported by financial resources of the International Monetary Fund (IMF), the World Bank (WB), and other international economic organizations. Azerbaijan announced an "open door" policy with regard to foreign investment and regulates its investment activities under the Law "About Protection of Foreign Investments" of 1992. (About protection of foreign investments, 1992). All foreign investors or joint ventures with foreign equity capital of more than 30% are eligible for exemption from import customs duties on assets acquired with equity. (Memorandum on the foreign trade regime, 1999, p.12). The Law provides the immunity of foreign investors from amendments to subsequent legal acts for the period of validity of this Law. This law also guarantees the protection of foreign investments from nationalization (Article 11, section II). Including the banking sector, there are no restrictions on foreign investment in Azerbaijan. By signing the "Contract of the Century" in 1994 for the development of the Azeri – Chirag – Guneshli oil fields and the development of the Shah Deniz natural gas field, Azerbaijan opened its way to the world market. The beginning of the 21st century was marked by a high increase in oil prices - \$ 100 per barrel. In 2006, the Baku – Tbilisi – Ceyhan oil pipeline was put into operation, and Azerbaijani oil entered the world market. The first foreign investments were made in the oil sector. From 1995 to 1997, the total volume of foreign trade increased from 1304,9 to 1575, 7, GDP from 2415,2 to 3960,7, national income from 2411.3 to 3951.6, and FDI flow from 154.7 to 1111,0 million US dollars. (14). In order to strengthen the country's defense capability in the context of a military conflict with neighboring Armenia, Azerbaijan needed a currency: in those years, the oil industry only and high prices on the world market of hydrocarbons provided a quick return on the resources spent. The development of other fields of the economy was delayed. Agriculture, which required large investments, did not attract the attention of investors at that time.

Sectors of economy	1995	1996	1997	1998
Industry	27.3	25.9	24.8	22.3
Agriculture	25.1	24.7	20.0	20.3
Transport and communication	17.4	10.2	11.9	12.9
Construction	3.7	9.3	13.8	16.4
Trade and public catering	4.8	5.2	5.5	5.7

*Table 1: Share of major sectors in GDP (%) in 1995 – 1998*  
(Source: The State Statistical Committee of the Republic of Azerbaijan)

In order to slow down the direct involvement of the state in economic regulation and the creation of the private sector, in 1995-1998, all property rights were transferred from the state to the private sector in accordance with the state program for the privatization of state property. The first signs of economic recovery against the backdrop of the oil boom gave hope for the country's economic development and the search for new forms of cooperation. These successes prompted Azerbaijan to apply for membership in the WTO in 1997. In order to adapt the national legal framework to the requirements of the WTO, 3 Decrees of the President of the Republic of Azerbaijan, 32 laws, and different Normative Acts were adopted in 1991-1997 (18).

The previous trade policy and exchange regimes have completely changed. The national currency, the Azerbaijani manat, is fully convertible, with some restrictions for capital account operations. The legal system provides full guarantees for foreign investors. There are practically no restrictions on the repatriation of income by foreign investors in Azerbaijan. Thus, the application for membership in the WTO lasts for 23 years. Why is it taking so long? Let's look at the timeline of the accession process since 1997. In 1997-1999, Azerbaijan applied for accession to the WTO and submitted a Memorandum on foreign trade regime to the WTO Secretariat. (Memorandum on the foreign trade regime, 1999). A Working Party (WP) was established to assess the progress of the preparatory stages for WTO accession. The WP currently has 42 WTO members (Argentina, Australia, Brazil, Canada, China, Chinese Taipei, Dominican Republic, Ecuador, Egypt, Korea, Kyrgyzstan, Malaysia, Moldova, Montenegro, Nigeria, Norway, Oman, Pakistan, Panama, Ukraine, Vietnam, EU, Georgia, Haiti, Honduras, India, Indonesia, Jamaica, Japan, Jordan, Paraguay, Philippines, Russia, Saudi Arabia, Senegal, Sri Lanka, Switzerland, Tajikistan, Thailand, Turkey, United States, Yemen). In the period from 2002 to 2017, Azerbaijan held 14 meetings with members of the WP to review the foreign trade regime of Azerbaijan in accordance with the WTO rules, review the progress of negotiations on market access for goods and services, and changes in the legal system. WP requested information on Azerbaijan's pricing policy, state-owned commercial enterprises, investment regime, export duties and restrictions, agricultural policy, intellectual property, sanitary and phytosanitary measures, and technical barriers to trade. In addition to these documents, WP members requested clarification on Azerbaijan's economic policy, state-owned commercial enterprises and privatization, pricing policy, investment, competition policy, VAT exemption, excise duty application, and the adoption of the customs tariff law. (18). Other information requested related to clarification of duties and charges for services rendered, customs valuation, rules of origin, export bans, industrial subsidies, agricultural export subsidies, technical barriers to trade, and public procurement. As mentioned above, Georgia and Armenia became members of the WTO in 2000 and 2003. (Suturin, S., 2008, pp. 337-343). Not so much Georgia's membership in the WTO as Armenia's membership could turn into difficulties for Azerbaijan. That is why during the last negotiations between Armenia and the WTO members, Turkey, which strongly supports Azerbaijan in the issue of de-occupation of Nagorno-Karabakh, demanded that Armenia fulfill three conditions:

- 1) The provisions of the WTO treaties applied only to the UN-recognized territory of Armenia.
- 2) Armenia will not directly/indirectly conduct actions that impede the process of Azerbaijan's accession into the WTO.
- 3) WTO membership cannot be directly/indirectly used to adversely affect the peace negotiations. (Suturin, S., 2008, p. 340).

Armenia's acceptance of these conditions significantly calmed Azerbaijan. In 2004-2006, as a result of the strengthening of economic positions and the increase in oil prices, Azerbaijan increased the intensity of negotiations. In 2007, Azerbaijan signed a bilateral Protocol with Turkey on the completion of negotiations on accession to the WTO, in 2008 with Oman and the UAE. (18). In 2010 at the 8th meeting on the accession of Azerbaijan to WTO, WP members were encouraged by Azerbaijan's recent progress on the legislative sphere and stressed the importance of further intensifying negotiations on market access. The agenda covered active negotiations with the European Union (EU), China, India, the USA, Norway, Switzerland, Japan, Canada, and Chinese Taipei. Azerbaijan has further liberalized its foreign trade regime in accordance with WTO requirements and adopted new legislation on patent, import-export activities, technical barriers to trade, sanitary and phytosanitary measures and services. Azerbaijan seeks to create a diversified free market economy that will increase the country's competitiveness in all sectors and reduce its vulnerability caused by excessive dependence on

the oil sector, which is still dependent on limited oil and gas resources. In 2010 Azerbaijan signed an agreement with Georgia. At the 9th meeting of WP in 2012 positive trends were noted in the course of bilateral negotiations on market access for goods and services. New information on Azerbaijan's trade rights, tariff quotas, export subsidies, trade remedies, free trade zones, and public procurement was requested by WP members. Azerbaijani officials stressed the necessity of overcoming the high dependence on the oil and gas sector. Azerbaijan government recognized economic diversification as a priority for the country and developed a program to stimulate the socio-economic development of its regions. The Chairman of the WTO WP Ambassador Walter Werner (Germany) urged Azerbaijan to continue actively pursuing its internal reforms and negotiations on market access in order to move this process forward. At the 10th meeting of WP, the representatives of China, the EU, India, Japan, the Kyrgyz Republic, Norway, Pakistan, Switzerland, Turkey, and the US endorsed the submissions made by Azerbaijan and expressed their support for this accession. In 2012 Azerbaijan signed a bilateral agreement with the Kyrgyz Republic and completed bilateral negotiations with China. The analysis also included bilateral talks with Brazil, Canada, the European Union, Japan, Norway, and the United States on the sidelines of the WP meeting. In 2014 at the 11th meeting, technical work on Azerbaijan's accession to the WTO has gained positive momentum. (19). The solid work of the government of the Republic of Azerbaijan in bringing its trade regime in line with the WTO rules was highly appreciated. WP members requested subsequent explanations from Azerbaijan on tax incentives, investment incentives, the functioning of foreign enterprises, still existing technical barriers to trade, and transit. Azerbaijan reported positive interaction with WTO members during bilateral negotiations on market access for goods and services. But gradually, negotiations on Azerbaijan's accession to the WTO had run a deadlock... The WP called for going beyond routine work. Azerbaijani officials stressed the problems caused by the fall in world oil prices, which gave an impetus to the diversification of the economy. Comments and questions from WTO members were related to the application of discriminatory tax incentives, production sharing agreements, local content requirements, and investment incentives, state-owned trading enterprises, alcohol, and tobacco product permit requirements, post-accession obligations to Information Technologies (IT) agreement, technical barriers to trade (product standards and certification), transition periods for implementing WTO agreements, and agricultural and non-agricultural export subsidies. The members of the WP reviewed the trade regime of Azerbaijan on the basis of the revised draft Report of the WP. At the 13th meeting with WTO (2016), WP Azerbaijan has committed to intensifying negotiations on joining the WTO. Official representatives of Azerbaijan have announced the adoption of a national strategic roadmap aimed at diversifying the economy of Azerbaijan and solving problems caused by the decline in world prices for hydrocarbons. Analyzing the extent to which Azerbaijan's foreign trade regime complies with WTO rules, WTO WP members requested clarification on privatization plans, customs valuation, internal taxation, technical regulations and standards, trade-related investment measures, intellectual property rights, and trade in services. The 14th meeting took place exactly one year later, in 2017. Bilateral negotiations were held with the EU, the United States, the Russian Federation, Brazil, Thailand, Japan, India, and Switzerland, and access to markets for agricultural and non-agricultural goods, as well as services, were discussed. Azerbaijan has made the following commitments:

- abolition export restrictions;
- the list of holdings and export tariff rates are unchanged;
- elimination of discriminatory tax benefits when joining the WTO;
- equalizing excise tax rates;
- alignment of payment for services rendered;
- elimination export subsidies;

- implementation of necessary measures in the field of competition (adoption of relevant legislation);
- bringing sanitary and phytosanitary measures in line with international standards (adoption of relevant legislation);
- speed up work on technical regulations (adoption of relevant legislation) (22).

On July 25, 2017, during a meeting with the Executive Director of the International trade center (ITC), Ms. A. Gonzalez, an agreement was reached to conduct research in 3 areas (all 3 are very important for Azerbaijan):

- study of the impact of WTO membership on the economy of countries that have joined over the past 10-15 years (on selected examples);
- study of the possibility of using the defense tools provided for by the WTO agreements to protect domestic industry and national companies in the context of regional and global financial and economic crises within the framework of the WTO requirements;
- information on instruments used in international practice to stop illegal trade and economic activities of third countries in the occupied territory of the Republic of Azerbaijan, as well as on such opportunities reflected in the WTO agreements (22).

Thus, during 1997-2017 Azerbaijan submitted about 400 documents to the WP, including more than 300 legislative acts, and answered more than 2000 questions raised by the WP members. In January 2020, the WTO Secretariat during the Final Conference of the EU Funded Project "Support and Strengthening Capacity in the WTO Accessions Negotiations" which was held in Baku made a statement on the benefits of Azerbaijan's accession to the WTO. The next steps should focus on the future development of trade and economic policy of Azerbaijan. What about Concessions required by Azerbaijan? (22). Azerbaijan demands from the WTO concessions granted to all developing countries, including:

- 1) "de minimis" (the minimum allowed amount of domestic support, expressed as a percentage of the total annual agricultural output) - 10%;
- 2) the total aggregate support for the protection of agricultural producers is \$ 1 billion;
- 3) the right to use an additional amount to restore rural territories after the de-occupation by Armenia of Nagorno-Karabakh;
- 4) right to use article 6.2 of the agreement on agriculture: «developing countries allowed to use some types of investment and input subsidies under certain conditions». (26).

The US, EU, Brazil, Australia, and Thailand rejected these requirements, noting that "no recently joined country with an economy similar to Azerbaijan has received 10% de minimis", although Armenia was allowed to apply 10% de minimis from 2003-2008, and only since 2009 has started applying 5% de minimis. For Kazakhstan, de minimis is set at 8.5% of total agricultural production. (Food and Agriculture Organization of the United Nations, 2017, p.5). The opportunity of providing a grant of \$ 1 billion for a certain transition period is actually possible. Currently, Azerbaijan has started to transfer its subsidies from the amber box (subject to cancellation or reduction in accordance with the WTO terms) to the green box of subsidies (used without any restrictions in accordance with the WTO terms). Azerbaijan was encouraged to use grants to "green boxes" after the de-occupation of Nagorno-Karabakh. Thus, the WP refused to grant Azerbaijan the right to use article 6.2 of the agreement on agriculture and announced that following the 10th Ministerial conference held in Nairobi in 2015, WTO members will no longer apply export subsidies, and upon joining the WTO will undertake to eliminate export subsidies. (22). Begs the question, why, some countries can, others can't?

#### 4. CONCLUSION

As we have seen, the WTO accession process is quite a long and demanding way. Countries wishing to join the WTO must go through an accession process that includes negotiations between the applicant and WTO members. The length of the period between application and actual accession may vary from 2 years and 10 months (case of Kyrgyzstan) to more than 23 years (real case of Azerbaijan). The duration of the WTO accession process depends to a large extent, in particular, on:

- scope of internal reforms to be implemented;
- internal political situation and priority are given to the accession case by the acceding government;
- coordination at the national level;
- technical capacity of the acceding government.

Considering the experience of pioneers (Kyrgyzstan, Armenia, Georgia, Moldova) Azerbaijan has learned certain lessons that it wanted to avoid before joining the WTO. Many economists still consider the early accession of post-Soviet countries to the WTO prematurely. From this point of view, we will try to justify the position of Azerbaijan. It is well known that the WTO serves the interests of developed and large countries. Obligations under the WTO limit the role of the state in solving many problems. The small domestic market of Azerbaijan under the control of the WTO could worsen the status quo. Is Azerbaijan a developing or developed country? The WTO rules provide a number of benefits for developing countries. Currently, WTO developing countries have (on average) a higher relative level of customs and tariff protection of their markets compared to developed countries. In absolute terms, the total amount of customs and tariff sanctions in developed countries is much higher, which means that access to their markets for products from developing countries is severely restricted. The fact that a WTO member declares itself a developing country does not automatically mean that it will benefit from unilateral preference schemes of some developed member countries, such as the generalized system of preferences (GSP). The status of a developing country in the WTO gives certain rights. For example, some WTO agreements contain provisions that provide for longer transition periods for developing countries before they are required to fully implement the agreement, and developing countries can receive technical assistance. Technical assistance has a key role in helping acceding governments avoid the challenges of the accession process. The WTO Secretariat provides a two-year technical assistance program and curriculum that supports Acceding Governments. So:

- 1) Azerbaijan Government intends to protect the domestic market from the influx of cheap low-grade imports, and farmers and producers from bankruptcy.
- 2) The political leadership of Azerbaijan sees its country in the WTO after the local agriculture and industry will be export-oriented.
- 3) Baku intends to get the right to subsidize the agro-industrial complex by \$ 2 billion annually from the WTO.

Negotiations on this issue are currently underway within the framework of WTO accession. It is unacceptable to put pressure on Azerbaijan and deprive it of the legal benefits provided by the WTO for developing countries. Membership should benefit both the Acceding government and the WTO. Consensus-based decision-making is always possible! Answering the question of the article "to be or not to be" Azerbaijan in the WTO, the answer is «TO BE», but only taking into account its national interests. The COVID-19 pandemic has severely affected global trade. International trade is expected to decline by 13-32% by the end of 2020. (27). Trade is expected to decline particularly sharply in the electronics and automotive industries, as well as in services.



In these circumstances, the WTO should avoid discriminatory approaches to developing countries, and in particular to Azerbaijan, so that all the agreements reached over 23 years do not lose their significance. To close the door to protectionism, the WTO must play its part in ending trade wars and building transparent and fair trade policies with all countries of the world.

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## FORMATION AND DEVELOPMENT PROSPECTS OF THE NATIONAL INNOVATION FUND IN AZERBAIJAN

**Sevda K. Mamedova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
dr.smks@mail.ru*

### **ABSTRACT**

*The development of the innovation sphere is one of the priority directions of the state policy of Azerbaijan, because it is the level of scientific and technological development that determines the country's long-term competitive advantages. Along with the development of innovative entrepreneurship and the creation of an enabling environment for the development of new activities and products, it is envisaged to strengthen measures for the transfer and development of advanced technologies, the creation of technology parks and innovative zones for the development and application of high technology products and those nology One of the main directions in this case is the formation of innovative infrastructure. Innovative systems and their structures in different countries differ in a number of parameters, because there is no single universally accepted model; a single view on the concept, structure, and functions of national innovation systems has not yet been developed. But there are certain problems: an analysis of the innovation activity of enterprises shows poor results, an analysis of the sources of financing technological innovations reveals a low role in this of the state and extra budgetary organizations. Also, factors that impede the innovation process should be taken into account: the high cost of innovative technologies; low innovative potential of enterprises, etc. Particular importance is attached to state support for innovative development and can play different roles. But, even in developed countries, state financing of innovation is secondary in volume, and private sources come to the fore. When allocating funding between the private and public sectors, risk is also shared. The formation of an innovation fund in Azerbaijan will increase innovation activity in the country, create an innovation base and attract additional funds for the most promising innovative projects, and will also contribute to the development of international cooperation to increase the country's competitiveness.*

**Keywords:** *Innovation fund, Innovative infrastructure, National innovation system*

### **1. INTRODUCTION**

The independence of the Republic of Azerbaijan stimulated development of the national economy based on market methods. Our country is rich in natural resources and located in favorable climatic conditions. Therefore, Azerbaijan began to develop in various directions. Many years of experience in the field of oil production and refining industry have provided a good basis for the development of the oil and petrochemical industries. But the main goal was the development of the non-oil sector since the dependence of the economy on oil had to be minimized. The priority sectors in the development of the non-oil sector in Azerbaijan are agriculture, tourism, information and communication technologies, and manufacturing. The strategy of independence of the economy from oil is detailly described in the Development Concept "Azerbaijan 2020: a look into the future", and it is noted that "the expansion of innovation activity will be one of the main directions for ensuring long-term sustainable economic development, the formation of a knowledge economy, and accelerating creation of high-technology and products (work, services). In order to create an innovative economy in the country, the links between science and industry will be strengthened, necessary mechanisms will be created for conducting applied research in accordance with market demands. Along with the development of innovative entrepreneurship and the creation of favorable environment for the development of new activities and products, it is envisaged to strengthen measures for the

transfer and development of advanced technologies, the creation of technology parks and innovative zones for the development and application of high-technology products” (Kontsepsiya razvitiya «Azerbaijan – 2020: vzglyad v budushcheye, 2013) » [1].

## 2. MAIN DIRECTIONS, PROBLEMS OF INNOVATIVE DEVELOPMENT OF THE AZERBAIJAN REPUBLIC

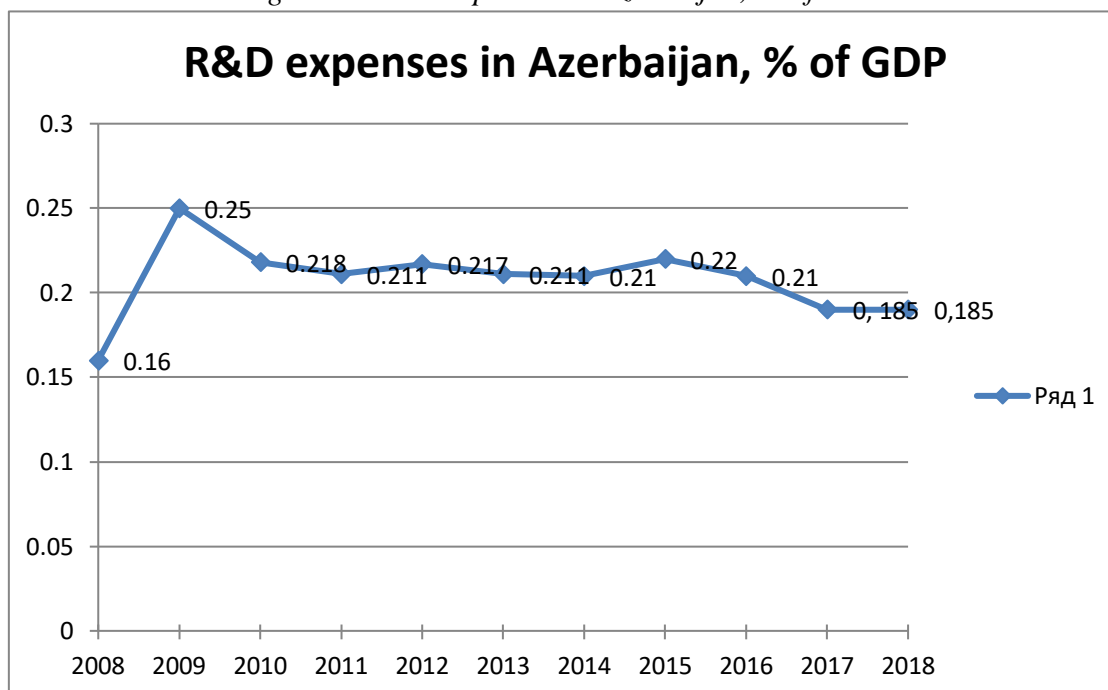
Thus, Azerbaijan has taken the path of scientific and innovative development. The main characteristics of an innovative economy are:

- The prevalence of the intellectual nature of labor over the industrial;
- A significant shift towards the production of intangible services in high-tech industries and information with relatively reduced material production;
- High level of human capital development, in which investment in knowledge grows faster than investment in fixed capital;
- Partnership between the state and private business.

### 2.1. Evaluation of innovative development of the Azerbaijan Republic

One of the main indicators of the country's innovative development is R&D expenses. We will consider expenditures as a percentage of GDP, since this will be more objective assessment than absolute indicators in monetary terms (Figure 1).

Figure 1: R&D expenses in Azerbaijan, % of GDP



Source: [www.data.worldbank.org](http://www.data.worldbank.org) [2]

As can be seen from 2010 to 2018, in percentage terms, R&D expenditures fluctuated between 0.1919-0.222% of GDP, reaching maximum in 2009 with an indicator of 0.25., and reaching minimum in 2008 with an indicator of 0.16. During last years, there has been a dynamic of decline, thereby in 2018 expenses fell to 0,185% of GDP (World Bank,2). If we take into account that the average indicator in the European Union in 2018 was 2.025, and 2.401 in the OECD countries, then the figures shown look rather insignificant (OECD) [3]. Table 1 illustrates the analysis of investments in fixed assets and expenditures on technological innovation in industry in comparison with 2010 and 2014.

*Table 1: Structure of fixed investment and expenses for the technological innovation in industry*

	2014		2018	
	Investments directed to main capital, million manat	Expenditures to technological innovations, thousand manat	Investments directed to main capital, million manat	Expenditures to technological innovations, thousand manat
All industries	7640	21534	8497	34353,6
Mining industry	5948	4133	5702	1386,0
Manufacturing industry	644, 6	17384	1432	32967,6
Electricity, gas and steam production, distribution of supply	423,7	17	602,9	-
Water supply; wastes treatment and disposal	623,3	-	760,1	-

*Source: Data of the Azerbaijan State Statistical Committee [4]*

The indicators in Table 2 illustrate how funds have been allocated for technological innovations in industry during the past few years. The main directions are the following: research and development of new products, services and methods of their production, new production processes; the acquisition of machinery and equipment related to technological innovation; the acquisition of new technologies, software, industrial design, the introduction of new services and production methods, technological innovation. Funds allocated for scientific research make up a small figure, however, there has been a sharp increase over the last specified year. Table 3 shows the costs of technological innovation by source of funding. An analysis of the sources of financing technological innovation reveals an extremely low role of the state and extrabudgetary organizations in this. Moreover, among the leading countries, the state's share in total expenditures ranges from 20% to 35%.

*Table 2: Costs of technological innovations in the industry of Azerbaijan, thousand AZN*

	2010	2015	2016	2017	2018
<b>All industries</b>	<b>8 139</b>	<b>35179.1</b>	<b>27929.0</b>	<b>16135.7</b>	<b>34353.6</b>
Application and processing of new products, services, new processes	2 551	13283.3	5655.0	7880.1	11119.0
Acquisition of machine and equipment related with technological innovations	5 053	12764.5	1962.6	528.4	4578.5
Acquisition of new technologies	-	3022.1	15919.1	158.7	185.7
Acquisition of programs	-	859.5	1217.3	685.3	957.9
Output protection for production of new products, application of new services or methods by types of preparation to other production and their output	300.1	5202.0	2700.0	5300.0	6200.0
New marketing researches	-	-	-	151.0	-
Training and provisioning of employees in view of innovation	95.6	37.2	43.2	-	-
Technological innovations	140.0	-	-	-	-
Research and development	-	10.5	11.6	12.5	9944.5
Expenditures for payment of services of outside organizations	-	-	0.2	4.7	1.0
Expenditures for technological innovations	-	-	420.0	1415.0	1216.4

*Source: Data of the Azerbaijan State Statistical Committee [4]*

*Table 3: Expenditures spent on technological innovations by kinds of activity and financial sources, thsd. Manats*

	2005	2010	2014	2018
<b>All industries</b>	53273,0	8 139	21534.1	34353.6
Own funds of enterprise	4060,0	3 584	21133.5	34278.0
State budget	43026,0	-	-	3.6
Extra-budgetary funds	1619,0	-	-	-
Foreign investments	-	-	-	72.0
Other	4569,0	4 555	400.6	-

*Source: Data of the Azerbaijan State Statistical Committee [4]*

At the same time, factors that prevent the innovation process can be divided into three groups: economic, organizational, and others. The main decisive factors that inhibit the innovation process belong to the first two groups. These include the following:

- Lack of funds;
- Insufficient financial support of the state;
- High cost of innovative technologies;
- Low innovative potential of enterprises;
- High economic risk;
- Lack of information regarding innovation (see table 4).

*Table 4: The factors impeded innovations at the industry enterprises*

	Number of the enterprises estimating the factors impeded innovations is as follow		
	main or deciding	significant	insignificant
<b>Economic factors</b>			
lack of own funds	22	28	14
lack of financial support from of the state	11	16	19
low solvent demand for new products	5	21	11
high cost of innovations	13	23	11
high economic risk	11	16	13
long payback periods	3	20	17
<b>Production factors</b>			
low innovation potential of the enterprise	7	29	14
shortage of the qualified personnel	3	16	18
lack of the information about new technologies	4	19	14
lack of adopting of innovations by enterprises	3	8	18
lack of market information	3	16	13
lack of cooperation of other enterprises and scientific organizations	1	7	16
<b>Other factors</b>			
absence of necessity in innovations consequently earlier innovations	1	10	16
lack of fit of the legislative and normative-legal documents regulating norm and stimulating innovation activity	3	13	13
uncertainty in terms of innovation process	1	10	14
lack of development of innovation infrastructure. (intermediary, information, legal, bank, other services)	3	15	15
undeveloped of market technology	2	17	18

*Source: Data of the Azerbaijan State Statistical Committee [4]*

Thereby, the state implies more serious steps towards innovative development.

## 2.2. State support for innovation activity

Actually, the state has a great importance in the development of the national innovation system: it creates the necessary favorable environment for the development of innovation and manages it. By participating in the regulation of innovation, the state can act like:

- The creator and, to some degree, the guarantor of a favorable entrepreneurial environment, the conditions for the development of innovative activity, and stimulation of innovative risk;
- Partner with private business entities, as this situation helps to attract private capital to implement innovative projects (partnership between the state and private business reduces the risks of inefficient solutions in the field of innovation);
- Political force, which determines the attitude of society to the problems of the development of science and technology as one of the priority areas;
- The legislator, establishing the legal basis for the functioning of society, as well as innovation activity.

The following forms of direct impact of government on innovative projects can be mentioned:

- Provision of credit resources on the basis of payment, recoverability, urgency;
- Provision of credit resources on the basis of securing in state ownership of a part of the shares created "under the project" of joint stock societies;
- Providing guarantees for the reimbursement of part of the invested funds, in the case of the project failure not initiated by investor.

Indirect state financing of innovation activity consists of creating favorable conditions for financing R&D and innovation by investors interested in the results on market conditions. Methods of indirect financing include the following:

- 1) Tax incentives: this means exemption from taxation of certain categories of payers or certain types of activities; exemption of certain constituent elements from the tax object; the establishment of a tax-free minimum; lower tax rates for certain categories of payers; tax deferral; deduction from the accrued tax amount;
- 2) Investment tax credit: the point of this method is changing the tax payment deadline (for profit or income), therefore, giving the organization an opportunity to reduce its tax payments for a certain period and under certain conditions with the subsequent phased loan amount and accrued interest. For each tax payment, the reduction is until the amount, formed from unpaid due to the reductions will be equal to the amount of the loan according to the agreement concluded between the entity and the tax service. The unpaid amount is called the accumulated loan amount;
- 3) Granting rights on accelerated depreciation. The organization has the opportunity to reduce taxable profits, for instance, price remains the same, but depreciation increases. Therefore, funds are formed that can be spent on the purchase of new, more modern equipment. Moreover, depreciation can be calculated according to new standards and methods, implying accounting for the composition, age and duration of service of fixed assets. Accelerated depreciation allows the release of additional funds that can be used for investment purposes;
- 4) Issue of guarantees by the state as security for loans attracted for the implementation of the organization's projects.

It should be noted that the economic prosperity observed in the last century in a number of countries (Germany, Japan, India, China, South Korea) is a reflection of the corresponding deeply thought out and highly effective state innovation policy. One of the important steps of the state for the development of the innovation model is to provide it with institutional

mechanisms and infrastructure. The entrepreneurship support infrastructure include the following: business centers, business incubators, technology parks, leasing centers, financial and credit institutions, entrepreneurship support funds, investment and innovation funds and companies, trust companies, stock and commodity exchanges, information and advisory institutions, etc. Thereby, the innovation infrastructure is a system of organizations of a basic and auxiliary nature, contributing to the implementation of innovation activity, serving the innovation and ensuring the conditions for the normal course of the innovation process. An analysis of national innovation systems showed that there is no successful single model of a national innovation system, since a single view on the concept, structure, and functions of a national innovation system has not been developed yet (Mamedova S. (2017), p. 64) [5]. During the last years, important institutional structures have been established in Azerbaijan, whose are designed to provide necessary support to the innovative development of the republic. These include the State Fund for the Development of Information Technologies, the activity of which is to support the development of ICT projects, with investment both domestically and abroad. It is also important to open a technological park with the involvement of national and foreign companies and their capital. The opening of a free economic zone with an approximate location in Alyat will also contribute to the development of the national economy. By the decree of the President of Azerbaijan, in 2016, High Technology Park of ANAS (Azerbaijan National Academy of Sciences High Technologies Park) was established, which was attached to the Azerbaijan National Academy of Sciences (ANAS). “The purpose of the ANAS High Technology Park is to ensure national science and industry co-operation and to establish a national innovation ecosystem and knowledge economy through commercialization of science” [6]. In 2018, an Innovation Agency has been established under the Ministry, on the basis of the State Fund for the Development of Information Technologies and the "High Technology Park" Limited Liability Company attached to the Ministry of Transport, Communications and High Technologies of the Republic of Azerbaijan. The Innovation Agency assists local entrepreneurs in acquiring modern technologies and technological solutions and organizes their transfer, supports innovative research, encourages innovative projects, including start-ups, and finances them with grants, soft loans, and venture financing. The initial authorized fund of the Innovation Agency under the Ministry of Transport, Communications and High Technologies is 500,000 AZN and formed from the state budget. One of the steps to stimulate innovation activity and the formation of innovation infrastructure in Azerbaijan will be the creation of the Innovation Fund under National Academy of Sciences of Azerbaijan (ANAS). The innovation fund is a fund of financial resources created with the aim of financing the latest scientific and technical developments and “risky” projects and as one of the main innovative institutions, it can be formed from different sources. Moreover, the operation of innovative funds in various countries may differ:

- In the structure;
- In organizational form - it may act as an independent fund, as part of any structure, in the form of a joint-stock company;
- By sources of financing - can act as purely public, on the basis of mixed financing;
- In terms of fund financing;
- In terms of centralization - more centralized for some countries, for instance CIS countries, and less centralized for others, as in the case of the Germany, Switzerland;
- According to project selection criteria;
- At the minimum level of project financing by the bearer himself;
- In terms of volume and duration of project financing;
- According to the terms of return or non-repayment of investments ((Mamedova S.(2017),p. 64) [5].



However, despite the varieties, the Fund's goal remains unchanged - the selection and preparation of promising innovative projects in the region and attracting funds for them. Likewise, the algorithm of the Fund's action is almost the same: receiving applications; expertise; selection of applications; project financing. The creation of the fund in our country will solve the problems associated with the development and implementation of innovations, as well as cooperate in this area with the High-Tech Park. The fund will accumulate additional profits from innovative projects of ANAS. The expenditures of the fund are planned to be implemented in accordance with the decision of Presidium of ANAS. The main goal of the Innovation Fund in Azerbaijan, as well as in other countries, is the selection and preparation of promising innovative projects in the region and attraction of financing. The main goals of the fund are following: conducting a state policy of development and support in the scientific and technical field; creation and development of support infrastructure; assistance in creating new jobs for the effective use of the scientific and technical potential of the country; financial, informational and other assistance, attraction of off-budget investments in the sphere of small innovative entrepreneurship. Creation of a large number of additional structures, expansion of infrastructure requires the introduction of mechanisms for coordinating of innovation activity. By the order of the President of the Azerbaijan Republic about the ensuring coordination in the field of innovative development in the Azerbaijan Republic in 2019, the main directions of activity were developed in order to increase efficiency and ensure coordination in the field of innovative development in the Azerbaijan Republic.

### 3. CONCLUSION

One of the main directions of state policy of the Azerbaijan Republic is the development of the oil sector of the economy. In this regard, it is important to stimulate innovation activity. Undoubtedly, a significant role in this case belongs to the state. It worth mentioning that the state's functions to regulate innovation in Azerbaijan are still in the process of formation. Nevertheless, the state policy in this area forms an integral part of the socio-economic policy of our government. Thereby, favorable economic conditions are being created, regulatory support and incentive mechanisms are improved, infrastructure, scientific and technical potential are developed, the development of basic research in the field of science and technology is stimulated, and priority areas in the innovation sphere of the state, industrial and regional levels for the long term are highlighted. However, there are factors that impede the innovation process. Lack of funds; insufficient financial support from the state; high cost of innovative technologies; low innovative potential of enterprises; high economic risk; lack of information regarding innovation. An analysis of the sources of financing technological innovations reveals a low contribution of the state and extrabudgetary organizations. Under these conditions, the formation of innovative structures that facilitate the selection and financing of the most promising innovative projects, the effective use of the country's scientific and technical potential, and the attraction of investments in the field of innovative entrepreneurship is very important. To create an innovative economy in the country, it is necessary to strengthen the links between science and production, introduce scientific and technological achievements, including the creation of a new mechanism for matching scientific research with market needs, ensuring coordination in the field of innovative development. For these purposes, it is necessary to ensure coordination of all areas of activity and structures in the field of innovative development.

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# TOOLS AND METHODS OF MANAGING ENTREPRENEURIAL RISKS

**Shafa Guliyeva**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*Shafa\_Guliyeva@unec.edu.az*

## ABSTRACT

*Since modern companies are in a rapidly evolving climate, the risk is a key element of entrepreneurship. As a result of these changes in their battle to increase the company's profitability, management must pay particular attention to the uncertainties. During financial-flow processes, there are typically different types of risks. In general, of the many forms of risk typical of a commercial organization's operations, two — development and financial — are inherent in any company and can be assessed. Organizations may select one or another combination of assets and sources within their capacities. Consequently, successful financial management is focused on manufacturing usage and financial leverage. Notice that there is no fair estimation of all forms of risk; there are no predefined instruments for managing financial risks. Risk management approaches are selected for handling risks after agreeing on the viability of a transaction. These strategies may be grouped into the following areas: avoidance of risks, self-protection, protection, risk transfer, diversification of risk, risk hedging. The efficacy of insurance cover will be improved if a closer relationship of the company's risk managers with the insurer's representatives is coordinated at all levels of risk management. Examples of risk pooling include a guarantee agreement and some other agreements—a bank guarantee and a factoring agreement. The secret to a sustainable company is properly applied diversification of the risks. A portfolio is a mix of financial assets, which in the aggregate do not have the lowest return and at the same time not the highest risk, as the investor wants to do. Hedging risks means restricting financial instruments to the number of losses but also benefit as a result. Risks cannot be avoided but potential risks can be minimized by using effective risk reduction techniques and resources professionally.*

**Keywords:** *Entrepreneurial risks, Leverage, Insurance, Risk diversification, Risk hedging*

## 1. INTRODUCTION

Currently, under the conditions of growing situational uncertainty and external environment instability, entrepreneurial activity has to be carried out. In business conditions, one has to deal with the volatility and increased risk when mastering entrepreneurship. It is impossible to eliminate the uncertainty of the external environment since it is an element of objective reality. In these situations, the unavoidable danger must not be avoided, but one must be able to sense the danger, determine its degree, and not go beyond the allowable limits. "You can't do business without risk. You won't gain anything without risking"[1]. Risk is inevitable, in the face of uncertainty. Uncertainty and danger complement one another, though varying to some degree from each other. "It turns out that measurable uncertainty, or indeed" risk, "is so different from unmeasurable that it is no uncertainty at all in essence. We would, therefore, restrict the use of the word "uncertainty" to cases of a non-quantitative nature" [2]. F.H. Knight, therefore, explains the nature of the difference between measurable risk and immense uncertainty. It should be remembered that the pre-condition for risk is an unpredictable situation. An organization needs to develop a risk management system based on the following principles to provide a framework for successful management in the face of uncertainty and danger:

- You cannot risk more than your capital can allow;
- You cannot risk much for the sake of small;
- The consequences of risk should be predicted [3].

The main rule of entrepreneurial conduct stems from what has been said: not to avoid risk but to predict it, attempting to reduce it to the lowest level possible. In the first place, entrepreneurial losses are an unintended decline in entrepreneurial income. What characterizes the degree of risk is the severity of these losses. This indicates that risk analysis is specifically related to the evaluation and calculation of losses as a probably expected benefit. Here we will pay special attention to financial losses. Risk is a vital part of entrepreneurship in a market economy. The French economist R. Cantillon had proposed the term entrepreneur at the beginning of the 18th century. A businessman has since been called a person who assumes the risk of developing a new company or providing a new idea or product to society [4].

## **2. ENTREPRENEURIAL RISK MANAGEMENT TOOLS**

Any commercial organization's successful financial management is focused on the use of suitable instruments. One such is leverage. Current activities involve risk, notably production and financial, that should be taken into account depending on the company's role. This attribute may be satisfied based on the balance sheet either from the location of an asset owned and controlled by the company or from the location of sources of funds. The definition of development risk exists in the first scenario and financial risk in the second. Net profit as the outcome measure depends on how rationally the financial services given to the company are used, that is, what they are invested in and what the composition of the sources of funds is. Production risk and its leading leverage for output are directly linked to the company's investment dimension. Investing in fixed assets is accompanied by higher fixed costs and lowering of variable costs. If the proportion of the conditionally fixed cost of production is high, then the company has a high degree of leverage for output. Only a small change in the amount of output will lead to a substantial change in income for such a company, as the company will, in any case, bear the cost of output. Therefore, the volatility of the income before interest and taxes reflects the danger of output quantitatively. The higher the level of leverage in production, the higher the risk of manufacturing the company. Financial risk as sources of long-term funding is expressed in the ratio of own and borrowed funds. Other things being equal, the higher the interest owed, the lower the net income. Thus, the greater the company's reliance on outside investors, that is, the higher the financial leverage ratio, the higher the company's financial risk. In other words, the amount of financial leverage directly reflects the degree of the company's financial risk, and thus influences the rate of return that shareholders expect. Here, the relationship is directly proportional: the higher the degree of financial leverage (i.e., financial risk), the higher the return on equity that shareholders seek. Under financial leverage, the cumulative sum of the company's current expenditures is intended to reflect a certain feature of financially conditionally fixed costs. Leverage serves as a kind of mechanism that allows you to produce measurable financial outcomes that justify the steps taken to enhance the enterprise's technological level and increase long-term funding sources, as well as increased operating expenses. Yet losses can be fairly large, with adverse events. An increase in the amount of leverage for output thus means an increase in the share of non-current assets, i.e. means of output, which are the key source of income generation for the company. In this scenario, the leverage impact is demonstrated by the fact that, with the right plan for development activities, the purchase of new fixed assets allows you to achieve additional income beyond the expense of sustaining and upgrading them (depreciation charges) and other fixed costs. Perhaps more important is financial flexibility. There is a small range of sources; these are equity (profit and interest) and loaned assets (short- and long-term sources). Each source has its pros and cons. The benefit is officially considered the most affordable source, but it is limited in quantity and includes almost compulsory areas of use (such as payments for dividends). Equity is a costly source of capital. Short-term liabilities (e.g. bank loans) have a variety of apparent advantages: lower transaction costs for this source relative to the issue of

shares and bonds, lower interest rates relative to long-term loans and borrowings, greater dynamism, as the size of the loan can be regulated depending on financial needs, etc. But the short-term lending rates are highly volatile, increasing the chance of liquidity loss, etc. In particular, the liquidity issue for borrowed funds emerges when it becomes required to pay the lender either at current interest rates or, even more importantly, at the principal sum of the debt; the more frequently they need for loan settlements occur, the greater the probability that the liquidity problem may worsen. Thus, attracting long-term borrowed funds is logical; the leverage effect is reflected in the fact that the expense of sustaining this source is less than its contribution to producing additional income, i.e. essentially the well-being of the enterprise's owners is that. The effect of financial leverage is that the business that uses borrowed funds changes the net profitability of its funds and their opportunities for dividends. Net return on equity, defined as the ratio of net income to equity, is one of the principal measures of the efficacy of the funds invested by shareholders. It is obvious that too large a loan raises the risks, and that, in effect, leads to interest rate rises. But if interest rates are high or asset returns are weak, then the financial leverage begins to work against the owners. A financial manager must use the methodology to calculate the effect of financial leverage to calculate acceptable credit conditions [5]. The primary goal of risk management is in line with the goal role of entrepreneurship. This consists in generating the greatest benefit with an optimum benefit-to-risk ratio reasonable to the entrepreneur [6]. Risk is major uncertainty and uncertainty, an asset, and a business economic disadvantage. Modern confusion is always a mystery but not a mystery. Resolving the question of risk management under these situations, therefore, requires the resolution of secrets rather than the compilation and evaluation of information per se [7]. All potential risks need to be carefully defined and measured, attempted to avoid them, tried to minimize risks, and used economic instruments to defend against risks. To put in another way, you must learn how to handle risk. Second, the organization must assess the amount of risk it is willing to undertake to achieve the desired result. A sensible entrepreneur is unlikely to risk total ruin in his company, and would not gamble all of his means to achieve even the most desirable target. And the risk coefficient KR is usually calculated when evaluating a transaction. This is measured as the ratio of the actual amount of potential losses to the number of the company's assets.

$$KR = \frac{\text{MAXIMUM POSSIBLE AMOUNT DAMAGES}}{\text{VOLUME OF OWNERSHIP}}$$

Business experience leads to the assumption that KR values from 0 to 0.3 should be regarded as low risk, from 0.5 to 0.7 as high risk, higher than 0.7-as vital risk to the company. The organization will select the most suitable transaction at the moment, after a preliminary review of potential solutions. After agreeing on the viability of a transaction to mitigate risks, a particular method or multiple methods are chosen to reduce potential losses.

### **3. METHODS OF MANAGING BUSINESS RISKS**

#### **3.1. Loss-prevention**

It is likely that, as a result of preventive steps, threats will be so significantly minimized that the need to employ certain strategies would vanish or be decreased. In other words, much smaller risks will need to be handled, which would greatly reduce the transaction's expense and increasing its effectiveness.

#### **3.2. Self-insurance policy**

Self-insurance is nothing more than taking chances on yourself and is certainly the best way to deal with changes (with the exception, perhaps, of avoiding risks).

Present cash or via a contingency fund is required to compensate future losses. The use of self-insurance capabilities is, obviously, very minimal. This approach effectively supports itself when the probability of a bad outcome and the sum of a potential loss are low. The organization is required to keep large funds in reserve by using self-insurance and this leads to a "necrosis" of working capital.

### **3.3. Insurance**

If loss avoidance and self-insurance do not provide the necessary risk protection, the already conventional form of risk management, that is, insurance can be used. The objective need for insurance coverage of the appropriate volume and quality is largely determined by the risk situation [8]. The essence of this approach is that after the completion of the applicable contract and payment of insurance premiums, the entrepreneur takes an insurance firm as a business partner and places a large part of the anticipated risks upon it. It should be borne in mind when deciding on the use of insurance that, first, the risk should be unpredictable, a negative result should not be pre-programmed and set out in the contract. Second, there are only insured damages that can be calculated and estimated using in-kind and monetary metrics. And lastly, insurance cannot be the focus of the risk itself. Such an item is business inventory and currency. Often the size of the collateral loss is too high for the insurance firm, too. Instead, she turns to the reinsurance firm, willing to take on some of the risks for a certain amount, hoping to ease the burden of responsibility for risks. The ability to mitigate risk by insurance is of course not limitless as well. Essentially, the measured risks are covered. Then there are no agreed insurance risks or prohibitive premiums are set. Likewise, in the case of a very high likelihood of risk perception, insurance companies act. Types of financial risk protection of entrepreneurial operation can be divided according to the three established stages of funds circulation in the commodity production process:

- Currency stage of the movement of funds-is linked to capital expenditure. Policies provision of the money invested is carried out by investment policies, loans, deposits;
- The development stage of the distribution of funds-insurance is given to protect against indirect losses in the event of interruptions in economic activity;
- Commodity process of the movement of funds-selling and payment of finished goods, risk protection of non-payment by clients [9].

### **3.4. Transfer of risk**

The transfer of risk is minimized by the organization to manage such an economic situation when the risks of the transaction are entirely voluntary, for a charge or free, taken up by another business entity-the counterparty, business partner, or business transaction, a completely foreign structure. Combining and exchanging risks is seen as a successful form of risk transfer. Risk pooling refers to a business partner company's contribution to the risk management issue for its operations and investments, involved in its stability and the performance of its endeavors. Organizations share not only future losses but also benefits together in managing risk. Examples of pooling risks on a reimbursable basis can also be a guarantee agreement and its variety - a bank guarantee, as well as a factoring agreement. In giving the company a guarantee or promise and agreeing to fully or partially meet its commitments, the third party — the assurance — is jointly and severally responsible with the company for the risks. The factoring process is the redemption of payment conditions from a company to its counterparty for a transaction by a commercial bank. If the company has reason to expect delays in payments for the goods delivered, or even to question the likelihood of paying off the debt, it turns to the bank with a plan to buy from it this potential receivable. The business immediately recovers much of its profits and can bring it back into circulation. When this factoring process is fairly trouble-free for the bank, a certain amount would be charged to the client for the advance payment

previously received. When not, after the factoring arrangement is completed the company will be left with the money that was paid to it. A major benefit of factoring is that factoring firms have a continuous and detailed account of their clients' state of affairs and avoid the appearance of monetary debts in every way possible [10]. Risk sharing is considered a free form of risk transfer, in contrast to risk pooling. The corporation bears the risks, not by a special arrangement, between itself and its partners, but during the deal planning and the termination of a contractual agreement. Much of the liability goes to the counterparty as part of the deal, as well as the contract term. Therefore, one cannot find this form of risk management entirely free: if the company kept all the risks, then it might ask for a higher price for its goods, of course. For a simple example of risk, lease and lease agreements are typically given when the owner transfers certain risks to the tenant, leaving a small portion of the risks to him.

### 3.5. Risk diversification

Risk diversification is perhaps the most dynamic and fascinating form of risk management, requiring a high degree of professionalism. This reflects the economic and statistical application of the idea of "negative correlation" in business practice. The funds invested are sent to completely separate, unrelated transactions and ventures. In this situation, when a risk event occurs and losses arise in one deal, one can rely on the other's efficient and profitable outcome. Also, it is advisable to concentrate on negative correlated outcomes, i.e. choose investment values (objects) with vectors of profitability directly opposite to each other. Then gains from one deal will make up for potential losses in another. Yet, of course, investments really should be completely autonomous. Alternatively, for example, when investing in the production of complementary and similar goods or purchasing shares in closely related industries and firms, the entrepreneur will start experiencing losses if the business conditions shift from all sides and at the same time in all directions in his capital investments. Conversely, the secret to a healthy and sustainable company is well-implemented diversification of the risk. Portfolio analysis approaches are used to solve corporate-level strategic management tasks based on the commodity life cycle principle, obtained experimental curves of cost dependency and output volumes, PIMS analysis (Market Strategy's Income Impact) [11]. A portfolio is a mix of financial assets that do not appear to be the lowest return and at the same time not the highest cost to the investor to have in the aggregate. This is the core of stock market-leading portfolio investments. Two components of the total portfolio risk comprise:

- Diversifiable, or unsystematic, risk inherent in that business. As this is a particular risk, diversification, that is, the inclusion of selected assets in the portfolio, will-it;
- Business risk is non-diversifiable or systemic, that is, the risk inherent in the business as a whole. This risk is unavoidable, it is decided by the market and cannot, therefore, be that due to systemic changes.

It is important to work with metrics of productivity and risk of the portfolio as a whole when evaluating the portfolio and the appropriateness of operations with assets included in it. An investor usually seeks to hold different securities to lower their risk. Some securities offer large short-term dividends, while others imply a long-term rise in their value as a result of their market value increases. The conventional form of a coalition of banks financing large-scale long-term projects on the global financial market is syndicated loan issuance. They allow the amount emitted to be increased and the associated risks diversified [12]. The credit market creates opportunities for the syndicated loan market to grow and credit consortia to establish. The syndicated loans provide new ways to access a loan under a single loan agreement from two or more lenders. Additionally, they contribute to the distribution of credit risk among different financial institutions [13]. The development of banking syndicates allows you to accumulate the required credit capital, particularly for long-term large-scale investments with

project financing, investment loans, and bank guarantees [14]. They also use a form of risk diversification in the financial sector of the economy, and in particular in commercial banks, called "risk hedging." Hedging risks means restricting financial instruments to the number of losses but also benefit as a result. This is done in the context of completing simultaneous financial compensation agreements, where a potential loss on one transaction is offset by a possible benefit on another. There are several ways to hedge risks, but the primary, most popular and common ones are options, futures, and swap transactions. By buying an option which is a form of options, the buyer retains the right to purchase and sell options or currency (depending on the type of option) at the rate previously negotiated with the seller for a specified period. This rate, of course, exceeds the actual currency or stock market rate, but it is also much smaller than the worst predictions. That difference is the seller's premium (option). By buying the option, the buyer protects himself from a potential or planned change in direction, but not free of charge. All risks are passed on to the seller. Futures, like an option, is one of the securities types, which is a contract for buying or selling currency or securities at the current rate, but with a delivery which payment after a certain period. Futures are sold and purchased on the stock exchange which acts as an intermediary between counterparties and the transaction guarantor. The exchange quotes the futures, that is, their price depends directly on the dynamics of the prices predicted. Suppose a bank has concluded a successful deal for securities or currency sales but fears unfavorable exchange-rate dynamics. Instead, at the same time, he buys futures for the same sum of currency or shares at the exchange rates. If the concerns of the bank are justified, then as a seller it experiences losses but at the same time, it gains as a buyer of a futures contract. It turns out that if the bank's fears were true, it would have lost, but not much, and if the bank's fears were not verified, it would have won, but less than it could without a hedging deal being concluded. A swap deal is a risk-hedging financial exchange. The termination of an agreement for the purchase or sale of currency or securities here is followed by the simultaneous termination of a reverse agreement for the sale or purchase of the same securities or currency with the same or another counterparty. For example, a transaction is concluded to sell securities and, at the same time, to buy securities of the same kind but with a longer validity duration. Effective risk management requires an appropriate plan for hedging. It is calculated by a variety of factors, such as type of hedged risk, type of financial portfolio instrument, target hedging, market conditions, risk tolerance, etc. [15]. Risk transfer on the derivatives market-hedging-is not only one of the potential ways of managing risk (along with asset and liability management and insurance) but also a method of deriving financial benefits [16]. The reason for the high degree and dynamism of the derivatives market growth lies in the specific risk management capabilities. The derivative as a risk management method is distinguished by substantial transaction cost savings, full versatility, and individual productivity and risk criteria compliance. A derivative is a financial contract, the outcome of which would depend on the efficiency of operations with properties, adjustments in interest rates, exchange rates, and indices over a certain period [17]. Derivatives or derivatives are instruments designed to move risks from one hand to the other [18]. The need for prior agreement is due to uncertainty regarding the market. Risk transfer is a sort of risk management buying and selling, that is, financial security from future losses. The derivative's peculiarity is that it can only pass on financial risk. Or put it another way, a derivative is a financial liability selling deal. Therefore, market volatility is counter to the transaction's price certainty. The essence of financial equality is the identification of the financial implications of a derivatives deal, and a deal currently being completed under the current market conditions. For the parties to the arrangement between the buyer and the seller of the product, immediately opposite price changes appear unwanted: a fall in price for the seller; a price increase for the buyer. A pessimistic outlook for the future price level would naturally only come true for one side of the futures contract. Nevertheless, the drawback of a derivative as a financial risk management tool is that there is a particular financial



risk associated with operations with it (except arbitrage). This happens if the hedger can err in predicting the development of the market price situation and, ultimately, the severity of the risks. In other words, a derivative is in some situations a dangerous method for risk transfer.

#### 4. CONCLUSION

Entrepreneurial operation is risky, i.e. it is difficult to quantify with absolute certainty the behavior of its participants in the prevailing market relation. The management of entrepreneurial risks is therefore of special importance in economic activity. Uncertainty of the anticipated return on investment is correlated with entrepreneurial risk. As a rule, increasing-risk business operations offer the greatest benefit. The risk must, therefore, be measured to the maximum permitted limit. In economic activity, a particular method or multiple methods are selected to reduce potential losses to handle entrepreneurial risks. These strategies take into account both the transaction specifics as well as the organizational controls. Entrepreneurs must determine the degree of risk associated with their operations, taking precautionary steps. In the particular circumstances of this volatile economic situation, techniques, and strategies for managing entrepreneurial risks are essential to reduce the losses on the road to achieving the objectives.

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# THEORETICAL FRAMEWORK OF TRANSFORMATION TO THE INCLUSIVE INNOVATION MODEL

**Tahmasib Alizada**

*Knowledge Economy UNEC Research Centre,  
Azerbaijan State University of Economics, Azerbaijan  
tahmasib.alizada@unec.edu.az; alizada.tahmasib@gmail.com*

## ABSTRACT

*This research paper focuses on the theoretical explanation of Inclusive Innovation Model (IIM), which was emerged last decades in order to use technological and social innovation for more inclusive welfare. Currently, taking into consideration the technological transformation of the global economic system, it is significant theoretically to analyse the scale of innovations and their use. Another issue that appears in parallel with the development of technological innovations is the matter of their inclusiveness. In the present economic model, innovations are produced by large corporations and it is directly associated with their financial opportunities. The use of innovations also was formed unequally. Opportunities of low-income groups to produce and use innovations are less. The main reason of that is the rise of income inequalities last decades worldwide, even in developed and emerging countries as well as in developing and poor economies. There is a need for theoretical framework for inclusive innovations that can be used for development policies. This paper examines the inclusive innovations theoretically from different perspectives.*

**Keywords:** *Inclusive innovation, Economic development, Innovation economy*

## 1. INTRODUCTION

Last decades, both developed and developing countries face a sharp increase in inequalities, which is triggering the need for inclusive development. As a result, innovation activities are hampered by this negative trend, and there some income groups that are not able both to apply innovations and to benefit from innovations. This is a real challenge for modern economies. It is the issue not only for developing and underdeveloped countries, but also it is a challenge for developed economies. As a result of the globalization process, we see great technological power by big firms and it creates real anxiety for inclusive development. This threatens democratic development of societies, which is very important for sustainable growth. Also, wide range of economic discrimination damages technological and social innovations in the long-run. Under these conditions we need to discuss how are we able to make a transformation to the Inclusive Innovation Model (IIM) and to make all income groups make innovations and to benefit from innovations. This paper focuses on the theoretical framework of the Inclusive Innovation Model (IIM). The structure of the paper starts with the theoretical background, which summarizes previous literature on the theoretical framework of inclusive innovations. The next part focuses on mainstream innovations and inequalities that are very significant to understand why do we need to transform into the Inclusive Innovation Model (IIM). And final part is about grassroots innovations, which are the driving force of inclusive innovations.

## 2. THEORETICAL BACKGROUND

Since the 2008 Global Financial Crisis the world economy faced different types of challenges such as growth problems, productivity slowdown, decrease in labor productivity, technological transformation, Industry 4.0, COVID-19 pandemic and etc. We see these challenges are becoming much more important last year and there is a need for radical transformations in economic systems. Currently, the Inclusive Innovation Model (IIM) is considered as the new phenomenon of economic literature.

This is emphasized as a model for marginalized groups in society to innovate and to benefit from innovations. This can be understood as a combination of innovation models with the inclusive development model. Recently, some researchers such as George, McGahan və Prabhu, 2012; Klochikhin, 2012; Foster, Heeks, 2013a; Foster, Heeks, 2013b; Foster, Heeks, 2014; Planes-Satorra və Paunov, 2017 provided a theoretical framework of inclusive innovations in their investigations. George, McGahan, and Prabhu (2012) in their research emphasize inclusive innovations as a new model for the application and development of ideas that can create wider opportunities for underdeveloped individuals and communities in order to develop their socio-economic welfare. This definition theoretically explains the concept of inclusive innovations. The use of this concept for the inclusive development of societies is an important issue. Notably, if to take into consideration the socio-economic welfare conditions of developing and underdeveloped countries, then it is significant to make low-income groups and underdeveloped groups possible to use the opportunities of technological innovations. Chataway, J., Hanlin, R. and Kaplinsky, R. (2014) introduces a different approach to inclusive innovation and its adaption. The authors focus on the results of the 2008 Global Financial Crisis and subsequent negative impacts on the relationship between economic growth and inequalities. This argument underpins the claim about the positive correlation between innovations and economic growth. But the point is that last decades innovations were emerged and developed exogenously. So, this research takes the other side of the innovation process and investigates the concept of inclusive innovations. The authors mention three main constraints to build the Inclusive Innovation Model (IIM):

- The constraint of innovation trajectories;
- The constraint of scale;
- The constraint of appropriation.

The instructional base can be a triggering frame for building the Inclusive Innovation Model (IIM). It takes a high responsibility for the governments. There is a need for more developed R&D support, public-private partnership, and the National Innovation System (NIS). Feld, Salamanca, and Hamermesh (2016) in their paper examine the economic results of discriminations. The outcomes of this research show that discrimination in the labor market hamper the equal distribution of welfare. Therefore, unequal distribution of welfare between different groups of society directly impacts their economic activities. Because this paper empirically investigates the labor market, so discrimination jeopardizes a possible shift to the Inclusive Innovation Model (IIM). Especially, in the developing economies high levels of discrimination endanger innovation activities under the conditions of low-skilled labor and restricted internal market. Planes-Satorra and Paunov (2017) indicate that in order to understand the concept of inclusive growth, besides the analysis of education, health policies, social services, labor market, tax policies, also it is significant to think over innovation policies. Table 1 explains the main causes of low participation in innovation activities.

*Table 1: Causes of low participation of some groups in innovation activities*

Lower capacities	Lower opportunities
<ul style="list-style-type: none"> <li>• Low skills for innovation (managerial abilities, entrepreneurial skills, technical abilities and etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• Discrimination in labor markets</li> <li>• Existence of different stereotypes</li> <li>• Barriers to the entrepreneurial activities, financial restrictions, lack of entrepreneurial networks and etc.</li> <li>• Geographical conditions</li> </ul>

*Source: Planes-Satorra, S. and C. Paunov (2017), "Inclusive innovation policies: Lessons from international case studies", OECD Science, Technology and Industry Working Papers, No. 2017/02, OECD Publishing, Paris, p. 8.*

The authors using this argument elucidate inclusive innovations as a paradigm for different income groups, various firms, and regions to innovate and to make a profit. Making innovation directly correlated with equal opportunities and it needs to be considered. The problems that emerged in a global economic system linked to the technological competition are related to this challenge. It is known that technological competition creates a new demand for the improvement of skills in front of innovation-focused individuals, groups, and firms. This is one of the main reasons why marginal groups innovate poorly. Herewith, it is linked with the inequalities of opportunities for education and other fundamental human rights. So, conceptually, inclusive innovation policies (IIP) have the power to ensure the participation of marginalized groups in economic growth. This can enforce the quality of economic growth that is called qualitative economic growth. IIP can pursue different goals in order to provide qualitative growth (Planes-Satorra, S. və C. Paunov, 2017):

- To create qualitative education opportunities;
- To develop labor market conditions;
- To improve technological base;
- To develop public services.

Table 2 indicates the different types of Inclusive Innovation Policies and their explanations. Theoretically, in order to make economies more inclusive there is a need for wider participation of entrepreneurs, economic agents in the innovation ecosystem. Individual participations trigger social inclusiveness, high participation of SMEs, start-ups enforce industrial inclusiveness and more equal participation of different regions develops territorial inclusiveness, which is significant for the establishment of Inclusive Innovation Model (IIM).

*Table 2: Explanation of different types of Inclusive Innovation Policies*

<b><i>Social inclusiveness</i></b>	<b><i>Industrial Inclusiveness</i></b>	<b><i>Territorial Inclusiveness</i></b>
These policies aim to embrace different income groups in a society. Especially, it seeks to cover the individuals who participates more in research, innovation and entrepreneurial activities.	These policies aim to support innovation activities of disadvantaged groups and traditional sectors. (micro-entrepreneurs, small and medium enterprises, start-ups and etc.	These policies aim to support innovation activities in the underdeveloped and poorly developed regions. The main goal is to reduce the gap between developed and underdeveloped regions.

*Source: Planes-Satorra, S. and C. Paunov (2017), "Inclusive innovation policies: Lessons from international case studies", OECD Science, Technology and Industry Working Papers, No. 2017/02, OECD Publishing, Paris*

### 3. MAINSTREAM INNOVATIONS AND INEQUALITIES

In order to explain the theoretical basis of inclusive innovations, it is necessary to analyze previous models. In their joint research, Heeks, Foster, and Nugroho (2014) attempt to theoretically explain models before inclusive innovation. One of these models is mainstream innovations. These model innovations are also called innovations of middle and high-income groups in economic literature. The main reason for this is the mainstream innovation model refers to the innovative production and consumption of producers and consumers which have greater financial opportunities. Some of the authors (Klochikhin, 2012) and global organizations (OECD, 2013) indicate mainstream innovations as “innovations of inequalities”. This kind of expression is due to the fact that as a result of increasing income inequality, individuals who belong to the middle- and upper-income groups have higher opportunities to innovate than individuals belonging to the lower-income groups. For years there has been a debate in the economic literature that the mainstream innovation model is not able to cover different segments of society.

Over the last decade, new approaches to innovation models have emerged. These new approaches theoretically address some important issues (Heeks, Amalia, Kintu and Shah, 2013):

- Dissemination of innovations to low-income groups applied by the private sector and the global innovation chain;
- Simplification of market access and market participation;
- Development of technological skills in developing countries;
- Increasing the participation of new technological innovations in the development system.

It is clear from these approaches that nowadays one of the main discussions in the theoretical base is that mainstream innovations create unequal environments in the market and in competition. Therefore, there is a need for an alternative innovation model. This need is also related to sustainable development and economic prosperity. However, this, of course, does not diminish the position and strength of mainstream innovations that have played an important role in economic development until today. And for sure, there is already a need for the transition to the Inclusive Innovation Model (IIM) in the global economic system. The analysis (UNCTAD, 2017) explains the difference between mainstream innovations and grassroots innovations which outlines the transition to new innovation models to meet the United Nations' sustainable goals for 2030. Currently, mainstream innovations dominate in the world. Table 3 presents new approaches to different types of innovation. In a research paper presented by Fressoli and other co-authors (2014), this table explains the main features and application of mainstream and grassroots innovations at different levels.

*Table 3: New approaches to innovation activities*

Characteristics	Mainstream STI	GIMs
<b><i>Political dimensions</i></b>		
Predominant actors	Universities, public labs, commercial firms, ministries and other public institutions, international funding agencies	Civil society, NGOs, social movements, cooperatives
Priority values	Scientific advance, for-profit innovation/not necessarily focused on social inclusion	Social justice/not necessarily focused on for-profit innovation
<b><i>Mechanisms</i></b>		
Principal incentives/ drivers	Market demand and regulation/science competence	Social needs/cooperation and community empowerment
Sources of investment	State/corporate funded, venture capital	Development aid, community finance, donations, state funding
Forms of appropriability	Intellectual property framework strongly biased towards patent-based innovation	Not appropriated by individuals – seen as common goods
<b><i>Knowledge dimensions</i></b>		
Sites of innovation	Laboratories and R&D institutes, boardrooms and ministries, market-based firms	Community projects and participatory processes, social movements
Predominant forms of knowledge	Scientific and technical knowledge	Local, situated knowledge/ indigenous knowledge
Emblematic technological fields	Biotechnology, ICTs, nanotechnology	Organic food, small-scale renewable energies, water sanitation

*Source: Fressoli M et al. (2014). When grass-roots innovation movements encounter mainstream institutions: Implications for models of inclusive innovation. Innovation and Development. 4(2): 277–292.*

#### 4. GRASSROOTS INNOVATIONS

Heeks, Foster, and Nugroho (2014) indicate that the shortcomings of mainstream innovations have accelerated the search for new alternative models. Over time, discussions have begun in academic circles about the importance of grassroots innovations. Various scientists (Schillo and Robinson, 2017; Hossain, 2018; Gupta, 2019) presented scientific research on this topic. These scientific articles mainly cover the theoretical basis. In his research, Gupta (2019) examines whether the application of inclusive innovation in an existing economic system is appropriate or not. On a theoretical basis, inclusive innovations involve low-income, marginalized groups with innovative ideas who find more creative solutions to local problems. This research theoretically expresses the relevance and scope of application of these activities. Till now, the significant share and power of large companies in the innovation system has made low-income groups inefficient in terms of innovation, both in production and consumption. In this regard, their participation in innovation activities is an important factor for inclusive development. It follows that, in theory, the participation of low-income groups in inclusive innovation activities in production accelerates their transition to the economic system as entrepreneurs. At the same time, it expands the opportunities for other low-income groups to use innovative products. In his research, Gupta (2019) also provides a brief explanation of the different studies on inclusive innovations. It evaluates these studies in three ways:

1. Innovation activities for the regions, where low-income groups exist;
2. Innovation activities for low-income groups;
3. Innovation activities carried out by low-income groups.

Where low-income groups exist, innovation activities are mainly carried out by non-governmental organizations, civil society, business corporations, government agencies, or individuals. (Gupta, 2019) In these areas such dominance of these parties in innovations is due to the low level of inclusive development. The reason for that, people who are living in these areas have limited opportunities to participate in their own innovation activities. In any case, the application and promotion of innovative activities in such places can have a positive impact on people's well-being. Especially the role of education, which is one of the key aspects of inclusive development becomes more prominent. Involving low-income people in such activities can also help build an inclusive innovation ecosystem in those areas in the future. Another point that Gupta (2019) focuses on is - innovation activities for low-income groups. These activities include innovations implemented jointly by marginalized community groups and other parties in those areas. These types of innovations are called natural innovations. Their main goal is to provide low-income groups with innovative product opportunities in order to improve their well-being. There are researches by different economists on natural innovation (Prahalad and Hart, 2002; Weyrauch and Herstatt, 2017). At the moment, there are examples of the application of natural innovations in several developing and emerging economies. Such activities also expand the opportunities for low-income groups to innovate. Of course, the most important activity regarding inclusive development is the grassroots innovations implemented by low-income groups themselves. Gupta (2019) cites this as a third direction and explains that they are mainly generated by low-income communities. One of the features of these groups is that they have enough creative ideas to innovate, however, they are financially poor enough. This is important for inclusive solutions. To be successful in inclusive solutions, it is important to revitalize the grassroots innovation activities of these groups. So, from a theoretical point of view, this kind of solution is possible. I think it is feasible to apply this activity as a practical solution. Grassroots innovations have the potential to make a significant contribution to both economic development and a sustainable environment. (Gupta, 2019; Kumar and Bhaduri, 2014) So, the introduction of grassroots innovations can accelerate inclusive development by increasing the participation and income of different income groups.

The modern global economy encourages more people to innovate by accelerating the spread of innovation. Grassroots innovations have the potential to accelerate economic change and increase prosperity by increasing employment. At the same time, grassroots innovations can cover areas outside the economy which are closely related to the economy, such as the creation of knowledge and increasing social inclusion.

## 5. CONCLUSION

As this paper focused on the theoretical framework of the Inclusive Innovation Model (IIM), this research has some restrictions. This paper is not an empirical work and do not use any estimation models. As a result of the theoretical analysis we see some important stages in order to make a transformation into the Inclusive Innovation Model (IIM). These stages are to provide of inclusiveness in innovation activities, to widen consumption opportunities of different income groups, to make innovations possible to contribute an inclusive welfare system, to provide markets with higher competition, and to apply for a more inclusive National Innovation System (NIS). Also, there is a stage to shift to the grassroots innovation systems, which can trigger the inclusiveness of different income groups. Consequently, policies towards inclusive innovations are needed, particularly in developing countries. The main idea behind this view is that we are able to build more democratic economic system, which can increase a participation of different income groups in economic value added. This can contribute both the states and the societies. This research is mainly focused on these issues and can encourage conducting further theoretical and empirical works on this topic.

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## THE INVESTMENT IN THE NON-OIL SECTOR AND ITS STATE REGULATION

**Shahla M. Rzayeva**

*Associate professor at  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
rzayeva.shahla@mail.ru*

**Fatima Z. Rzayeva**

*Friedrich Alexander University (FAU) Erlangen - Nurnberg, Germany,  
Bachelor of Finance at  
Azerbaijan State University of Economics (UNEC), SABA groups, Azerbaijan  
rzayeva2528@gmail.com*

### ABSTRACT

*The main directions of the economic policy implemented by the Government of Azerbaijan against the background of the increasing uncertainty in the global economic landscape - the share of specific weight of forecasted revenues from the non-oil sector in GDP, - maintenance of sustainability in economic growth due to growth in the oil sector, regulation of investments in the non-oil sector, etc. have been researched in the article. It is shown that although investments in the non-oil sector have a larger share in the structure of investments in fixed assets, the growth of these investments have not been enough for the neutralization of the decline in investment in the oil sector. Analyzing the contribution of the oil and non-oil sector to economic growth, it was noted that the highest growth rate among the sub-sectors of the non-oil sector, the non-oil industry has had a significant impact on GDP growth. High growth rates in other non-oil sectors were observed in the information and communication, agriculture, forestry and fisheries sectors. The increase in the share of foreign direct investment in non-oil GDP in the non-oil sector is defined in the "Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan" have been analyzed as one of the special targets, it was concluded that the share of investments in the non-oil sector in non-oil GDP for 2019-2023 will be expected to vary between 19.5-22.8%. In 2020, the growth of revenues from the non-oil sector to the state budget is forecasted to be accelerated further than the corresponding indicator of the oil sector, and the increase in the ratio of these revenues to the corresponding indicator of GDP for the non-oil sector indicates the wider use of existing potential. Acceleration of the growth rate of the oil sector in the coming years is forecasted to accelerate the real growth rate of GDP, while the non-oil sector is expected to maintain its dominant position. An analysis of the implementation targets under the framework of Strategic Roadmap shows that the share of foreign direct investment in the non-oil sector in non-oil GDP will be increased from the current 2.6 percent to 4 percent by 2025.*

**Keywords:** *Human capital, Investment projects, Main investment, Non-oil budget revenue, Non-oil sector*

### 1. INTRODUCTION

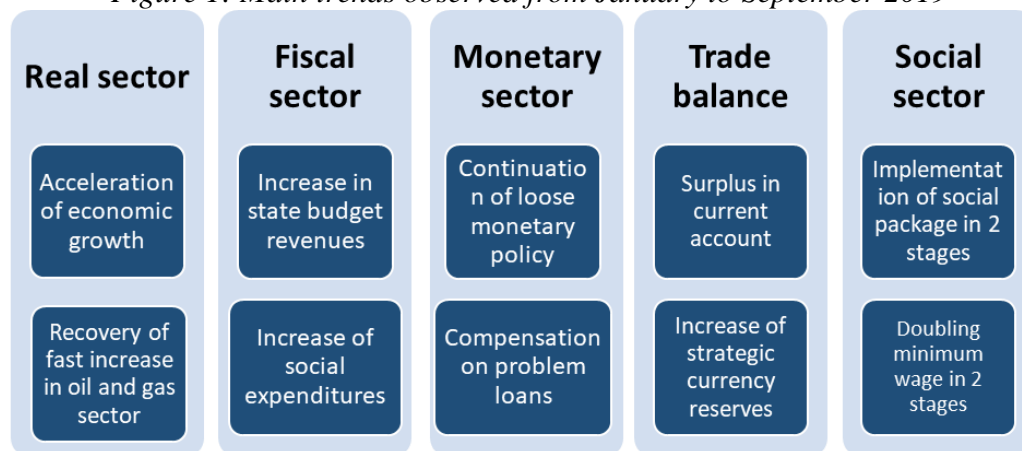
Capital investment is important in the economic development of any country. Investment in the economy is a key factor in its development. Therefore, while carrying out economic reforms in all areas, their capitalization must be ensured in parallel. If these two processes are not carried out simultaneously, it will not be possible to achieve economic development. The main goal of successful reforms in our country, along with the liberalization of the economy, is to attract more investment. For this purpose, first of all, a legal basis for a favorable investment climate has been created.

In particular, our country has all the necessary legal framework to protect foreign investment. Capital investment in our country is carried out from two main sources. The capitalization of the economy is ensured at the expense of foreign and local resources. More foreign investment is being invested in the oil industry. One of the main goals is to ensure the maximum attractiveness of the economy for foreign investors, reduce dependence on oil revenues and increase the share of the non-oil sector in the diversification of state budget revenues. The significance of this is that the country's economy is prepared for the negative effects of external shocks, such as falling oil prices, and GDP growth is based on diversified economic activity and gains stability.

## 2. CURRENT STATUS OF INVESTMENT IN THE NON-OIL SECTOR OF AZERBAIJAN

Uncertainty in the global economic landscape continues to grow, geopolitical tensions against protectionism have become one of the main determinants of economic uncertainty, growth in key economies has slowed, sanctions have weakened global trade by limiting aggregate supply and demand, and moderate monetary policy measures have been taken to stimulate demand. Economic growth has slowed as a result of the narrowing of investment channels to developing countries (DCs) due to amid global economic uncertainty. Influenced by the trends observed in 2019, changes in the world economic growth forecasts were reduced, mainly in the Developing Countries (DCs) and CIS countries. In the "Inclusive Development Index 2018", which is considered the authoritative index of the World Economic Forum, Azerbaijan ranks third among developing countries and first in the CIS. In the report, Azerbaijan lags behind all other developing countries excluding Lithuania and Hungary. "Intergenerational equality and sustainability" is a ranking of developed and developing countries as the main index. The situation in Azerbaijan is also positively assessed according to the dependency index determined by the number of economically active population. The "Inclusive Development Index 2018" report assesses countries on the basis of sub-indicators such as GDP per capita, labor productivity, healthy living expectations, and employment. In the ranking, Azerbaijan lags behind Lithuania and Hungary by a small percentage, ahead of countries such as Latvia, Poland, Croatia, Romania, Bulgaria and Macedonia by 0.2-0.5% and by a larger margin the neighboring countries: Russia, Turkey, Georgia, Iran and Armenia (CBC 2018). Development trends of Azerbaijan economy over 9 months of 2019 were as follows:

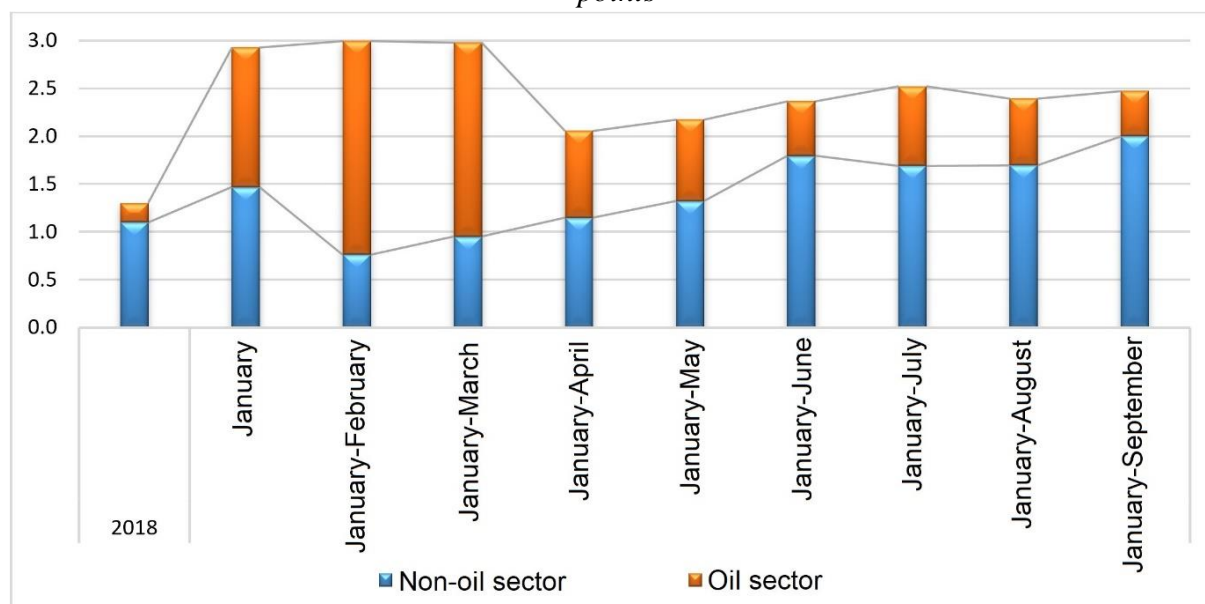
*Figure 1: Main trends observed from January to September 2019*



From January to September 2019, the economy of Azerbaijan grew by 2.5%, during the period under review, the volume of GDP in nominal terms amounted to 58,464.2 million manats (AZN).

According to calculations, this growth was mainly due to the non-oil sector, but the oil and gas sector also had a positive impact on GDP growth. The GDP per capita was 5910.1 manat (AZN). Although the growth effect of the non-oil sector in the first quarter of 2019 was less than that of the oil sector, subsequent declines in oil production, as well as the relatively rapid growth of non-oil sectors allowed the non-oil sector to maintain its dominant position in GDP growth. During January and September, the non-oil sector increased by 3.5% in real terms and amounted to 35,504.5 million manats (AZN) in nominal terms. The non-oil sector, which accounts for 60.7% in GDP, made a significant contribution to GDP growth of 2.5% (about 2 percentage) (Figure 2). The non-oil industry, which accounted for 4.7% of the value added created in January and September 2019, increased by 16.6% in real terms and was 5.9 percentage higher than last year's growth rate. The non-oil industry, which has the highest growth rate among the sub-sectors of the non-oil sector, has had a significant impact on GDP growth.

*Figure 2: Contribution of the oil and non-oil sectors to economic growth, in percentage points*



*Source: Developed on the basis of data of the State Statistical Committee of the Republic of Azerbaijan*

Significant growth in value added production in agriculture and the non-oil industry has resulted in real GDP growth, mainly due to the commercial sector. The declining impact of the non-trade sector on GDP in recent years is connected with the decline in value added production in the construction sector. As in the same period of last year, among the sub-sectors of the non-oil sector, the value added created only in the construction sector decreased compared to the same period in 2018. The construction sector, which the nominal volume is amounted to 3591.8 mln. (AZN) decreased by 5.6% in the first 9 months of the year and had a reducing effect on GDP by 0.4 percentage points. The increase in investment in the non-oil sector during the past period of 2019 did not compensate for the decrease in investment in the oil sector, and the level of implementation of investment expenditures was low. In January and September, the volume of investments in fixed assets decreased by 1.9% and amounted to 10,146.2 million manats (AZN) in nominal terms. This decrease is explained by the investment decline in the oil sector. Thus, investments in the oil sector decreased by about 14% in nominal terms compared to the same period last year. Investments in the non-oil sector increased by 8.9% in real terms. Although investments in the non-oil sector accounted for a larger share of fixed capital investments, the

increase in these investments was not sufficient in order to neutralize the decline in investments in the oil sector. Investments in the mining industry, which accounted for 36% of investments in fixed assets, decreased by 15.5%, while a 38.2% increase in investments in fixed assets in the processing industry and did not prevent the negative impact of the mining sector on total investment change. As a result, industrial investment, which accounted for about half of fixed capital investment (49.4%), decreased by 10.7%, and thus became a leading factor in the decline in fixed capital investment. According to data of the Ministry of Finance of the Republic of Azerbaijan, 61.4% of state capital investment expenditures were executed during 9 months of 2019. State capital investment expenditures for the reviewed year amounted to 6371.2 mln. manats. According to the distribution of investments in fixed assets by sources, although domestic investments increased by 17.9% compared to January and September 2018, the volume of investments financed by foreign sources decreased by 27.6%. It should be noted that 71.5% of investments were formed from domestic sources.

*Table 1: Fixed capital investments*

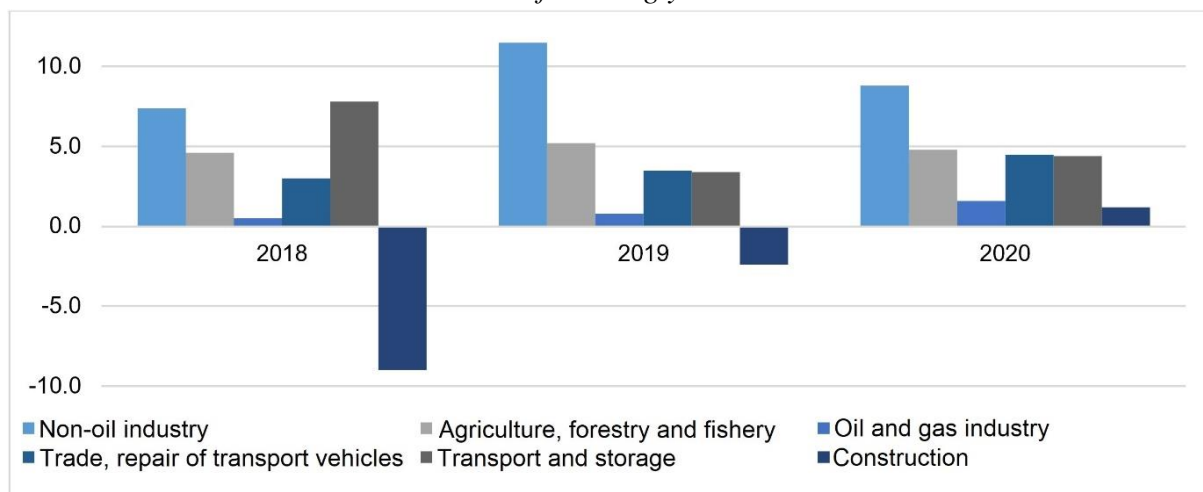
<b>Investments</b>	<b>Unit of measurement</b>	<b>January-September 2019</b>	<b>January-September, 2018</b>
Fixed capital investments	in mln. manat	10146,2	10148,7
	% *	-1,9	-11,5
In the oil sector	in mln. manat	3799,4	4431,4
Non-oil sector	in mln. manat	6346,8	5717,3
At the expense of external sources	in mln. manat	2890,3	3992,4
At the expense of internal sources	in mln. Manat	7255,9	6156,3

*\* real growth rate*

*Source: Developed according to the State Statistical Committee of the Republic of Azerbaijan*

Although production in the oil sector decreased under the agreement over January and September 2019, the increase in the gas sector provided growth of 1.1% in the oil and gas sector as a whole, with a significant share of value added in that period. According to the forecast, GDP will reach 79,126.9 million manats by the end of this year, next year by 83321.5 mln. manats, and in 2021-2023, it will increase by an average of 3.3% annually, and in 2023, is expected to rise by 97736.5 mln. manats. Real GDP growth, which is projected to increase by an average of 2.7% annually in 2019-2020 and is expected to provide mainly by non-oil sectors. In the forthcoming years, the growth rate of the oil sector and consequently, the real growth rate of GDP, is expected to accelerate while the role of non-oil sectors in creating value added is again projected to be significant. Real GDP growth is projected in 2019-2020, mainly due to the non-oil industry, trade, vehicle repairs and oil and gas industry. The largest support for real GDP growth is expected in 2019 and 2020 by the non-oil and petroleum industries, respectively. The impact on GDP, as well as the value added in the non-oil industry, which is a priority sector in terms of economic diversification, increased by 11.5% in real terms by the end of this year and amounted to 3956.5 million manat, in nominal terms and next year the growth rate will be relatively weak (8.8%) and the value added will be is projected to increase by 4365.4 mln. manats (Figure 3). Lets' remind that, according to the statistics of 9-month of the year, 16.6% real increase was registered in non-oil industry, value added was 2729.0 mln. manat. The high real growth rate reviewed in the non-oil industry over January and September 2019 allows to note that this figure will be higher than expected by the end of the year.

*Figure 3: Real growth of GDP in several sectors, %. Factual data for 2018 and forecasts for the following years*



*Source: Developed on the basis of statistical data*

The reason for the acceleration of the growth rate of trade and vehicle repair in 2019-2020 may be the increase in aggregate demand through fiscal expansion in the social sphere. Thus, the implementation of a large-scale social package during the years under review is expected to revive the consumer market and lead to annual growth in trade. The construction sector is expected to have a declining impact on real GDP growth in 2019. This sector is projected to decrease by 2.4% this year. The real decline in the construction sector, which decreased by 5.6% in the first 9 months of the year, will slow down by the end of the year and about 62.9% of state capital investment will be realized in 9 months of the year and can be explained by the fact that the remaining part will be carried out at the end of the year. Unlike the previous years, the construction sector will increase in real terms by (1.2%), in nominal terms is forecasted to be 6762.9 million manats in 2019. It can be explained by the acceleration of the growth rate of investments in fixed assets in 2020. Public investment expenditures in 2020 are expected to decrease, while domestic investment is expected to increase by 2.0% next year. Foreign investment in fixed capital investment is forecasted to have a significant positive effect on domestic investment, including public investment, with a significant increase. Mr. President Ilham Aliyev said at a meeting on the country's 9-month economic indicators on October 15: "We must try to ensure that our economic growth does not depend on government spending. Because the main source of our economic growth is public investment spending, and frankly speaking, there is little foreign investment in the non-oil sector. Now the figures show that half of the investments for this year are the invested foreign capital. However, their focus area is not the non-oil sector, but oil and gas operations. Therefore, our main task is to link our economic growth directly with the development of the non-oil sector. Now we have provided 1.4 billion manat in soft loans." (Azerbaijan Newspaper 2019) It must be pointed out that the state capital investment amounted to 6243.8 million manats by the end of this year, which is 23.4% more than in 2018. The increase of these funds also affected the growth forecast of domestic investment, and domestic investment is projected to increase by 5.9% in real terms in 2019. According to the Ministry of Finance, state capital investment in the first 9 months of the year was realized by the amount of 3761.3 million manat (AZN). It should be noted that in 2020, public capital investment is projected to decrease by 21.5%, and domestic investment in this situation will decrease by 6.3%. Although domestic investment, including public investment, is projected to decline in 2020, the growth rate in the construction sector can be explained by the expectation that foreign investment will increase by 24.3%.



Investments in fixed assets by the end of 2019 amounted to 17592.4 mln. manats and is forecasted to be 18344.7 mln. manat. Over the same period, real capital investment is expected to increase by 0.3% and 2.0%, respectively, in real terms. It should be noted that in January and September of this year, investments in fixed assets amounted to 10,146.2 million. manat, decreased by 1.9% compared to the same period of last year. This decline is mainly due to the reduction in investment in the oil and gas sector. While looking through investment on sources, the decline of investments in fixed assets financed from external sources is distinctly seen. According to the forecasts, the expected slowdown in the decline on foreign investment in 2019 will lead to an anemic increase (0.3%) in fixed capital investment due to domestic investment. By the end of 2019, domestic investment is planned to reach 12795.4 mln. manat and about 5.5 billion manat should be invested in the last quarter of this year. Due to statistics of the previous years, the probability is quite high, especially as domestic investment is mainly realized towards the end of the year, especially in December. Thus, in the last quarter of 2017, about 4.3 billion. manat (3 billion manat in December), and in the last quarter of 2018, about 5.9 billion manat. AZN (AZN 3.9 bln. in December) fixed capital investment was financed from the internal sources. Nominal growth of fixed capital investments in 2019 is projected at only 2.0%. At the end of the year, price growth is expected to accelerate, and real growth in fixed capital investment may slow slightly. In particular, fixed capital investments in the oil sector, which have been steadily declining over the past months of the year, (e.g. 14.3% nominal decrease in September) can be considered an optimistic approach, which will increase by 3.9% in nominal terms by the end of the year (Table 2).

*Table 2: Facts on fixed capital investments in 2018, forecast indicators for the coming years*

Indicators	Unit of measurement	2018	2019		2020	2021	2022	2023
			2019 budget	2020 budget				
Fixed capital investments	mln. (AZN)Manats	17244,9	17914,4	17592,4	18344,7	18146,2	18089,7	19032,5
real growth rate	%	-4,3	2,2	0,3	2,0	-3,0	-2,3	3,1
Domestic investment	mln. (AZN)Manats	11874,9	10420,3	12795,4	12250,2	11799,7	12035,3	13343,3
real growth rate	%	31,0	1,6	5,9	-6,3	-5,6	-0,1	8,7
Foreign investment	mln. (AZN)Manat	5370,0	7494,1	4797,0	6094,5	6346,4	6054,4	5689,2
real growth rate	%	-40,1	3,1	-12,2	24,3	2,1	-6,5	-7,9
Oil and gas sector	mln. (AZN)Manat	5995,2	8262,4	6231,7	7703,9	6768,9	5542,0	4784,0
Nominal growth rate	%	-29,3	-	3,9	23,6	-12,1	-18,1	-13,7
Other sectors	mln. (AZN)Manat	11249,7	9652,0	11360,8	10640,8	11377,2	12547,6	14248,6
Nominal growth rate	%	25,7	-	1,0	-6,3	6,9	10,3	13,6
Public investment	mln. (AZN)Manat	8432,4	8972,4	8334,9	7198,3	7072,3	6976,2	7909,7
Non-government investment	mln. (AZN)Manat	8812,5	8942,0	9257,5	11146,4	11073,8	11113,5	11122,8

*Source: State Statistics Committee of the Republic of Azerbaijan*

Although foreign investment will have a positive effect on fixed capital investment, which is expected to increase by 2.0% in 2020 (24.3%), domestic investment, including public investment, is projected to have a declining impact. Compared to 2019, oil investment is expected to increase significantly in 2020, while non-oil investment is expected to decrease. In other words, the main driving force of fixed capital investment in 2020 will be the oil sector and foreign investment. In 2019, the level of implementation of investment projects on foreign loans is relatively low, and domestic investment is projected to decline in 2020 compared to previous years. At the same time, during the period under review in 2019, investment in the non-oil sector, which has been growing steadily in real terms (for example, 8.9% real growth for 9 months) is projected to increase by only 1.0% in nominal terms by the end of the year. One of the demands of the day is to provide soft loans to the local production process in order to increase the efficiency of investment in the real sector of the economy, as well as to reduce interest rates. The implementation of these measures on the basis of a balanced budget will significantly reduce inflation in the future. High interest rates in the country are one of the most important barriers to investment financing and its flow to the real sector. If the level of income provided by high interest rates exceeds the income from economic activity in the real sector, the investor will not be positive about operating in the real sector and will withdraw from this sector. On the other hand, the predominance of consumer loans in the structure of bank loans may lead to an increase in inflationary pressures and demand for imported goods as a result of an increase in aggregate demand. In this regard, the terms of consumer loans should be reconsidered, and risk factors should be taken into account in repaying loans. The implementation of structural changes in the economy is closely connected with the improvement of the tax system. In this regard, the improvement of the depreciation policy includes the application of tax incentives in a number of areas in order to expand the investment opportunities of market participants. Phd. in Economics G.Musayev considers that for the development of the non-oil sector, it is necessary to create a favorable environment for attracting domestic and foreign investment in the sector and eliminate the negative factors. The introduction of incentives for entrepreneurs, especially the formation of a favorable tax environment in the last 2 years, is one of the most important steps taken to develop the non-oil sector. The process of reducing the shadow economy has begun as a result of supportive measures in the field of taxation. In 2019, more than 120,000 new employment contracts were registered, 90,000 of which belong to the private sector of the non-oil sector. At the same time, there is an increase in tax revenues as a result of the expansion of the tax base. It is estimated that the tax revenues of the budget for the next budget year and the next 3 years will continue in the forecast, and tax revenues will increase from 9443.6 million manat in 2018 to 12210 million manat in 2023. This reduces the dependence of the state budget on oil revenues, and creates conditions for the formation of sources of funding for public investment from revenues and from the non-oil sector. It is important that tax reforms are supported by the reforms of other sectors. (Report News Agency 2019)

### **3. THE TARGET IS TO ATTRACT MORE INVESTMENT IN THE NON-OIL SECTOR**

Over the past few years, wide range and large-scale process has begun and efforts have been made for the development of the non-oil economy, for diversifying the economy, ensuring sustainability and reducing resource dependence. At the same time, strategic road maps were adopted, institutional changes were made, incentive mechanisms were developed within the framework of these commitments, and certain changes were made in the tax code. The “Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan” approved by the Decree signed by the President of the Republic of Azerbaijan, Mr. Ilham Aliyev, on December 6, 2016, provides an average annual real GDP growth of more than 3%



until 2025 and in addition, it is planned to create more than 450,000 new jobs. (Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan 2016). It was noted that the creation of these jobs will be possible due to the influence of 3 factors:

- Measures taken within the framework of the Strategic Road Map;
- Other additional measures;
- Increased economic growth as a result of improved overall economic environment.

Through the implementation of measures, four specific targets are planned to achieve. Thus, in connection with the specific targets, fixed in the "Strategic Roadmap for the National Economic Prospects of the Republic of Azerbaijan", the following should be noted:

- Target 1. To increase the share of foreign direct investment in the non-oil sector in non-oil GDP from the current 2.6 percent to 4 percent by 2025. The share of investments in the non-oil sector in non-oil GDP is expected to vary between 1-9.5-22.8% in 2019-2023. It should be noted that although the structure of total investments in fixed assets for the coming period is shown in domestic / foreign, oil / non-oil, state / non-state, oil is used to calculate the share of foreign direct investment in non-oil GDP and the distribution of foreign and domestic investment in the non-oil sector was not reported.
- Target 2. Increasing exports in the non-oil sector from \$ 170 per capita in 2015 to at least \$ 450 in 2025. The analysis of the submitted data shows that based on the balance of payment statistics, this figure (on exports of goods and services) increased to 632 US dollars in 2018. Thus, it should be noted that the target fixed by the Strategic Road Map was achieved in 2018, and a solid foundation has been laid for taking important steps in this direction by 2025.
- Target 3. Creation of 150,000 additional jobs by 2025 in the commercial goods and services sector, such as the manufacturing or tourism sectors. According to the employment indicators, the number of employed people in 2018 increased by 57.2 thousand people in 2018 compared to 2017. In 2023, it is expected to increase by 281.7 thousand people compared to 2018. Analysis of the data shows that the growth in employment indicators is mainly in agriculture, forestry and fisheries, processing industry, trade, tourism. and catering and other service sectors of the economy, which increases the chances of achieving the relevant target indicators fixed in the Strategic Roadmap for the National Economy.
- Target 4. Reducing the dependence of the state budget on SOFAZ transfers. The Strategic Roadmap aims to reduce the share of SOFAZ transfers in the budget to 15%, in 2018 this figure was actually 48.7%, compared to the projected budget for 2019 , 49,1% and it was 47.0% in 2020. Next year, 14.3 million manat reduction is forecasted in the amount of transfers from the State Oil Fund. As can be seen, the share of transfers in state budget revenues is expected to decrease in 2020.

In 2020, the growth of revenues from the non-oil sector to the state budget is projected to be faster than the corresponding indicator of the oil sector, and the ratio of these revenues to the corresponding indicator of GDP will increase. This means that the existing potential for the sector will be used more widely. The share of the oil sector in the structure of the forecasted state budget revenues for the next year is 13530.0 mln. manat or 56.1%, and the share of the non-oil sector was 10604.5 mln. manat or 43.9%. Compared to the performance of 2018 and the expected performance of 2019, the growth rates in the oil sector increased by 1.0% (129.5 million manat) and -1.2% (170.3 manat), respectively. million manat), and in the non-oil sector - 16.4% (1496.1 million manat) and 12.0% (1136.8 million manat), respectively. The growth rate of the non-oil sector revenues of the state budget for 2020 is 12.7% , the growth rate is 1.3 % points compared to 2018 and compared to 2019 it was 0.7% points. At the same time, the percentage of state budget revenues from non-oil sector to non-oil GDP is projected at 19.4%

next year. This means an increase of 0.4% points compared to 2019, being at the same level as in 2018. According to the "Concept and Forecast Indicators of Economic and Social Development for 2020 and the next three years", the non-oil sector for the next year will be 54598.9 million manat with real growth of 3.8% and 9.4% nominal manat, while the oil sector's GDP increased by 1.6% in real and -1.8% in nominal terms to 28722.7 mln. manats. Forecasting in the amount of AZN creates certain confidence that the forecasts on corporate income tax will be fulfilled in accordance with the macroeconomic conditions. The document "Concept of economic and social development of the Republic of Azerbaijan for 2020 and the next three years" identifies the following priority areas of public investment policy in the country for 2020-2023:

- Focusing investments on the development of the non-oil sector and regions;
- Prioritization of regional investment policy in accordance with modern development trends;
- Strengthening the social direction of investment activity in the country, ensuring the priority of investments in human capital, infrastructure;
- Ensuring the economic security of the country and adaptation of investment projects to the goals and priorities of socio-economic development defined by medium and long-term state programs and Strategic Road Maps;
- Preference for production areas based on nanotechnologies and aimed at reducing the amount of carbon compounds in the atmosphere while prioritizing public investment;
- Directing the public investments to science-intensive projects;
- Increasing the state's defense capabilities.

It should be noted that in recent years, numerous changes have been made over the year in the amount and directions projected within the framework of state capital investments. From this point of view, the analysis of the funds intended for investments for the next year and the directions of these funds were carried out on the basis of preliminary data of the project "Distribution of the State Investment Program for 2020-2023". (APA Group 2020) It should be noted that in recent years, numerous changes have been made during the year in the amount and directions projected within the framework of public capital investments. In this regard, the analysis of the planned investments for the next year and the use of these funds is based on preliminary data and the State Investment Program for 2020-2023 which was implemented on the basis of the project (APA Group 2020). At the same time, it should be noted that according to Article 12.1.8 of the Law of the Republic of Azerbaijan "On Budget System", the state budget and consolidated budget for the next year, as well as the consolidated budget for the next three years. The draft Public Investment Program (PIP), which includes important investment projects in accordance with the draft state budget, is required to be prepared and submitted together with the draft state budget. (Law of the Republic of Azerbaijan on Budget System 2002). In modern conditions, investing in the development of the non-oil sector serves to the modernization of the mentioned sector. It should be noted that due to the modernization of the non-oil sector, in fact, it is possible to build an innovative production process in the industry, which can create favorable conditions for socio-economic growth of the industry as a whole.

#### 4. CONCLUSION

The conclusion of the carried out research suggests that investment is crucial in the development of the non-oil sector. This is due to the fact that investments can ensure the dynamic development of the industry as a whole by creating favorable conditions for the application of intensive technologies in these areas. Ultimately, this can create favorable conditions for strengthening the position of local producers in the domestic market, as well as reducing the role of import channels and expanding exports to foreign markets. This process has both internal and external advantages from the strategic interest point of view for our republic.

The unique domestic advantages of investing in the development of the non-oil sector are characterized by the prevention of currency outflows, as well as the creation of favorable conditions for expanding employment within the country. Stimulation of investment in the development of the non-oil sector should be a priority of the state's investment policy. From this point of view, the internal and external environmental factors affect the efficiency of investment processes and increase its volume. The state's investment policy namely should be based on these analyses. Analysis of internal and external environmental factors affecting the volume and efficiency of investment processes can create favorable conditions for increasing the investment attractiveness of the non-oil sector. The analysis shows that increase in the purchasing power of the domestic currency is one of the factors of the internal environment that affects the investment process as a whole. In addition, there is a particular need to change the traditional nomenclature of exports. At the same time, the establishment of an export-substituting production process and the increase of its competitiveness, in fact, require the physical and moral renewal of enterprises operating in this field. Therefore, the development of the non-oil sector can be effectively regulated on the basis of protection of the domestic market and stimulation of local production.

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# THE RELATIONSHIP BETWEEN FINANCIAL DEVELOPMENT AND ECONOMIC GROWTH IN AZERBAIJAN

**Shahriyar Mukhtarov**

*Department of Economics, Baku Engineering University,  
UNEC Empirical Research Center,  
Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan  
smuxtarov@beu.edu.az*

## ABSTRACT

*This study investigates the causal relationship between financial development as proxied by the bank credits to private sector and economic growth in case of Azerbaijan using annual data covering the period from 1992 to 2018. For this purpose, the Toda-Yamamoto causality test framework of vector autoregressive (VAR) model is employed to test causal relationship between the variables. The estimation results of reveal that there is bidirectional causal relationship between financial development and economic growth. The findings of the study suggest to researchers and policy makers to understand the role of financial development in economic growth for macroeconomic stability and sustainable development purposes in Azerbaijan and other developing oil-rich countries.*

**Keywords:** Azerbaijan, The Toda-Yamamoto causality test, Financial development, Economic growth

## 1. INTRODUCTION

The financial system realizes funds transfer from people who have an excess of available funds to people who have a shortage. Financial system is important to contribute higher economic efficiency by channeling funds from people who do not use it productively to those who use it. (Mishkin, 2016 ) In fact, well-functioning financial system is main factor for economic growth due to it serves to reduce information asymmetry, mobilize savings, allocate funds, facilitate trade, enhance corporate governance, and diversify risks (Pagano 1993; Levine 1997). The financial system also has a direct impact on the behavior of businesses and consumers, personal wealth, and the cyclical economic performance. In economic literature, there are two main thoughts on the relationship between financial development and economic growth. The advocates of the supply-leading argued that financial development has a positive impact on economic growth (Schumpeter, 1911; King and Levine, 1993a, 1993b; Levine, 1997; Beck et al., 2000; Levine et al., 2000; and Calderon and Liu, 2003). According to this view, there is casual relationship running from financial development to economic growth. On the other hand, the advocates of the demand-following view argued that financial development responds to changes in the real output (Jung, 1986; Ireland, 1994). Economic growth leads to an increase in financial development according to this view. An increase in real economic growth causes a rise in the demand for financial services which results in the financial sector expansion. The relationship between economic growth and financial development has been explored in many studies by different researchers. Based on the empirical studies on the financial development-economic growth nexus, there is evidence to support bidirectional or unidirectional causality, or no causality between financial development and economic growth. Unidirectional causality running from financial development to economic growth was found by Eita (2007) for Botswana, Caporale et al. (2009) for 20 EU members, Mirdala (2011) for 10 European transition economies, Ağayev (2012) for 20 transition economies, Bozoklu and Yılancı (2013) for 14 developing countries, Ofori-Abebrese et al. (2017) for Ghana, Sönmez and Sağlam (2018) European Transition Economies, Pata and Ağca (2018) for Turkey. On the other hand, studies such as, Muhsin and Eric (2000), Hassan et al. (2011), Chow and Fung (2011), Jun

(2012), Simwaka et al. (2012), Güneş (2013), Yıldırım et al. (2013), Pradhan et al. (2014), Çeştepe and Yıldırım (2016), Lebe (2016), Swamy and Dharani (2018), Ismail et. al (2019) found unidirectional causality running from economic growth to financial development. Moreover, bidirectional causality was found by Al-Yousif (2002), Calderon and Liu (2003) for 109 countries, Shan and Jianhong (2006) for China, Musamali et al. (2014) for 50 African countries, Altunç (2008) and Türkoğlu (2016) for Turkey. Additionally, in some studies, like Sinha ve Macri (2001) for Japan and Tailand, Naceur and Ghazouani (2007), Majid (2008), Soytaş and Küçükkaya (2011), Marques et al. (2013), Haque (2013), Grassa and Gazdar (2014), Mhadhbi (2014), Ductor and Grechyna (2015), Akbas (2015) and Perera and Paudel (2019) indicated that there is no causality between financial development and economic growth. In the case of Azerbaijan, Mammadov (2016) investigated the relationship between financial development and economic growth by employing Toda-Yamamoto test to the quarterly data spanning from 2001 to 2014. He found that there is unidirectional causality running from financial development to economic growth in the case of Azerbaijan. Mukhtarov et al. (2019) examined the impact of bank credits on economic growth in Azerbaijan, employing FMOLS, CCR and DOLS co-integration methods to the data ranging from January 2005 to January 2019. The Estimation results indicate that there is a positive and statistically significant impact of bank credits on the non-oil GDP in the long run for Azerbaijan. As can be seen from the literature, there is a few study devoted to investigate the financial development-economic growth nexus in Azerbaijan. Considering all the above-mentioned facts, the main purpose of this paper is to fill in this gap by employing Toda-Yamamota causality test to see causality relationship between financial development and economic growth. The contribution of the study listed as follow: (a) It studies the financial development-economic growth relationship in the case of Azerbaijan, by using annual data which cover the period after devaluation, (b) it uses the Toda-Yamamoto causality test, which to the best of our knowledge is rarely applied to the Azerbaijani case.

## 2. METHODOLOGY AND DATA

We analyze casual relationship between financial development and economic growth employing the Toda-Yamamota (1995) causality test in this study. The method covers Modified Wald statistic for testing the significance of the parameters of VAR(k) model. Firstly, we determine maximum order of integration of series, denoted by  $d_{max}$ . For this purpose, the Augmented Dickey-Fuller (ADF- Dickey-Fuller, 1981) unit root test is used. Secondly, the optimal lag of Var Model is determined. Then, we estimate  $(k+d_{max})$ th order of VAR. The estimation of VAR( $k+d_{max}$ ) guarantees the asymptotic chi-square distribution of the Wald statistic. Finally the hypothesis is tested using a standart Wald statistic test has an asmptotic chi-square distribution with m degress of freedom. According to Toda-Yamamota (1995) causality test model can be written as follows:

$$LY_t = \alpha_0 + \sum_{i=1}^k \alpha_{1i} LY_{t-i} + \sum_{j=k+1}^{d_{max}} \alpha_{2j} LY_{t-j} + \sum_{i=1}^k \phi_{1i} LE_{t-i} + \sum_{j=k+1}^{d_{max}} \phi_{2j} LE_{t-j} + v_{1t}$$

$$LE_t = \beta_0 + \sum_{i=1}^k \beta_{1i} LE_{t-i} + \sum_{j=k+1}^{d_{max}} \beta_{2j} LE_{t-j} + \sum_{i=1}^k \delta_{1i} LY_{t-i} + \sum_{j=k+1}^{d_{max}} \delta_{2j} LY_{t-j} + v_{2t}$$

Here, LY and LE are logged GDP and logged financial development, respectively, k is optimal lag order, d is the maximum order of integration of the series, and  $v_{1t}$  and  $v_{2t}$  are error terms.

We use annual data of economic growth (GDP) and financial development (FD) from 1992 to 2018. In this paper, Financial development is measured by bank credits to private sector, as percentage of GDP and economic growth is measured by real GDP (2010 US \$). Two data set have been obtained from World Bank (WB, 2020). The series were transformed into log form.

### 3. ESTIMATION RESULT

Before conducting the causality testing it is important to determine the order of integration of the series (dmax) and the optimal lag length (k+dmax), in order to avoid spurious causality or spurious absence of causality. The results of ADF unit root test show that the variables are non-stationary at their levels but are stationary at first difference, being integrated of order one, I(1). Therefore, the maximum order of integration for the variables in the system is one dmax = 1. Results of unit root tests are presented on Table 1.

Table 1: ADF test results

Unit-root Test Results		
	FD	GDP
level	-0.338 (0.974)	1.709 (0.999)
First difference	-3.531 (0.016)	-3.417 (0.019)
<b>Notes:</b> The critical values for unit-root test are from Mackinnon (1996). “p-values” are in parenthesis.		

The second step in testing for causality is to investigate the optimum lag length (p) chosen by LR, AIC, FPE, SC and HQ criteria. In order to determine the optimal lag interval in the study, a VAR model containing all dependent variables was estimated with a randomly selected lag interval and determination test of lag interval was applied to the residuals. The Panels E of Table 2 reports the optimal lag length of 2 (k = 2) out of a maximum of 3 lag lengths as selected by all criteria is found to be 2. Panels A through D in Table 2 report that the VAR has worthy features as it is stable, the residuals do not demonstrate serial correlation and heteroscedasticity issue and they are normally distributed.

Table 2: VAR residual diagnostics

Panel A: Serial Correlation LM Test <sup>a</sup>			Panel B: Stability Test <sup>d</sup>		Panel C: Normality Test <sup>b</sup>				Panel D: Heteroscedasticity Test <sup>c</sup>			
Lags	LM-Statistic	P-value	Modulus	Root	Statistic	$\chi^2$	d.f	P-value	White	$\chi^2$	d.f.	P-value
1	1.6238	0.804	0.9125	0.912580	Jarque-Bera	3.22	4	0.521	Statistic	29.42	29	0.204
2	7.9737	0.092	0.6407	0.417- 0.485i								
3	2.4628	0.651	0.6407	0.417 + 0.485i								
Panel E: Lag Interval Tests												
	Information Criteria											
Lag	LogL	LR	FPE	AIC	SC	HQ						
0	-47.71978	NA	0.216029	4.143315	4.241486	4.169360						
1	4.074475	90.63995	0.004035	0.160460	0.454974	0.238595						
2	16.98078	20.43498*	0.001940*	-0.581732*	-0.090876*	-0.451507*						
3	19.56685	3.663602	0.002232	-0.463904	0.223294	-0.281590						
<b>Notes:</b> <sup>a</sup> The null hypothesis in the Serial Correlation LM Test is that there is no serial correlation at lag order h of the residuals; <sup>b</sup> System normality test with the null hypothesis of the residuals are multivariate normal; <sup>c</sup> VAR stability test results show that no roots of characteristic polynomial are outside the unit circle; $\chi^2$ is Chi-squared; d.f. means degree of freedom; Critical values for the cointegration test are taken from MacKinnon et al. (1999); Estimation period: 1992-2018.												

The final step in this study is to verify the direction of causality between financial development and economic growth using the Toda-Yamamoto causality test. The empirical results of Toda - Yamamoto causality test are reported in Table 3.

Table 3: Toda Yamamoto Test Results

Null Hypothesis	Lag(k)	k+dmax	Chi-square test	Conclusion
GDP does not Granger Cause REC	2	3	22.62319 (0.0000)*	Reject
FD does not Granger Cause GDP	2	3	16.45314 (0.0003)*	Reject

Notes: \* Significance at the 5% level.

According to Toda-Yamamoto causality test both “FD does not Granger Cause GDP” null hypothesis and “GDP does not Granger Cause FD” null hypothesis can be rejected. Consequently, there is bidirectional causal relationship between financial development and economic growth. Our finding of bidirectional causality is consistent with the findings of Al-Yousif (2002), Calderon and Liu (2003) for 109 countries, Shan and Jianhong (2006) for China, Altunç (2008) and Türkoğlu (2016) for Turkey, inter alia.

#### 4. CONCLUSION

This study examined the causal relationship between financial development and economic growth in Azerbaijan using the annual data period from 1992 to 2018 within a vector autoregressive (VAR) framework. Applying a modified version of the Granger causality test due to Toda-Yamamoto, we found bidirectional causal relationship between financial development and economic growth. If bidirectional causality is found, higher financial development system may boost economic growth or vice versa. Based on the findings, we therefore, recommend the policies that promote financial development and economic growth be introduced. The results of this article will suggest to researchers and policy makers to comprehend the role financial development in economic growth for sustainable development goals in Azerbaijan and other developing oil-rich countries.

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# SIGNIFICANCE OF CULTURAL VALUES FOR MANAGEMENT

**Vasif Aliyev**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
*vasif.aliyev@unec.edu.az*

## **ABSTRACT**

*One of the most significant factors in the phenomenon of culture is values that one person has. Cultural values are main factors defining behavioral pattern of the society and perspective of individuals on events. From this point of view, cultural values has an important impact on longevity, optimism, self-efficacy of individuals and hope capitals. Cultural Values guides one's objectives and actions on a personal level. In personal values, it affects managers' perceptions of personal and organizational success, relationship with people, decisions, approach to problems and problem-solving. In my article, I have initially talked about what cultural value concept means, relationship between cultural values and management as well as consequences and suggestions based on these assumptions.*

**Keywords:** *Cultural Values, Organization, Management, Administration*

## **1. INTRODUCTION**

The question why something is valuable has always left an interrogation mark in the minds. For this reason, values have been included in more than one field from past to present and this has prompted several debates about whether or not these fields are included. As a result of these discussions, too many definitions of value have emerged. Values also play an important role in determining the direction of managers' decisions and behaviors. As Drucker points out, one of the responsibilities of managers is to find out what their values are? (Drucker, 2006, p. 11). The organizational culture shaped according to the values of the manager determines the degree of the organization's success in decision-making and implementation. Ultimately, the individual values of organization managers affect the planned and determined consideration and behavior of an organization. An organization manager and planner should start the first phase with decision-making, he or she should try to carefully monitor the effects on the organization of the values of environmental forces for this process to be healthy. For this reason, the purpose of this study is to reveal the origins of the decision-maker managers' values which affects their decision-making behaviors.

## **2. LITERATURE REVIEW**

When the conducted studies are examined, it is observed that values are generally treated in the form of cultural dimensions. The study is an intercultural study which covers 10 countries. A total of 2003 executives and employees from 10 countries were listed in this study. Canada, USA, Turkey, China, Pakistan, India, Germany, Romania, Russia, Israel are among these countries (Aycan & Kanungo, 2002). This was followed by (Kabasakal & Bodur, 2002; Ozen, 1996; Aldemir, Arbak, & Ozmen, 2003). One of the studies aimed at revealing the values of the managers belongs to Chakmakchi and Karabati. In their studies, they included senior business executives and business management graduate students in Istanbul. There was a significant disparity between the values of students and managers (Cakmakci & Karabatı, 2008, p. 698). Another study was carried out to determine the values of students selected from Business and Economics Schools. Studies in the field of management have pointed out that personal values play an important role in understanding managerial behaviors (Altıntas & Kavurmacı, 2016, p. 214). Evaluating the business values of different generations in the context of Turkish culture, Sural Ozer, Erish & Timurcanday Ozmen (2013) emphasized the importance of understanding and managing values in terms of business life and carried out the work with

an emic perspective. Pazarchik (2013, p. 150), on the other hand, aimed to measure the managerial attitudes of graduates of educational institutions being in touch with / associated with foreign cultures and implicitly their effects on the business world. In order to manage people with different values within the same organization in harmony, it is important to determine the values that individuals hold and to reveal the differences (Can, Karaboga, & Baran, 2015, p. 61).

## 2.1. Concept of cultural value

Every society, from developed societies to the smallest tribe that has not been discovered in the world yet, has a unique cultural structure, and there are important values in this structure. Human beings are a creature that questions everything around and tries to make some sense out of it. This aspect brings it to "value". Therefore, values have been the subject of study in many disciplines, as they take effect in every moment of human life. Znaniecki (1918) brought the first information about the concept of value to the social sciences literature. The concept is derived from the word "valere", which means "being valuable" or "being strong" in Latin (Grojean, Resick, Dickson, Smith, 2004: 226). Values are emphasized in sociology, anthropology, economics as well as psychology. Sociologist Mc Donald expresses the individual and the group as useful, desired and liked things, events, objects or people. According to the anthropology discipline, values are the factors affecting making a choice among the existing aims and tools of an attitude, behavior and action. An individual's unique preferences are the desired concepts and qualities. In the economic sense, value corresponds to an item or an object that can be traded, exchanged, and when it is defined, it is specifically described as its "monetary value" (Cevizci, 2002: 249). In psychology, the concept of value is expressed as the concept that determines what is important and preferable in life (Yılmaz, 2008: 45). Different societies act with diverse values in solving various social problems. Values emerging in time management, nature-human-environment relations, mutual relationship management, and behavioral motivation in different dimensions are factors. Rokeach (1979), Hofstede (1980- 2001), Maslow (2001) and Schwartz (1992) conducted groundbreaking studies on understanding the basic human values, how to measure them, and to understand the similarities and differences between people from diverse cultures (Hills, 2002: 5 -11th). Rokeach expresses the value as feelings in one's senses because of the emotional dimensions of the person. These feelings have the feature of giving approval to those who display positive behaviors, and criticizing those who display negative behavior. By emphasizing the behavioral dimension of the value, it is stated that the values are not only cognitive and emotional, but also have a mediating feature (Rokeach, 1973: 7). Secondly, Rokeach argued that value is a belief and evaluated these beliefs as 3 parts. These are:

- Descriptive and existential beliefs, which show the ability to be right or wrong;
- Evaluative beliefs, which evaluate the object of belief as good or bad;
- Prohibitive beliefs, which we can think of as setting rules on whether the goals or means of behavior are desirable. This third kind of belief expresses a value (Rokeach, 1973: 7).

Hofstede says that the phenomenon of "values" is used in a semantic but related relational way in all social sciences such as psychology, sociology, political science, economics and anthropology,. According to Hofstede, the reason why a human being is a creature which can evaluate is that the concept of value and mental concepts such as attitudes and beliefs are related. (Hofstede, 1980: 20). Maslow has exemplified the findings with an effective experiment in terms of the theory of values and the chickens that have been released to form their eating habits in the experiment have different behaviors in choosing the best for them. In this case, the subject who made a good choice showed much more strength and dominance than the other and as a result benefited from the best of all.

The feeding method of the subject who chose the good was applied to the other in the continuation of the experiment and it was noticed that although they were observed to be getting stronger in this way, they never reached the subject who chose the good. Maslow notes that when it comes to the theory of human value, he finds the results, which are similar to the above mentioned data. According to this, two types of people exist, namely those who make good choices and those who make poor choices in life by looking at those who are physically and psychologically, that is, mentally ill (Maslow, 2001: 160). Individuals are generally aware of what is important for what, and therefore their answers to the questions asked about their values consist of reports with definitive results. Individuals can also unconsciously behave in a way that matches their values. Although values operate unconsciously, they can then be reexamined and evaluated by memory. Schwartz says that the values are controversially composed of motivational factors that are stable and less developed during adulthood. It also says that the basis of values is the universal requirements of human existence (Bardi and Schwartz, 2003: 1208). In the process of social life, there are value judgements that the individual assimilates in the reactions to the events and at the basis of their actions. If this situation is taken into consideration, when the attitudes and behaviors displayed by the people are examined in detail, it may be possible to have information about their values. The values that the individual has can cause the person to be perceived as good or bad in the society. This situation shows that; values play a significant role in shaping the individual's attitudes and behaviors. When all these are evaluated, values have an indispensable importance in shaping individuals' thoughts and actions. (Feather, 1975, p. 35). Therefore, the values in shaping and measuring the observable behavior of people can be defined as the internalized belief that helps the individual in choosing to display various attitudes and behaviors of the individual against different events and phenomena. (Schwartz, 1999, p. 33).

## **2.2. Formation Of Values**

Many scientists have established various theories to determine how values occur in human nature and explain their properties. First, Milton Rokeach (1973) defined the concept of value in two different ways in the literature. These refer primarily to the fact that the "person" has any value, or the style of value that it imposes on any "object". Rokeach (1973), Handy (1970), Perry (1954), Lewis (1962), Hillard (1950), Thomas and Znaniecki (1918-1920), Katz and Stotland (1959), Jones and Gerard (1967) and Campell ( Scientists such as 1963) pointed out that there are important and valuable notations about both idea dimensions. These scientists approach the value problem in terms of objects (act. Ozkul, 2007). Approaching the value from the object dimension, these researchers reveal that the objects have the property of expressing a one-way value dimension from positive which means favourable, to negative which means unfavourable. Therefore, the concept of value does not have an additional feature or it is said to have no more meaning than adequate (Rokeach, 1973). Allport, Vernon Lindsey (1960), Kluckhohn (1951), Kuckhohn and Strodbck (1961), Maslow (1959,1964), Charles Morris (1956), Brewster Smith (1956), Robin Williams (1968) and Woodruff and DiVesta (1948 ), contrary to the above researchers, approach the value from a human dimension (cited in Ozkul, 2007). It is stated by these scientists that it would be much more efficient to adopt an individual-centered approach in order to create a theoretical basis for value. Robin Williams has characterized human values, the criteria that serve as standards when evaluating something. According to him, values are more useful for scientific purposes or analysis in social sciences (Rokeach, 1973: 4).

## **3. RESEARCH METHOD**

In the course of the study, the methods of observation and theoretical analysis were used related to the analysis of cultural values necessary for the research and its connection with

management. The works of local and foreign scientists in this field and internet materials were used as sources.

#### **4. RELATION BETWEEN MANAGEMENT AND CULTURAL VALUE**

Depending on the culture of society, the values of the managers tend to show development and orientation trend under the influence of the general characteristics of the culture. Managers have to fulfill their responsibilities as an imperative of the culture of society, along with the common sense of professionalism. Values has an important role in these commands (Kara, 2011, p. 50). The differences between cultures are reflected on the human who is the key element of societies. If people do not comply with the environment they are in, they face with difficulty in reaching their goals. Therefore, they get fitted up by the cultural environment to adapt to the environment they live in. As each society has its own culture, it is not possible to isolate the organizational and managerial concepts, principles, processes and practices from the cultural context. Under these circumstances, there may be some local differences peculiar to each culture besides some universal facts (Sisman, 1996, p. 296). As Paul H. Appleby mentions, all human organizations are in search of various values in a systematic way. The operation of the organization is becoming an increasingly important aspect in the pursuit of value (Emre, 2000, p. 18). One of the dimensions that emphasize culture in the literature of management and organizational science is that modern management and organizational models emerge and develop in western societies in parallel with industrialization and therefore have the characteristics of western culture. Industrializing countries have entered the industrialization process by holding up the industrialization and management and organization models developed in the west as an example. This process creates problems because the originated management and organizational models are not compatible with the cultural characteristics of the industrializing countries. The emerging problems caused different views on the subject coming into sight. The opinions arising in this framework are gathered in three groups. The first of these views considers the phenomenon of industrialization as a determining factor in the formation of management and organizational models and argues that the administrative and organizational practices and values of industrializing countries will gradually resemble each other in parallel with the industrialization process. The second view argues that administrative and organizational values will differ due to local cultural characteristics, and the third view argues that a hybrid administrative and organizational values will emerge rather than the country culture and local cultural characteristics that are modeled, (Sabuncuoglu & Vergiliel Tuz, 2013, p. 47;). The values that determine the general objectives, ideals and standards of the organization have been adopted as administrative tools within social structures. Thus, it is also used as a social criterion for predicting, evaluating and judging the behavior of individuals within the social structure. Therefore, values present rational solutions of problems that may occur in the organization (Sisman, 2002, p. 44). In this regard, the values adopted within the organization are strong elements that determine the organizational rules and the actions and attitudes of the individuals within the organization (Yilmaz K., 2007, p. 644). In addition, values are seen as an important reference point in terms of management activities in organizations (Fitz-enz, 1990, p. 13). Thus, the concept of value is becoming more and more important in terms of the structure and functioning of the organization. At this point, the concept of management with the value we encounter within the organization, can be expressed as a management approach to increase the motivation of the employees, develop their talents and abilities, to create synergies and support innovations within the organization in order to maximize the performance of organization (Yilmaz K., 2007, p. 645). Therefore, for creating an organization within a social structure, values must be created and glorified. Otherwise, if the values are worn out and consumed, the organizations will be destroyed (Vurgun & Oztop, 2011, p. 221). This management approach creates a strong emotional bond between the employees working in the organizations and the

organization itself, and increases the sense of responsibility among the employees. In addition, the higher the level of internalization of values by the individual, the stronger the emotional bond. Thus, by creating a common spirit within the organization, employees are clustered around the value system. A synergy occurs in the organization and the performance of the organization increases (Celik V., 2000, p. 96). However, this management approach may differ according to the behavior of the managers and the way they exercise their powers within the organizations. It is thought that especially the experiences and value judgements of the managers have an effect on the formation of these differences (Armstrong, 1990, p. 212). The manager, who started to work in an organization, brings together the system of values that he adopts along with all his individual characteristics and creates his attitudes and behaviors in his activities according to these paradigms (Fidan, 1996, p. 25). The personal values of the manager directly or indirectly affect the organization and its systematic (Silah, 2000, p. 509). The manager chooses the values system as a reference point both to strengthen himself and to increase the performance of the employees. In other words, individuals achieve the adoption of their own values by attributing blessings to the system of values in order to achieve their goals. Thus, it creates an organizational culture within the framework of executive values (Basaran, 2008, p. 113). The values that managers carry to the organizational environment cannot be easily changed by the organization (Inan, 2004, p. 96). Managers are not independent of the culture of the society and organizations in which they are trained. Managers' culture affects the society and organizations just as the culture of the society and the organizations affects the managers. Managers are influenced by some cultural forces in their decisions regarding organizational actions. Values that are evaluated as a part of culture come first among these forces, which they are affected by directly or indirectly (Kara, 2007: 190). In the light of his research, Posner (2010) states that executive values are the strong voice of organizational life and their effects continue for decades. With a better understanding of the core values of managers, an understanding of their beliefs, attitudes, and behavior can be achieved. Especially in ethical decisions, aspects of managers' values that change or do not change over time are important. Some of the most critical decisions made by an executive include personal values; for example, it determines the response of the customer to instantaneous urgent demands, the company's approach to long-term interests, the perceptions of responsibility regarding business and family life, and reward-punishment criteria. In this regard, most of the managers state that "values related to an authentic and sound leadership structure strengthen the organizational structure and increase productivity. In his study (2003) Argondona argued that values constitute the foundation that supports the structure, not the cream on the cake, and that organizational effectiveness will be damaged when managers do not take into account the values belonging to those around them (employees, colleagues, customers, investors) (Argondona, 2003: 15- 16). Posner (2010) also disclosed that today's executives have shown a change in their values in the past 30 years compared to past processes. This process revealed that managers' value structure towards themselves and their families is increasingly turning towards the values and organizational values of the people they work with. It is seen that today's executives are people who emphasize stakeholder values, are aware of their corporate social responsibilities and are aware of the importance of organizational culture in this sense (Posner, 2010: 457-458).

## 5. DISCUSSION

The purpose of this study is to reveal the importance of values in terms of organization and management, the main starting point is to lead the determination of the cultural values of the Azerbaijani rulers in the future by examining the fact that the managers in different cultures have different values.

## 6. CONCLUSION AND SUGGESTION

The concept of management with cultural values began to develop in the last quarter of the 20th century as an alternative to existing educational management. The system, which envisages that the manager must make decisions and act not only with rules but also with social norms, is based on the design of having a better experience and happy people in the workplace. It is observed that in international business relations, managers often make organizational decisions based on their own value systems, as they often encounter ambiguous situations. Therefore, the influence of culture cannot be denied in understanding the relationship between managers' value systems and behaviors. In this regard, managers in different cultures attach importance to personal values at different levels. Because the culture shapes the individual's attitudes and values extensively, especially the managers reflect the values of their own countries beyond the culture of the business they are working on in their complex and difficult decisions. Therefore, as the employees perceive the values that determine the manager's attitudes and behaviors to a large extent, the development of the organization will be affected within the framework of these perceived values. Managers, who are in a decision-making position, have the power to influence the attitudes and behaviors of the employees by the means of the organizational culture through their actions shaped within the framework of their own priorities, values and interests. The management systems created to integrate the values into the system have always existed throughout the history. Whether very effective or ineffective, the rule or principles in administration have been always used by referring to social, political, moral, religious value judgments. Since Azerbaijan is dependent on the Soviets at the time of the research of cultural value dimensions, there is no value about the cultural dimensions of the country. However, the similarities to the cultural dimension of Turkey and Russia is expected. As the expectation does not contain certainty, the dimension of Azerbaijan cultural values should be created by researchers. For the reasons we mentioned above, it is not possible to think of a manager without value. The important thing is dependence of the manager on these values. What needs to be done to highlight executive values in an organization are:

- The institution, which determines its managers, can apply a personal value test on the candidates and select managers according to their results;
- Managers should respect their colleagues regardless of location, gender, race, color, nation, religion or political belief. It should try to develop this respect in other people as well;
- In the understanding that values are dominant in management, the manager is not only the person who gives orders in his organization, but also the person who provides motivation with persuasive speeches. Honesty is the basic attribute for the manager;
- It is possible to approach each individual with justice by knowing the results of the decisions of the decision maker and taking care of others. If managers are aware of these three aspects of the value-oriented decision, they can use their professional judgment and be an example as a result of their judgement.

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## SELF-PERCEIVED SOCIAL STRATIFICATION AND LIFE SATISFACTION IN AZERBAIJAN

**Khatai Aliyev**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiglaliyyat str.6, AZ1001, Azerbaijan*

*khatai.aliyev@unec.edu.az*

### ABSTRACT

*The relationship between income and life satisfaction as well as income inequality and well-being of individuals have been examined extensively in the current literature. Empirical studies do not result in unambiguous association between income and life satisfaction considering absolute, relative and ranking income hypotheses. Current study aims to examine this association in a different context, considering self-perceived social class stratification by individuals. Employing a survey dataset ( $N = 2123$ ,  $n_{\text{Male}} = 1092$ ,  $n_{\text{Female}} = 1031$ ,  $\text{Mean}_{\text{Age}} = 34.37$ ) and multi-categorical dummy variable approach within polynomial regression analyses, we estimate the return of higher self-perceived social class stratification to individuals' life satisfaction. Estimations present evidence of positive return up to upper income category, higher at lower social classes and slightly decreases towards higher social class stratifications. However, findings reveal that individuals belonging themselves to upper income category are significantly less satisfied with life compared to higher middle income category participants. The results are robust and do not significantly vary when individual specific factors are controlled. Findings reminds potential role of using progressive taxation in Azerbaijan to enhance overall well-being of the society. Research results may have certain policy implications for public policy-makers in Azerbaijan.*

**Keywords:** *Life satisfaction, Well-being, Happiness inequality, Social class, Income groups, Progressive taxation*

### 1. INTRODUCTION

Self-perceived social class stratification is an important indicator of income distribution and inequality in minds of individuals. One may consider self-perceived social class stratification as a functional household financial characteristics, positively associated with income (Blanchflower and Oswald, 2004; Verbic and Stanovnik, 2006; Hayo, 2007) while Habibov (2011) argues that social transfer based on household income negatively affects perceived social status. However, subjective well-being effects of self-perceived social status is not well known in the literature. Although the relationship between life satisfaction and income has been studied extensively (Frijters, Haisken-DeNew and Shields, 2004; Cheung and Leung, 2004; Boyce, Brown and Moore, 2010; del Mar Salinas-Jiménez, Artés and Salinas-Jiménez, 2010; Cheung and Lucas, 2016; Wolbring, Keuschigg and Negele, 2013; Proto and Rustichini, 2015; Plouffe and Tremblay, 2017), there are still debates about direction of the association. Some scholars argue that the relationship rely on absolute income hypothesis (Diener, 1984; Veenhoven, 1991) while reference-income hypothesis by Easterlin (1974) has also attracted greater attention by those who focus on importance of relative income (Boyce et al., 2010; Wolbring et al., 2013). Meanwhile, Boyce et al. (2010) bring rank income hypothesis to the income-life satisfaction related literature, arguing that individuals compare themselves with others within a reference group. More recently, Aliyev, Nadirov and Dehning (2020) employ wave formation framework to incorporate all the three mentioned hypotheses and claim the existence of non-linear wave shaped association between income and life satisfaction at the individual level. Self-perceived social class stratification logically refers to relative income comparison which can be used to assess income-life satisfaction association in a different context.

Major research question is whether the return of self-perceived social class improvements to self-reported well-being of individuals changes at different social-class intersections or not. In this research, main argument is towards heterogeneity in returns at each stage towards the highest self-perceived social class.

## 2. DATA AND METHODOLOGY

To assess the relationship between self-perceived social class stratification and life satisfaction of individuals in Azerbaijan, the research employs a representative survey data presented by ASERC (2020). Empirical estimations rely on regression models with dummy independent variables representing multiple categories of self-perceived income class stratification and a set of individual specific control variables. The outcome variable – life satisfaction of individuals is measured according to the Satisfaction With Life Scale (hereafter SWLS) advanced by Pavot and Diener (1993, 2009).

### 2.1. Sampling

Dataset used for empirical estimations is obtained from Social Survey -4 conducted by ASERC (2020) from 22.02.2020 till 31.03.2020 period. Random sampling procedure has been achieved through paid and unpaid social media facilities (Facebook, WhatsApp and Instagram). Due to novel coronavirus pneumonia (COVID -19) threat, online data collection is realized. Total sample includes 2123 participants (1092 males and 1031 females) within 17-83 age range ( $Mean_{age} = 34.37$ ,  $SD_{age} = 11.26$ ).

### 2.2. Variables

#### 2.2.1. Dependent variable

Life satisfaction (hereafter LS) denote self-reported satisfaction with life for each respondent according to SWLS methodology. Note that SWLS assesses subjective well-being of individuals, more precisely, evaluates life satisfaction and goal achievements of each participant on the basis of responses to 5 statements (see Pavot and Diener, 1993, p.172). Those statements include (1) In most ways, my life is close to my ideal, (2) the conditions of my life are excellent, (3) I am satisfied with my life, (4) so far I have gotten the important things I want in life, and (5) if I could live my life over, I would change almost nothing. A seven-point Likert scale has been used to quantify responses to each statements, ranging from 1 = *totally disagree* to 7 = *totally agree*. LS is a sum of quantified responses to all statements which gets discrete values between 5 (if a respondent chooses “strongly disagree” option in all cases) and 35 (if a respondent chooses “strongly agree” option in all cases). Higher LS score display to be more satisfied with life. Overall, an individual is considered to be:

- Extremely dissatisfied if  $5 \leq LS \leq 9$ ;
- Dissatisfied if  $10 \leq LS \leq 14$ ;
- Slightly dissatisfied if  $15 \leq LS \leq 19$ ;
- Neither dissatisfied nor satisfied (neutral) if  $LS = 20$ ;
- Slightly satisfied if  $21 \leq LS \leq 25$ ;
- Satisfied if  $26 \leq LS \leq 30$ ;
- Extremely satisfied if  $31 \leq LS \leq 35$ .

A high Cronbach's Alpha value ( $\alpha = 0.85$ ) confirms reliability of the scale to assess self-reported happiness of individuals.

#### 2.2.2. Self-perceived social class stratification

In the survey, respondents are asked to report their income class by choosing one of the given alternatives: (1) lower income class, (2) higher than lower but lower than middle income class,

(3) middle income class, (4) higher than middle but lower than upper income class, and (5) upper income class. Participants response to this question actually displays his/her perceived social class.

Variables	No. of Obs.	Mean	Minimum	Maximum	Std. Dev.
<i>Dependent variable</i>					
$LS_i$	2118	17.06	5	35	6.854
<i>Social class stratification dummies</i>					
<i>Lower (Ref.)</i>	2058	0.403	0	1	0.490
<i>Lower middle<sub>i</sub></i>	2058	0.298	0	1	0.457
<i>Middle<sub>i</sub></i>	2058	0.273	0	1	0.446
<i>Upper middle<sub>i</sub></i>	2058	0.023	0	1	0.149
<i>Upper<sub>i</sub></i>	2058	0.003	0	1	0.053
<i>Control variables</i>					
<i>Age<sub>i</sub></i>	2122	34.37	17	83	11.26
<i>Gender<sub>i</sub></i>	2123	0.486	0	1	0.499
<i>School<sub>i</sub></i>	2123	0.171	0	1	0.377
<i>College<sub>i</sub></i>	2123	0.119	0	1	0.324
<i>Bachelor (Ref.)</i>	2123	0.472	0	1	0.499
<i>Master<sub>i</sub></i>	2123	0.189	0	1	0.392
<i>PhD<sub>i</sub></i>	2123	0.047	0	1	0.212
<i>Unmarried (Ref.)</i>	2123	0.348	0	1	0.476
<i>Married<sub>i</sub></i>	2123	0.592	0	1	0.491
<i>Divorced<sub>i</sub></i>	2123	0.059	0	1	0.237
<i>Religious<sub>i</sub></i>	2107	0.209	0	1	0.407
<i>Believer (Ref.)</i>	2107	0.642	0	1	0.479
<i>NonBeliever<sub>i</sub></i>	2107	0.149	0	1	0.356
<i>Baku<sub>i</sub></i>	2123	0.501	0	1	0.500
<i>Absheron<sub>i</sub></i>	2123	0.147	0	1	0.354

Table 1: Descriptive statistics of variables  
(Source: Author's own creation)

To assess life satisfaction differences across self-perceived social class, a binary variable with multiply categories approach is followed. Based on responses to the corresponding question, 5 dummy variables are created: *Lower<sub>i</sub>* (equals 1 if respondent belongs himself / herself to lower income class, 0 otherwise), *Lower\_middle<sub>i</sub>* (equals 1 if respondent belongs himself / herself to higher than lower but lower than middle income class, 0 otherwise), *Middle<sub>i</sub>* (equals 1 if respondent belongs himself / herself to middle income class, 0 otherwise), *Upper\_middle<sub>i</sub>* (equals 1 if respondent belongs himself / herself to higher than middle but lower than upper income class, 0 otherwise), and *Upper<sub>i</sub>* (equals 1 if respondent belongs himself / herself to upper income class, 0 otherwise). Lower income class is left as the base group in empirical estimations.

### 2.2.3. Control variables

For robustness of results, a set of individual specific independent variables are included to the model for control purposes. These variables include:

- *Age<sub>i</sub>*: denote age of the respondent;
- *Gender<sub>i</sub>*: a dummy variable equals 1 for females, and 0 for males;
- Dummy variables displaying highest level of educational attainment (*School<sub>i</sub>*, *College<sub>i</sub>*, *Bachelor<sub>i</sub>* (left as the base group), *Master<sub>i</sub>*, and *PhD<sub>i</sub>*);

- Dummy variables representing marital status of respondents (*Unmarried<sub>i</sub>* – equals 1 for those never married before and left as the base group, *Married<sub>i</sub>*, and *Divorced<sub>i</sub>* – equals 1 for those are divorced / widowed);
- Dummy variables indicating religiosity level of respondents (*Religious<sub>i</sub>* – equals 1 if the respondent consider himself / herself as a religious person), *Believer<sub>i</sub>* – equals 1 if the respondent consider himself / herself not a religious person while believe in God and left as the base group, and *NonBeliever<sub>i</sub>* – equals 1 if the respondent do not believe in God);
- Dummy variables displaying living area of the respondent (*Baku<sub>i</sub>* – equals 1 if the respondent is living in Baku city (which is the capital of Azerbaijan Republic with high population density), *Absheron<sub>i</sub>* – equals 1 if the respondent is living in Absheron region (the closest region to Baku). All other regions are left as the base group).

Descriptive statistics of all variables are tabulated in table 1.

### 2.3. Model

Baseline empirical model specification is as following:

$$\log(LS)_i = \alpha_0 + \alpha_1 * Lower_{middle_i} + \alpha_2 * Middle_i + \alpha_3 * Upper_{middle_i} + \alpha_4 * Upper_i + \sum_{k=1}^{12} \gamma_k * Z_k + u_i$$

Note that log means natural logarithm,  $\alpha$  and  $\gamma$  are parameters of the regression model.  $Z_k$  covers all control variables. Following non-linearity of age-life satisfaction association (see Frijters and Beaton (2012) and Morgan and O'Connor (2017)) and Ramsey-Reset functional specification test results, age has been included as quadratic form as well. In the model,  $u$  is the error term while  $i$  stand for  $i$ -th observation. According to research hypothesis,  $\alpha_4 > \alpha_3 > \alpha_2 > \alpha_1 > 0$ , and  $\alpha_1 > (\alpha_2 - \alpha_1) > (\alpha_3 - \alpha_2) > (\alpha_4 - \alpha_3)$ . More precisely, we expect diminishing marginal returns for self-reported happiness towards upper income class. Robust Least Squares method is employed to estimate parameters of the regression model.

## 3. RESULTS

### 3.1. Preliminary analyses

Figure 1 displays average life satisfaction scores of respondents belonging to different self-perceived income classes. Average life satisfaction of those belong themselves to lowest income group (approximately 40.3% of total sample) is 14, which is significantly less than average of all other social classes and the whole sample. From lower income to lower middle income class, average life satisfaction increases 22.6% ( $\frac{17.17-14}{14}$ ) while the change from lower middle to middle income class is 3.67 points or 21.4% ( $\frac{20.84-17.17}{17.17}$ ). Average life satisfaction increases 14.7% ( $\frac{23.91-20.84}{20.84}$ ) within upper middle income class compared to middle income class. Positive but diminishing marginal return suddenly becomes negative at upper class stage. Compared to upper middle income level, average life satisfaction decreases nearly 6.6% ( $\frac{22.33-23.91}{23.91}$ ).

Figure following on the next page

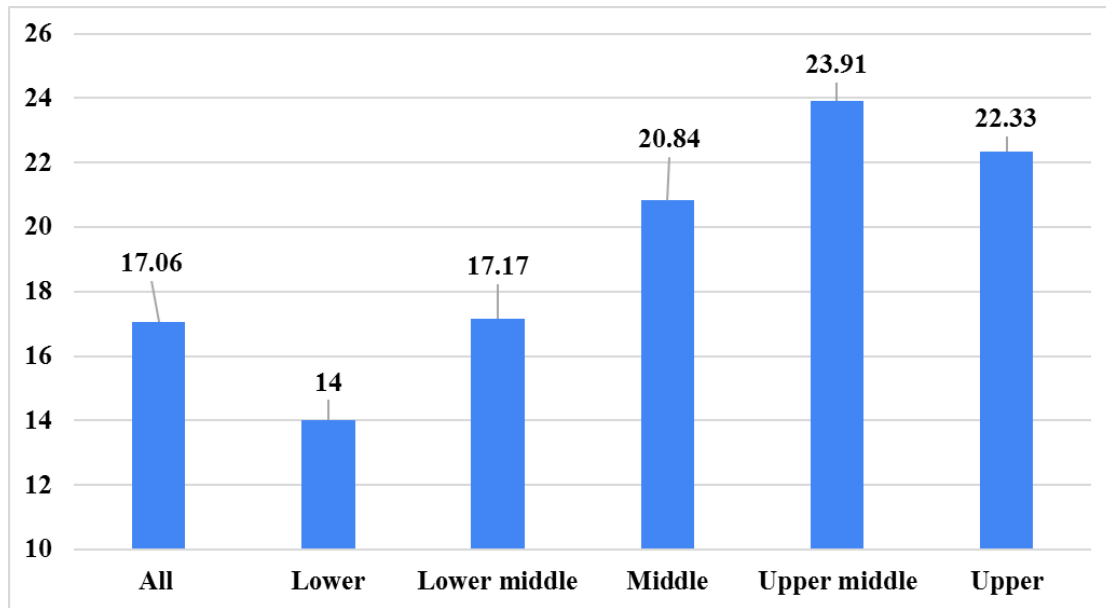


Figure 1: Average life satisfaction across self-perceived income classes  
(Source: Author's own creation based on survey data)

### 3.2. Empirical analyses

Although preliminary analyses results confirm heterogeneity of returns to individuals' well-being at each stage of income classes, empirical results present better scientific evidence. Table 2 tabulates empirical estimation results from Robust Least Squares method. Note that here, we control the possible spurious effects of given individual specific factors such as age, gender, educational attainment, marital status, religiosity level and living area. Empirical results present robust scientific evidence for significant return of self-perceived social class stratification to individuals' life satisfaction. Life satisfaction changes at all stages of self-perceived income classes is economically and statistically significant ( $p < 0.01$ ). The return is heterogeneous. Ceteris paribus, in average, compared to those who belong themselves to lower income class, life satisfaction of self-perceived lower middle income group is 22.8% higher while the difference is 42.6% between middle and lower income classes, 58.3% between upper middle and lower income classes and finally, 49.9% between upper and lower income classes. Here, diminishing marginal return to individuals' well-being towards self-perceived upper income class is confirmed once more by supporting preliminary analyses results. Ceteris paribus, changing from lower to lower-middle income classes increases life satisfaction by 22.8% while marginal return is 19.8% at middle class, 15.7% at upper-middle class and negative 8.4% at upper class. There is a diminishing marginal return which even turns to be negative at the top of self-perceived income class. Regarding the impact of control variables over individuals' life satisfaction in Azerbaijan, empirical results confirm the existence of U-shaped association between age and life satisfaction ( $p < 0.01$ ). Threshold value of age is approximately 40 which means that getting older decreases happiness up to 40 age while marginal impact turns to be positive after 40 years old. Simultaneously, results show that females are significantly more satisfied than males in Azerbaijan ( $p < 0.05$ ) while holding other factors fixed, in average. Gender happiness gap is around 4.3%.

Table following on the next page

Variables	Estimated coefficients	95% CI		99% CI	
		Low	High	Low	High
<i>Lower (Ref.)</i>					
<i>Lower middle<sub>i</sub></i>	0.228***	0.184	0.272	0.170	0.286
<i>Middle<sub>i</sub></i>	0.426***	0.379	0.472	0.365	0.487
<i>Upper middle<sub>i</sub></i>	0.583***	0.459	0.707	0.419	0.747
<i>Upper<sub>i</sub></i>	0.499***	0.165	0.835	0.059	0.940
<i>Age<sub>i</sub></i>	-0.032***	-0.043	-0.022	-0.046	-0.018
<i>Age<sub>i</sub><sup>2</sup></i>	0.0004***	0.0002	0.0005	0.0002	0.0005
<i>Gender<sub>i</sub></i>	0.043**	0.005	0.081	-0.006	0.093
<i>School<sub>i</sub></i>	-0.092***	-0.145	-0.039	-0.162	-0.022
<i>College<sub>i</sub></i>	-0.069**	-0.129	-0.010	-0.148	0.008
<i>Bachelor (Ref.)</i>					
<i>Master<sub>i</sub></i>	-0.029	-0.078	0.020	-0.094	0.036
<i>PhD<sub>i</sub></i>	0.077*	-0.012	0.165	-0.039	0.193
<i>Unmarried (Ref.)</i>					
<i>Married<sub>i</sub></i>	0.089***	0.038	0.141	0.021	0.157
<i>Divorced<sub>i</sub></i>	-0.060	-0.149	0.029	-0.178	0.057
<i>Religious<sub>i</sub></i>	0.187***	0.049	0.141	0.035	0.155
<i>Believer (Ref.)</i>					
<i>NonBeliever<sub>i</sub></i>	-0.092***	-0.145	-0.039	-0.162	-0.022
<i>Baku<sub>i</sub></i>	0.008	-0.032	0.048	-0.045	0.061
<i>Absheron<sub>i</sub></i>	-0.002	-0.058	0.054	-0.076	0.071
<i>C</i>	3.125***	2.931	3.320	2.869	3.382
<i>R<sub>w</sub><sup>2</sup></i>			0.264		
<i>Std. of Regr.</i>			0.408		
<i>No. of Obs. Inc.</i>			2045		
Note: Dependent variable is Log(LS) <sub>i</sub> . ***, **, and * denote statistical significance at 1%, 5% and 10%, respectively. CI means confidence interval.					

Table 2: Empirical estimation results  
(Source: Author's own creation)

Considering the role of educational attainment, we reveal that people with pre-bachelor education are less satisfied than the reference group ( $p < 0.05$ ) while post-bachelor education do not have significant return to individuals' well-being ( $p > 0.05$ ). On the other hand, married people seem to be more satisfied with life than unmarried individuals ( $p < 0.05$ ) while the difference between unmarried and divorced / widowed people's well-being is not substantially large and statistically significant ( $p > 0.05$ ). Living area also do not have a significant role to predict individual well-being ( $p > 0.1$ ). On the contrary, religiosity seems to be one of the most important determinants of life satisfaction in Azerbaijan ( $p < 0.01$ ). Compared to believers (those do not pray but believe in God), life satisfaction of non-believers is 9.2% less while religious people are 18.7% more satisfied with life, in average, ceteris paribus.

#### 4. CONCLUSION

Primary goal of this research is to estimate well-being effects of self-perceived social class stratification in case of Azerbaijan. Self-belonging income class is a reliable proxy for self-perceived social stratification. Results show that higher self-perceived income classes positively return to well-being of individuals in Azerbaijan. The only exception is about the return of belonging to upper income class. Empirical results display negative return of belonging to upper income class compared to well-being of upper-middle income class group. However, this result is doubtful due to composition of the sample.

Note that only 0.3% of total participants belong themselves to upper income class category. Due to relatively small share of upper income class category, the negative well-being returns from belonging to corresponding income class is scientifically less valuable and requires further investigation with greater participation. Anyway, results confirm diminishing positive return of self-perceived social stratification to life satisfaction of individuals in case of Azerbaijan. Research findings can be used to assess well-being effects of public policy in Azerbaijan as well as other countries with similar economic and social structure. Azerbaijan government should focus on determinants of self-perceived social stratification, especially belonging to lower income classes and implement policy actions accordingly to support them and enhance their well-being. This would lead to a decrease in happiness inequality in the country. In this context, policies to decrease income inequality can be considered helpful to have less income inequality (see Delhey and Kohler (2011) and Kollamparambil (2020) among others). Meanwhile, studies display positive return of progressive taxation over happiness of individuals (Oishi, Schimmack and Diener, 2012; Oishi, Kuslev and Schimmack, 2018). From this point of view, research findings imply that progressive taxation is recommended to decrease income and happiness inequality in Azerbaijan.

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## ENGLISH AS A GLOBAL LANGUAGE

**Abidi Solmaz Aghazaki**

*Senior teacher at Department of “Foreign Languages”,  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
abidi.solmaz@mail.ru*

### ABSTRACT

*The article highlights the importance and main features of the global process in the modern world. Globalization is an objective process and basic trend of the global community of the 21<sup>st</sup> century's development. The article considers linguistic aspects of this phenomenon. “Linguistic globalization” is commonly understood as dynamic dissemination of the English language, growth of its relevance in the world. The article also deals with the English language and describes it as the language of intercultural communication in XXI century. To date, English is studied in 90 countries around the world. The number of people speaking English makes more than 1 billion 100 million people. English is widely used in the fields of economy, business, education. Wide expansion of English leads to the emergence of its new varieties. Prehistory of English global is connected with the power of Britain empire, which spread the influence to the whole world in XVII-XVIII century made English one of the main international languages. The heritage of British imperialism – about hundred countries in the modern world use English either a state or an official language. However, as a matter of fact English became global in consequence of American economy and political, then cultural domination in XX century. In the sphere of popular music, movie, TV, business, finance, sport, IT the domination of the USA is reflecting. At the beginning of XXI century the influence of the USA in the world makes English not the most important language but practically a unique possible instrument for interaction of different countries not only in different spheres of market economy, especially in the sphere of tourism and advertisement as well as in the sphere of science and technology (access to the modern science and technical based data without using English is impossible). It is required operated language of international science event. But it will be a great mistake to suppose that globalization of English is the effect of economics and politics advantage. It is necessary to pay attention to features of English which determine its victory in distinctive competition for global linguistic domination. The article describes the process of global society and the same time globalization of English as the common worldwide. It shows the history of the language and its role in communication of people. The pros and cons of the language globalization are presented in different spheres of human life activity.*

**Keywords:** *language, international, communication, state language, globalization, sphere, official language*

### 1. INTRODUCTION

Globalization is an objective process and basic trend of the global community of the 21<sup>st</sup> century's development. The word globalization appeared in lexis of a modern man at the beginning of 1980. The process is connected with the dominating role of the USA in the world after break up of the USSR. The English-American model society, its economy, policy and culture is based on globalization. Such model of society and culture is connected with England which makes bids for the role of the 1<sup>st</sup> language in the history of the worldwide. In XIV century English was the language of the part of population in British Islands and the highest level of England Society spoke old French. A lot of centuries ago mankind dreamt about a single whole world language. In different development periods of mankind the functions of dominating different languages are accepted. In one period that function was performed by Greek, then Latin, later French, in XXI century English.

It is possible to think that which country represented English first. These are Great Britain and the USA. We know the position of these countries in the world arena. They try to become leaders and they present it. English becomes global as a result of the USA politics and then for its cultural advantage. Wide expansion of English globalization is connected with the power of Britain empire, which spread the influence to the whole world in XVII-XVIII century which made English one of the international languages. The heritage of British imperialism made the countries use the language either a state or an official language.

## 2. THE NECESSITY OF STUDYING ENGLISH

English as a global language carries out the major function of international communication among the people of the world. Interesting facts are published by McCormick C. in his article in "Harvard Business Review". He confirmed that in the countries where the population possesses English better, economics develops more-better than others. As a proof he indicates such facts:

- Almost in each of realized researches sixty countries where the population possesses high level of English, the growth of profit per capita is high;
- The recruited staff and the candidates who possesses English fluently are offered 30% of payment of high to their wages.

It means that the development level of the country depends on English possession by its population. English proficiency is most paramount in the tourism industry, as well as for mutual understanding among students involved in the exchange programs with different universities, particularly in foreign countries. Now forty seven percent of the world population possess English. 2/3 of European Union population think that English must be studied completely necessary. English is taught at six in Japan schools. It is considered to be compulsory subject in Norway, Sweden, Denmark. In France and German eighty five percent of population choose English. At the beginning of the XXI century most governments all over the world acknowledged that successful teaching of additional languages at school is key contributor to the state's success in the international arena (Rais and Alsu, 2015). To date English is studied in ninety countries around the world. The number of English speaking people makes more than one billion hundred million people. English influences to the different sphere of activity in the world. It is the dominating language of the world and the basic language in high education system. It is widely used in the sphere of economy, business, culture, etc. English is the key to academic collaboration through researching activity, event connections inside and among them. "Do not worry about the domination of English in institutions" (Wildavsky B., 2013) wrote in his article "Chronicles of High Education". The author addressed those words to the non-English speaking community, who concerned about the growth domination of English in the scientific field because of such tendency of dissemination makes non-English speaking scientists to be at disadvantage, while working with publication and researching in different foreign countries. The outstanding linguist. Crystal.D. in his first book "English as a Global Language" wrote: "Though till now days universal imagery about phenomenon of global language was not produced, but today it can be determined by the major configurative features of global lexical as well as the features of English language which determines its status as "global" in modern linguacultural situation". English has a lot of valuable, attractive linguistic features in order to get the statue of a global language. English is a winner in the competition of global linguistic for its features as:

- It is very rich and deepening language according to its lexical composition as compared with the Oxford Dictionary which consist of 615000 words, 20 toms can be noted. Taking into consideration its scientific-technological terminology the total lexical composition is more than 1 million and it presents English as a huge language.

Every year 5000-20000 new words enter into the English vocabulary. 200000 words are used in English language and it is twice more than German, Russian and French.

- English grammar has more high level of unification than other languages: for example: gender category is passed by words completely, but German and Spanish use additional articles. There are no noun cases (except some personal pronouns).
- English writing and pronunciation is considered to be simple. Certainly there are some difficulties for foreigners in pronunciation of some sounds.
- English is a global language because of its outward-looking feature. Every year it accepted about thousand words from the languages of the countries with which it has historical relations and English is considered to be very close to this language.

### **3. CONCLUSION**

English as a global language carries out the major function of international communication among the peoples of the world. All the world learn English. A lot of corporations are operated only in English and obligates their colleagues to know the language. They organize special courses, trainings, etc. for it. Nowadays in all over the world is commonly spoken in English. All people around the world know its importance in our life because we need it in our work, studies and sometimes when we meet other people from other countries, maybe they are not from Britain or America but we almost think they are talking English. And we need it for travelling to other countries. English is the world language influencing each and every single aspect of the daily and professional scale.

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## STRATEGIC GOVERNANCE OF TOURISM DEVELOPMENT IN AZERBAIJAN: PRACTICAL ASPECTS AND A MECHANISM FOR IMPROVEMENT

**Elnara Samedova**

*Associate Professor at Department of Economics,  
Azerbaijan State University of Economics (UNEC),  
6, Istiqlaliyyat st., Baku, AZ1001, Azerbaijan  
Elnara\_Samadova@unec.edu.az*

**Yasaman Abasova**

*Senior instructor at Management Department,  
Azerbaijan Tourism and Management University,  
822-23, K. Ragimov st., Baku, AZ1072, Azerbaijan,  
Instructor in "SABAH" group at  
Azerbaijan State University of Economics (UNEC),  
6, Istiqlaliyyat st., Baku, AZ1001, Azerbaijan  
yasaman.abasova@unec.edu.az; yasaman.abasova@atmu.edu.az*

### ABSTRACT

*The paper is devoted to the analysis of strategic governance of tourism development in Azerbaijan. The relevance of the research topic is determined by the active state policy of tourism development, as one of the priority sectors of diversification of the national economy and boosting the socio-economic level of development of the country as a whole. Therefore, the formation of tourism development strategy and its effective implementation is one of the most effective organizational and economic mechanisms to increase the share of tourism income in the country's economy. In this regard, the purpose of our research is to investigate the practical aspects of the development and governance of tourism and to carry out the quantitative assessment of the results of implemented actions in this sphere. The concepts in the field of effective organization and governance of tourism were served as the methodological basis of the research, in which the dialectical method and the principle of systematic approach were also used. It is obvious that the improvement of strategic governance of tourism development is an efficient method that allows to solve the systemic problems of tourism industry as a whole, identify the most perspective directions of its development and intercalation of tools to the process of governance of tourism that allow the rational usage of the existing tourism potential. In concern with aforementioned in our paper we have proposed an institutional and organisational mechanism for improving the strategic governance and development of tourism in Azerbaijan.*

**Keywords:** *infrastructure, strategic governance, tourism, tourist potencial*

### 1. INTRODUCTION

The strategic governance of tourism development in a particular country is the process of elaboration a national model for the effective functioning of this sector for a certain period. As a general rule, the national model of tourism development involves analysis and in-depth study of this area, territorial development prognostication and identifying the most perspective areas of its development as a specific product of the tourism cluster. Herewith, the great attention must be paid to the development mechanisms of increasing the efficiency of usage the natural-geographical, cultural-historical and socio-economic potential of the country and advancing the tourist attractiveness and competitiveness of the tourism product. Since, the country's success depends on a combination of these factors based on market, state and institutional mechanisms.

The analysis of practice shows that misplaced priorities can negatively affect the prospects for the further development of tourism in a country.

## **2. THE PRACTICAL ASPECTS OF TOURISM DEVELOPMENT IN THE REPUBLIC**

The stable development of national economy, diversification and non-oil sector development, ensuring the socio-economic sustainability of the country's regions are the important components of the policy of the Republic of Azerbaijan. In this regard, the organization of tourism in the country is one of the priority areas for the development of domestic economy. The fact is that, tourism combining various industries forms a certain space, including enterprises and organizations of various industry affiliations, thereby exerting a strong influence to the economic, social, cultural development of society as a whole. In turn, stimulating the development of tourism-related industries is an impetus for the formation of a steady flow of investments to the country. The development of tourism in many countries is explained by the fact that tourism is considered to be as one of the most profitable sector, holding the third by incomes among the largest export sectors of the world economy, yielding only to the oil and the automotive industry. The analysis of reports of the World Travel and Tourism Council (WTTC) on a quantitative assessment of the impact of travel and tourism to the global economy and employment shows the annual increase in the share of tourism in the structure of world GDP. So in 2015 it was 9.8%, in 2016, -10.2%, 2017 - 10.4%, 2018 -10.4% respectively. In turn, in 2018 this sector accounted for 319 million jobs which amounted to 10% of total employment. [20. p. 3] 2019 was another year of strong growth, although slower compared to the exceptional rates of 2017 (+7%) and 2018 (+6%). In 2019 the number of international tourist arrivals worldwide grew by 4% and reached 1.5 billion [21. p. 3]. Tourism in Azerbaijan also is called upon to be as one of the leading sectors of the national economy where are creating the favorable conditions for its development. The growing economy, favorable geographical location, the presence of unique natural resources and rich cultural - historical heritage constitute a huge potential and promote development of many directions of tourism in the country. Accordingly, the elaboration of tourism development strategy with the determination of priority directions of its development, formation an impression about Azerbaijan as a country with huge tourism potential and country's integration into international tourism space are the important components of state policy. But, analyzing the strategy and the main development tendencies, the qualitative and quantitative reflection of tourism impact on the socio-economic and political situation in the republic, two significant periods can be distinguished, namely: the period of tourism development until 2014 and the period after 2014.

### **2.1. The tourism development actions until 2014**

Considering the tourism development policy in the republic until 2014, it can be noted that Azerbaijan has quite successfully implemented the focusing plan of actions for the development of tourism industry. So, in order to establish the legal norms of tourism market and regulating tourism relations in the republic, back in 1999 was adopted the Law "On Tourism". In 2001, Azerbaijan was elected as a full member of the World Tourism Organization (WTO), which allowed our republic to integrate into the world tourism community and adopt the experience of leading countries in the international tourism market. Since April 2002 the yearly organization of the International Tourism Exhibition "AITF" receiving the support of the WTO and the "Republican Exhibition of Internal Tourism", promote the development of various types of tourism, activate small and medium-sized entrepreneurship as it annually presents the achievements of modern infrastructure of domestic tourism in Azerbaijan. [2. p. 220] An essential role in creating the conditions for the development of inbound tourism market and tourism infrastructure played the implementation of State Programs on Tourism Development for 2002 - 2005 and 2010-2014 periods.

With the aim of staffing and training specialists in the field of tourism and hospitality, in 2006 was established the Azerbaijan Tourism and Management University as a higher educational institution. In turn, as the basis for positive trends in the field of recreation and tourism served the action plan approved by the head of state associated with the announcement of 2011 as the "Year of Tourism in Azerbaijan". To attract foreign tourists to the country by the order of the head of state on November 30, 2012, was adopted the program "On urgent measures in the field of visas for foreigners and stateless persons arriving to the Republic of Azerbaijan". Additionally the propaganda of country's tourism potential in popular world television channels like CNN, BBC, EURONEWS, AL JAZEERA, National Geographic, participation in international programs of the United Nations, UNESCO, ISESCO, WTO, as well as the successful organization in Baku the "Eurovision Song Contest 2012" and "First European Games 2015" prove that Azerbaijan continued to integrate into the world tourism community and expanded international cooperation in the field of tourism. Definitely, all of the briefly abovementioned actions were quite positively reflected in the development of national tourism sector and stimulated the promotion of Azerbaijan as a country of dynamically developing tourism. The positive tendency of growth over the 2008-2014 period also shows the statistical data. So, in 2008 for tourism purposes Azerbaijan visited 1042.5 thsd., people, in 2009 it was 1005.4 thsd., and in 2010 - 1279.8 thsd. The growth rate in 2011 was 22%, up to 1561.9 thsd., people, and 27% up to 1985.9 thsd., people in 2012. The number of foreign tourists in 2013, increased by 7%, amounted to 2129.5 thsd., people and in 2014 - 2159.7 thsd., people (an increase of 1.41%). [22. p. 33] Also, there is 4.5% increase in the number of business entities operating in the tourism sector from 2010 to 2015. [18. p. 12] The analysis of tourism revenue share in GDP over the 2010 – 2015 period, shows a positive growth trend. So, if in 2010 it was 1%, then in 2011 the same indicator was 1.4%, in 2012 -1.6%, in 2013 -1.8%, in 2014 - 2.2% and 2.7% in 2015. [7. p. 65] Also, if the income from tourist services in the country's foreign trade in 2005 amounted to \$ 77.665, then in 2015 this figure was equal to \$2.309.485. [17. p. 399]

## **2.2. Tourism development strategy after 2014**

In the fall of 2014, the acute fall of crude oil prices in world markets negatively affected the Azerbaijani economy. It caused two subsequent devaluations of the Azerbaijani national currency, the manat, in global markets, pushing it to fall to half of its previous value. Additionally, in January 2015, declining oil income, which was 35% lower compared to the previous month and 16.6 % lower than 2014 year's total, wreaked havoc for the Azerbaijani national income. As a result, the Azerbaijani government declared new strategies including: decreasing dependence on the oil industry, developing modern industries based on inexhaustible resources, and increasing foreign currency in the market through increasing exports of domestic products. [13. p. 5] Accordingly, there was an urgent need for elaboration a new development strategy and implementation specific organizational actions to strengthen the targeted growth of tourism share in the country's economy. So, by the decree of the president dated December 6, 2016, was approved the Strategic Road Map on the development of specialized tourism industry of the Republic of Azerbaijan, which served as the basis for the transition of the recreation and tourism sphere to a new stage of dynamic development. The plan provides tourism development strategy and implementation of a number of specific organizational actions from 2016 - 2020, a medium-term forecast and determination of priorities for the period up to 2025, as well as a long-term development of a strategic vision after 2025. Within the stipulated time frames, is being considered the implementation of specific strategic goals: stimulating the development of tourism sector as a whole; development and diversification of regional tourism; creating a quality system and increasing the competitiveness of tourism services; elaboration of new investment projects; as well as mutual

coordination of activities of structures operating in this sphere. As a practical implementation of the actions reviewed in the new strategy, by the decree of the head of the state dated April 20, 2018 “On some measures for enhancement of public administration in the field of culture and tourism”, on the basis of the Ministry of Culture and Tourism of the Republic of Azerbaijan was established the State Tourism Agency of the Republic of Azerbaijan (STA). [30. 29 March 2020. 17:45 pm.] Following this, with the aim of marketing, promoting and positioning the country's tourism potential at an international level, under the STA was established the Azerbaijan Tourism Board (ATB). In turn, creation by the government the simplified “ASAN” Visa System allows citizens of many countries including the United States to receive electronic visas within three days. In June 2016, single-entry tourist and transit visa fees were reduced to \$20 from \$50. A February 2017 presidential decree created “fast-track” routes, including adding ASAN payment and visa terminals, for entry to Azerbaijan at border checkpoints from the bordering countries - Georgia, Iran, Russia, and Turkey. [5. p. 9]

### 3. THE DYNAMICS OF TOURISM DEVELOPMENT

The analysis of tourism development in recent years shows the positive tendency of growth of this sector in Azerbaijan. (Tab. 1)

	2013	2014	2015	2016	2017	2018
<b>Number of employees in tourism industries, person</b>	40 892	41 886	49 449	43 477	46 837	53 222
<b>Gross value added in tourism industries, million manats</b>	2080,2	2404,2	2437,3	2746,1	3151,2	3464,3
<b>Share of tourism industries in GDP, as percent</b>	3,6	4,1	4,5	4,5	4,5	4,3
<b>The volume of investments in tourism industries, million manats</b>	1 371,0	2 204,0	1 063,9	363,0	267,3	229,7

*Table 1: Main indicators of tourism industries (Source: 22. p. 19)*

The total number of foreigners and stateless visited Azerbaijan in 2017 increased by 20% up to 2 million 691.988 thsd. people compared to 2016. (Tab. 2) In 2018, the total number of foreign citizens visited Azerbaijan compared to 2017 increased by 153 thsd., and amounted to 2844.9 thsd., people. It is gratifying to note that a positive growth tendency was also noted in 2019. Thus, the number of foreign citizens visited Azerbaijan in 2019 increased by 323.000 or 11.4% compared to 2018 and reached a record 3.2 million.

<b>2017</b>		<b>2018</b>		<b>2019</b>	
	Growth compared with the previous year (in %)		Growth compared with the previous year (in %)		Growth compared with the previous year (in %)
<b>2692,0 thsd people</b>	<b>20%</b>	<b>2844,9 thsd people</b>	<b>5,7%</b>	<b>3167,9 thsd people</b>	<b>11,4%</b>

*Table 2: The number of foreigners and stateless persons visited Azerbaijan (thsd. people), (Source: 34. 02 May 2020. 20:25 pm.)*



As a result with the increase of the number of air transportation and the simplification of visa regime, Azerbaijan has become a popular tourist destination especially for tourists coming from neighboring countries, Near East, Middle and South Asia (Chart 1).

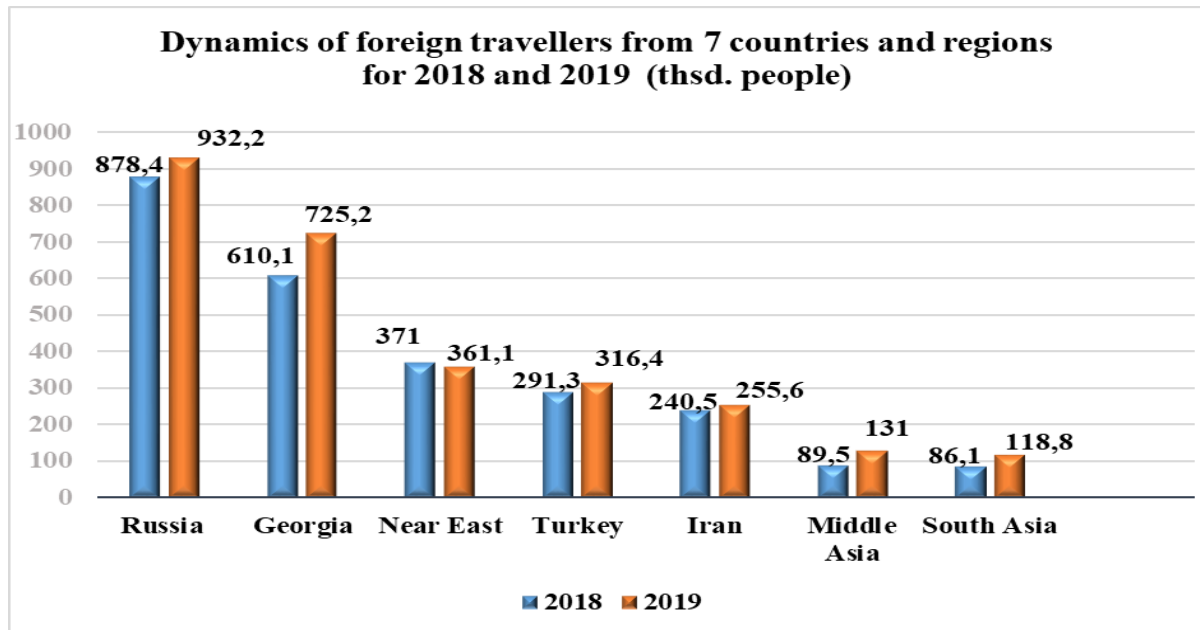


Chart 1: (Source: 29. 09 May 2020. 11:10 am.)

It should be noted that the number of foreign citizens visited Azerbaijan in January 2020 reached 226.2 thsd., people which is 35 thsd., more than the indicators of January previous year. Compared with January 2019, in January 2020 was increase up 18.1%. The largest increase was observed from neighboring countries - Russia and Georgia. Thus, the number of people visited the republic from Russia increased by 12,000 and reached 68,000 (20.5% increase), while the number of arrivals from Georgia increased by 8,000 and amounted to 64,000 (14.6% increase). 24,000 people arrived from the Middle East and Turkey, which is 20.8% and 12.1% more than the indicators January 2019. Besides, the number of tourism enterprises have increased in recent years (Tab. 3).

	2013	2014	2015	2016	2017	2018	2019
<b>Number of travel agencies and touroperators, unit</b>	197	218	243	272	339	374	432
<b>Number of employees, person</b>	1729	1794	1586	1838	1891	2074	2205
<b>Gross income of travel agencies and touroperators, thsd. Manats</b>	29600,9	31107,1	36482,2	36758,3	41034,2	56439,4	63363.8
<b>Expenditures for product (service) output– total, thsd. Manats</b>	25295,5	27018,1	30811,6	29101,8	36734,6	46085,1	50399.9

Table 3: Main indicators of travel agencies and touroperators  
(Source: 22. p. 12)

It should be noted that the hotel industry (Table 4), especially in Baku, is represented by a small number, but the world's largest hotel chains, such as Four Seasons, Hilton, Marriot, Fairmont, Holiday Inn, Hyatt, Park Inn by Radisson, Pullman, etc. Azerbaijan's tourism sector strategy emphasizes mainly on "MICE" tourism, such as hosting large scale exhibitions, business conferences and international sporting events. According to statistics, it is estimated that 33.5% of all tourist services provided in the country were for business travelers. By contrast, the market for mid-range, two-three-star hotels, boutique and bed-and-breakfast-style accommodations, hostels, and entertainment centers is relatively under-developed [5. p. 10].

	2013	2014	2015	2016	2017	2018	2019
<b>Total number of hotels and hotel types of enterprises, unit</b>	530	535	536	548	563	596	642
<b>Average number of employees, person</b>	8259	9009	8364	9838	10015	11407	12481
<b>Income from of enterprises, thsd. manats</b>	171253,0	181047,3	183055,1	240112,7	284453,9	359453,0	450188.5
<b>Exploitation expenses of enterprises, thsd. manats</b>	145468,3	147068,1	171730,8	204852,3	222192,9	277680,5	308342.5
<b>Income and other taxes paid to budget, thsd manats</b>	29951,3	28201,5	28098,5	38525,7	39040,6	33323,1	42252.2

*Table 4: Main indicators of hotels and similar establishments (Source: 22. p. 26)*

In this way, referring to the statistics it can be noted that the gradual realization of comprehensive measures for the strategic governance of tourism development in the republic in recent years gave the positive trend of growth and impact of tourism industry on the country's economy. Accordingly, the flexible and timely reaction of the government to the situation in the country for the period 2014-2015 allowed not only to eliminate the negative outcomes but also insured the growth of tourism industry as a whole.

#### **4. MECHANISM FOR IMPROVEMENT OF TOURISM DEVELOPMENT**

As T. Cherevichko noted, in investigation of tourism industry, it is necessary to base on an integrated approach that allows to identify the interrelation between elements and their properties, interaction, as an overall form of linkage of subsystems, objects and phenomena, manifested in that the modification of a separate object of the tourism industry becomes consequence of a change in another. [10. p. 7] Based on this statement, in our opinion, one of the important strategic issues of sustainable development of tourism sector in Azerbaijan is to set up the organizational mechanism and balanced development, considering integrity. Accordingly, the mechanism for improving the strategic governance of tourism industry foremost should be aimed at identifying of structural components of tourism as interested parties, namely specialized state institutions, local government administrations, economic agents, local communities, educational institutions and public organizations. Close cooperation and effective interaction between the indicated structural components of tourism industry will provide a synergistic effect in implementation of governance functions and will create the basis

for extended reproduction in this sphere. Secondly, in order to ensure the balanced development of tourism industry in the republic, it is necessary to systematize the governance actions, namely, dividing them to:

- State;
- Regional;
- Local.

Planning the models of governance actions at these levels and the practical organization of appropriate development programs at each specific level will serve to increase the competitiveness and sustainable development of tourism in the country as a whole. Reviewing the current level of tourism development in the country as a whole, may observe a number of unresolved issues that slow down growth and negatively affect the development of the industry, namely:

- imperfection of legal regulation;
- lack of tax incentives;
- lack of cost-effective accommodation and infrastructure facilities in the regions of the republic;
- insufficient mechanisms of inculcation and widespread usage of public-private partnerships, realisation of targeted measures to attract the private sector and stimulate entrepreneurial activity.

Accordingly, the mechanism for improving the strategic governance of tourism development should cover, initially the implementation of state programs of a financial-economic and organizational nature designed to create a favorable climate for the development of entrepreneurial activity in this sphere. Overseas practice shows that the realization of the country's tourism potential and the development of tourism requires state support with the adoption of comprehensive measures for a targeted system of state financing and economic support of subjects engaged in tourism or willing, including the elaboration of more acceptable tax legislation in order to stimulate and revive this spheres. In this regard, it is necessary to stimulate entrepreneurial activity of small and medium-sized businesses in tourism sector, take the steps to reduce the influence of seasonal factor by diversifying the tourism product and services oriented to different segments of tourism market and to direct the investments to the construction of cost-effective tourist accommodation facilities (mini-hotels, hostels, guest houses) in regions. The particular importance have the working of proposals for the development of rural tourism and agritourism, which include the involvement of farmers, private households and villagers in tourism. As the organization and improvement of rural accommodation facilities, the widening and diversification of activities of villagers in the field of tourism (production of wine products, cheese, dried fruits, etc.) will significantly increase the capacity of domestic tourism market in the republic. Take actions to organize MICE tourism in the regions of the republic by providing the compiling of events program of both national and international importance. In turn, at the regional level there is a question of increasing the interest and involvement of local government administration on base of joint partnership with public organizations and representatives of the private sector to implement projects aimed the tourism development. It is necessary to develop special territorial-local tourism development projects at the regional levels, considering the natural-geographical and cultural-historical specifics characteristics of a particular region. Such groups as women, representatives of ethnic minorities, folklore groups, etc. should be involved to the planning and implementation of these projects. The implementation of aimed projects jointly by local government administration with civil society and private sector will create favorable conditions for the development of tourism in the regions.

The current realities of regional tourism show the presence of some contradictions in its organizational structure of development, as well as in the state of qualitative and quantitative characteristics. So, there are the significant territorial differentiation of tourism sphere by the objects of social and industrial infrastructure in the regions. It's possible to observe the poorly developed infrastructure, unsatisfactory state of rural roads and transport links, underdevelopment of social and roadside infrastructure, etc. One of the urgent issues is the level of quality of tourist services and the professionalism of workers involved in tourism sector, which to a large extent does not meet the modern standards. These conditions serve as the basis for assessing financial, administrative and organizational costs when planning regional tourism development programs. In this regard, the formation of tourism clusters and the creation of regional production cooperatives within the framework of these clusters may serve as quite acceptable mechanism for solving the aforementioned issues. Based on the close cooperation of interested parties directly or indirectly participating in such cooperatives, it is possible to resolve infrastructure issues, to implement training programs on improvement the quality of tourism services, to expand the range of tourism products, to elaborate the targeted programs on investigation local tourist attractions and teaching specific groups of English skills etc. Thus, the close linkage between government institutions and market agents will serve to capacity building and increase the competitiveness of regional tourism. Today, one of the effective actions of organizing and improving the governance of tourism development should be the stimulation of its development at the local level through the organization of community based tourism. International experience of tourism activities indicates that local programs of development of community based tourism are becoming one of the key factors in ensuring sustainable development of regional tourism in many countries. In this regard, it's necessary to attract attention to the communities as one of the essential structural components of tourism industry and take the steps for formation of local community associations in our republic. In as much as, the organization of tourism and recreation is principally based on local resources of territories, so the local community plays an important role in this process, acting as participant directly involved to this process like organizer and producer of tourism services. It should be noted that community based tourism stands as one of the main chain of tourism assigned to provide a turning point in accelerating the development of regional tourism, thereby furthering the socio-economic stability of the regions. The use of a participatory approach has an extremely importance, as partners with equal status can find the best ways to apply the efforts of private sector in implementing new tourism projects and investing to the creation of the necessary infrastructure, which in turn benefits development, strengthening and sustainability of regional tourism. The role of community in this process is defined by the fact that the involvement of local population to the development of tourism leads to the unification of the efforts of community members, where the role and responsibility of each of them is determined respectively. Former UNWTO Secretary-General Taleb Rifai in his official World Tourism Day 2014 message said "Tourism can only prosper if it engages the local population by contributing to social values such as participation, education and enhanced local governance. At the same time, there can be no real tourism development if such development damages in any way the values and the culture of host communities or if the socio-economic benefits generated by the tourism sector do not trickle down to the community level" [26. 05 May 2020. 17:40 pm.]. The characteristic feature and specificity of community tourism is that it bases on a simple, but unique and deep experience of lifestyle of local population. The approach of community based tourism development and capacity building of local communities allows them to participate in tourism activities and use its socio-economic benefits, as well as gain a deeper understanding of their social, cultural and natural environment. Presently the engagement of local people to provide tourism services and active promotion of community tourism may support villagers, local communities and other stakeholders in effective organization and

deployment of tourism activities in rural areas, thereby increasing the tourist attractiveness of countryside, villages and regions of our republic. But, it should be noted that the successful organization of community tourism on a local scale depends not only on the activities of the entire local community, but also on the conscious and sequential policy of local administration, which should create mechanisms to stimulate economic activity on the local level. A huge role in an enlightening and popularization of community tourism among the local population can play the organisation of regional training seminars on community tourism and integration rural areas into the regional tourism development strategy through non-governmental organizations. As a result the population can gain a better understanding of the issue and launch certain projects in this direction. On the other side, an essential step towards solving this problem may be the elaboration of targeted regional projects for the development of community tourism by local government administration, based to the specificity of territories and considering a wider range of problems. Thus, it is necessary to use the community development approach in state policy of Azerbaijan on regional tourism development, as it will allow in-depth use of local tourism potential and sustainable development of tourism sector as a whole. In turn, will affect not only the socio-economic development of regions but also the preservation of cultural and natural heritage. But today tourism has been the worst affected of all major economic sectors due to the worldwide outbreak of COVID-19 and restrictions imposed by governments of many countries on the international movement of people. Gloria Guevara, President & CEO of WTTC, said: “Travel & Tourism is a critical sector to the global economy, accounting for one in four of all new jobs worldwide and contributing 10.3% to GDP. The research from WTTC, shows a punishing Travel & Tourism GDP loss to the world economy of up to US \$ 2.1 trillion in 2020 and up to 75 million jobs are at immediate risk due to the coronavirus pandemic. Germany is set to be the most affected country in Europe, with almost 1.6 million jobs at risk, followed by Russia with an estimated 1.1 million in potential job losses. Italy and the UK follow as the third most impacted, with both countries projected to lose up to one million jobs in the Travel & Tourism sector. [32. 20 April 2020. 18:20 pm.]

## **5. TRACKING RELIEF PLANS OF TOURISM INDUSTRY DURING THE CORONAVIRUS OUTBREAK**

The rapid diffusion of coronavirus infection did not also get round Azerbaijan, having in turn had direct influence on country's tourism industry and created certain problems for those engaged in this sphere. The country's tourism industry is in the center of hardest period to date. Like the majority of other countries, from March Azerbaijan adopted the temporary restrictive regime measures at state borders with neighboring countries, as well as domestic and international travel and flight bans in order to contain the spread of epidemic COVID-19. This lead to a sharp reduction of the number of visitors to the country. So, for the period from January to March of this year 519.3 thsd., foreigners and stateless from 151 countries arrived to Azerbaijan, which is 15% less than the same period of last year. Only, for March of this year, the number of visitors dropped by 53.4% compared to the previous month, and compared to March 2019 by 62.2% [33. 21 April 2020. 11:10 am.]. In order to overcome the negative implications of the coronavirus outbreak the Cabinet of Ministers of Azerbaijan approved the Action Plan for the implementation of the Decree of the President of Azerbaijan, March 19, 2020 “On a number of measures to reduce the negative impact of the coronavirus pandemic on the country's economy, macroeconomic stability, issues on employment and provide financial support to private sector”. Additionally, the state support program of tourism industry implies the realisation of activities in four main areas: payment of wages, financial assistance, tax relief, and subsidizing of interest rates. Based on this programm the Association of Travel Agencies of Azerbaijan, has prepared and submitted a number of proposals to the State Tourism Agency

to overcome the difficulties faced by tourism companies and stimulate the activities of tourism companies affected by the pandemic. Support mechanisms in particular include:

1. Subsidizing the minimum wage of employees engaged in travel agencies for six month period of 2020;
2. Relief of taxpayers from all types of tax obligations for a period of one year (for 2020), (VAT, income tax, real estate rental tax, etc.).
3. Providing financial support at least 3 months to pay rent paid by entrepreneurs working in areas affected by the pandemic (in necessity, this support should be prolonged to 6 months, given that the employees will not layoff);
4. Relief of impacted entrepreneurs from open space advertisement (on the facade) duty for a period at least one year;
5. Freezing existing credit and bank guarantee obligations of impacted entrepreneurs for a period of at least six months;
6. Subsidizing interest rates and actively using credit guarantee instruments in areas affected by the pandemic;
7. Payoff the compensations for public utilities in areas affected by the pandemic;
8. Speed up the process of creating a tourism fund in the near future and reconsider the need for insurance of tourism business;

In accordance with the implementation of actions on the above items, many travel companies, hotels, hostels and guest houses obtained the financial support from the state. It should be noted that, although the new legislation on tourism was several times considered in parliament, but was not approved finally, which entails many questions and complicates put on of tax reliefs of entrepreneurs impacted by the pandemic. Accordingly, this measure will be possible only after the approval of the law on tourism in parliament.

## 6. CONCLUSION

Countries around the world are implementing emergency measures to support their standstill economies during the coronavirus crisis. The government of the Republic of Azerbaijan either consider the relief plans as a way of minimizing the economic impact of the crisis. Although the government has taken certain precautions concerning the tourism sector to limit the effects of these adverse developments. But it is obvious that in post-pandemic period, the development and implementation of effective measures to revive the tourism sector is especially relevant. In this regard, it will be necessary to develop mechanisms for restoring the tourism market, adoption of package programs to help small and medium-sized businesses, stimulation development of certain tourism directions, considering the fact that domestic tourism will be more preferable for our citizens in the post-pandemic period. In order to attract the visitors from outside continues to come up with non-standard ways and introduce incentives for attracting tourists during the post-pandemic period.

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# INVESTIGATION OF FACTORS AFFECTING CONSUMPTION IN THE DOMESTIC FOOD MARKET OF AZERBAIJAN

**Sugra Humbatova Ingilab**

*Associate Professor at Department of "Economy and Managements",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
ms.sugra@mail.ru*

## ABSTRACT

*The agrarian sector, unlike other sectors, is more closely linked with trade and market mechanism. This is due to the fact that the agrarian sector is the primary backbone of the economy. The direct impact of agrarian production on the domestic food market has made it the main research subject. The study investigated the factors influencing the domestic food market in Azerbaijan. Socio-economic aspects of the formation of the food market in the country were considered for the purpose of the research. The generalization, grouping and systematic approach constitute the methodological basis of the article. The methodology used is based on econometric analysis of time series. The first step involves the formation of an order of integration of variables included in the model and utilizing several unit root tests such as the Augmented Dickey-Fuller (ADF), Phillips-Perron (PP) and Kwiatkowski-Phillips-Schmidt-Shin (KPSS) tests. The cointegration approach is based on the ARDL model and the boundary test. As Azerbaijan is mainly an oil exporting country, the fluctuations in oil prices on the world market affect some economic indicators, including some factors which have significant influence on the food market. The factors influencing the consumption of products in the domestic food market (the analysis of the population's income and food price index, the determination of the market's dependence on state remuneration and income policies and, in particular, social protection measures) organize the originality and scientific novelty of the study. As a result of the research, the impact of the population's income and the food price index on the consumption of individual products in the food market was assessed. The practical significance of the results is the improvement of the domestic food market and food supply of the population, its use in enhancing the social welfare of the population.*

**Keywords:** Domestic Food Market, Population Income, Price Index, Social Welfare, ARDL

## 1. INTRODUCTION

Under the new economic conditions, justification of the concept of the agrarian market development, especially the food market, requires accurate knowledge and information about its essence, functions, components and mechanisms, its role and place in the market economy. It should be noted that from this point of view, the thesis which states the development of agricultural production in developing nations plays a significant role in strengthening food markets was emerged. As an object of economic research, this market has attracted a great deal of attention from representatives of various economic schools of economic thought. Many of them explained the market as a place of trade and an aggregation of forms of its organization. The food market takes a special and important place in the market system. The structure of the food market has traditionally been divided into three main areas: Agricultural and agrarian-food market which regulates the relations associated with the realization of food products generated directly from agriculture or made from initial agricultural products (vegetables, fruits, potatoes, bakery products, dairy products, vegetable oil, sugar, etc.); Agricultural initial product market intended for further processing of agricultural initial crops and use in production (seeds, grains, oilseeds, sugar beet, milk, meat, root crops); resource and service market for agricultural production and food industry. The food market was defined as an integral part of the economy which covers the production, distribution, exchange and consumption of initial food output and

food products (Shaikin, 2001). Formed and developed under the influence of the economic environment and the state, the food market can also be conceptualized as a socio-economic system which combines food production, distribution, exchange and consumption (Dobrosotsky, 2000). The food market is characterized by the aggregate of goods realized in it and qualitatively differs from other markets. According to many scientists such as. Burdukov and Saetgaliyeva (2004), Avdasheva (1998), Zakshevsky (2003), Zakshevsky and Savchenko (2010), Rozanova (1998), Serova (1999), these goods can be combined in the following groups of interchangeable food products: cereals and bakery products; meat and meat products; milk and dairy products; fish and fish products; sugar beet, sugar and confectionery products; potatoes and potato products; vegetables and vegetable products; eggs; seed oils and oil products; fruits and fruit products; soft drinks. The population's demand toward food products which is backed by purchasing power constitutes the remarkable part in food market in which indirect connection can be observed among these groups of goods through corresponding mutual substitution of consumption.

## **2. THE CURRENT SITUATION OF THE FOOD MARKET IN THE COUNTRY**

By the Order of the President of the Republic of Azerbaijan No. 1897 dated March 16, 2016, relevant instructions were given to develop a Strategic Road Map based on an in-depth analysis of the current situation of the economy. This Strategic Roadmap provides a strategic vision for the development of the country's agricultural sector until 2020, a long-term vision for the period up to 2025, and a target vision for the period after 2025, which are both medium and long-term in the agricultural sector. It also means that the country has a clear plan to be implemented in successive stages to accomplish long-term strategic development goals. Based on the principles of sustainable development in the country through the implementation of the Strategic Road Map for 2016-2020, it is planned to implement 9 strategic goals to create a favorable environment for achieving the formation of a competitive agricultural production and processing sector. Priorities for 2016-2020 have been justified for the implementation of each strategic goal. In the analysis of the state of the food market, it is accepted to use the indicators of direct retail trade turnover. In this regard, we also referred to this in our study. Thus, the retail trade turnover in Azerbaijan increased from 1047.7 million manat to 37090.0 million manat during 1995-2018. It is unanimously known fact that the demand for goods in the food market depends on the income of the population. In this case, demand determines the structure and scale of production, and the profits of economic entities depend on it. In relation to the food market, it is important to know the cost of people in obtaining food products. An important issue in the analysis of food consumption is the fact that the consumer can get the entire collection of food products which are necessary for the continuation of their life activities. To address this issue, it is important to identify or determine the purchasing power of the consumer through economic affordability. Economic affordability is an indicator which shows the purchasing power of the average income of the population. It is expressed by the amount of different food products that can be obtained with this given average income, or by its ratio to the monthly consumer basket. As mentioned above, the income of the population is one of the factors influencing the food market or in other words, the retail trade turnover. As for the income of the population in our country, it increased from 2473.4 million manat to 41744.8 million manat during 1995-2018. One of the factors affecting the food market are price indices, especially consumer price indices. Although the annual CPI and food indices for the last 16 years were 106.2% and 107.7%, the CPI was 116.7%, 120.8% , 101.5% and the CPI of food products was 116.2%, 128.6%, 98.5% respectively during 2007-2009 which can be explained by the sharp fluctuations in oil prices in that time span. The similar changes in CPI also happened in 2014 and 2015, when oil prices fell by 2-3 times and the national currency was devalued.

It is true that due to preventive measures and resources of the state, inflation was 101.4% in 2014 and 104% in 2015, but in 2016 it was already 112.4%. The same trend can be observed in the CPI of food products too. Thus, due to preventive measures and resources of the country, the CPI of food products in 2014 was 101% and 106.1% in 2015, but in 2016 it was already 114.7%. But in 2008 the CPI and the CPI of food products was 120.8% and 128.6%, respectively. However, since these figures fluctuated between 110-116% in 2005-2007, those indicators were 112.4% and 114.7% in the year 2016. Based on these statistics, 2016 can be considered as the year in which more effective monetary regulations were implemented. In 2012-2015, the CPI fluctuated between 101-104% and the CPI of food products fluctuated between 100-106%, accordingly. It is clear from the calculations that during these years, the first important variable which has the highest impact on the overall CPI or inflation is the prices of paid services to the population, the second and third most influential factors are the prices of non-food products and the the prices of food products respectively. The impact of the prices of paid services which are served to the population was approximately 2-3 times more and this situation can be explained, first of all, by the conversion of many services into paid services, improving the quality of paid services and the complete renewal of their main assets.

### 3. METHODOLOGY

From the starting of initial economic ideas till today one of the main tasks of economics has been to form an idea of possible ways of economic development, to predict economic development or other similar indicators, to anticipate the future of economic factors, to identify mechanisms to change the economic situation in the desired direction. Dependencies found in the natural sciences are serious (functional) dependencies, i.e. each value of one variable corresponds to the unique value of the other variable. However, such dependencies are not found among economic variables that characterize economic systems. For example, there is no significant relationship between income and consumption, between price and demand, between labor productivity and length of service.

#### 3.1. Data and Methods

##### 3.1.1. Data Descriptions

In the study, food market turnover (volume), population income and consumer price indices are based on time series data (1995-2019) (Table 1). The data were obtained from the State Statistics Committee of Azerbaijan. The change in their levels is presented in the descriptive statistics of all these variables (Table 2).

*Table 1: Data and internet resource*

IP	INCOME_OF_PEOPLE_	www.stat.gov.az
CPI	CONSUM_RPRICE_INDEX_	www.stat.gov.az
TFM	TURNOVER_OF_THE_FOOD_MARKET_	www.stat.gov.az

*Table following on the next page*

Table 2: Descriptive statistics of the variables

	IP	CPI	TFM
Mean	19753.36	123.9917	15293.76
Median	12378.35	104.9000	8550.350
Maximum	53688.60	522.4000	47755.10
Minimum	2072.800	89.00000	1226.200
Std. Dev.	17453.11	85.26478	14990.22
Skewness	0.565222	4.516986	0.861790
Kurtosis	1.824476	21.63086	2.453273
arque-Bera	2.659762	428.7215	3.269636
Probability	0.264509	0.000000	0.194988
Sum	474080.6	2975.800	367050.3
Sum Sq. Dev.	7.01E+09	167211.9	5.17E+09
Observations	24	24	24

In this study, a methodology based on econometric models to construct time series was utilized. There are two important stages of econometric methodology. The first step is to identify the order of an integrated series of variables included in the model: the Augmented Dickey–Fuller test (ADF), the Phillips-Perron test (PP), and the Kwiatkowski–Phillips–Schmidt–Shin (KPSS) stationary test. In the second stage, joint integration methods were applied. More specifically, the methodology of Pesaran and Sheen (1999) was applied. In addition, ARDL models and bounds test were performed to test the long-term relationship between the studied variables (for the cointegration approach).

### 3.1.2. ARDL Bounds Testing Cointegration

Our study is based on ARDL models and bounds tests for the cointegration approach developed by Pesaran and Shin (1999) and Pesaran et al (2001). These models have recently been widely used by researchers to test the existence of long-term relationships between various macroeconomic variables. The main advantage of this approach is that there is no need to integrate all variables in the same level. The implementation of the ARDL method consists of three stages. In the first phase, we test the integration of the various variables studied with the ADF unit root (Dickey and Fuller 1979), PP (Phillips and Perron 1988) and KPSS (Kwiatkowski, Phillips, Schmidt and Shin, 1991) tests. Three tests were used to verify the reliability (robustness) of the results obtained. In the second step, we evaluate the following unrestricted error correction model given by equations (1) and (2):

$$\Delta LTFM_t = \beta_0 + \sum_{i=1}^p \beta_i \Delta LTFM_{t-i} + \sum_{j=0}^g \gamma_j \Delta LCPI_{t-j} + \theta_0 \Delta LTFM_{t-1} + \theta_1 \Delta LCPI_{t-1} + \varepsilon_t \quad (1)$$

$$\Delta LTFM_t = \beta_0 + \sum_{i=1}^p \beta_i \Delta LTFM_{t-i} + \sum_{j=0}^g \gamma_j \Delta LIP_{t-j} + \theta_0 \Delta LTFM_{t-1} + \theta_1 \Delta LIP_{t-1} + \varepsilon_t \quad (2)$$

IP	INCOME_OF_PEOPLE_
CPI	CONSUM_RPRICE_INDEX_
TFM	TURNOVER_OF_THE_FOOD_MARKET_
$\beta_0$	Constant
$\varphi_i, \rho_i$	Parameters
Bounds test	
Null hypothesis:	$H_0: \theta_0 = \theta_1 = 0$ , No cointegration.
Alternative hypothesis:	$H_0: \theta_0 \neq \theta_1 \neq 0$ , Cointegration.
$p, g$	Lags, are chosen based on the Akaike information criterion (AIC)
	All of the tests of stability, normality, autocorrelation, and heteroscedasticity should be used to check the models estimated.

The F test that was progressed by Wald was utilized for decision-making process. Critical values of the F test were derived from Pesaran et al (2001) and Narayan (2005). The latter includes small and recent examples.

Two critical values can be observed in both Peseran et.al. (2001) and Narayan where the one of the critical values indicates the lower bound, while the other is the upper bound. The lower bound is identified by considering that all the rows are stationary while the upper bound is first of all the variables which were integrated. The magnitude of critical values are affected by probability levels, sample size and the number of independent variables. If the value of F-statistics is more than the upper critical value, the null hypothesis must be rejected. In this situation, the variables are cointegrated. But when the value of F-statistic is below the lower critical value, we have no sufficient evidence to reject the null hypothesis and therefore in this case it can be concluded that the variables are not cointegrated. If the third case occurs, which means F-statistics is between two critical values, then no conclusion can be derived.

### 3.1.3. Long Run Granger Causality Test

When the outcome of the tests shows that the variables are cointegrated, the unrestricted error correction model is estimated by equations (3) and (4) to identify both short-term dynamics and the long-term relationship equations. The existence of a cointegration causal relationship between the dependent and independent variables is checked in every UECM. The value below zero and the statistical significance of the coefficient ( $\pi$ ) of the error correction term affirm the existence of long run causality from the explanatory variables toward dependent variable.

$$\Delta LTFM_t = \beta_0 + \sum_{i=1}^p \beta_i \Delta LTFM_{t-i} + \sum_{j=0}^g \gamma_j \Delta LCPI_{t-j} + \pi ECT_{t-1} + \varepsilon_t \quad (3)$$

$$\Delta LTFM_t = \beta_0 + \sum_{i=1}^p \beta_i \Delta LTFM_{t-i} + \sum_{j=0}^g \gamma_j \Delta LIP_{t-j} + \pi ECT_{t-1} + \varepsilon_t \quad (4)$$

### 3.1.4. Diagnostic Test

In this part, we will utilize Breusch Godfrey LM test (null hypothesis of the test is “non-existence of serial correlation”) in order to check successive correlation issue and use Breusch–Pagan–Godfrey (null hypothesis indicates “no heteroskedasticity”) and Autoregressive Conditional Heteroscedasticity test (ARCH) for gaining more reliable results for heteroskedasticity issue. In ARCH test, null hypothesis of “no heteroskedasticity” is examined. Beside this, Ramsey RESET Test and Normality Test (Jarque-Bera) JB were checked as well. The rejection of null hypothesis is justified for each of the five different cases.

## 4. EMPIRICAL RESULTS AND DISCUSSION

### 4.1. Results of Unit Root Tests

As mentioned earlier, we need to start with finding the order of integration of various variables through ADF, PP and KPSS tests. The results of the ADF, PP and KPSS tests are given in Table 3-5. All three tests which are applied give almost the same results. This proves the reliability of our results. None of our variables are integrated in the second order.

*Table following on the next page*

Table 3: ADF Unit Root Test

Model	Variable	ADF-Stat	Levels of Critical Values			LAG	p-Value	Stationarity	Integrability (0,1,2)
			1%	5%	10%				
With Intercept only	At Level Form								
	LCPI	-19.44252***	-3.752946	-2.998064	-2.638752	1	0.0000	S	I(0)
	LIP	-0.471661	-3.769597	-3.004861	-2.642242	1	0.8793	N/S	I(1)
	LTFM	-0.113806	-3.769597	-3.004861	-2.642242	1	0.9362	N/S	I(1)
	At First differencing								
	D(LCPI)	-14.97086***	-3.769597	-3.004861	-2.642242	0	0.0000	S	I(0)
	D(LIP)	-3.416288**	-3.769597	-3.004861	-2.642242	0	0.0215	S	I(0)
	D(LTFM)	-2.981558*	-3.769597	-3.004861	-2.642242	0	0.0524	S	I(0)
	With Intercept & Trend	At Level Form							
LCPI		-18.92102***	-4.416345	-3.622033	-3.248592	1	0.0000	S	I(0)
LIP		-1.441474	-4.440739	-3.632896	-3.254671	1	0.8186	N/S	I(1)
LTFM		-2.429112	-4.440739	-3.632896	-3.254671	1	0.3560	N/S	I(1)
At First differencing									
D(LIP)		-13.33161***	-4.440739	-3.632896	-3.254671	0	0.0000	S	I(0)
D(LIP)		-3.329078*	-4.440739	-3.632896	-3.254671	0	0.0876	S	I(0)
D(LTFM)		-2.875469	-4.440739	-3.632896	-3.254671	0	0.1883	N/S	I(0)
No Intercept & No Trend		At Level Form							
	LCPI	-1.398507	-2.669359	-1.956406	-1.608495		0.1463	N/S	I(1)
	LIP	2.448763	-2.674290	-1.957204	-1.608175	1	0.9947	N/S	I(1)
	LTFM	2.093489	-2.674290	-1.957204	-1.608175	1	0.9885	N/S	I(1)
	At First differencing								
	D(LCPI)	-15.66633***	-2.674290	-1.957204	-1.608175	0	0.0001	S	I(0)
	D(LIP)	-1.959218*	-2.674290	-1.957204	-1.608175	0	0.0498	S	I(0)
	D(LTFM)	-2.020530**	-2.674290	-1.957204	-1.608175	0		S	I(0)

Note: ADF denotes D(LOGTURNOVER\_OF\_THE\_FOOD\_MARKET\_) the Augmented Dickey–Fuller single root system respectively. The maximum lag order is 3. The optimum lag order is selected based on the Schwarz criterion automatically; \*\*\*, \*\* and \* indicate rejection of the null hypotheses at the 1%, 5% and 10% significance levels respectively. The critical values are taken from MacKinnon (Mackinnon, 1996). Assessment period: 1995–2018.

Legend: S–Stationarity; N/S–No Stationarity

Table 4: PP Unit Root Test

Model	Variable	Phillips–Perron test statistic	Levels of Critical Values			Bandwidth h	p–Value	Stationa rity	Integrat ion I(0,1)
			1%	5%	10%				
With Interce pt only	At Level Form								
	LCPI	-6.23776***	-3.752946	-2.998064	-2.638752	2	0.0000	S	I(0)
	LIP	-0.942178	-3.752946	-2.998064	-2.638752	2	0.7557	N/S	I(1)
	LTFM	-0.838426	-3.752946	-2.998064	-2.638752	2	0.7889	N/S	I(1)
	At First differencing								
	D(LCPI)	-0.10844***	-3.769597	-3.004861	-2.642242	21	0.0000	S	I(0)
	D(LIP)	-3.526778**	-3.769597	-3.004861	-2.642242	2	0.0169	S	I(0)
	D(LTFM)	-3.104956**	-3.769597	-3.004861	-2.642242	2	0.0409	S	I(0)
With Interce pt & Trend	At Level Form								
	LCPI	-7.76432***	-4.416345	-3.622033	-3.248592	1	0.0000	S	I(0)
	LIP	-1.128622	-4.416345	-3.622033	-3.248592	2	0.9016	N/S	I(1)
	LTFM	-1.505176	-4.416345	-3.622033	-3.248592	2	0.7979	N/S	I(1)
	At First differencing								
	D(LCPI)	-1.83535***	-4.440739	-3.632896	-3.254671	21	0.0000	S	I(0)
	D(LIP)	-3.454239*	-4.440739	-3.632896	-3.254671	2	0.0698	S	I(0)
	D(LTFM)	-3.012236	-4.440739	-3.632896	-3.254671	2	0.1511	N/S	I(1)
No Interce pt & No Trend	At Level Form								
	LCPI	-1.348405	-2.669359	-1.956406	-1.608495	1	0.1595	N/S	I(1)
	LIP	5.235605	-2.669359	-1.956406	-1.608495	2	1.0000	N/S	I(1)
	LTFM	5.924660	-2.669359	-1.956406	-1.608495	2	1.0000	N/S	I(1)
	At First differencing								
	D(LCPI)	-3.58985***	-2.674290	-1.957204	-1.608175	21	0.0001	S	I(0)
	D(LIP)	-1.886857*	-2.674290	-1.957204	-1.608175	1	0.0578	S	I(0)
	D(LTFM)	-2.016629**	-2.674290	-1.957204	-1.608175	1		S	I(0)

Note: PP Phillips–Perron is single root system. The optimum lag order in PP test is selected based on the Newey–West criterion automatically; \*\*\*, \*\* and \* indicate rejection of the null hypotheses at the 1%, 5% and 10% significance levels respectively. The critical values are taken from MacKinnon (Mackinnon, 1996). Assessment period: 1995–2018.

Legend: S–Stationarity; N/S–No Stationarity

Table following on the next page

Table 5: KPSS Unit Root Test

Model	Variable	Kwiatkows ki–Phillips– Schmidt–Sh in test statistic	Levels of Critical Values			Band widht h	Stationarit y
			1%	5%	10%		
At Level Form							
With Intercept only	LCPI	0.245585	0.739000	0.463000	0.347000	0	N/S
	LIP	0.695046**	0.739000	0.463000	0.347000	3	S
	LTFM	0.702388**	0.739000	0.463000	0.347000	3	S
At First differencing							
	D(LCPI)	0.343651	0.739000	0.463000	0.347000	0	N/S
	D(LIP)	0.182025	0.739000	0.463000	0.347000	2	N/S
	LTFM	0.130134	0.739000	0.463000	0.347000	2	N/S
At Level Form							
With Intercept & Trend	LCPI	0.122186*	0.216000	0.146000	0.119000	0	S
	LIP	0.102160	0.216000	0.146000	0.119000	3	N/S
	LTFM	0.089058	0.216000	0.146000	0.119000	3	N/S
At First differencing							
	D(LCPI)	0.153835*	0.216000	0.146000	0.119000	0	S
	D(LIP)	0.132287*	0.216000	0.146000	0.119000	2	S
	D(LTFM)	0.102427	0.216000	0.146000	0.119000	2	N/S
Note: KPSS denotes Kwiatkowski–Phillips–Schmidt– Shin (Kwiatkowski <i>et al.</i> , 1992) single root system. The optimum lag order in KPSS test is selected based on the Newey–West criterion automatically; ***, ** and * indicate rejection of the null hypotheses at the 1%, 5% and 10% significance levels respectively. The critical values are taken from Kwiatkowski–Phillips–Schmidt–Shin (1992). Assessment period: 1995–2018.							

Thus, according to the ADF test, only LCPI is stationary  $I(0)$  in the “With Intercept only” model. Both of the series of variables which are logged form of income of the people (LIP) and turnover of food market () are integrated of order 1 which means they are both  $I(1)$ . In the “With Intercept & Trend model” only LCPI is stationary  $I(0)$ . The series of the variables which are LIP and LTFM are  $I(1)$ . In the No Intercept & No Trend model, all variables are  $I(1)$ . According to the PP test, only LCPI is stationary at level in the “With Intercept only” model. The each of the variables LIP and LTFM stationary at first difference  $I(1)$ . In the “With Intercept & Trend” model, only LCPI is stationary at level  $I(0)$ . The both of the variables LIP and LTFM are stationary at first difference  $I(1)$ . However, all variables are stationary at first difference  $I(1)$  in the “No Intercept & No Trend” model.

#### 4.1.1. Kwiatkowski–Phillips–Schmidt–Shin

According to the KPSS test, in the “With Intercept only” model, each of the variables which are LIP and LTFM were stationary at level  $I(0)$ . In the “With Intercept & Trend” model, only LCPI were stationary at level  $I(0)$ .

## 4.2. Results of ARDL Models

Since some variables are stationary at level  $I(0)$ , while others are stationary at first difference  $I(1)$ , we cannot use the Johansen multivariate cointegration test. However, we can use ARDL bounds tests for the cointegration method.

## 4.3. VAR Lag Order Selection Criteria

In order to determine the optimal lag for the ARDL model, lag length selection criteria of the VAR were utilized. In this case, we obtained the following results. The criterion used to select appropriate lag length is based on AIC. The outcomes of the lag length selection in VAR are presented in Table 6.

Table 6: VAR Lag Order Selection Criteria

	Lag	LogL	LR	FPE	AIC	SC	HQ
<i>LTFM</i>	0	-5.897216	NA	0.007029	0.717929	0.817114	0.741294
<i>LIP</i>	1	70.75972	132.4074	9.54e-06	-5.887247	-5.589690	-5.817151
	2	79.39479	13.34512*	6.34e-06*	-6.308617*	-5.812689*	-6.191792*
<i>LTFM</i>	0	-5.897216	NA	0.007029	0.717929	0.817114	0.741294
<i>LCPI</i>	1	70.75972	132.4074	9.54e-06	-5.887247	-5.589690	-5.817151
	2	79.39479	13.34512*	6.34e-06*	-6.308617*	-5.812689*	-6.191792*

Note:  
 \* Indicates lag order selected by the criterion  
 LR: Sequential modified LR test statistic (each test at 5% level)  
 FPE: Final Prediction Error  
 AIC: Akaike Information Criterion  
 SC: Schwarz Information Criterion  
 HQ: Hannan-Quinn Information Criterion

Table 7: Results from bound tests  
Significance

Significance													
Dependant variable	F-statistic	Decision	I(0) Bound				I(1) Bound						
			10%		2.5%		1%		2.5%			10%	
			%	5%	%	5%	%	5%	%	5%		%	5%
LTFM	7.991226	1	4.04	4.94	5.77	6.84	4.78	5.73	6.68	7.84	Cointegration		
LTFM	0.846522	1	4.04	4.94	5.77	6.84	4.78	5.73	6.68	7.84	No Cointegration		

Table 8: ARDL Model Coefficients

	Model 1	Model 2
Variable	$\Delta LTFM$	$\Delta LTFM$
$\Delta LTFM_{(t-1)}$	-0.591057**	0.264445*
$LTFM_{(t-1)}$	-0.010054	0.264445
$\Delta CPI_{(t-1)}$	0.463357*	
$CPI_{(t-1)}$	0.391017*	
$\Delta IP_{(t-1)}$		0.701514***
$IP_{(t-1)}$		-0.109682
Constant	-2.0117*	0.056488

Table 7 shows whether there is a cointegration relationship between these variables. Thus, there is a correlation between TFM and CPI. In other words, there is a long-term relationship. According to Narayan (2005), F-statistic is higher than upper bound at 5%. However, there is no correlation between TFM and IP.

Table 9: Long Run Coefficients

	Variable	Coefficient	Std. Error	t-Statistic	Prob.
<i>LTFM</i>	<i>LIP</i>	1.064911***	0.031657	33.638792	0.0000
	C	-0.789599**	0.320375	-2.464607	0.0234
<i>LTFM</i>	<i>LCPI</i>	27.436081**	10.017864	2.738716	0.0160
	C	95.791027	90.320726	1.060565	0.3068
$Cointeq = -LTFM - (27.4361 * LCP + 95.7910)$					
$Cointeq = LTFM - (1.0649 * LIP - 0.7896)$					

The coefficients of long-term relationships are presented in Table 9. Thus, a 1% increase in IP will result in a 1.06% increase in TFM and a 27.5% increase CPI. The first of these coefficients is statistically significant at 99.9% confidence interval, while the other is statistically significant at 99% confidence interval. (\* P < 0.05, \*\* P < 0.01, \*\*\* P < 0.001)



#### 4.4. Error Correction (short run) Model

Table 10: Error Correction (short run) Model Coefficients

Variable	Coefficient	
	Model 1	Model 2
	$\Delta LTFM$	$\Delta LTFM$
$\Delta LTFM_{(t-1)}$	0.886462***	0.009942**
$\Delta CPI_{(t-1)}$	0.747276***	
$\Delta IP_{(t-1)}$		0.646583***
$ect_{(t-1)}$	-0.000811	-0.218897
Constant	0.009942	0.020654

The results of the short-term and ECM models are summarized in this table. The results are as follows: There is a positive relationship between TFM and CPI, as well as TFM and IP. TFM is statistically significant at 0.001% significance level (model 1), while TFM is significant at 0.01% (model 2). Beside this, the ECT coefficient is also statistically significant. The positive relationship in these models highlights the role of investment in increasing GDP for new economic growth. (GDP and NGDP).

Table 11: Diagnostic Test Results (LM Version)

	Ramsey RESET Test (t-statistic)	Normality Test (Jarque-Bera) JB	Heteroskedasticity Test: ARCH $\chi^2$	Heteroskedasticity Test: Breusch-Pagan-Godfrey	Breusch-Godfrey Serial Correlation LM Test: $\chi^2$	R <sup>2</sup>	D_W
ARDL(3, 2)	2.150874	1.832996	0.146331	3.910600	4.216110	0.999550	2.298785
LTFM / LCPI	0.0509	0.399917	0.7021	0.6888	0.1215		
ARDL(1, 1)	2.302667	1.322195	1.151789	4.660182	6.706120	0.998526	1.077854
LTFM / LIP	0.0334	0.516284	0.2832	0.1984	0.0350		

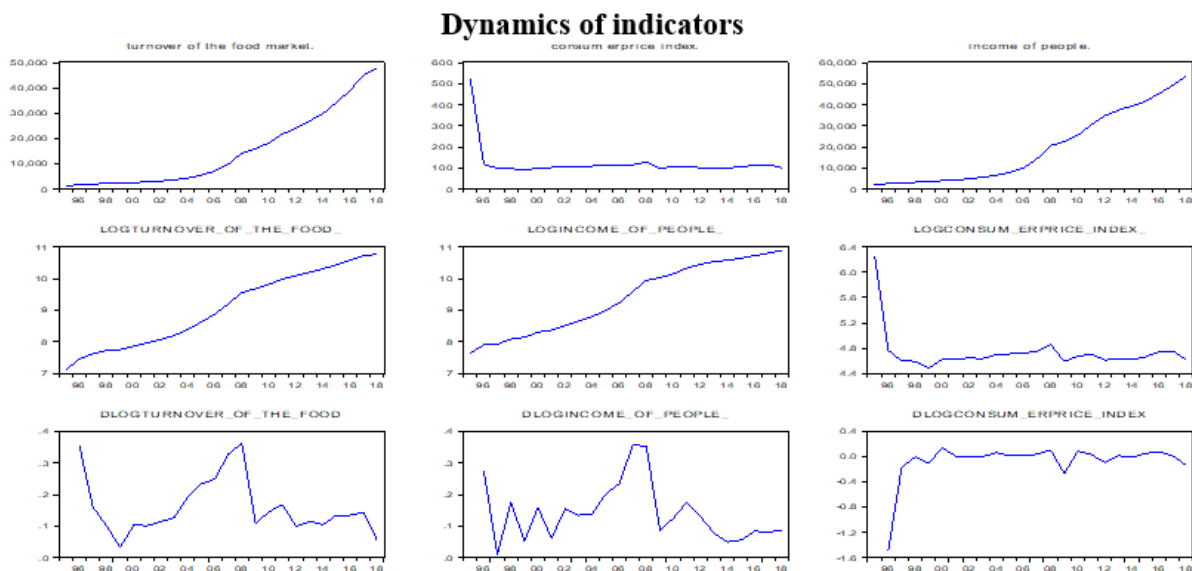
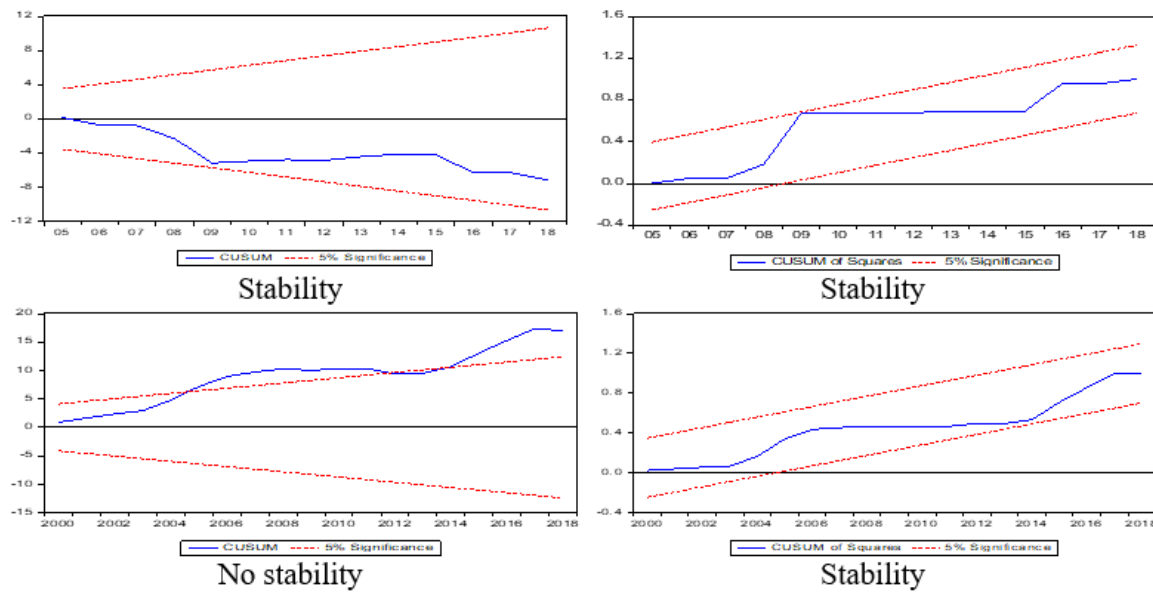
Table 12: Diagnostic Test Results (F Version)

	Ramsey RESET Test (F-Statistic)	Normality Test (Jarque-Bera) JB	Heteroskedasticity Test: ARCH	Heteroskedasticity Test: Breusch-Pagan-Godfrey	Breusch-Godfrey Serial Correlation LM Test
ARDL(3, 2)	F(1,13)	N/A	F(1,18)	F(6,14)	F(2,12)
LTFM / LCPI	4.626260		0.132668	0.533941	1.507199
	0.0509	N/A	0.7199	0.7739	0.2606
ARDL(1, 1)	F(1,18)	N/A	F(1,20)	F(3,19)	F(2,17)
LTFM / LIP	0.0334		1.104928	1.609312	3.498370
	0.0334	N/A	0.3057	0.2204	0.0534

Legend: N/A-Not Applicable

Figure following on the next page

Figure 1: Plot of CUSUM (Cumulative Sum of Recursive Residuals) and Plot of CUSUMSQ (Cumulative Sum of Squares of Recursive Residuals)



Based on the outcomes, ARDL models (model 1 and model 2) are significant at 5% to 1% and 0.1%, respectively. The regression equations are also adequate, as all diagnostic tests for Serial Correlation (Durbin-Watson test and Breusch-Godfrey test), heteroskedasticity (ARCH - Heteroskedasticity test and Breusch – Pagan – Godfrey - Heteroskedasticity test) and error normalization (Jarque-Bera test) have desirable results. According to the Ramsey RESET test, it can be indicated that the model is well defined. All results of these tests are given in the table (Table 11 and Table 12). The stability of the long-run coefficient is examined by utilizing the short-run dynamics. When the ECM model given by equations (Table 10) is estimated, the cumulative sum of recursive residuals (CUSUM) and the CUSUM of square (CUSUMSQ) tests are implemented to assess the stability parameter (Pesaran and Pesaran 1997). Figure 1 shows the results for CUSUM and CUSUMSQ tests. The results indicate that the coefficients are unstable, this is because the plot of the CUSUM and CUSUMSQ statistic is not located inside the critical bands of the 5% significant level of parameter stability. (Non-stability model 1 and model 2 was observed in Figure 1).

## 5. CONCLUSION AND RECOMMENDATION

- 1) Since the food market in Azerbaijan and its formation are closely related to the agricultural sector, the development factors of this sector, together with the income of the population and prices, can be assessed as factors affecting the volume and turnover of the food market.
- 2) The impact of population incomes, consumer price index on retail sales of products in the food market is different and this should be taken into account by economic entities, the population, as well as relevant governmental and non-governmental organizations, while carrying out activities at the micro and macro levels.
- 3) By affecting both suppliers and consumers in food market, price fluctuations in the world oil market will have inevitable indirect impact on the situation of the food market.
- 4) Factors affecting the food market have strong bonds with indicators such as wages, income, money and credit, currency, taxes, social security and etc.
- 5) The development and improvement of the food market are highly related with ensuring food security, increasing food self-sufficiency, substituting import, stimulating the development of the non-oil sector and strengthening the export potential of the agricultural sector.

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## AN ANALYSIS OF THE ROLE OF INFORMATION TECHNOLOGIES IN EDUCATION IN THE GLOBALIZATION PROCESS

**Basti Aliyeva**

*Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan,  
Faculty of Turkish World Business Administration,  
Department of Economics and Business Administration  
bastiyusifova@gmail.com; Basti\_aliyeva@unec.edu.az*

### **ABSTRACT**

*In the modern world, the competitiveness of countries has already become a serious factor. In today's world of globalization, the sustainable development of any country requires a flexible mastery of the principles of international competition in all spheres of society. Today, the creation of an information society and a competitive high-tech national economy has become a key direction of public policy in a number of countries. In these countries, the field of information and communication technologies (ICT) is the most important factor in development. Thus, by actively influencing economic and social activities, it ensures the globalization of the economy and public relations. How to build an education system in the information society, what technologies to use and how to use them to modernize education is one of the most pressing issues today. Today, as the world economy is more knowledge-oriented, the education systems of countries are required to build a system that meets these requirements. This factor has led to systematic reforms in several stages to informatize education in developed countries. The main purpose of informatization of the education system is to prepare individuals with a modern information culture, to form a unified educational and information environment in the country. The development trend of the application of information technologies in education should be analyzed and the world experience should be experienced. Research in this area should provide an opportunity to study the trends in the formation of the information society and the rules of socio-economic processes and to address the theoretical and methodological aspects of the more effective use of modern ICT. Today, the path to the information society can be considered as the path to the future of mankind. According to scientists, at the stage of full formation of the information society, the main subject of human labor will be information and the tools of labor will be ICT. Therefore, today the application and use of ICT at all levels of education in our country, as well as the teaching of ICT itself, the formation of students' ability to independently collect, analyze and transmit information is a requirement of modern world.*

**Keywords:** *Technology, Azerbaijan, Communications, Globalization, Computer, Information Society*

### **1. INTRODUCTION**

Globalization has a serious impact on all spheres of life, especially the education system. Today, under the influence of globalization, a single Information Education Space is being formed in the world. This single educational space requires the integration of national educational institutions created on the basis of high international standards. In the near future, national education systems that do not meet the requirements of global education standards will not be able to compete internationally and will have to hand over their position to transnational education systems and transnational universities. Global education technology is modern information technology. It is important to explore the proper use of ICT in education and ways to improve these skills. It should be noted that the best way to master the knowledge of information and communication technologies (ICT) passes through high school. Mastering these technologies during the school years ensures their active participation in building an

information society. ICT, especially the Internet, has played an important role in the spread of globalization. The pace of globalization is determined by the global nature of information, science, ideas, and the decisive role of ICT in these processes. The global economy, a knowledge-based economy is being formed and developed. This economy is based on science, education, innovation, information flow and the main tool and technology of this economy is ICT. The basis of the information society is education and its superstructure is the knowledge-based economy. One of the top priorities is to turn the technology used in education into advanced modern technology. One of the most important features of the information age is the rapid development of communication technologies and their rapid implementation. Communication technologies have become a key component of political, economic and personal life in today's globalized world. (Karasar, 1999, s: 144). The proliferation of computers in society gives the impression that tomorrow's world will be much different, more complex and more advanced than it is today. Today, computer technology is widely used in all areas of society as well as in global education.

## **2. GLOBALIZATION IN EDUCATION AND INFORMATION TECHNOLOGIES**

In these days when science and technology have become an integral part of modern human life, the rapid development in technology has made our world a small village, and the concept of globalization has been raised among the countries (Akkoyunlu, 1998: p-9). Globalization, which has emerged under the influence of multiple factors, has brought many phenomena into its flow along with its economic, political and cultural dimensions. The rapid change in information, communication and transportation technologies has been the tools that accelerated the globalization process. Through these technologies, the speed and scope of communication and interaction between people and societies have increased and the world is now tiny. There is a close relationship between globalization process and information and communication technologies. Globalization is seen as a result of modern science and new technologies, especially in relation to information technologies. Information and communication technologies affect societies in other social fields such as agriculture, health and education, as well as in economic, political and cultural fields and reveal new models of society such as network society, information society and information society. From educational technologies to goals and practices, many phenomena have been designed with a global perception. In addition to new education models such as distance education, e-learning, e-school, the spread of new educational technologies such as computers, internet, e-library, e-magazine, smart board, smart classroom, multimedia tools, has brought a new dimension to learning and teaching strategies. In the modernizing world, the school is no longer a building, and the classroom is no more than four walls. The world is a “global school” and every space we are in can be a classroom. Access to information resources has become easier in the global education system (Karaman, 2010, p.133). In the 1970s, researches were started on how to use computers in schools (Çeliköz, 1995, p: 573). After 1980, hardware and software related to education increased rapidly. This has led to significant changes and consequences in the teaching-learning process. The use of computer technologies in education has led to the necessity of teachers to be educated, and the physical environments have to be rearranged and the program contents and teaching methods have to be changed. The most important concept of using computer in education is “computer-assisted education”. Computer-assisted education, computer-aided teaching and learning process defined as the use of computers in the teaching-learning process includes the use of computer management (Akkoyunlu, 1998, p: 42). Computer-assisted education has different application methods that will increase the efficiency of the teaching-learning process and can make the role of the teacher and the student more active in the process (Çeliköz, 1995,573). The globality of technology and its impact while maintaining the known advantages of the distance education system on the one hand, on the other hand, realizes the

face-to-face interaction of traditional education in a "virtual environment". With this aspect, the system has eliminated the traditional system of "memorizing" growing weakness by enabling the individual to actively participate in the learning process with an investigative approach in the environment of rapid change of the information age. (Karas, 1999, p 145). However, information and communication technologies have shortened the distance of information flow in time and space dimension and increased the mobility of people who have and produce information. Using computers in education: One of the aims of education is to educate individuals in line with the needs of society. Therefore, education systems today are appropriate to the information age, the members of the information society is obliged to train individuals with characteristics (AKKOYUNLU, 1998, p: 38). Scott sees globalization as the biggest challenge that pushes the boundaries of the university institution. He mentioned information and communication technologies among the important issues he brought to the fore in this challenge and presented them as "It is the homogenizing structure of teaching with the effect of communication and information technologies and global research culture and networks and the dissolution of national cultural differences". Commercialization, marketing and restructuring of schools as commercial institutions have become a phenomenon. The fact that globalization has transformed universities into economically based institutions has brought about the development of the concept of "corporate university". Many companies, which were not related to school and education before, have started educational activities. Universities and companies investing in education have entered into competition in order to retain their power of knowledge. The rapid growth of corporate universities, especially in the United States, is one of the greatest evidence of higher education commercialization. The fact that corporate universities have a meaning related to the concept of "virtual university", is another indicator that supports the relationship between higher education and trade or market. In this new system, where students are accepted as customers, academics are also called entrepreneurs (academic capitalists). Now, as a value, universities have become a commodity that is no longer produced and transmitted, but can be marketed and sold (Karaman, 2010, p.136). Globalization degenerates some cultural values, and as a result of conflicts between national culture and universal values, national values are replaced by universal values, which causes various social problems. The rapid change in technology raises the problem of inability to use technology in developing countries. Educational institutions, on the other hand, are adapting to the change, and lagging behind, and educational institutions that cannot fulfill the function of initiating change are only engaged in efforts to adapt to change.

### **3. ICT AND EDUCATION IN AZERBAIJAN**

The world experience clearly demonstrates that the broad implementation of ICT has effective tools to reduce poverty, contributing to the overall social and economic development of the country. Therefore, it is critical that each country develop its own national ICT strategy to exploit the potential of the country in order to strengthen development. This is particularly important for countries such as Azerbaijan, which are experiencing a period of social, economic changes and longing for full integration into the world union. Transition to the information society, globalization and integration into the world union is one of the main priorities of institutions such as the United Nations and the Council of Europe, of which Azerbaijan is a member. As the country's ICT sector is new, the lack of knowledge and experience has led technology entrepreneurs to research and develop in this field. The creation of an appropriate environment for the transition to the information society is part of the political course of the Azerbaijani Government and the development of the National ICT Strategy is of great importance as a first step in this direction. World experience shows that the modern education model established by using ICT has put new demands and tasks in front of the school's pedagogical committee.

Among these demands, the retraining of teachers in the field of informatics comes first. It is now necessary to select and apply the technologies that enable the harmonic development of the students in accordance with the structural content and purpose of the science they teach, taking into consideration the individual characteristics of children. (M.Mardanov. *Azərbaycan Təhsil Sistemi*, Baku, 2005. p: 48). According to the words of the teachers who successfully use the new technologies in education, ICT tools have greatly simplified the education process with their wide opportunities and made it dynamic and flexible. The addition of a computer to the "teacher - student - manual" teaching model increased the interest and desire of the child to the course in order to organize the teaching process for individual software. Computer lessons are very attractive and memorable for children. Multimedia tools, automatic educational systems, computer training programs, animation graphics and color drawings have a positive effect on children's comprehension and, by closing, the quality of the results of the students in various competitions in the Olympics has been improved. The use of interactive plates in the teaching process provides one of the basic principles of the course. The smart plaque can also detect images from a microscope, scanner, numbered camera, video recorder and other systems connected to a computer, which is of great importance in the creation of virtual laboratories in schools. This, by integrating the students' theoretical-methodological knowledge, practical skills and experiences, stimulates teaching and creates the creative approach, thinking, entrepreneurship and the ability to deeply understand the educational materials in children. Such opportunities are of particular importance for pupils who drop out of classes or for children who are left behind. Thus, the student may become familiar with the electronic option of the course he / she does not attend, or the rest of the teaching can watch the lessons on the computer again. Azerbaijan, as a pioneer in the ICT field, is a successful leader, as in other areas. Today, ICT is used in every stage of education system in our country. The implementation and integration of ICT in education directly affects the formation of a new generation of Azerbaijani citizens with modern knowledge and skills. In recent years, the development of ICT infrastructure in the education system and the implementation of ICT in education to world standards have become one of the priorities of our country. The implementation of various projects in the field of ICT implementation in the education system was directed towards the establishment of ICT infrastructure in educational institutions. The President of the Republic of Azerbaijan adopted the Resolution 355 of 21 August 2004 on the "Program for the provision of general education schools with information and communication technologies in the Republic of Azerbaijan "(2005-2007). As a result of the implementation of the program, a positive result has been achieved in the provision of general education schools of the country with information and communication technologies, and attention has been increased on the establishment of the general education system on the basis of ICT (A.Mehrabov, 2006, p: 360). Then, on June 10, 2008, the State Program "Transferring the education system to the computer in the Republic of Azerbaijan in 2008-2012" adopted by the President of the Republic of Azerbaijan. The main purpose of the project is to establish a new quality education model in our country in accordance with international standards, to create a single electron education space and to integrate the education system into the world education space by using ICT. The main objectives of the education system were determined and the most of the measures envisaged were put into practice. The Ministry of Education of the Republic of Azerbaijan declared the year 2010 as the "ICT Year in Education" in our country and conducted conferences, seminars, various stimulating and encouraging actions and competitions within the scope of this campaign. It will be appreciated that various foundations, companies and enterprises have also participated in these activities. The supply of ICT equipment including schools, computers, laptops and interactive boards is successfully maintained. Although the education centers in the country are advancing with computer equipment, the information infrastructure level of the education system in general is far from the demands of today.



The broad application of contemporary educational technologies envisages a substantial improvement of the security of training facilities with computer equipment. Optimizing student / computer ratio across the country, especially in regions and rural areas, is one of the most important challenges facing us. But today, as well as the need to expand access to computers at all levels of the country's education system, the development of technical control and support systems, including ICT equipment being more efficient, is felt in a rough way. Research shows that one of the most important factors preventing the widespread use of digital technologies in the education process in the country is the poor development of the digital network infrastructure, the lack of adequate coverage of the training centers with the domestic intranet network and the lack of high-speed internet connection. So much so that at present, although the internet relationship in the country's universities is fully secured, very few shares of secondary schools have access to the internet. Most of the educational facilities do not have web pages created, internal digital networks and no single national education site. In addition, the operation, dissemination and implementation of multimedia textbooks and other teaching tools have been postponed. Recently, a number of regulations have been made in this area and actual steps have been taken towards the establishment of electronic teaching systems. However, the development of the scientific technical database on ICT implementation and the establishment of an electronic education environment at the national level remains the main demand of the day. In recent years, important steps have been taken towards the development of education in the country. For this purpose, nearly 2,500 school buildings have been built in various provinces and districts and major repair and restoration works have been carried out successfully in the existing training facilities. The use of information and communication technologies in educational institutions has been significantly expanded. According to the "State Strategy for the development of education in the Republic of Azerbaijan" quality results and scope, among the world countries, qualified teachers and education managers foresee comprehensive measures in five strategic directions for the establishment of an educational system based on advanced technologies. The first strategic direction focuses on the creation of access-oriented identity-oriented educational content and covers important objectives such as curriculum development at all levels of education, including pre-school, general, first vocational-qualification, middle vocational and higher education. The second strategic direction envisages the modernization of human resources in the field of education. This aspect includes the implementation of innovative training methods, qualified service in the effective ownership of training content and increasing the profitability of successive trainers, the establishment of new systems for the evaluation of the success of the training fields, the identification and development of the capabilities of the training fields, and the establishment of an inclusive training methodology for those with special needs. The third strategic direction envisages the establishment of responsible, transparent and effective management mechanisms according to the results of the training. This includes the modernization of regulation and management in the education system on the basis of leading international experience, the creation of a new and transparent management model in schools, the establishment of new information and reporting systems on the quality and management of education. The fourth strategic aspect envisions the creation of a training infrastructure that fits modern needs and provides lifelong education. In this direction, establishment of the infrastructure suitable for information and communication technologies based learning methodology, rationalization of the network of educational institutions, distance education, education and development for talented and special needs children, education of the elderly, vocational-qualification and the establishment of regional universal centers, modern guaranteed vocational-education centers and complexes that provide consultancy services on vocational-qualification and education issues and the establishment of campuses are included. The fifth strategic aspect is the establishment of the financing model of the education system in the Republic of Azerbaijan in

line with the standards of economically resilient and the world's leading education systems. This aspect envisages the development of the educational financing mechanism by using various sources, supporting the transition of educational institutions to per capita finance, the provision of paid education services, and the establishment of the Education Development Fund. (A.Mehrabov, 2006, p: 372).

#### 4. CONCLUSION

In recent years, with the development of computer technology, the use of the Internet has increased to a point that cannot be taken against, changing the life of the society rapidly by influencing the world. The Internet carries scientific and technological change within itself and allows for change. Every day new concepts, new processes and the emergence of new technologies have begun to confuse them. Today, thanks to the internet; new needs arise in ways of accessing information, disseminating information, producing information, forming working groups and working methods. The Internet is also used as a distance learning environment in both formal and non-formal education. It has various names such as 'Electronic University', 'Virtual University', 'Online University' and 'Internet University' and has brought an entirely new understanding to the concept of university. Throughout the world, discussion groups are formed between secondary education institutions using the internet and they develop joint projects. In this way, students can learn by developing their individual talents by making projects wherever they are in the world or country; they can work for a certain purpose. One of the most recent issues related to the reform of the education system in the Republic of Azerbaijan is the development of educational administration through the implementation of ICT. In the meantime, the development of the legal infrastructure that regulates the activities of local government and state organs in the implementation of ICT in education, and the preparation of an electronic database system which is necessary for the effective management of education in the field of education, requires special attention. In addition, raising the pedagogical and administrative staff guarantee of the country's education system with high ICT knowledge and skills to modern standards is an urgent issue.

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## FOREIGN ECONOMIC ASPECTS OF THE PROVISION OF SUSTAINABLE ECONOMIC DEVELOPMENT IN AZERBAIJAN

**Eyvazov Elchin Tahmaz**

*Associate professor at*

*Azerbaijan State University of Economics (UNEC), Azerbaijan*

*unec.iqtisad030@gmail.com*

### **ABSTRACT**

*Being one of the results of successful policy, Azerbaijan, located among the dynamically developing countries of the world, has become a powerful and developing country day by day, laying down the foundation for a unique model of socio-economic progress. The foreign economic aspects of the transition to sustainable economic development in Azerbaijan have been researched in the article. The group of factors influencing on Azerbaijan foreign economic relations is related to the export of highly competitive products by the state to the world market, the formation of a positive balance in the balance of payment, the increase in budget revenues, and the need for capital and investment resources to meet domestic needs. A deeper understanding of the degree of integration and globalization into the world economy was justified. An analysis of foreign direct investments, international trade turnover, balance of payments, and the role of world oil prices in this area was substantiated. The dynamics of the FDI for the non-oil sector over the years and its ratio to the non-oil GDP, and the share of oil and non-oil products in import and export, have been analyzed. In this regard, rising oil revenues in the country should not be considered as the ultimate goal of the economic strategy so far and this factor should be considered as a means for achieving more important strategic objectives. It is important to further expand the scale of the achievements in terms of ensuring sustainable economic development and it is the main direction of the development way that Azerbaijan has achieved great success and is confidently moving forward. This means that after the successful completion of the transition to a market economy, Azerbaijan will continue to develop and confidently move towards becoming a stronger economy in terms of sustainable economic growth.*

**Keywords:** *sustainable economic development, foreign economic relations, foreign direct investment, foreign trade turnover, share of oil and non-oil products in import and export*

### **1. INTRODUCTION**

The formation of the country's sustainable economic development strategy in the context of integration into the world economy is one of the main tasks of every country that has gained its sovereignty, including Azerbaijan. This is evident, because on the one hand, to develop the state foreign economic strategy that defines Azerbaijan's participation in the current stage of internationalization of the global economy in the international distribution of labor, to ensure its companies and enterprises enter new markets with competitive products produced in accordance with world standards and it is necessary to provide the qualitative improvement of its' geographical structure. On the other hand, it is necessary to promote the legal, economic and organizational conditions of effective economic activity for each business entity, the formation of the same market infrastructure for entrepreneurship, as well as the training and retraining of qualified personnel in all areas of economic activity. At the same time, the world economy and international economic relations must be characterized by global changes, the process of irresistible globalization, a high degree of interaction, the mutual conditions of all areas of world economic relations. In modern conditions, the country's sustainable economic development strategy should take into consideration the whole complex of changing external conditions of its implementation, both with a high degree of internationalization of economic

life and the geo-economics realities of the modern world system. In the 21st century, geopolitics is being replaced by geo-economics, which is opposite to the first challenge of increasing national competitiveness. In geo-economics, factors such as the capacity of markets and their Dominance, migration of goods, capital, services and labor, internationalization of production and the factor of Cooperation relations come to the fore and become decisive factors. Therefore, Azerbaijan is pursuing a more efficient use of its competitive advantages, including a growing consumer market, natural resources and a unique geographical location. In this regard, the study of such an important factor as the geo-economic approach to the country's sustainable economic development strategy, including the country's geo-economic position and directions for its strengthening, is of both theoretical and practical importance for Azerbaijan, which is actively integrating into the world economy.

## **2. CHARACTERISTICS OF REGULATION OF FOREIGN ECONOMIC RELATIONS IN CONDITION OF GLOBALIZATION**

The peculiarity of the current stage of the development of the world economy, is leading characteristic is globalization. Globalization covers all spheres of public life: politics, ideology, culture, religion, economy, security, etc. As for the world economy, its globalization is based primarily on the transition of the vast majority of countries to an open economy, which deepens the international division of labor, specialization and cooperation of countries, capital and information, as well as involves the migration of human and productive resources (Jean and Savona, 1997). Thus, the basis of the globalization of the world economy is the repeated strengthening of relations and interdependence of countries, the formation of global financial, commodity, information markets, the interconnectedness of various processes in close world economic relations. The globalization of the world economy is manifested, first of all, in the creation of a global export-import world market of goods and services, a sharp increase in their flow between countries (Babin, 2006). The following main features of the globalization of foreign trade in modern times can be emphasized:

1. Today, foreign trade between countries is surrounded by integration processes. In many regional economic spaces, neighboring trading countries remove all barriers to the movement of goods in one form or another, services coordinate trade activities.
2. There is a significant increase in the dynamics of international trade. This marks a new stage in the globalization of world trade. Expert estimations show that the growth rate of world trade in the last decade significantly exceeds the dynamics of world GDP.
3. The emergence of a significant number of new transnational corporations and mainly is the existing active activity in the world trade markets.
4. Requirements, rules and norms of foreign trade international association. Thus, the main functions of GATT (Committee on Trade and Development) are: uniform rules of world trade through the formation and development of the impact on the trade policy of countries; foreign trade liberalization; and finally, the resolution of disputes.
5. Rapid application of the latest achievements in the field of information and electronic technologies in international trade.

Today, it is impossible to imagine the globalization of world trade without qualitatively new means of communication. All this, of course, is the effect of the globalization of world trade. Undoubtedly, foreign trade is a key and important link in the country's foreign economic activity. First, foreign trade activity directly and actively participates in the formation of the country's gross domestic product, and secondly, it is an area of partnership between countries participating in the purchase and sale of their products through the world market, thus a source of foreign exchange earnings and an important part of the balance of payments (Aliyev, 2007).

In conclusion, it should be noted that in the current stage of development of the world economy, the general course adopted by the world community for the liberalization of international trade and foreign trade is in many cases consistent with protectionist measures against certain goods in some countries.

### **3. FOREIGN ECONOMIC RELATIONS OF AZERBAIJAN**

The restoration of state independence in 1991 opened new opportunities for the Republic of Azerbaijan for the effective utilization its great economic potential through the transition to market relations and integration into the world economic system. The country has a number of advantages in terms of objective criteria that affect dynamic and sustainable development.

1. Azerbaijan has an undeniable competitive advantage over human capital.
2. Azerbaijan is rich in natural resources, especially oil and gas, which gives the country additional benefits in the context of energy security.
3. Due to its geographical position, Azerbaijan is becoming a unique center of the Great Silk Road as a natural Transport Hub between East and West, North and South, while expanding the state's opportunities to enter the world economic system.

Since gaining its independence, Azerbaijan has experienced two main stages of economic development - the first, the period of economic crisis from 1991 to 1995, the second stage - the period of macroeconomic stabilization and dynamic economic development from 1996 to the present. Despite the initial difficult conditions in the short historical period, the country has made great strides in socio-economic development and integration into the world economic system. The greatest achievement is that in the building process of an independent state, in fact, a new model has been created - the Azerbaijani model of economic reform and development. The distinctive features of the economic policy implementation practice under this model are: carrying out work in each of the indicated directions on related programs implemented in parallel; making non-standard and bold decisions that take into account the objective laws of economic development and are calculated for the future; adherence to social orientation; taking into account the national mentality and using world experience. Geo-economics is already taking place in the 21st century and leads to the issues related to national competitiveness in economic competition (Kosolapov, 2005). Because the main factors in the geo-economy are the position of one or another country in world markets, the migration of goods, capital, services and labor, economic integration and cooperation in condition of globalization (Martynov, 2001). Therefore, Azerbaijan is pursuing a more efficient use of its competitive advantages, including a growing consumer market, natural resources and a unique geographical location. Our country should learn to find such complex solutions that we can effectively combine foreign trade with the development of the national economy and the country as a whole in world markets. As it is seen, in principle, mainly it is the meaning of the modern economic policy of Azerbaijan. Expert estimates show that world energy consumption could increase by about thirty percent in the next 15 years.

At the same time, the forecast of the world market for hydrocarbons is linked to four important factors that directly affect the world market:

- a sharp increase in the demand for energy resources of rapidly developing Asian countries (up to about half of the total prospective growth in global demand for energy carriers);
- the growing gap between consumption and energy production in economically developed countries (forecasts show that 60% up to 70% of gas supply of European countries by 2030, will be provided by imports, for most major Asian countries while this figure has already been exceeded today,);

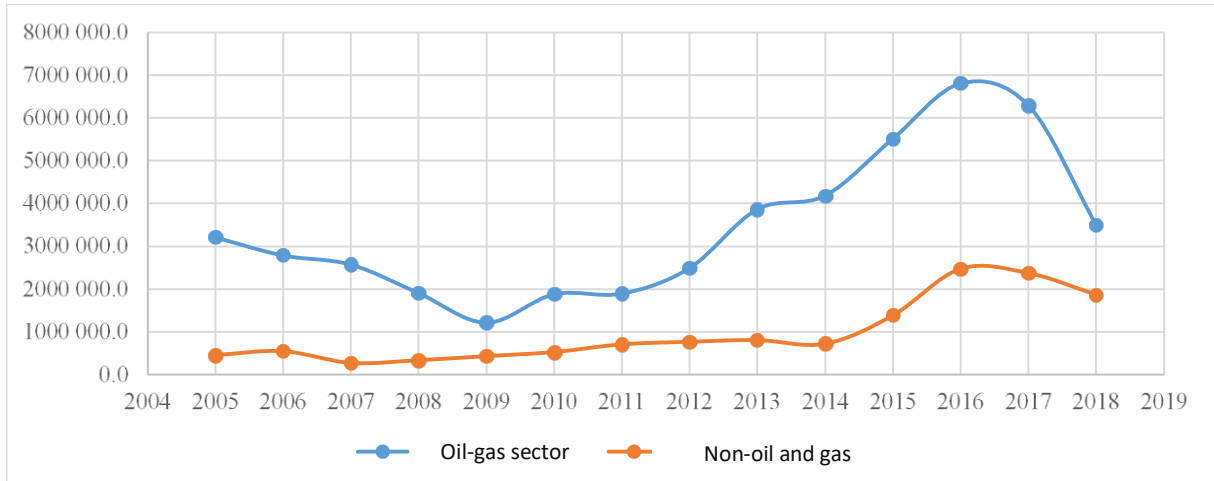
- there is a strong shortage of transport capacity, which is expressed by the necessity of the development of transit potential with world trade carriers;
- the volume of world oil and gas trade is not enough.

It should be noted that some people often confuse two things: energy security and energy independence. Security can and should be ensured, but independence is not possible. We are supplier countries and consumer countries are completely interconnected. Markets are completely interconnected, it is impossible to squeeze someone out of them, you can only expand them. At the end of 2006, Azerbaijan signed a Memorandum of Energy Cooperation with the European Union. The document emphasizes the special relations between Azerbaijan and the EU in the field of energy. The memorandum serves as a unique roadmap for the development of Azerbaijan's energy cooperation with the European Union. It is important to note the motives of the parties in order to properly assess the cooperation. First, the EU has several responsibilities to diversify oil and gas supplies, and second, to ensure the EU's energy security. The motives of our country are as follows:

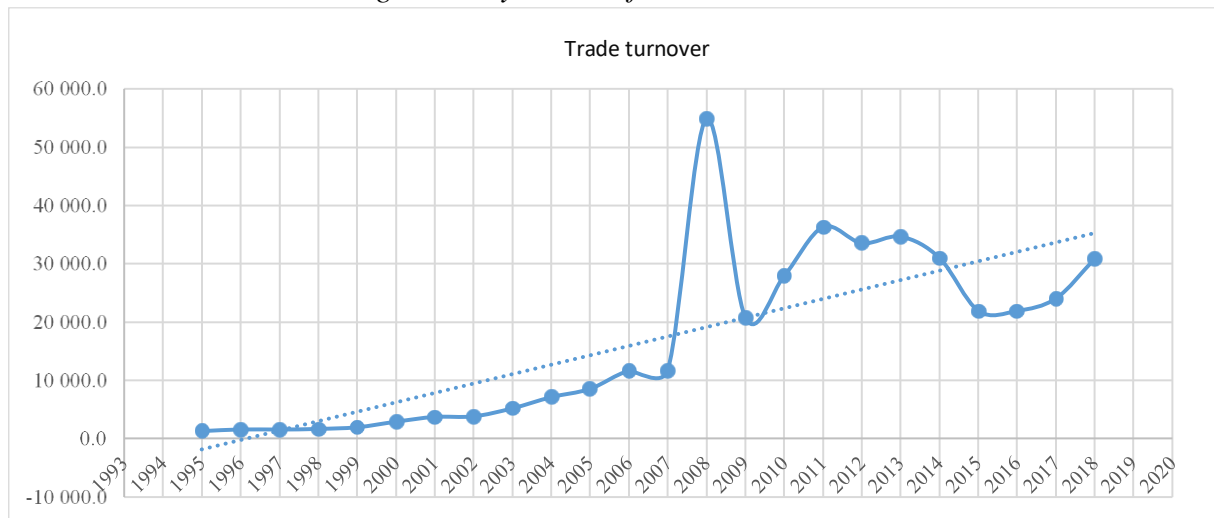
1. Cooperation with the EU is a strategic line of the country's integration into Europe;
2. The Azerbaijani hydrocarbon market dominates in Europe
3. There is an internal link between cooperation with the EU and the country's accession to the WTO.

All pipeline projects have already been implemented through Azerbaijan, and in addition, the country has even established free pipeline forces. The Baku-Ceyhan oil pipeline is fully operational, with the potential to increase its capacity from 1 million to 1.2 million barrels per day, and then to 1.4 million barrels per day. In 2007, in the first stage of Shah Deniz development, the Baku-Tbilisi-Erzurum gas pipeline with a capacity of 30 billion cubic meters of gas per year was put into operation and 8.6 billion cubic meters of gas was produced. Almost one-fifth of the capacity of the Northern Route was utilized by the Russian Federation through Novorossiysk: the transportation of Azerbaijani oil last year amounted to about 830,000 tons, but has not been stopped. In addition, these opportunities can be called the infrastructural support of the main communications leading to Turkey and the Black Sea through Azerbaijan and Georgia. It is planned to build the Kars-Akhalkalaki railway, which will connect Transcaucasian railways with Turkey and Daleys with European railways, starting the transportation of gas from Shah Deniz to Greece via a new gas pipeline from Turkey, develop the Batumi-Ilichovsk ferry crossing and complete a new terminal in Kulevi. In fact, Azerbaijan is also ready to receive oil from the eastern shores of the Caspian Sea - Kazakhstan and Turkmenistan. A terminal capable of receiving 20 million tons of Kazakhstan oil has been built in Sangachal, and in the future, the capacity of this terminal can be increased to 50 million tons per year. SOCAR is building a new oil refinery plant in Turkey in a consortium with other companies and plans to build several more large enterprises in the country. It must be pointed out that the infrastructure conditions have already been created to achieve a synergistic effect from the intra-regional impact of the three areas of activity of the European Union - the Black Sea and Caspian basins and the Central Asian region.

*Figure following on the next page*

*Figure 1: Dynamics of investments in oil-gas and non-oil and gas sector*

In general, the EU has no serious problems with the supply of hydrocarbons from Azerbaijan, and the country's pipeline infrastructure is fully ready for both its own oil and gas transportation and the transit of hydrocarbons from other countries. In fact, there are already enough guarantees to fill the Baku-Ceyhan oil pipeline with Kazakhstan oil, and relevant agreements have been signed at the level of heads of government. The oil facilities planned for this route are estimated at 25-40 million tons per year.

*Figure 2: Dynamics of trade turnover*

*Figure following on the next page*

Figure 3: Dynamics of import, export and surplus/deficit

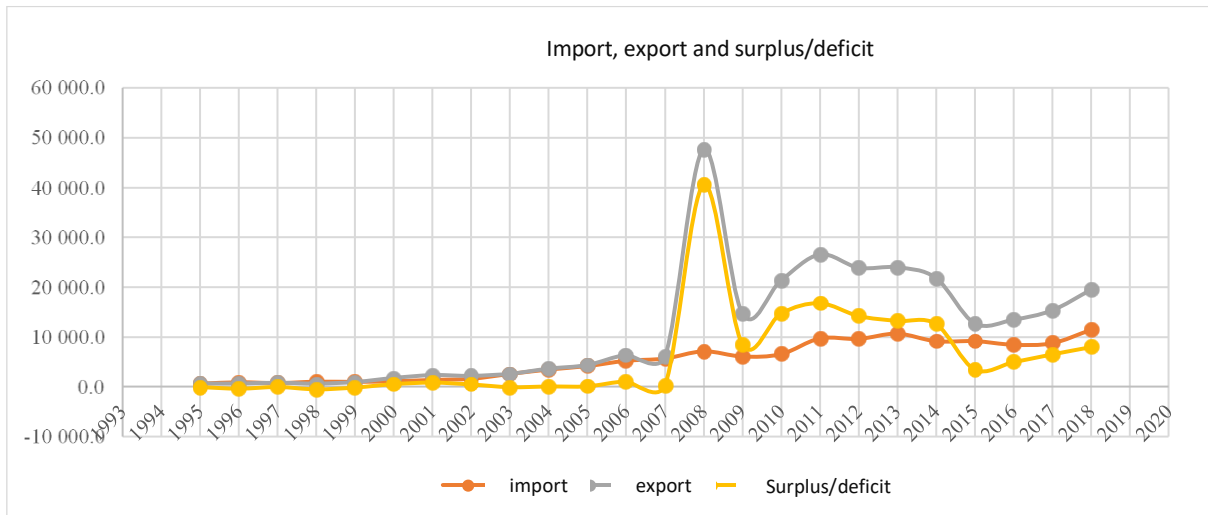
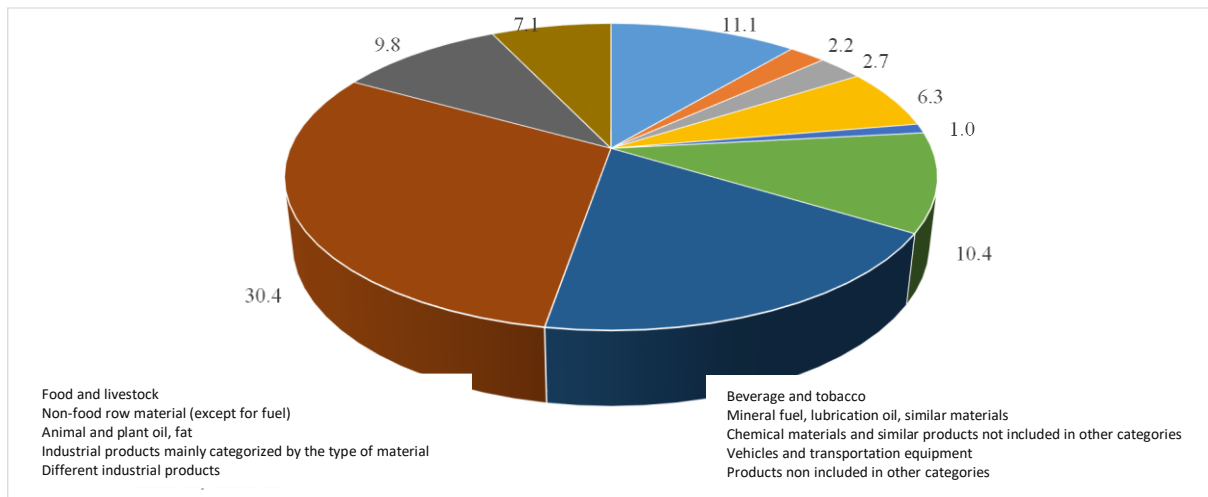


Figure 4: Structure of import in 2018

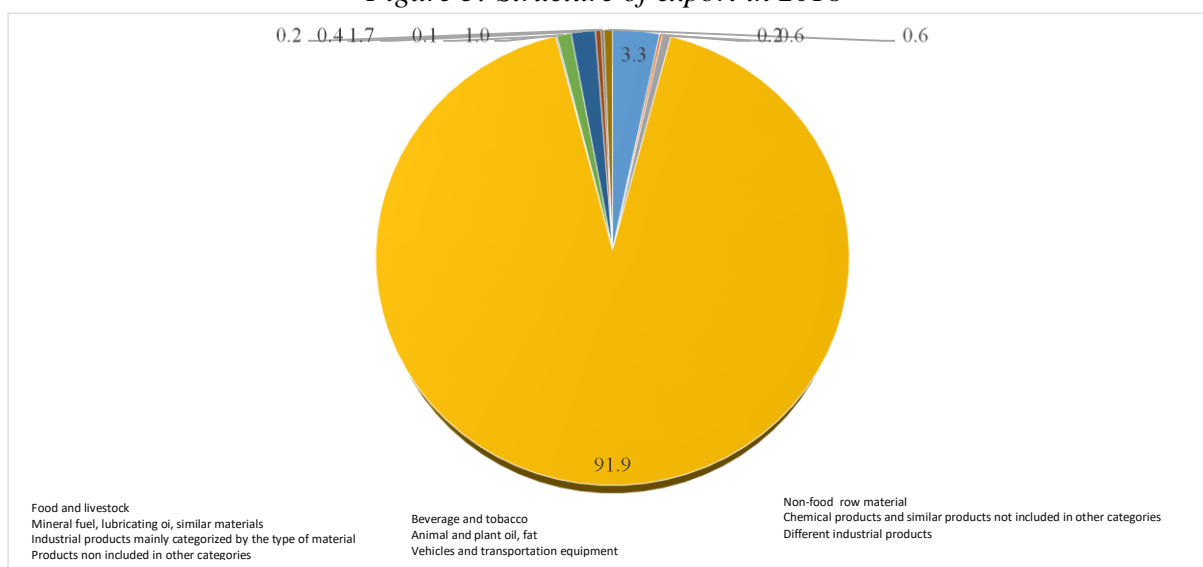


In 2000-2018, imports increased 9.8 times from \$ 1172071.5 million to \$ 11464970.1 million. During this period, this figure increased 2.7 times compared to 2005, 70% compared to 2010, 25% compared to 2015, and 30.5% compared to 2017. Imports of food and livestock increased 6.5 times from \$ 190129.4 million to \$ 1270850.5 million. During this period, this figure increased 4.1 times compared to 2005, 47% compared to 2010, 39.5% compared to 2015, and decreased by 0.1% compared to 2017. Imports of beverages and tobacco increased 6.6 times from \$ 18,301.8 million to \$ 250,314.4 million. During this period, this indicator increased 4.1 times compared to 2005, 47% compared to 2010, 39.5% compared to 2015, and decreased by 0.9% compared to 2017. Imports of non-food raw materials (excluding fuel) increased 13.7 times from \$ 40630.8 million to \$ 313473.3 million. During this period, this figure increased 2.6 times compared to 2005, 0.8% compared to 2017, decreased by 5.5% compared to 2010, and decreased by 30.5% compared to 2015. Imports of mineral fuels, lubricants and similar materials increased 5.3 times from \$ 215898.5 million to \$ 723699.8 million. During this period, this figure increased 2.4 times compared to 2005, 77% compared to 2010, 47.9% compared to 2015, and 30.5% compared to 2017. Imports of animal and vegetable oils and fats increased 5.3 times from \$ 12487.1 million to \$ 114202.0 million. During this period, the indicator increased 3.3 times compared to 2005, 35% compared to 2010, 60% compared to



2015, and decreased by 8.2% compared to 2017. Imports of chemical goods and similar products not included in other categories increased 12.8 times from \$ 78698.1 million to \$ 1,192,774.9 million. During this period, the indicator increased 5.3 times compared to 2005, 2.03 times compared to 2010, 42.2% compared to 2015, and 15% compared to 2017. Imports of industrial goods, mainly classified by type of material, increased 10.6 times from \$ 214291.4 million to \$ 2,173,668.5 million. During this period, the indicator increased 2.9 times compared to 2005, 52.2% compared to 2010, 39% compared to 2017, and decreased by 8% compared to 2015. Imports of machinery and transport equipment increased 7.7 times from \$ 552504.6 million to \$ 3481510.9 million. During this period, the indicator increased by 90% compared to 2005, 39% compared to 2010, 18% compared to 2017, and decreased by 5.5% compared to 2015. Imports of various industrial products increased 15.8 times from \$ 98,038.4 million to \$ 11,23907.9 million. During this period, the figure increased 3.3 times compared to 2005, 2.5 times compared to 2010, 80% compared to 2015, and 30.6% compared to 2017.

Figure 5: Structure of export in 2018



In 2000-2018, exports increased 11.1 times from \$ 1745220.0 million to \$ 19458632.5 million. During this period, the indicator decreased by 60% compared to 2005, 8.9% compared to 2010, increased by 52.8% compared to 2015, and increased by 27% compared to 2017. Exports of food products and live animals increased 19.3 times from \$ 33706.3 million to \$ 651220.2 million. During this period, this figure decreased by 85.7% compared to 2005, increased by 57% compared to 2010, increased by 0.5% compared to 2015, and increased by 0.8% compared to 2017. Exports of beverages and tobacco increased 1.6 times from \$ 17,887.4 million to \$ 29,798.8 million. During this period, the indicator decreased by 49.3% compared to 2005, 15.5% compared to 2015, 20% compared to 2017, and increased by 35.6% compared to 2010. Exports of non-food raw materials (excluding fuel) increased by 50.7% from \$ 83,013.8 million to \$ 125,178.0 million. During this period, this indicator decreased by 43.3% compared to 2005, increased by 5.5 times compared to 2010, increased by 4.9% compared to 2015, and increased by 58% compared to 2017. Exports of mineral fuels, lubricants and similar materials increased 12 times from \$ 1,484,903.9 million up to \$ 1,787,4615.3 million. During this period, this indicator decreased by 55.5% compared to 2005, 11.1% compared to 2010, increased by 60% compared to 2015, and increased by 28.8% compared to 2017. Exports of animal and vegetable oils and fats increased 3.9 times from \$ 3,597.6 million up to \$ 1,4042.1 million. During this period, this figure decreased by 95% compared to 2005, 90% compared to 2010, 87% compared to 2015, and 3% compared to 2017.

Exports of chemical goods and similar products not included in other categories increased 5.5 times from \$ 34,393.6 million up to \$ 194,663.8 million. During this period, this figure decreased by 65% compared to 2005, increased by 50% compared to 2010, increased by 0.2% compared to 2015, and increased by 0.8% compared to 2017. Exports of industrial goods, mainly classified by type of material, increased 20.2 times from \$ 16740.2 million to \$ 338174.3 million. During this period, this figure decreased by 87% compared to 2005, increased by 97.7% compared to 2010, increased by 88.1% compared to 2015, and increased by 5% compared to 2017. Exports of machinery and transport equipment increased by 32% from \$ 62,949.0 million up to \$ 83,208.0 million. During this period, this figure decreased by 80% compared to 2005, 62% compared to 2010, 61% compared to 2015, and increased by 38% compared to 2017. Exports of various industrial products increased 3.7 times from \$ 8028.2 million to \$ 29692.6 million. During this period, this figure decreased by 55.5% compared to 2005, 15% compared to 2010, 65% compared to 2015, and increased by 53.9% compared to 2017.

#### 4. CONCLUSION

The following main results and proposals can be obtained as a result of studying the foreign economic aspects of ensuring sustainable economic development in Azerbaijan and the problem of strengthening the country's geoeconomic position.

- 1) The country's economic development strategy in the modern conditions characterized by global changes in the world economy and international economic relations, the process of irresistible globalization, high degree of interaction, mutual conditions of all areas of world economic relations, both with a high level of internationalization must take into account the whole complex of changing external conditions.
- 2) Based on the formation of the goal of the country's sustainable economic development strategy, the following specific tasks should be included: diversification of forms and directions of the country's participation in world economic relations, first of all, diversification of exports, expansion of trade geography, increasing competitiveness of the country's companies; strengthening the country's position in the most dynamic and promising segments of the world market of goods, services and capital, the country's effective geoeconomic and trade-political position in the international arena, improving access to foreign markets, removing barriers and restrictions for entrepreneurship in foreign economic activity; modernization of institutions, improvement of mechanisms and tools for the development and implementation of foreign economic policy, primarily exports and investments.

Today, Azerbaijan is pursuing its own way of development, making better utilization of its competitive advantages, including a growing consumer market, natural resources and a unique geographical location. It is necessary to find systemic solutions ways allowing for the effective coordination of the economic activities in world markets and with the development of economy and the country as a whole. This is the content of Azerbaijan's industrial policy, including the energy sector.

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# THE PLACE OF THE AGRICULTURAL SECTOR IN THE NATIONAL ECONOMY OF AZERBAIJAN AND THE ROLE OF THE STATE IN ITS DEVELOPMENT IN MODERN TIMES

**Lala Amanova**

*Associate Professor at  
Azerbaijan State University of Economics (UNEC),  
H. Aliyev ave.135, Baku, Azerbaijan  
lala.amanova@gmail.com*

## **ABSTRACT**

*This article discusses the place of the agricultural sector in the national economy of Azerbaijan, as well as the role of the state in its development. The necessity of state participation in the regulation of the agricultural sector, taking into account the features of its functioning, is substantiated. Data are given on the specific place of agriculture, forestry and fisheries in the total gross product, as well as the share of the population employed here. Based on the data of the State Statistical Committee of the Republic of Azerbaijan, an analysis is made of the dynamics of changes in the total gross agricultural product, as well as certain types of crop and livestock production. In addition, the article considers the main directions of the state policy pursued in Azerbaijan in the field of agricultural sector development.*

**Keywords:** *Aggregate product, Agricultural sector, Government regulation, National economy, Strategic planning*

## **1. INTRODUCTION**

An important role of ensuring the normal functioning of any modern economic system belongs to the state. Throughout its history, the state along with the tasks of order, the rule of law and the organization of national defense performed certain functions in the economic sphere. Even in the early days of capitalism, Europe had centralized control over prices, the quality of goods and services, interest rates and foreign trade. In the modern world, any state regulates the national economy, including the agricultural sector. However, the degree of state intervention varies from country to country. In any country, agricultural production has a number of important features that make it extremely sensitive to market conditions. Its main feature is the complexity of the production process, which cannot dynamically change according to market conditions, slowly adapts to the market and is exposed to the adverse effects of various natural factors. From this point of view, it is the state that consciously and purposefully coordinates the process of market changes in the agricultural sector, to ensure the dynamic and consistent implementation of economic regulation tasks. The model of agrarian relations in Azerbaijan should be developed in accordance with national traditions and the experience of the country's historical development, and the creation of an appropriate legal framework is also necessary. In the 20th century, Azerbaijan's agricultural sector has demonstrated great potential for increasing production using the achievements of scientific and technological progress.

## **2. THE CURRENT STATE OF DEVELOPMENT OF THE AGRICULTURAL SECTOR OF AZERBAIJAN**

The agricultural sector has traditionally taken a special place in the country's economy as one of the key sectors of the national economy, which determines the vital activities of society and food security. Its importance is determined not only by meeting the basic needs of people for food, but also by ensuring the country's food independence, expanding inter-sectoral ties and stimulating the development of other sectors of the national economy. It should also be noted that Azerbaijan is a country with rich underground and surface resources.

According to these opportunities, agriculture is the second largest economic sector in the country after oil and gas. From the past to the present day, Azerbaijan is known in the world for its agricultural products and raw materials. In the past, due to the dominance of the settlement on the Silk Road, this area has shown a rapid development trend. Soil fertility led to more crop production. It is a very favorable country in terms of climate and soil structure. It is possible to buy the product 2 or 3 times a season. The development of selection and seed production, pedigree farming, the use of fertilizers and chemical plant protection products, the use of modern machinery and equipment, the provision of soft loans to the agricultural sector, etc. are important conditions for the sustainable development of agricultural production. 11.5% of Azerbaijan's territory is covered with forests. It should be noted that deforestation for administrative, industrial and other purposes is prohibited. Efforts are being made to develop forests through protection, maintenance and afforestation. Most agricultural activities in Azerbaijan are carried out around the Kura and Araz rivers. The country has very favorable natural conditions for the production of food products necessary for the needs of the population. Existing soils and climatic features show that there is potential to meet the population's food needs today and in the years to come. Due to the rich climatic, land, labor potential, Azerbaijan has all the opportunities to produce environmentally friendly products and provide it not only with its own population, but also with exports. Among domestic products in the world market, Azerbaijani wine can be competitive. One of the following products for export to the world market is tea. In Azerbaijan, the development of tea growing mainly stands out Lankaran-Astara economic region. Today, Azerbaijan provides the domestic market with tea up to 65%. Azerbaijani tea is also exported mainly to Iraq, Georgia, Ukraine and Russia. Tobacco in its significance is the second technical crop. High-quality tobacco on an area of 800 hectares is grown in the Gabala, Gakh, Zagatala, Balaken and other areas and processed at the Gabala and Gakh fermentation plants. Cotton has always been the most profitable, strategic product of Azerbaijan. It was used as raw material in the light and food industries. Cotton has spread in the Caucasus, and especially in Azerbaijan, thanks to ancient Eastern countries, mainly Iran. Cotton is grown in the lowlands of the Kura-Araz zone. Azerbaijan can also become one of the leading exporters of currency-intensive products such as silk, saffron, walnuts, hazelnuts, olives, etc.

## **2.1. Analysis of the dynamics of production of basic agricultural products**

According to the State Statistics Committee, in 2018, the share of agriculture, forestry and fisheries among the sectors of the economy fell to 5.3% of GDP. In the distribution of the employed population by type of economic activity - 36.3%. In 2018, the sown area of agricultural crops was 1738.0 thousands hectares of land. Of them, 1083.1 thousand hectares and 62.3% of sown areas are cereals and legumes; 149.7 thousand hectares or 8.6% of potato, melon and vegetable crops; 159.0 thousand hectares or 9.1% technical (cotton, tobacco, sugar beet, sunflower, etc.); 346.2 thousand hectares or 19.9% fell to the share of fodder crops. As a result of the agrarian policy pursued in Azerbaijan in recent years, an increase in the production of many agricultural products of the Republic has been observed. Thus, compared to 2012, the gross agricultural output (in actual prices) amounted to 4844.6 million manat, including: crop production products - 2458.2; while livestock products - 2386.4 million manat, in 2018, respectively: 7010.0; 3186.0 and 3824.0 million manat. Thus, the gross agricultural output is 44.7%; crop production and livestock products increased by 29.6% and 60.2%, respectively. (Table 1.)

*Table following on the next page*

*Table 1: Gross agricultural output, in actual prices, million manat*

Years	Total	Including	
		crop products	livestock products
2012	4844,6	2458,2	2386,4
2013	5244,6	2629,6	2615,0
2014	5225,8	2449,4	2776,4
2015	5635,3	2761,1	2874,2
2016	5632,4	2577,2	3055,2
2017	6580,0	3019,0	3561,0
2018	7010,0	3186,0	3824,0

Source: [https://www.stat.gov.az/source/food\\_balances/](https://www.stat.gov.az/source/food_balances/)

Let's follow the dynamics of production of separate crop and livestock products (Tables 2 and 3).

*Table 2: Production of crop products, for all economic categories, thousand tons*

Years	Cereals and legumes	Cotton	Tobacco	Potatoes	Vegetables	Gourds	Sugar beet	Sunflower
2012	2802,2	57,0	4,3	968,5	1216,2	428,0	173,8	19,7
2013	2955,3	45,2	3,5	992,8	1236,3	429,8	187,9	17,7
2014	2383,3	41,0	2,9	819,3	1187,7	440,9	173,3	19,8
2015	2999,4	35,2	3,5	839,8	1275,3	484,5	184,3	18,4
2016	3065,1	89,4	3,6	902,4	1270,6	464,8	312,6	16,7
2017	2928,8	207,5	5,3	913,9	1405,6	438,1	410,1	29,8
2018	3309,2	233,6	6,3	898,9	1521,9	401,9	277,2	23,6

Source: [www.statistika.az](http://www.statistika.az)

As can be seen in the table, in 2018, an increase of 18.1% was observed in cereals and legumes compared to 2012. Production of other crops also increased: vegetables, respectively - by 25.1%; sugar beets - 59.5; sunflower -19.8; tobacco - 46.5%. Cotton increased from 57.0 thousand tons in 2012 to 233.6 thousand tons in 2018, i.e. increased by 4 times. It should also be noted that in the period under review, decrease was observed as well. In potatoes - 7.2%; in gourds - 6.1%

*Table 3: Production of basic livestock products, thousand tons*

Years	Meat (cut weight)	Milk	Eggs, million pieces	Wool (in physical weight)	Cocoon, tone
2012	276,0	1695,6	1226,7	16,2	3,0
2013	286,9	1796,7	1401,5	16,5	1,4
2014	291,2	1855,8	1562,7	16,8	0,974
2015	298,6	1924,5	1552,9	17,0	0,236
2016	302,2	2009,9	1609,8	16,7	70,8
2017	316,8	2024,1	1714,0	16,0	245,2
2018	326,0	2080,4	1676,2	15,8	513,9

Source: [www.statistika.az](http://www.statistika.az)

According to the table, meat production in 2018 compared to 2012(in cut weight) increased by 50,000 tons or 18.1%. In addition: milk - 34.5%; eggs increased by 36.6%. Cocoon increased from 3 tons to 513.9 tons. It should be noted that in the period under review, there is a decrease in wool (physical weight) production by 0.4 thousand tons.

### *2.1.1. Strategic Roadmap for the production and processing of agricultural products in the Republic of Azerbaijan*

The basis of the state's economic policy in modern times is the diversification and modernization of the national economy, reducing dependence on oil, closer integration into global markets, reducing production costs and improving the welfare of the population by increasing productivity. The development of the agricultural economy plays an important role in fulfilling these tasks. Based on this, the “Strategic Roadmap for the production and processing of agricultural products in the Republic of Azerbaijan” was approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016. The Roadmap provides a strategic vision for the development of the country's agricultural sector until 2020, a long-term vision for the period up to 2025 and a target vision for the period after 2025, which is both a medium-term and long-term vision for agriculture. This means that the state has a clear roadmap to be implemented in successive stages to achieve the strategic development goals for the period. Based on the principles of sustainable development in the country through the implementation of the Strategic Road Map for 2016-2020, it is planned to implement 9 strategic goals to create a favorable environment for achieving the formation of a competitive agricultural production and processing sector. These strategic goals include: strengthening institutional capacity to ensure sustainable food security; increasing agricultural production capacity by value chain link; simplification of access to financial resources; development of the market of means of production in the field of agriculture and improving the provision of services; development of a system of science, education and information and consulting services in the field of agriculture; development of market infrastructure for agricultural products and easier access of producers to markets; environmental protection, rational use of natural resources and management of the impact of natural factors on agriculture; increasing the efficiency of state regulation of the agricultural sector and improving the business environment; increasing employment and welfare in rural areas.

## **3. MAIN DIRECTIONS OF REFORMING THE AGRICULTURAL SECTOR OF AZERBAIJAN**

Within the framework of reforms in the sector, the Agricultural Research Center was established under the Ministry of Agriculture in order to create capacity for modernized scientific research in the field of agriculture, assessment and forecasting, strategic planning. The main functions of the center are to conduct analysis and scientific research on the development of agriculture in rural areas, the formation of analytical databases and information systems, the development of programs and projects. In addition, the Center for Agricultural Science and Innovation has been established through institutional reforms to strengthen the provision of agricultural research institutions, transfer of innovations to farmers, and the transformation of research institutes into a network of consulting services. "Agrarian Supply and Supply" OJSC was established under the Ministry of Agriculture, in order to further strengthen market access, to improve the supply of means of production and the competitive environment in this area. The establishment of this body will serve to further improve the welfare of farmers, stimulate the production and processing of agricultural products in the country, and ensure the systematic procurement of agricultural and food products.

We will be based on four main principles in our activities to fulfill the set tasks:

- low prices and savings in public funds;
- production of quality products and provision of safe food;
- fair competition and support for local production;
- organization of flexible and transparent management.

By another presidential decree, the Agrarian Credit and Development Agency was established on the basis of the State Service for Agricultural Projects and Credit Management. The portfolio of "Agroleasing" OJSC, as well as the sale of agricultural machinery and breeding animals at discounted prices have been transferred to the newly established Agency. As a result of the reforms, discounts on agricultural machinery and breeding animals will now apply to all suppliers. As a result, conditions will be created for the liberalization of the agricultural machinery market and the increase of farmers' access to subsidies. At the same time, access to financial markets will be strengthened, and soft loans and services will become more accessible to farmers. Leasing of agricultural machinery and breeding animals will no longer be formalized in "Agroleasing", but in authorized banks. According to the decree, agricultural services will be privatized. These measures will further improve the quality of agro-technical services provided to farmers. In order to improve the institutional mechanisms of state care for farmers, to give priority to service-oriented activities in the agricultural sector, to strengthen work with farmers, to raise awareness on the use of innovation, the President signed a decree establishing State Agrarian Development Centers. The creation of DAIM will allow to apply the principle of "single window" by organizing quality services in the agricultural sector, increase transparency, and improve the mechanism of establishing relations with farmers.

#### **4. CONCLUSION**

An important role in ensuring the normal functioning of any modern economic system belongs to the state. Throughout its history, the state has performed certain functions in the economic sphere, along with the tasks of order, the rule of law and the organization of national defense. Even in the early days of capitalism, Europe had centralized control over prices, the quality of goods and services, interest rates, and foreign trade. In the modern world, any state regulates the national economy, including the agricultural sector. The agricultural sector has traditionally taken a special place in the country's economy as one of the key sectors of the national economy, which determines the vital activities of society and food security. Its importance is determined not only by meeting the basic food needs of the people, but also by ensuring the country's food independence, expanding inter-sectoral ties and stimulating the development of other sectors of the national economy. The basis of the state's economic policy in modern times is the diversification and modernization of the national economy, reducing dependence on oil, closer integration into global markets, reducing production costs by increasing productivity and improving the welfare of the population. The development of the agrarian economy plays an important role in fulfilling these tasks. Based on this, the "Strategic Roadmap for the production and processing of agricultural products in the Republic of Azerbaijan" was approved by the Decree of the President of the Republic of Azerbaijan dated December 6, 2016. The map focuses on the formation of a sector for the production and processing of competitive agricultural products in the country. The state has a decisive role in achieving the strategic goals set out in the Road Map, such as: strengthening institutional capacity to ensure sustainable food security; increasing the potential for agricultural production by the links of the value chain; simplification of access to financial resources; development of the market of means of production in the field of agriculture and improving the provision of services; development of a system of science, education and information and consulting services in the field of agriculture; development of market infrastructure for agricultural products and easier access of producers to markets;



environmental protection, rational use of natural resources and management of the impact of natural factors on agriculture; increasing the efficiency of state regulation of the agricultural sector and improving the business environment; increasing employment and welfare in rural areas.

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## THE IMPLEMENTATION OF AGRARIAN POLICY AND ITS EMPLOYMENT ASPECTS

**Ulviyya Mammedova**

*Student at Azerbaijan State University of Economics (UNEC), Azerbaijan  
ulviya.mammedova@gmail.com*

### **ABSTRACT**

*The notion of "labor market" in agriculture involves a system of consciously implemented measures by the state on development of different forms of ownership and types of enterprises, establishment of small, medium and joint enterprises, development of agribusiness, training, and improvement of highly qualified personnel who know deeply the secrets of market economy, creation of efficient workplaces. The main functions of improving the state support system for agricultural production are to ensure the efficient activities of state bodies on the creation of appropriate economic and legal conditions for the sustainable development of the agricultural industry and the development and regulation of the agricultural sector and agricultural products, raw materials and food markets by using taxes, privileges, interest rates, subsidies and other means. It should be noted that state regulation of the agro-industrial complex encompasses its implementation mainly by economic methods and this includes to protect the domestic food market from imports, and the agricultural sector from the high monopoly industries that produce agricultural products and sell their products; to protect and improve the state's activities as customers and investors; to protect the public sector of the agricultural sector; to provide training for development of social sphere of the village and agricultural science development and agriculture. At this stage, the regulatory role of the state in economic regulation is particularly important. It is important to attract investment and provide employment for the rural population according to the country's climate and territorial diversity. Ensuring employment in the agrarian sector is generally related to agrarian policy.*

**Keywords:** *agrarian, agriculture, employment, enterprise, form, production*

### **1. INTRODUCTION**

In the context of globalization of the world economy, the urgent task is to ensure the agrarian policy of the country, that is, the competitiveness of agriculture as a whole, food independence, social development of the village, integration into the world system of agriculture, both in the country as a whole and in individual regions. New approaches to the transformation of agriculture in the country, based on the modernization and intensive development of agriculture, necessitate the development of new priorities and strategies for agricultural development. The main role in the implementation of the strategic course of sustainable development of the agricultural sector of the economy should belong to the state. The interaction of the agricultural economy, the market and the state, should be more emphasized and strengthening the role of the state in realization of changes in agriculture, ensuring food safety based on import substitution, as well as modern conditions with a reasonable synthesis of state regulation and agricultural market mechanisms should be considered. Today, the agricultural sector is an important part of the country's economy and its development is related to all sectors of the national economy. In addition, the development of the agro-industrial complex determines the level of food supply for the population and the socio-economic situation in the country. During the agrarian reforms, multi-system market agriculture has been formed. The market economy operates according to its own rules, and its distinctive attribute is the self-regulation of the market. Moreover, self-regulation of the market is not comprehensive, and therefore, it should be supplemented by state regulation according to the features of the

agricultural sector of the country's economy. It should be acknowledged that the concept of a free market does not always meet the goals and tasks of agricultural development.

## **2. ECONOMIC REFORMS IN THE AGRICULTURAL SECTOR**

The need for state regulation of the agro-industrial complex is determined by the following aspects: financial-economic, social, technological, ecological, organizational-legal and foreign economic. The conceptual basis of state regulation of agro-industry is to ensure food safety of the country, efficient use of land and water resources, competitive agricultural production, social development of the village, regulation of imports and to stimulate food exports. The main tasks of improving the system of state support for agricultural production are to create favorable economic and legal conditions for the sustainable development of the agricultural industry and to ensure the effective operation of government agencies in the development and regulation of both agriculture and agricultural products, raw materials and food markets through the widespread use of taxes, incentives, loan rates, subsidies and other means. It should be noted that the state regulation of the agro-industrial complex involves its implementation mainly by economic methods and it includes to protect the domestic food market from imports, as well as from the highly monopolistic industries that produce and sell the means of production for agriculture, to maintain and improve the activities of the state as a customer and investor, to protect the public sector of the agricultural sector; to develop the social sphere of the village, to realize trainings for the development of agricultural science and agriculture. The regulatory role of the state is especially important at this stage in economic regulation. It is necessary to use successful examples in the implementation of agrarian policy. Agriculture and its food sector play a very important role in the European Union, and EU's common agricultural policy (CAP) forms the basis of activities in the field of agriculture, food safety and rural development. Agricultural policy in the EU is defined in the framework of the Common Agricultural Policy and is based on two concepts. The concept serves to regulate support measures within the Common Market and includes the basic payment scheme (BPS) and the single area payment scheme (SAPS). BPS is used instead of various subsidies and serves as a separate support based on a set of standard requirements for environmental measures, food safety and animal and plant health. SAPS is a simplified transitional scheme which provide a transition income support offered to new members to facilitate direct payments. This program is funded by the European Agricultural Guarantee Fund (EAGF). Concept II includes various financing measures, such as agro-ecological programs for EU Member States, payments for less affordable areas, and investment assistance, and funded by the European Agricultural Fund for Rural Development (EAFRD). The main world food exporters are the USA, France, the Netherlands, China, Brazil and a number of other countries. Among importers, the leader – Japan is growing rapidly in food imports in the share of industrialized countries in Southeast Asia. The agro-food policies of many countries are aimed at increasing the production and export of grain, meat and dairy products and sugar. The main suppliers of grain are the United States, Canada, the EU (mainly France), Argentina and Australia. Wheat and feed grains account for 3/4 of world exports. Today, the international trade system for agricultural products, including food, is undergoing major changes (3, p.7). So, agricultural policy is an integral part of state economic policy in the field of agriculture and agricultural production. The most actual areas of agricultural policy are: ensuring food security, developing and implementing innovations, maintaining the resource potential of the complex (1, p.192). The problem of rural employment is the most important and inaccessible problem of Chinese villages. One of the main ways to solve this problem is the country's course on the development of a diversified economy in rural areas. Establishment of small rural enterprises is emphasized. These enterprises are particularly active in coastal areas, as well as in areas where local pilot programs for agricultural development are being implemented.

So, there are modern realities related to employment in the agricultural sector and these realities are mainly global. The concept of transition to efficient and especially full-time employment in agriculture, which provides for the achievement of high economic results and the development of labor potential, identifies the necessity to significantly reduce the number of employees, and this disrupts the demographic potential of this village. And so, a number of theories and concepts related to the protection of the village as a special form of society emerge. Therefore, if there is no research on effective and comprehensive employment programs in agriculture and the protection of rural labor potential through the development of alternative employment in their methodology, any action in this area will be ineffective. Foreign experience in reducing unemployment shows that there are not any common recipes and permanent means of employment policy. Development of foreign employment legislation:

- 1) regulates offshore financing;
- 2) eliminates the consequences of structural unemployment and informal employment (5, p.101).

In the legislation of a number of countries, special attention is given to employment programs, which are considered in terms of adaptation to structural changes and have two purposes: to benefit from the economic and technical development of the state; to protect the groups of the population unemployed due to structural changes. The legislation of foreign countries should also pay attention to determining the status of employment services that carry out their activities under the control of government agencies. Depending on the characteristics of the socio-economic and political structure, cultural traditions, it varies from country to country and changes with the situation in the economy and the labor market. The main goal of modern employment policy in developed and developing countries is to increase the employment of the entire population by identifying untapped skills through involving the general workforce in a more efficient and comprehensive division of labor. Moreover, access to the labor market for new categories of able-bodied population is encouraged. The most notable foreign models of employment policy are the American and Japanese models. In Canada, the employment model is mainly focused on creating a professional management and employment system and it has interesting experience in creating professional management and employment systems. Recently, new forms of professional management have been introduced here, and its training and use of labor are closely linked with other areas of state regulation. The economic situation in the agro-industrial complex has caused to a sharp decline in the level of productive employment of the rural population, the emergence of large-scale stagnant unemployment and various forms of low-income employment (employment in individual farms, secondary, informal, informal employment, etc.). It is a way to react to negative macroeconomic processes and survive. As a result, the rural labor market is deformed. The increase in unemployment is characterized by a mismatch between the reduction of the quality characteristics of the labor force and the structure of agricultural training with the requirements of the labor market. It is characterized by a contradictory situation: if there is unemployment, there is a real shortage of workers in the mass professions in agriculture. The formation and development of the rural labor market depends on many factors and conditions. The aggravation of the problem of staff shortages in rural areas is facilitated by the localization of regional labor markets and the unequal distribution of productive forces in rural areas, combined with relatively low labor mobility. The processes of disintegration in the rural labor market determine the persistence of unemployment in some regions and acute labor shortages in others. Structural imbalances in job supply and demand are intensifying. One of the reasons is the discrepancy between the structure of vocational education and the perspective needs of the rural labor market. Today, the structure of vocational education in agriculture is being radically changed in favor of higher education, and the demand for skilled workers is not sufficiently met.

Low wages and a further weakening of the stimulus role of wages, low quality of workplaces increase imbalances in the labor market, and as a result, highly qualified personnel may continue to leave the countryside. Compared to the urban population, the number of unemployed people living in rural areas has a lower number of citizens with higher vocational education, and the share of citizens without primary vocational education and secondary general education is higher. Lack of multi-sectoral division of labor in agriculture and unresolved problems of sustainable development of rural areas lead to serious regional deformations in the rural labor market, aggravated by weak territorial labor mobility in the rural market and the market. Insufficient scale of agricultural production and services in rural areas, unsatisfactory working and living conditions also play a role here. When innovative technologies are applied, the real labor need is not estimated, and the level of professional development of agricultural workers is low. Three of the factors that increase tensions in the rural labor market are more influential: bankruptcies and change of owners of agribusiness organizations, often accompanied by the abolition of workplaces; reduction of labor quality; an increase in the number of unemployed with reduced motivation to work.

### 3. CONCLUSION

In order to improve the situation in the rural labor market, to ensure and maintain general and structural equality between supply and demand, purposeful measures should be taken: development of the labor market and promotion of employment, improvement of the rural environment and increasing the attractiveness of the village as a place of work and residence. Their implementation at the macro and micro levels will significantly reduce rural unemployment, especially in labor-intensive areas, and increase the employment and income levels of rural residents. These measures can increase employment efficiency, reduce unemployment, increase the quality and competitiveness of the workforce, provide social supply to citizens in the fields of labor, health insurance, vocational training and the implementation of a number of other social standards and norms. The organization and holding of events by various levels of government is also relevant, in particular:

- preparation of recommendations on the development of normative documents and the development of municipal programs for agricultural development in rural areas;
- issuance of state guarantees to non-agricultural economic entities;
- support to agriculture in rural areas in the implementation of goods and services and development of relevant infrastructure;
- supply of technical equipment, machinery and equipment under financial leasing with state support;
- creation of open sources of information in the field of non-agricultural business development;
- training or retraining of persons wishing to establish agricultural business in rural areas and ensuring the educational process, including the use of distance learning methods.

So, business development in rural areas will help: diversification of economic activity in agriculture; expansion of the formation sources of revenue base of local budgets; expansion of employment and development of self-employment of the rural population; increase of the sustainability of rural development in terms of raising living standards. Research shows that the formation of market relations in the agricultural sector is an objective necessity, the result of a legitimate process. Market relations in the agricultural sector have a very complex structure, a system that makes the formation of interdisciplinary and inter-enterprise production-economic integration relations an objective and legitimate necessity, which requires a specific organizational and economic management mechanism. Within this system, it is impossible to agree with the economic factors that confirm the need to consider the existing agrarian sector

as a single object of management, with numerous and directed forms of economy, each of which has a completely free legal status. While it is important to improve the use of targeted subsidies and state aid, increase the volume of general subsidies and increase their share in gross agricultural output, targeted subsidies to the agricultural sector, targeted subsidies are primarily for diesel fuel, gasoline and lubricants used by agricultural producers. Compensation for damage caused by rising prices for agricultural inputs from the purchase of fuels on preferential terms.

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## NEW APPROACH TO THE NATURE AND ACCOUNTING OF AMORTIZATION OF ASSETS

**Vagif Guliyev**

*Azerbaijan State University of Economics (UNEC),  
Faculty of Accounting and Audit, Baku, Azerbaijan  
f.guliyev@unec.edu.az; vaqifguliyev.unec@gmail.com*

**Nazim Hajiye**

*Davis Center for Russian and Eurasian Studies, Harvard University,  
Azerbaijan State University of Economics (UNEC),  
Department of Economics and Business Management,  
Development Economic Research Center,  
Istiglaliyyat str.6, AZ1001, Azerbaijan  
n.hajiye@unec.edu.az; nazimhajiye@unec.edu.az*

### ABSTRACT

*The studies show that the amortization of assets is studied and researched from a more practical perspective within the economics, its natures, methodological problems of its accounting and reporting are unpaid enough attention, as a result, it is impossible to form a rational accounting system. To clarify the problems, the following questions are put in the research: What does the concept of “amortization” mean or should mean, in relation to assets? What is the function of amortization? What is the relationship and dependance between the amortization of assets and their depreciation, and how are these relationship and dependence understood in the economic literature? How is the information on depreciation and amortization of assets formed in the accounting system from a conceptual and pragmatic viewpoint, how is this information interpreted in economics? The article studies the approaches established at the macro and micro levels in relation to the nature and function of the concepts of “depreciation and amortization,” they are interpreted and assessed from a semiotic point using the method of rational criticism. It is shown that misinterpretation of the nature and function of amortization and acceptance of them by the economists and practitioners as an amortization of assets of accumulated depreciation on assets and setting of the methodology for calculating and analyzing many economic indicators under this concept does not reflect reality. It is substantiated that the provision “depreciation appears as a result of amortization” is methodologically and practically unsound, and inclusion of this provision in the regulatory documents (standards) governing the accounting of assets leads to a loss of control over the depreciation allocations that one of the main sources of investments in the long-term tangible and intangible assets.*

**Keywords:** *Amortization, Assets, Depreciation, Expenses, Investments*

### 1. INTRODUCTION

Amortization of assets is one of the important issues that is a subject of the theoretical and functional economics. Although the definition of “amortization” is one of the most widely used terms, its nature and function are not understood and interpreted in a single sense in economics, the mentioned term is often used in parallel with the definition of depreciation; as a result, it is impossible to form a rational accounting system in this field. To clarify the particular characteristics of the problems as a whole, it is necessary to answer the following questions: What does the definition of “amortization” reflect or should reflect in relation to assets? What is the function of amortization? What is the relationship and dependance between the amortization of assets and their depreciation, and how are these relationship and dependence

understood in the economic literature? How is the information on depreciation and amortization of assets formed in the accounting system from the conceptual and pragmatic points, how is this information interpreted in economics? These questions are answered in the main part of the Thesis. One of the key issues is to determine whether the definitions “amortization” and “depreciation” are synonymous or if they are semantically and pragmatically different. The observations show that in the economic and accounting literature, there is not only a unilateral answer to this question, but also sometimes these definitions become the subject of discussion. In many cases, the economic nature and content of these definitions are not disclosed, they are approached completely pragmatically. The studies show that misunderstanding and non-disclosure of nature, content and aim of amortization and depreciation cause problems in their accounting and reporting.

## 2. RESEARCH

Samuelson P.A. and Nordhaus V.D. that are prominent representatives of the Economic Theory, consider amortization as a method for measuring the annual costs of using the capital resources owned by the firm [Самуэльсон П.А., Нордхаус В.Д. (1997), p. 159]. They show that the accumulated number of amortization allowances is a source of capital reserves, that is, the recovery of the long-term assets. However, it is difficult to agree with the authors' opinion that amortization is a method for measuring the costs arising from the use of such capital resources. The point is that the use of long-term assets does create a cost (the subject is not about the cost of servicing and repairing the assets), but, as we will see hereafter, amortization is the process of compensation of a part of the previously incurred cost. In another source, long-term assets are expressed as fixed capital; it is shown that this capital is subject to material and moral depreciation [Видяпина В.И., Журавлевой Г.П. (2004), p. 285]. The authors note that in both cases there is a depreciation of the fixed capital. Here from it is seen that the authors consider the physical and moral depreciation of the fixed capital as its decrease in value. Whereas, from the accounting point, depreciation and amortization are not the same concepts, they are independent accounting subjects. One of the more attractive interpretations of amortization and depreciation can be found in the textbook “Политическая экономия” (Political Economy). The mentioned textbook defines amortization as follows: “Amortization is the process of gradually transferring the value of labor resources as they depreciated to goods produced, its conversion to a monetary form and accumulation of monetary resources for the subsequent reproduction of fixed assets” [Политическая экономия (1997), p. 290]. The different but also the positive side of the given definition is that amortization here is defined as a process of accumulating monetary resources. This position reflects the real truth. Interestingly, although the authors emphasize the close connection between depreciation and amortization, they show that these definitions are not similar. They understand the depreciation as a process of loss of technical and production properties of labor resources and reduction of their value as a result of transfer to product in productive use. They think that the amortization is a complex process - the accumulation of a monetary fund to convert the value of consumed labor resources into a monetary form by transferring its value to the product and pay for the consumed labor resources. They show that the amortization allowances are a form of cash transferred to the product of the value of the fixed assets operating in the production process included in the cost of a product and accumulated as in money in the bank account of an enterprise in the amount equal to a part of income from sales after sale. One cannot disagree with such an interpretation of the aim of amortization allowances. The said interpretation is correctly explained from a theoretical and methodological point and is fully consistent with the real practice. However, we cannot agree with the position of the authors that they consider depreciation only as a prerequisite and a source of amortization. It turns out that if there were permanent fixed assets, no amortization would be calculated on them and there would be no need for amortization allowances.



Failure to calculate the amortization allowances would mean that the funds and costs incurred by some enterprises in the fixed assets would remain unpaid, the cost of the product would be low; its profitability would be high. The provision that depreciation is a prerequisite for amortization applies not only to the authors of that source but also to many other authors, as we will see hereinafter. We will try justifying incorrectness of this position at the end of the article, but for now let us continue to consider the positions and interpretations by the various authors on amortization and depreciation. The approach that existed in the Political Economy and considered by us has spread to other sciences. For example, the Economic Statistics emphasizes that the source of amortization is depreciation: “Amortization is the monetary expression of the transferred value of the depreciation of fixed assets on the product” [Иванова Ю.Н. (1998), p. 247]. The dictionary on the Political Economy published in Russian in 1990 provides a contradictory definition of amortization. It provides that amortization is the gradual transfer of the value of fixed industrial assets to the product produced as they depreciate and the use of that value in their subsequent reproduction [Ожерельева О.И. (1990), p. 20]. The conflicting aspect here is that they show that amortization is the result of depreciation of fixed assets. If depreciation is the cause of amortization, it turns out that depreciation should also be accepted as a source of fixed industrial assets. We find a more contradictory point in another source. The matter is about the interpretation of the definition of depreciation and amortization in the textbook “Экономика предприятия (фирмы)” (Economics of businesses (firms)). Although the authors of the mentioned source characterize depreciation and amortization as independent concepts, we think they misinterpret their relationship. Thus, in their opinion, depreciation is the process of gradual and expected loss of value of any created object due to its use and obsolescence; amortization is such a process related to depreciable property as a result of which transfer of the value of a respective objects to the products made, works performed and services rendered is provided in the useful life of such object [Волкова О.И., Девяткина О.В (2002), p. 126]. If a value is lost, how is it accumulated or transferred; eventually included in cost? There is no answer to this question. The most disputable position of the authors is that the concept of “depreciation” is of a primary nature in relation with the concept of “amortization”. Moreover, they say that “depreciation” is material, measurable and does not depend on the method of accounting. simultaneously, they note that amortization is intangible, it cannot be measured, it can only be fixed in quantity, that is, it can be calculated. These ideas of the authors may be concluded as follows:

- the idea that depreciation is material is absurd. Almost any depreciating item does not lose its material form;
- depreciation is reflected only in accounting, the quantity of depreciation is determined in accounting and this quantity is calculated using the methods applied in the accounting system;
- the intangibility of amortization is rightly emphasized, however, amortization can be defined in terms of value, not in terms of quantity;
- depreciation in the accounting system is calculated in the amount of amortization, however its calculated quantity does not reflect any real matter;
- amortization is not depreciation or corrosion, it is the process of refunding or reimbursing the previously incurred costs in monetary terms to the enterprise or company, so it is a real quantity. Such quantities are financial resources; they provide a source of investment of assets; depreciation does uncreate any real quantity.

Blank I.A. is one of the authors who extensively studied the amortization and depreciation of assets. He shows that the reproduction of assets is related to amortization and rightly notes that the funds collected in the form of an amortization fund are a source of both simple and extensive reproduction of depreciable assets [Бланк И. А (2000), p. 53].

However, we can not agree with I.A. Blank's position that amortization is an economic mechanism for the gradual transfer of depreciation of fixed assets and intangible assets to the product sold. Depreciation, especially physical depreciation, ultimately leads to loss of assets. He himself especially emphasizes this: "The intensity of the loss of the value of amortizable assets in the process of their operation is characterized by various types (physical and functional) of depreciation" [Бланк И. А (2000), p. 51]. If depreciation occurs in the form of physical and functional (moral depreciation), and in fact it is a loss of the value of assets, then can such lost quantity be a source of their simple and extensive reproduction? It turns out that also I.A. Blank act from the position same with the authors of the textbook mentioned above - depreciation is the process of value losing of assets, or the loss of value as a result of just depreciation is synonymous with depreciation. The quantity of amortization can not be determined by easing the physical/functional depreciation of assets. Because it is impossible to measure these types of depreciation physically or in value. The measurement of the value of objects is usually based on their physical substance, or the value of intangible assets can be determined as a result of measuring the costs of their acquisition and creation in real money. If an asset loses its value gradually and irreversibly as a result of physical depreciation, then how can it be possible that even the market price of the asset provided with service or used for a period of time is often higher than its initial (residual) value? For example, during the revaluation, the residual (carrying) value of the long-term assets increases; this increase is reflected in the capital structure. This shows that accounting is not about the physical and functional characteristics of assets, but about their value. In other words, accounting is not about the physical and functional condition of assets, but about the existence and movement of their value. Naturally, the physical and functional (spiritual) depreciation of objects occurs, this is inevitable; no one, as well as we do not deny it. We also do not accept that the process of amortization of assets is the result of their depreciation, or the cause of depreciation is the result of their amortization. Note that in the accounting literature, the relationship between the concepts of amortization and depreciation is often misinterpreted, and when disclosing their nature and purpose, the focus is not on economic and financial aspects, but on the production and technical aspects of the assets. It is difficult to say when the discussed terms will enter the Science of Accounting. Unfortunately, the sources on the history of accounting do not say anything about it. For example, we do not find any explanation of depreciation or amortization in L. Pacioli's Treatise on "Accounts and Double Entries" [Пачоли, Л. (1983)]. The Russian scientist Prof. Y.V. Sokolov shows in his work named "History of Accounting" that the concept of amortization of fixed assets is first found in J. Mellis in 1588 [Соколов, Я.В. (1985). p. 70]. Y.V. Sokolov notes by reference to the American scientist A.K. Littleton that at that time there were two approaches to the concept of amortization: 1) amortization is a direct cost of immovable property and 2) amortization is a method that allows keeping capital at the same level. Considering the above, it can be concluded that the first approach that existed at that time is identical with the current concept of depreciation. This can be justified by the fact that the costs of immovable property mean its loss, and the loss occurs as a result of depreciation. J. Mellis was a supporter of the first approach, and based on this approach, he compiled the entries of debit "Profit and loss" and credit "Inventory" for the write-off of inventory as an expense. Thus, as seen, in the Middle Ages, amortization was accepted as depreciation on the one hand, which meant the loss of inventory value, and on the other hand, amortization was perceived as a source of capital retention. However, it can be said that the second approach has become more widespread and so the object of accounting since the mid-19th century. Systematic accounting of amortization started to be recorded just since that time. The said time was the beginning of the industrial revolutions, many factories and plants were put into operation; railways were built. These processes run rapidly, especially in England and the United States. It was the period of extensive formation of enterprises and companies, their "separation" from the

incorporators/owners and control by managers, so it was necessary to accurately calculate income and expenses, financial results. Amortization/depreciation acted as a component of both costs and revenues. Using just this point of departure, various economists –accountants began interpreting amortization and depreciation in different ways. Let us briefly consider the arguments and provisions of those who suggested these interpretations. Note that the foreign literature emphasizes the fact that the practice of accounting for amortization/depreciation existed even before the principle of double entry. This is stated by M. Matthews and M. Perera with reference to the article published by H.R. Hatfeld in “The Accounting Review” magazine in 1936 [Мэтьюс, М. Р., Перера М. Х. (1999). p. 282]. However, as noted earlier, Y.V. Sokolov emphasizes with reference to the American scientist A.C. Littleton that the concept of amortization was first used by J. Mellis in 1588. Nevertheless, double entry was suggested and justified by L. Pachioli in 1494. Here, we do not investigate which version is correct and objective. However, unfortunately, the mentioned source does not provide any information on J. Mellis’ interpretation of amortization and depreciation. The studies show that in the last century, the concepts of depreciation and amortization have been widely discussed in developed countries, especially in the United States and England. First, “Accounting of depreciation was interpreted in the most different ways” [Мэтьюс, М. Р., Перера М. (1999), p. 284]. This source states that ICAEW (Institute of Chartered Accountants in England and Wales) describes depreciation as a part of the owner’s expenses on fixed assets, filling which cannot be recovered at the end of its operation life [Мэтьюс, М. Р., Перера М. Х. (1999), p. 283]. ICAEW also notes that allocations to the compensation reserves of fixed capital loss are an integral part of the costs of doing business during the effective economic life of the assets and do not depend on the amount of profit. It turns out that ICAEW considers depreciation as an expense that results in the loss of a fixed asset (capital), on one hand, and as a source of the reserve created to repay that asset (capital) on the other hand. The costs for creating a reserve should be incurred during the operation life of the asset. As noted by M. Matthews and M. Perera, this position of the ICAEW is close to the ideas of C.W. Lamden, D.L. Cherbothin and T.M. Rae. According to them, the number of initial capital expenditures, excluding the cost of liquidation, should be distributed over the operation life of the asset. The same position is reflected in the standard of depreciation established by the NZSA (New Zealand Society of Accountants). There was an idea close to the idea that depreciation should be accounted for as an expense or payable cost over the operation life of the asset, and that the funds invested in the asset should be compensated from income of the sale of the product made by such funds. There was also a unilateral opinion in the accounting literature of foreign countries that depreciation characterizes the physical depreciation of the assets. Even the Supreme Court of the United States defined depreciation as the loss of unpaid value with the help of current services in 1934 [Мэтьюс, М. Р., Перера М. Х. (1999), p. 284]. However, some persons opposed these positions. For example, M.C. Wales wrote: “Physical characteristics are not an issue of accounting, but of engineering, and depreciation has its own nature in engineering, which hardly reconciles with the concepts traditionally used in the accounting.” Interesting that M. Matthews and M. Perera themselves point out that the technical depreciation of the assets and their inadequacy (inability to produce what is needed) is not acceptable for accounting purposes or cannot be reflected [Мэтьюс, М. Р., Перера М. Х. (1999), p. 285]. B. Needles, H. Anderson and D. Caldwell fully identify amortization and depreciation as the same concept and express them as “amortization (depreciation).” They define these concepts as follows: “According to the principles of accounting, the value of productive forces should be distributed equally in the way of distribution (write-off) on the reporting periods in the term of their intended use, within which they will be able to bring productive benefits. This process is called amortization (depreciation)” [Нидлз Б. (1997), p. 201]. Then they state with reference to the financial accounting standard developed by the FASB (Financial Accounting Standards Board) that the objective of the

mentioned process is to distribute the value of long-term tangible assets over their estimated operation lives on the base of systematic and rational entry, in other words, this process is not an assessment, but a distribution. We can agree with this provision, because really the value of long-term assets should be repaid in their estimated operation life. If this value is unpaid, no enterprise or company can operate and make a profit in the business sphere. Our objection to the authors is not related to this issue, but to the fact that they fully equate the amortization process with depreciation and show that the assets have a limited operation life, their value should be written off to expenses during that period. There are two main reasons for this limited operation life: physical and moral depreciation. The authors, realizing that they did not correctly give a definition to the concept of “amortization (depreciation),” later stated that “... amortization used in accounting is not understood as a physical depreciation of the object at a particular time or a decrease in its market value, but as a write-off of the value of the operating assets in its useful operation term. The term is used to reflect the gradual write-off of the value of the fixed assets.” We think, this provision is completely justified and correctly expresses the true nature of amortization. Though the authors of the discussed source correctly explain the nature and content of amortization, they try to prove that it, i.e. amortization, is the result of depreciation, show that depreciation and amortization are the same process, and thus they are in a position of dualism. The authors do not express their position on how physical and mental depreciation can or should be measured. Placing the process of allocating the cost of production capacity over the period of use under or within the concept of “amortization (depreciation)” does not give a complete picture of the true nature and purpose of these concepts individually, and causes confusion in the accounting and reporting system. Note that not only the works of economist - accountants, but also the standards and other documents developed by the bodies regulating financial accounting and reporting do not define the exact boundaries of amortization and depreciation, and even emphasize that they are completely interrelated. For example, the AAA (American Association of Accountants) Committee on Principles and Standards was based on this position. Thus, as noted by E.S. Hendriksen and M.F. Van Breda, the Committee stated in 1957 that amortization may be defined as a decrease in the production capacity of long-term assets, and this reduction was due to physical depreciation, consumption through operation, or aging, or may be connected with the loss of economic value as a result of changes in demand. The SFAC Statements of Financial Accounting Concepts 6 developed by the FASB also states that depreciation due to the use of fixed assets is the main cause of amortization [Хендриксен, Э. С., Ван Бредда М. Ф. (1997), p. 333]. If depreciation is the main cause of amortization, it turns out that the decline in production capacity is also a major factor in amortization. E.S. Hendriksen and M.F. Van Breda themselves do not use the concept of depreciation, but only accept the concept of amortization and define it as follows: “Amortization in accounting is a rational and systematic distribution of the initial value of the asset (excluding the cost of liquidation wastes, if any) for the entire expected life” [Хендриксен, Э. С., Ван Бредда М. Ф. (1997), p. 329]. Elsewhere, they show that amortization in accounting is simply the division of the full value of an object into parts. We cannot disagree with the opinion suggested the authors themselves because amortization does not have any interaction with depreciation, amortization is the process of payment of the initial value over a time. Many authors, regardless of the name of an account, do not accept that amortization is the result of depreciation, but show that amortization only reflects the process of repayment of those assets. We can show I.I. Bochkaryova as an example to such authors. He writes about it: “Amortization is the process of paying a part of the initial (recovery) value of the fixed assets by writing them off to current production and turnover costs” [Бочкарева И. И., Быков В. А. (2007), p. 78]. Unfortunately, note that there are not many people in such a position yet. In modern times, we still come across the authors who accept depreciation and amortization as synonyms and confuse their meanings. We can show S.L. Pchelina and M.N.

Minayeva as examples. In their interesting and important textbook named “Международные стандарты финансовой отчетности” (International Financial Reporting Standards) published in 2011, they use amortization and depreciation without identifying their grammar or semantics and equate their nature. Let’s show what they wrote without translating from Russian: “Амортизация (износ, depreciation) - это систематическое распределение амортизируемой величины актива на протяжении срока его полезного использования” (Amortization (depreciation) is a systematic distribution of depreciable assets during its useful life) [Пчелина, С. Л. (2011), p. 77]. Then they write: “Амортизационная величина (depreciation amount) – разница между первоначальной стоимостью (или ее аналогом после переоценки) актива и его ликвидационной стоимостью” (Amortization amount (depreciation amount) is the difference between the initial cost (or its equivalent upon the revaluation) of the asset and its liquidation value). As seen from the citations above, the authors use the word amortization as a synonym for depreciation, and the word amortization as a translation of the word “depreciation.” Nevertheless, the literature written in English and translated into Russian itself clearly states that the word “depreciation” should not be understood as amortization. It is absurd to show depreciation as a result of physical and moral corrosion in the accounting system, and therefore to determine and analyze the technical condition of the fixed assets on the basis of the amount of depreciation. Amortization is an economic or financial indicator, with which it is incorrect to determine the technical condition of the fixed assets, the degree of depreciation because it does not reflect reality. Accumulated amortization may reflect the accumulated financial (monetary) assets but can not characterize the technical condition of the fixed assets. We think, the main reason for the misinterpretation of depreciation in economic analysis and other functional sciences is the incorrect disclosure of its nature in accounting, in many cases, the identification of depreciation with amortization, their acceptance as synonymous concepts. As a result of the influence and application of the International Financial Reporting Standards (IFRS) in the accounting systems of CIS countries, including our country, certain changes have taken place in the interpretation of depreciation and amortization. The said the change is that many authors no longer say that depreciation is the cause of amortization, but note that amortization is the process of repaying the initial cost of the long-term assets. We saw this in the citations, we made before. IFRS 16 and IFRS 38 define depreciation as the systematic distribution of the amortizable amount of an asset in its useful life [IFRS (2009), p. 164; p. 499]. Amortizable amount is defined in those standards as the cost of an asset by deducting a liquidation cost or any other amount provided instead of the cost. As seen, the International Standards have approached the amortization of assets from a practical point rather than a theoretical-methodological one. The mentioned approach is that the amortizable amount of an asset should be distributed over its useful life. The international standards do not specify that the amortization of an asset is directly related to its physical and moral depreciation. However, the standards require that physical and mental depreciation should be considered as factors affecting the useful life of an asset. Considering these factors, the depreciation of the asset or its quantity is not determined. Physical depreciation of assets is technical in nature; this issue is a problem for the engineering-technical staff. In the process of allocating the value of an asset over its useful life, such factors cannot be measured quantitatively, but can only be taken into account when allocating or repaying that value. Such interpretation of the definition of amortization specified in the international standards may be one of the versions. In addition, the second version is that the International Standards accept the value that should be distributed systematically, i.e. the amortizable amount, as the value of depreciation. It is impossible to refer to any direct provision or statement in the standards to confirm the second version, as there is no such provision or statement at all. However, the probability of such version is very high. This can be indirectly proved by the fact that to determine the carrying value or residual value of the assets, the International Standards require

their accumulated amortization (including the loss due to the depreciation) to be deducted from the initial cost of such assets. This rule means making entries in debit “Accumulated amortization” and credit “Long-term assets.” accounts in the accounting language. In the world-accounting practice, the accumulated amortization is written off in the same way. Keeping the said rule and its respective entry proves the existence of the second version. If the accumulated depreciation was accepted by the International Standards as a payment of the initial cost of the assets, that is, the accumulation of relevant funds, then there would not be double entry of “Accumulated Amortization” account in the same manner as “Long-Term Assets” account. Such rule allows us to say that the International Standards also considers the amortized depreciation not as a process of real payment of the value of assets, but as a process of deduction in their value, i.e. depreciation process. It is not by accident that the International Standards use the term “systematic distribution of the amortizable value of an asset” rather than the expression “payment of the cost of an asset” when defining amortization. From all of the above mentioned, let us answer the question “Are the concepts of amortization and depreciation synonymous, or are their nature and semantics different?” The simultaneous use of both concepts in accounting confuses users of accounting information, and from time to time create methodological and technical difficulties in accounting itself. We agree with those who claim that the concepts of depreciation and amortization of assets is different from the economic and accounting point. Abroad, the term depreciation is also used as a synonym for the Latin word “depreciation.” simultaneously, note that the Latin “premium” means price or value, and “decretum” means a decrease in price or value [Хендриксен, Э. С., Ван Бреда М. Ф. (1997), p. 331). However, as many economists and accountants emphasize, a decline in price/value does not mean that assets lose their value. Depreciation leads to the physical loss of an asset. Physical depreciation, as already mentioned, cannot be measured in value quantity. Physical depreciation itself cannot be measured by any physical (natural) indicator. Depreciation is not a temperature that we can measure using a thermometer. Therefore, the decrease in the value of assets cannot be equated with their depreciation. The decrease in value does not indicate its loss, it indicates that it is transferred to the product, work, and service as an expense. This process, in fact, reflects a decrease in the initial value of the assets. A decrease is the process by which an entity incurs the initial costs incurred (which formed the value of the assets) by distributing the assets in different ways over the useful life of the assets, not their loss or leading to loss. Since it is impossible to measure depreciation in physical (natural) and value terms, it is inappropriate to use the concepts of “depreciation” in the theory and practice of accounting. If this is indeed the case (it is really so), then not the concept “depreciation,” but “amortization” should act as an object of accounting. The cost of goods, works and services includes the portion paid, not the depreciation of assets. Payment is made over the useful life and this process is called amortization. The payment made in the useful life is not related to the depreciation rate of the assets, but arises from the need to reimburse the enterprise for the initial costs incurred in modern conditions. In advanced developed countries, high amortization rates are used to quickly return the costs (investments) directed to the long-term assets in the form of funds. It is not accidental that the well-known companies pay for machinery and equipment in 3–4 years. During this short time, these machines and equipment are subject to very little physical corrosion with simultaneous occurrence of depreciation; however, the determination of the amortization period of 3–4 years is not associated with any physical or moral corrosion, but associated with the need for recovery of expenses made. Baku-Tbilisi-Jeyhan oil pipeline may be a particular example for this. The annual amortization rate on the pipeline was initially set at 7%. Here, the investments (expenses) were expected to be repaid in 14.3 years. The company building the pipeline succeeded to raise the amortization rate to 14%, citing the length of this period, which meant that the investments made in building the said pipeline had to be paid in 7 years only. The Baku-Tbilisi-Ceyhan oil pipeline will probably benefit for 100 years.

However, the company that built and invested in it could not agree in any way to pay for it within 100 years. Here from we see that the principle of systematic distribution of amortizable value over its useful life (which is established by the International Standards) is practically not taken into account. In other words, the systematic distribution of an amortizable amount of asset in its useful life does not reflect reality, as it is based more on the asset depreciation provision. The reality is that although an asset can be used for a long time, the payment of the amortized value is not and should not be made in that period, but under the principle how long it will take to pay the costs incurred. When the value of an asset is amortized, it is important to consider the difference between the useful life of the asset and the payback period of the asset to establish a methodology of amortization accounting. Thus, when calculating amortization allowances, the indicator “useful life of an asset” should be used instead of the indicator “useful payment life of the value of an asset.” The point is that the useful life of an asset may be longer than the term of payment of its value, or the term of payment of the value of an asset may not be longer than its useful life. If the meaning of the word “amortization” is considered as a payment, it can be said that in the accounting system, the said a word or concept is a financial term, reflecting the relationship between the payment of the value of an asset and the financial results. However, repayment, i.e., amortization, involves the inflow of cash, which is a major component of financial assets. This process does not have any connection with the abstract concept of depreciation. Therefore, the amortization accounting and reporting should be built considering just this provision. Thus, the methodology of amortization accounting should be changed and adapted to the real content of the amortization process.

### 3. CONCLUSION

- Amortization, which began to be applied in the middle of the 19th century, became a part of the system of important economic indicators and turned to the subject of research in Economic Theory, Statistics, Accounting, and other functional sciences;
- the concepts “amortization” and “depreciation” have been used as synonyms in many cases, conflicting views have been expressed on their nature and content, their interrelationships; various approaches and interpretations have been demonstrated;
- in the economic and accounting literature, the concept of depreciation has been interpreted as both a physical loss as a distribution of costs; as a source of recovery for long-term assets. Providing such a broad status to depreciation is the result of a misunderstanding of its nature;
- in the environment where physical and moral depreciation cannot be measured from a physical perspective, its measurement in value context and reflected in the same quantity as depreciation allowances prevents the correctness of accounting in this area from the theoretical-methodological and practical points;
- equating of amortization with depreciation and simultaneous conversion of both of them to the subject of accounting led to an analysis of the depreciation rate of the fixed assets on the basis of depreciation, and the reserve (amortization fund) for their recovery on the basis of amortization, which allowed much interpreting of the same quantity.
- although only amortization is recorded rather than depreciation in recent years, the nature and content of such accounting does not go beyond the interpretation of depreciation, i.e., it is more in line with depreciation.;
- since depreciation cannot be measured in physical and value terms, it is inappropriate to use the concepts of “depreciation” in the theory and practice of accounting, accordingly only the concept of “amortization” should act as a subject of Accounting.;
- when calculating amortization allowances in the accounting system, the indicator “useful payment term of the value of an asset” should be used instead of the indicator “useful life of an asset.” The development of modern business can go just in this direction.

Just such understanding and representation of amortization in Economics, especially in the Accounting system play an important role in ensuring reimbursement on investments and reduction of investment risks.

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## THE EFFICIENCY OF AZERBAIJANI BANKS: AN EMPIRIC ANALYSIS

**Sakit Yagubov Mamadi**

*Vice-Rector for Science and innovations, Professor at  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
sakit.yagubov@gmail.com*

**Ulvi Yagubov Makhdut**

*PhD Candidate at Azerbaijan State University of Economics (UNEC),  
Lecturer at Department of Finance at  
Baku Engineering University, Azerbaijan  
uyaqubov@beu.edu.az*

### ABSTRACT

*This study investigates the efficiency of ten commercial banks, which had the highest number of total assets in 2016 in Azerbaijan employing the Data Envelopment Analysis method throughout the period 2011-2016. By using the CCR (Charnes, Cooper, Rhodes) model three input variables (Total Assets, Total Equity and Interest Expenses) were put against two output variables (Interest Incomes and Net Profit). These inputs and outputs were taken from the annual financial reports of each bank. The result disclosed that during the pre-devaluation period only Turan Bank was the efficient bank. In post-devaluation period the overall efficiency of banks increased, and Pasha Bank achieved the highest efficiency.*

**Keywords:** *Data Envelopment Analysis, Efficiency, Banks*

### 1. INTRODUCTION

The banking sector, which is one of the building blocks of the country's economy, is growing rapidly in international trade, and the prospect of a technological breakthrough in the globalizing world is steadily increasing. Therefore, the problems experienced in the banking system cause the negativities in the economy to emerge. The performance of the banking sector is affecting all economic units in the country. Thus, it is important to measure and audit the performance of the banking sector. In the determination of efficiency level in banks, ratio analysis or regression analysis methods are used. However, both methods have led to alternative approaches to policymakers or decision-makers in order not to be able to make benchmarking, to determine certain limitations and to determine which one is the most efficient and efficient bank. Because of this trend, Data Envelopment Analysis Technique (DEA) has started to be used in the measurement of interbank efficiency and productivity. DEA is a mathematical programming technique designed to evaluate relative efficiency and efficiency, considering input items and output items used by banks in the same sector and is widely used in other sectors. DEA recognizes the efficiency levels of the highest performing decision-making units as a limit and can calculate which input items to reduce and which output items to increase and potential development possibilities for banking transactions so that other decision units can become effective according to this classification. What the bank managers need to do is to decide how to increase efficiency and productivity. Between 2011 and 2016, global oil prices have fallen, and Azerbaijani economy was hit by two consequent devaluations in 2015. The main purpose of this study is to measure the efficiency the top 10 banks according to their assets for the year 2016 after two devaluations in the Azerbaijani banking sector. This paper contributes to the literature by analysing the efficiency of the Azerbaijani banks during the period of devaluation of local currency. It also provides us with the ground to compare the efficiencies of banks before and after devaluations.

## 2. LITERATURE REVIEW

DEA entered the literature in 1957 with Farrell's only input and single output-based work. Inspired by this, Charnes, Cooper and Rhodes developed the multiple input and multiple output (CCR) method in 1978 and used it to measure the efficiency of state schools in United States. Another study on the development of the DEA is based on the development of BCC (Banker, Charnes, Cooper) model by Banker, Charnes and Cooper (1984), which is based on scaled variables. Data Envelopment Analysis have been used in a lot of areas for financial efficiency measurement. Examples from the studies in the literature that have been made in various fields can be summarized as follows. First, Vassiloglu, M. & Giokas, D., (1990). conducted a commercial bank data envelope analysis in Greece to measure relative efficiency in the bank sector in their work. In the study involving 20 decision-making units, 1987 data was used. The study concluded that 9 out of 20 commercial banks were efficient. Any other way, Tarim, Ş. A., & Cingi, S. (2000) the study of the Turkish banking sector has been an important source of information for many theses and articles. In this research, the Turkish banking sector examined the relative efficiency of 21 public and private banks, which accounted for 93.8% of deposit size between 1989-1996. The method they used in their research is DEA, Malmquist Productivity Index with Total Factor Productivity Approach. They used total profit, total loan, total deposit, as output' total profit, total loan, total deposit, loan return rate as inputs. The selection of evaluation of deposits as an output and the calculation of monetary values instead of the account value as the deposit measurement value is an indication of the approach of the use of the production approach. Therefore, it can be said that a mixed approach is used in this research. Because of the work done in this light, Cingi and Tarim have shown that the relative efficiencies of the banks belonging to the private sector are better than the public banks and this is also due to the scale efficiency. Bozdog, N., Altan, A., & Atan, M. (2001) used efficiency data for 21 public and private banks by using 2000 data. They have used the DEA method in this research. They used 6 ratios as input when comparing the productivity of these banks. According to the results of the study, it is determined that 8 private banks are efficient. Also, Gascon, F., Fidalgo, E.G. & Alvares A.I.F. (2002) reached the conclusion that the productivity of commercial banks around the world increased significantly, from 19.6% in 1989 to 1998, in their study of 142 financial instruments from 18 countries between 1989- 1998. Likewise, Casu, B. & Molyneux, P. (2003) argued that in the study of the efficiency of the European banking system, there was an increase in efficiency at a level that would be neglected in the banking efficiencies after Europe's only market program. On the other hand, Luo, X. (2003), measures the efficiency and profitability of large banks with data Envelopment Analysis. Because of a survey of 245 United State banks taken as an example, it was found that existing large banks had a lower level of marketing efficiency than the smaller ones. In addition, 34(1.4%) of the banks found that they had a higher level of profitability but showed less marketing effectiveness than other banks. The result is that the geographical position of the banks has no effect on profitability or marketing effectiveness. In his study, Sufian, F. (2007) examined the productivity of Malaysian Islamic banking sector between 2001 and 2005 using nonparametric DEA method. Malaysian Islamic found that scale efficiency in the banking sector is more important than pure technical efficiency. It is stated that local Islamic Banks have higher technical efficiency than foreign Islamic banks. According to the results of the study, it is determined that the inefficiency of foreign banks is mainly due to the pure technical efficiency. Moreover, Öner, A. (2008) examined the efficiency of volume and profits of domestic and foreign banks operating in the Turkish Finance Sector through Data Envelopment Analysis. He developed strategies for inefficient banks by identifying efficient banks because of his work covering the January- June 2007 period. Conversely, Ertuğrul, İ. & Tuş Işık, A. (2008) investigated the efficiency and productivity of 13 firms in the metal industry, which were traded on the Istanbul Stock Exchange 100 index, based on the financial statements between 2003-

2007, using two input-two outputs and output-based CCR model using DEA methods. According to the study, 4 in 2003, 1 in 2004, 5 in 2005, 2 in 2006 and 2007 were found efficient. In the same way, Behdioğlu, S., & Özcan, A.G.G. (2009), using 29 commercial banks' 4 inputs and 3 outputs data showing efficiency in Turkish banking system, and aims to carry out the efficiency measurement with data envelopment analysis method. The DEA Solver program was used in the analysis under the assumption of variable return according to the scale, and it was found that the foreign banks have the highest efficiency values because of the study. Staub, R.B., Souza, G.D.S., & Tabak, B.M. (2010) investigated the cost, technical and resource efficiency of Brazilian banks during 2000-2007 using Data Envelopment Analysis. According to the research Brazilian banks were found to have lower cost efficiency than European and American banks and Brazilian banks were found to be inefficient during the 2000- 2002 period when the country's economy was weak, which resulted from the fact that the banks were technically inadequate from the resource shortage. They found that the banks owned by the state were considerably costly compared to the domestic private and foreign partner banks. Another Küçükaksoy, İ., & Selcan, Ö. (2013), In their study, 10 private bank deposit banks and 5 foreign bank deposit banks operating continuously in the Turkish banking sector between 2004 and 2011 were made. The activities of the mentioned banks were measured by the "Win4deap" package program using the input-oriented Data Envelopment Analysis (DEA) method, 2004 and 2011 balance sheets and income tables, under the assumption of Variable Return by Scale. In the study, 3 variable inputs and 2 output variables were used to measure variable return activity for Decision Making Units (DMUs). Based on the findings, 7 DMUs in 2004, 7 DMUs in 2005, 6 DMUs in 2006, 8 DMUs in 2007, 7 DMUs in 2008, 5 DMUs in 2009, 7 DMUs in 2010 and 2011 were technically inefficient. When the general status of DMUs is examined, the technical efficiency is estimated to be 94% in 2004, 98% in 2005, 96% in 2006, 98% in 2007, 98% in 2008, 90% 90 and 97% in 2011, respectively. Recently, Ada, A. A., & Dalkılıç, N. (2014), In their study using the set of indicators formed from the balance sheet data of 22 banks consisting of Islamic banks, the comparison of scale efficiency, efficiency changes and total factor productivity changes were made. For the 2009-2011 period, the four Islamic banks operating in Turkey and 18 Islamic banks operating in Malaysia's data is used. Data Envelopment Analysis was used to measure efficiency, and Malmquist Total Factor Productivity Index was used to measure change in efficiency and total factor productivity change. It was determined that banks in Turkey had scale efficiency averages higher than those in Malaysia in 2009, and lower than those in Malaysia in 2010 and 2011. The change in total factor productivity of banks in the period 2009-2010 compared to the 2010-2011 period decreased to Turkey, it has resulted in an increase in other banks 3 banks outside Malaysia. Also, Yüksel, S., Mukhtarov, S., & Mammadov, E. (2016), In their study, a comparison was made about the efficiency of the Turkish and Azerbaijani banks. In this context, they analysed the largest 10 banks of the two countries with respect to asset size. In addition, data envelopment analysis (DEA) was used in this study from 2010 to 2014. Because of 5 inputs and 3 output analyses, Turkish banks were found to be more efficient than Azerbaijani banks. Only Turkish Economy Banks from Turkish banks was not efficient in 2011, while other banks became efficient all year around. On the other hand, it has been determined that only 4 Azerbaijan banks are efficient in all years, while the other 6 banks are not productive for several years in this period.

### 3. METHODOLOGY

The DEA (Data Envelopment Analysis) technique is a nonparametric, linear programming principle that makes it possible to compare the relative efficiency of events between organizations. It is a method of analysis that can measure relative efficiency and perform efficiency analysis by comparing the institutions and organizations that produce similar outputs

by using the same inputs as Decision Making Units (DMU) in the literature. Another similar definition is that DEA is a linear programming-based technique aimed at measuring the relative performance of decision units in situations where inputs and outputs that are measured with multiple and different scales or have different measurement units make comparison difficult. From these definitions, we can define the DEA concept as a linear programming-based method, which is used to evaluate the relative efficiency of the decision points responsible for outputting using similar inputs. The main feature that distinguishes the DEA method from other methods for similar purposes is that it can be evaluated in cases where there are many inputs and outputs. Because of the analysis, information on the efficiency of each decision point, how to increase the efficiency of the ineffective decision points on the input/output ratios, and the decision points that can be used as a reference are obtained. Data envelopment analysis, which measures the relative efficiency of decision-making units, allows comparative efficiency analysis when there are multiple inputs and multiple outputs. It is an advantage to determine the efficiency limit according to the performance of the decision-making units in comparing the decision units of the DEA. The CCR model developed by Charnes, Cooper, Rhodes, which is capitalized by initials of their names, calculates the efficiency limit in the case of constant returns to scale (CRS). The CCR relative efficiency model there is the total efficiency. Furthermore, with the restriction of the upper efficiency limit at 1.0 in DEA, the efficiency scores of all DMUs take a value between 0.0 and 1.0. In this study, we employ the Data Envelopment Analysis with the CCR model which adopts the assumption of a constant return on a scale. The input and output-oriented approach of the CCR should be determined by examining the existing data structures of the DMUs. Since the use of inputs is usually the primary factor in the decision-making process, an input-driven approach has been adopted in many of the DEA studies in the banking sector. Therefore, input focused CCR model will be applied in the study.

#### 4. DETERMINATION OF INPUTS, OUTPUTS AND DECISION-MAKING UNITS

According to the DEA, inputs and outputs should be defined to measure the efficiency. In addition to this, for the banking sector defining inputs and outputs is not easy. For this process, first I researched similar studies in the literature and decided to use 3 inputs and 2 outputs in this study. These inputs are Total Assets, Total Equity, and Interest Expenses. The Outputs are Interest Income and Net Profit. As you know, there were two devaluations in 2015. As you know, our aim is to determine which of the 10 best banks according to their assets for the year after the devaluation and how effectively these 10 banks work and how the devaluation influences the effectiveness of these 10 banks.

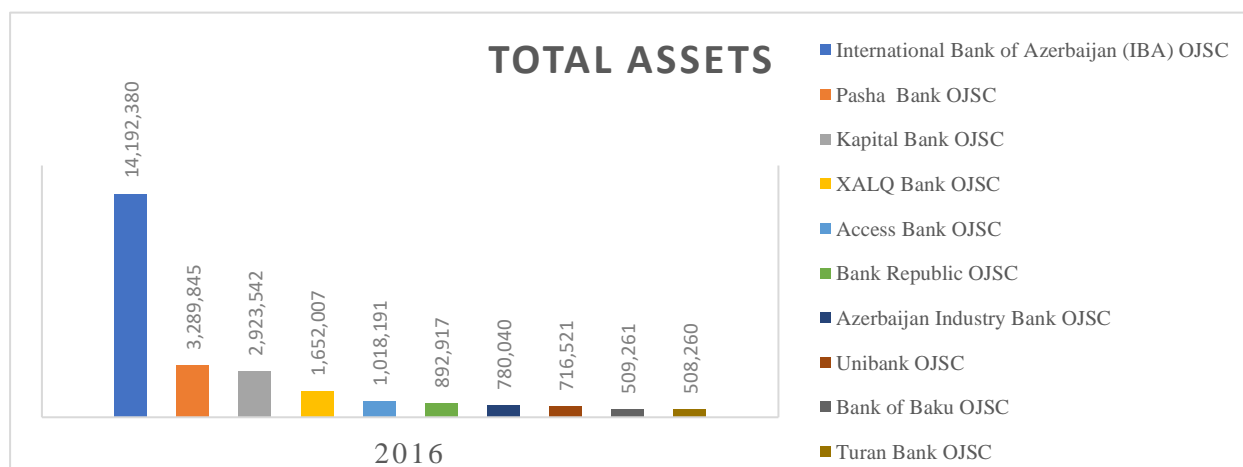


Figure 1: Total Assets for 2016 years. (thousands manats)  
(Source: Central Bank of Azerbaijan)

For this reason, after the devaluation, we will select the 10 largest banks according to their assets in 2016 and measure their effectiveness both for 2016 and for previous years.

## 5. RESULT OF ANALYSIS

Figure 2 describes the efficiency rates of the banks for 6 consecutive years. We can observe that during the first three years Turan bank was the most and the only efficient bank, except 2011. Only in 2011 Xalq Bank was also efficient. In 2014, Pasha Bank took the leadership although Turan Bank was highly inefficient. In 2015, the year during which the economy was hit by two devastating devaluations, we can observe a considerable increase in the overall efficiency of the banks. In this year three banks – Pasha Bank, Access Bank and Turan Bank achieved the highest efficiency rate. In 2016, in addition to Pasha Bank, Xalq Bank, Bank Republic and Bank of Baku had the highest level of efficiency as well. Interestingly, International Bank of Azerbaijan, the bank with the highest number of total assets more than ten billion manats, turned out to be the least efficient bank throughout the period of analysis.

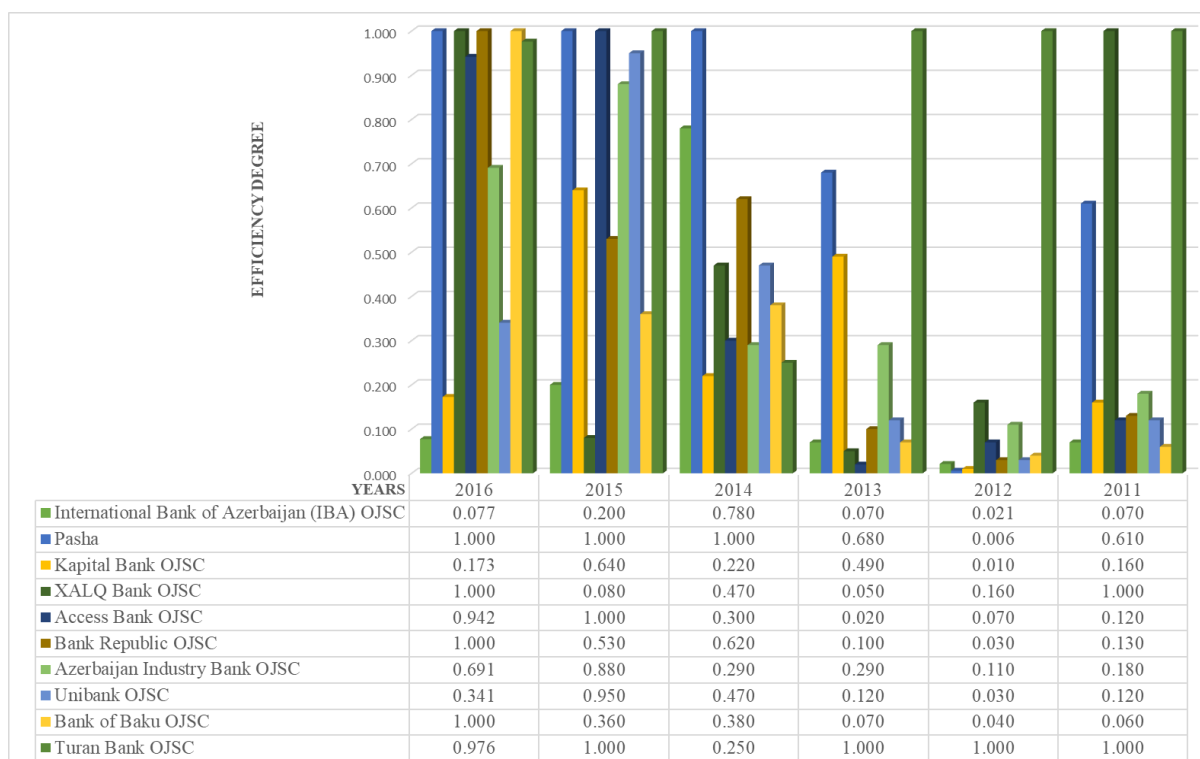


Figure 2: Efficiency degree for all banks

## 6. CONCLUSION

After the Global Financial Crisis 2008, very serious supervision of banks and risk management issues became more important in Azerbaijan. In this context, the banking sector has entered a restructuring process with respect to risk management with the criteria provided by the Central Bank of Azerbaijan in terms of international standards. When the studies were examined, it was seen that the recent regulations in the banking sector focused on the performance, efficient supervision and supervision of the sector. Developments in the banking sector in the international financial system and the growing importance of banks in the global economy have made it important to measure the performance and efficiency of banks. As in other sectors, measurement of bank efficiency is an important issue for both bank owners, customers, and investors. Therefore, to monitor the performance of the sector in terms of bank activities, it is necessary to carry out various analyses periodically and with different parameters regularly.

In this study, the application of DEA was made for 10 commercial banks, which were the most their total assets for the 2016 year, operating continuously in Azerbaijan between 2011-2016. During the solution phase of the models, DEA Solver (Data Envelopment Analysis Solver) which is one of the special software of DEA was used. 3 inputs and 2 outputs were used in the analysis. These inputs and outputs were taken from the annual financial reports of each bank. As a result of the analysis, for the first three years, Turan bank and Xalq Bank were efficient. In 2014, Pasha Bank took the lead in the ranking although Turan Bank was highly inefficient. In the 2015 year three banks – Pasha Bank, Access Bank, and Turan Bank achieved the highest efficiency rate. In 2016, in addition to Pasha Bank, Xalq Bank, Bank Republic and Bank of Baku had the highest level of efficiency as well. The points to be considered when interpreting the results of the model is that the results show the relative efficiency values. The fact that a bank is 100% efficient means that it is 100% efficient only in the context of the specified inputs and outputs compared to other banks. Inputs and outputs used in the study were taken from each bank's own annual financial reports.

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## ISSUES OF INCREASING THE KEY ROLE OF HUMAN CAPITAL IN ECONOMIC DEVELOPMENT IN MODERN CONDITIONS

**Gurbanova Zumrud Mammad**

*Candidate of Economic sciences, associate professor,  
Department of "Economic Theory",  
Azerbaijan State University of Economics (UNEC), Azerbaijan  
farhad.qurbanli@mail.ru*

### **ABSTRACT**

*It is important to understand the key role of human capital in modern economic development. The necessity of this role is that the exploitation of all resources is not infinite. The only resource that is almost limitless in the possibilities of intelligent, conscious use is the productive abilities of people realized in the form of human capital in modern conditions. Most of them are "worn out". They also do not have the necessary resources and resources to replace and assemble. In this case, human capital is valued as a more valuable productive resource than material capital. In recent years, there has been a general consensus that the effectiveness of the development of economically modern states depends more on how much it invests in the formation of human capital. Without it, it is impossible to ensure its progressive development. Although no specific research has been conducted on this issue, it can be assumed that one of the most important indicators of the level of investment in human capital in the world is positively related to the highest indicators of economic development. Experience urges to re-evaluate and correct previous approaches to the formation of human potential, to respond in a timely manner to new challenges arising from socio-economic changes. The solution of practical problems is impossible without the development and maintenance of a scientifically based concept of human capital development. Within the framework of this concept, it is important, first of all, to explore the deep foundation, the basis for its restoration and protection. In the most developed countries of the West, a post-industrial economy has been formed based on knowledge, wide application of intellectual technologies, expansion of professional mobility and actualization of the role of human capital. The transition to such a model of development, the prevention of irreversible setbacks from advanced economies is possible only as a result of increased attention to this problem, active and efficient accumulation of human capital and development policy. Today, human investment provides more than half of the added value in Western economies. All this suggests that the problems of studying human capital as a management factor and development potential of the modern economy are very relevant in the current situation. The purpose of writing this work is to study human capital and its role in the development of the modern economy.*

**Keywords:** *human capital, economic development, innovation, intellectual technologies, post-industrial economy*

### **1. INTRODUCTION**

The prospects of the world economy in the XXI century are determined by the nature of the transition of countries to a new stage of development of productive forces. We are moving from an industrial stage dominated by large-scale mechanized machine production to a post-industrial stage dominated by the service sector, science, education, and so on. The production of material goods will undoubtedly remain important, but its economic efficiency is determined primarily by highly qualified personnel, new knowledge, technologies and management methods. Thus, the method of production and transmission of knowledge and the person himself - his intellectual potential - come to the fore. For this reason, most researchers consider human capital to be the most valuable resource of post-industrial society compared to natural or



accumulated wealth. Human capital already determines the pace of economic development and scientific and technological progress in all countries. Accordingly, society's interest in the education system, such as the production of this capital, is growing. Although there is an absolute need for the theory of human capital, it is mainly developed by American and British scientists. The theory of human capital has very ancient theoretical and methodological roots. However, it is one of the modern and very relevant directions in the development of neoclassical theory (Becker, 1964). In the current conditions of economic development, it is important to understand the key role of human capital in overcoming the crisis. The reason for this role is that the possibilities of exploiting all resources are not infinite. The only resource that has almost unlimited possibilities for conscious use is the productive abilities of people realized in the form of human capital in modern conditions. Most of them are "obsolete" and do not have the resources and resources to replace and assemble them. In this case, human capital is valued as a more valuable productive resource than material capital. In recent years, there has been a general consensus that the effectiveness of the development of economically modern states depends on how much money it invests in its own people. Without it, it is impossible to ensure its progressive development. Although no specific research has been conducted on this issue, it can be assumed that one of the most important indicators of the level of investment in human capital in the world is related to the highest level of economic development. Experience encourages the re-evaluation and correction of previous approaches to the formation of human potential. It then encourages timely response to new challenges arising from socio-economic change. The solution of practical problems is impossible without the development and maintenance of a scientifically based concept of human capital development (Freeman, 1971). Within the framework of this concept, it is important, first of all, to study the deep foundation, the basis for its restoration and protection. In the developed countries of the West, a post-industrial economy has been formed based on knowledge, wide application of intellectual technologies, expansion of professional mobility and actualization of the role of human capital. The transition to such a model of development, the prevention of backwardness from advanced economies is possible only as a result of special attention to this problem, active and efficient accumulation and development of human capital (Fitzsimons, 2015). Today, human capital is one of the main drivers of value added in Western economies. However, it is important to say that the study of human capital problems, which act as a management factor and development potential of the modern economy, is very relevant. The purpose of writing this article is to study human capital and its role in the development of the modern economy.

## **2. ROLE OF HUMAN CAPITAL IN ECONOMIC DEVELOPMENT IN AZERBAIJAN**

The prospects for Azerbaijan's economic development must be defined and implemented within the framework of the general main trends emerging in the modern world. One of the conditions for increasing the competitiveness of the country's economy is the development of human capital. Its importance as a factor of socio-economic development at the national, regional and transnational levels is constantly growing in the context of globalization of the world economy and the modern level of development of civilization. However, it should be borne in mind that today the level of human capital is not high enough. Changes in economic and social conditions have placed special emphasis on knowledge and skills - in achieving economic success, both for individuals and for countries and peoples. Information and computer technologies, the globalization of economic activity, and more individual responsibility and autonomy trends have changed teaching requirements. The key role of knowledge and competence in ensuring economic growth is widely recognized by economists and politicians. It is necessary to abandon passive policy in order to ensure the preventive development of human capital in accordance with modern realities. We need a development strategy based on the social market economy model.

The acquisition of human intelligence, the intellectualization of production in modern times has led to a new stage in the development of society. This then created more favorable conditions for the realization of creative opportunities in the political, economic, social and cultural life of man (primarily in developed countries). At present, the competitive advantage of the economy and the opportunities for its modernization are determined by the significantly accumulated and implemented human capital. These are people with their education, specialization and experience who define the boundaries and opportunities of technological, economic and social modernization of society (Schultz, 1963). It is necessary to pay more attention to human capital in Azerbaijan as a factor of innovative development. The transition to innovative development means that innovations must include not only the creation of new technologies and their application in production, but also the promotion of products in the market, adequate communication infrastructure. Innovation is the development of a society based on intellectual capital, which determines the competitiveness of the economic system. The need to form a national innovation system in Azerbaijan places special demands on the quality and level of human capital. At the same time, the value of highly skilled labor is declining and human potential is not being valued as a key element of national wealth. Experts estimate that a one percent increase in human capital leads to a 3.81% increase in labor productivity. The high level of national wealth in developed countries is primarily due to the adequate development of human capital, while the supply of natural resources is low, which determines the main direction of development and the criteria for assessing its effectiveness. In this regard, priorities in economic and social policy are changing. If in the short run social goals, efficiency, consumption and savings are in conflict, from a long-term strategic perspective, social development costs are seen as highly effective investments in human capital, one of the leading factors in increasing production. Determining the optimal cost ratio in these areas is one of the most complex and priority problems in the management of socio-economic development. The economic advantage of developed countries is thus based on the quantity and quality of resources produced, rather than the amount of human capital, rather than the results of human creative activity in production. The issue of industrialization is not removed from the agenda. Developed countries continue to increase industrial production, changing it significantly under the influence of new realities. It is both a basis and a condition for the development of human capital, which does not put fixed capital in the background, they do not resist, but complement each other by interacting. The progress of social development expressed in the formation of the information-industrial society is a synthesis of this interaction. There is no clear boundary between industry and postindustrial society, one gradually shifting to the other. The forecast of human capital reproduction is a necessary element of economic strategy (Nyberg, 2014). In the coming decades, its reproduction processes will probably be crucial for the Azerbaijani economy. The medium-term forecast in this area should be an integral part of the development of the country's economic strategy. However, the following should play a decisive role:

- daily calculations of the forecast quantity of material or financial indicators;
- depth of accuracy and assessment of forthcoming qualitative changes;
- dynamics of development of processes in the social-labor sphere.

The level of socio-economic development of Azerbaijan allows to solve the following issues:

- development of society,
- increase of intellectual potential,
- modernization of the economy,
- Achieving a high technological level of production,
- Improving the quality of life on the basis of the renewed production base and the social orientation of the economy,
- formation of information-industrial society

The only resource that has almost unlimited possibilities for conscious use is the productive abilities of people realized in the form of intellectual capital in modern conditions. Another problem of the modern Azerbaijani economy is the significant obsolescence of fixed capital. In this situation, human capital is valued by most economists as the most valuable source of production compared to capital. Proper use of accumulated human capital, the availability of new directions of its development can serve as one of the promising sources of economic progress of the Azerbaijani economy. Experience urges to re-evaluate and correct previous approaches to the formation of human potential, to respond in a timely manner to new challenges arising from economic change (Martinet al., 2013). The solution of practical problems is impossible without the development of a scientifically based concept of human capital development. Within the framework of this concept, it is important, first of all, to study the deep basis of the base, its production and reproduction. Such an objective base is investment. In this regard, the study, generalization, substantiation and clarification of methodological approaches to the problems of human capital investment is not only relevant. It should also be put first in the structure of socio-economic research as a whole. Investments in "human capital" must grow faster than investments in the material elements of national wealth. The main condition for achieving sustainable economic development is the accumulation and maintenance of human capital, the implementation of strategies that encourage people to improve their skills and abilities throughout life through continuous training and vocational training. World and local experience shows that economic growth in the country requires large-scale investments in education, health, culture and other components of human capital, in addition to investment in physical capital. Today, it is important to invest in human capital the costs of fundamental scientific work. In the process of development of science, intellectual innovations are created, on the basis of which new production technologies and consumption methods are formed. In addition, people themselves are being transformed as economic entities with new abilities and needs. In the information society, science becomes a kind of "human capital" generator. Human investment is becoming an increasingly profitable and priority area of public and private investment. In the context of the formation of a global society based on knowledge, national intellectual capital becomes the basis of economic prosperity, a factor of political power of the state and determines its place in the ever-changing world division of labor. The world is evolving rapidly, and in this dynamic world, setbacks are tantamount to defeat. In this situation, there is no alternative to the innovative development strategy for Azerbaijan: either our country leaps into the future by creating a local version of the Knowledge Society, or we go to the outsider camp. The concept of "human capital" is the basis for understanding the main trends in the development of modern society, state and economy. This is especially important in modern Azerbaijan. Despite the difficulties and obstacles, the development of human capital, including its scientific and technical component, remains a vital national priority. This is a real alternative to Azerbaijan's specialization in raw materials. Many theoretical and empirical studies show that economies rich in natural resources may not be properly invested in human capital compared to poor resources. One of the arguments in favor of this assumption is that the resource-intensive sectors of the economy attract the bulk of investment in the economy. However, in this case, highly qualified jobs are not created. This reduces incentives to invest in education in both the private and public sectors. One of the most important directions in raising the level of human capital development is the transition to new directions of migration policy applied to the movement of the population within the country. After the end of the stress migrations of the 1990s, the flow area area decreased significantly, and in 2001-2007 it was more closely related to the socio-economic situation of the regions and the center-peripheral differences. In general, during the period of economic growth, migration was a more accurate indicator of the socio-economic attractiveness of a region. The choice of migrants is more closely linked to objective criteria in the region, such as income and poverty

level, cost of living, labor market conditions and quality of the social environment. Migration and the search for information help to relocate the workforce to areas where wages are better paid, ie where prices are higher for human capital services. In the medium term, it is necessary to study domestic migration trends within the framework of a regional development monitoring system established to develop and adopt a system of measures aimed at determining the directions of major migration flows and removing barriers to the efficient allocation of labor resources. At the same time, when creating the concept and programs of socio-economic development of the regions of Azerbaijan, it should be taken into account that the determining factor of the dynamism of modern society is the socialization and humanization of public relations. In modern conditions, human capital is one of the main resources needed for economic growth. It is the foundation of economic growth through scientific and technological progress. New theories of human sustainable development and the concept of national wealth proposed by UN experts are based on the recognition of human beings as the driving force of social development through the accumulation and use of productive forces and knowledge passed down from generation to generation. World economics has proven the need and high efficiency of human investment. There is no single definition of "human capital" and it reflects human productivity. Human capital includes: the level of knowledge accumulated, the level of education and work experience in the labor market (skills, qualifications, professional experience), embodied in individuals and can be used for a certain period of time for the production of goods and services. The main ways to increase human capital resources are through formal education and practical experience. In our view, the combination and expansion of these approaches allows us to form a comprehensive definition of the concept of human capital - a measure of skills and qualities that are formed as a result of investment or accumulated by an individual or a coalition of individuals. This, in turn, leads to an increase in labor productivity and income as a result of their purposeful use. Human capital is the most valuable resource that is more important than natural resources or accumulated wealth. It is human capital, factories, equipment and production resources that are the cornerstones of competitiveness, economic growth and efficiency.

### 3. CONCLUSIONS

Thus, in modern economic systems, human capital is a necessary independent resource and is important for ensuring national competitiveness. The development of the doctrine of human capital development is a requirement of today as a key factor in the progress of society. The central person must be the center to implement the main efforts of the state. More opportunities - educational, intellectual, informational, etc. - Every member of society, the intellectual resources of the whole nation and state, the dynamic growth rates of the economy, the opportunities of society will be equally important.

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# CONSTITUTIONAL-LEGAL REGULATION OF LABOR RELATIONS OF CIVIL SERVANTS: THE COMPARATIVE ANALYSIS

**Oruj Mammadov**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*oruc\_mammadov@mail.ru*

## ABSTRACT

*Civil service is one of the means to ensure the implementation of state power and public administration. Civil service norms are defined in various and similar content in the legislations of different countries. The specific experience of the countries has caused the formation of various models of civil service. For this reason, there is no single model of civil service in international practice. Civil service consists of the combination of constitutional purposes and functions of the state. That's why civil service relations are regulated by the norms of various legal fields. Labor legal relations of civil servants are dominated in this system of relations. Civil service is provided as a result of professional activity of civil servants. Civil service as a special type of professional activity has complex elements. The constitutional labor law subjectivity of civil servants has a number of field features. The citizen gets the status of civil servant, including the constitutional labor law subjectivity by acquiring the civil service. The constitutional labor law subjectivity of civil servants distinguishes with their field features. Normative and scientific provisions regulating the issue of the labor law subjectivity of civil servants are controversial. From this point of view, in the modern period the comparative analysis of constitutional norms regulating the activity of civil servants is selected with its actuality. Comparative analysis of the issue of constitutional-legal regulation of labor relations of civil servants in the embodiment of various countries, is of theoretical and practical significance. As a result of the research, the gaps are noted in the legal regulation of labor relations of civil servants in modern Azerbaijan; proposals are submitted about the improvement of national legislation; the characteristic features of Azerbaijani model of civil service are defined; a modern scientific concept is being formed.*

**Keywords:** *Civil servant, Constitution, Labor relations*

## 1. INTRODUCTION

The process of building the rule of law is based on the model of constitutional reform in the Republic of Azerbaijan. The foundation of the constitutional reform model was laid by national leader Heydar Aliyev. This model is regularly and realised successfully continued and developed by the President of the Republic of Azerbaijan Mr. İlham Aliyev in modern times. Improving the civil service system is an important part within the reforms implementing successfully by the President of the Republic of Azerbaijan Mr. İlham Aliyev. With the Order of the President of the Republic of Azerbaijan, Mr. İlham Aliyev, the “Strategy for the Development of Civil Service in the Republic of Azerbaijan for 2019-2025” (November 23, 2018) was confirmed [30]. One of the main goals of the strategy is to form a modern civil service corps. One of the components of Azerbaijan's modern model of constitutional reform is the establishment of a transparent and efficient civil service system. In this regard, there are a number of actual issues which one's analysis is necessary in the modern civil service legal institution. The civil service is mainly a social, political, organizational and legal category. The civil service legal institution has complex elements. The basis of the civil service consists of the constitutional norms. This element gives the civil service a legal character and contains its public-legal and individual-legal aspects. The civil service acts as a legal institution in the constitutional goals and functions of the state, including the efficient acting of state policy.

Civil service is important in the political life of any democratic legal state, providing the State power, realising the public administration, ensuring human and civil rights and freedoms. At the same time, the legal relations which arises between the individual, society and the state are ensured through the civil service. Civil service is a special type of professional labor activity of citizens. Civil service is realized as a result of professional labor activity of civil servants. The key elements of the principle from general to special, almost acts as the basis for determining the legal status of civil servants. One of the subjects of civil service legal relations is a civil servant. Constitutional norms play an important role in determining the legal status of civil servants. The above-mentioned factors make it necessary to study the constitutional and legal regulation of labor relations of civil servants in the context of modern globalization on the basis of models of different countries and they contain to identify the strengths and weaknesses of the Azerbaijani model. Norms on labor relations of civil servants are reflected in the International Labor Organization Convention No. 151 "On Labor Relations in the Civil Service" (June 27, 1978) (Labor Relations (Public Service) Convention, 1978 (No. 151) [16]. In our opinion, inclusion of the International Labor Organization Convention No. 151 "On Labor Relations in the Civil Service" to the component of national legislative system is evaluated as the international labor legal status of civil servants and their worker category in the special status or rather, official recognition of labor law as a special subject. It should be noted that 57 member states of ILO have joined to the "Labor Relations (Public Service) Convention, 1978" up to the present period. Developed countries such as France, Germany, Canada, China, Japan, etc. have not yet been ratified The Convention up to the present period [27]. The Convention has been ratified by the Republic of Azerbaijan (March 11, 1993) [27]. On the topic investigated: the existing scientific and theoretical basis is analyzed; constitutional norms of a number of states (USA, Europe, CIS, etc.) have been analyzed comparatively with the norms established by the Constitution of the Republic of Azerbaijan; the the experience of Azerbaijan was compared with experience of those countries; the progressive aspects of positive experience of different countries are shown; it was focused on the issue of the application of international law norms; the reasons of varieties of approaches to legal regulation of labor relations of civil servants were commented.

## **2. SCIENTIFIC-THEORETICAL AND CONCEPTUAL APPROACH**

The Republic of Azerbaijan as an independent subject of international law attaches great importance to international documents and practice on civil service. At the same time, the improvement of system of national legislation on civil service is constantly realized in our country. As the democratic legal state establishment, the free civil society, including information society develops, the relations between state power and public administration are also developing in the modern Republic of Azerbaijan. The labor relations of civil servants have a special place in the system of state power relations. The issue of legal regulation of labor relations of civil servants is one of the problems which interests scientifically-theoretically and is of great practical importance at both the international and national levels. This problem is distinguished with its peculiar relevance in the practice of different countries. That's why, it's impossible to consider the solution of the issue of legal regulation of labor relations of civil servants over. The issue of labor relations of civil servants is characterized by complex structural elements in both scientific-theoretical concepts and normative provisions. At the same time, it should be noted that the unified system of civil service has not been formed in international practice. The political character of the civil service, legislative bases on civil service of countries and diversity of legal systems cause the formation of its different models, including the expression of various scientific concepts. The theory of state management that emerged in Western countries had a great influence on the civil service's formation of the goals, objectives, functions and conditions of implementation of the in foreign countries.

The model of civil service and the type of civil servant formed in Western countries is called the "scientific management" model. The issue on labor relations of civil servants also was included in the structure of this model. In modern times, the organization and ensuring activity of the civil service is formed and developed depending on the civil service model of each country. As a result, different models of civil service have emerged. In our opinion, naturally, a unified model of civil service has not been formed. These models combine constitutional, administrative, labor and social security law into a single system. In the system of norms determining the status of civil servants, labor law norms constitute the majority (Mammadov 2019, p.77-99) [22]. Theme on methodological bases of normative legal provision of labor relations of civil servants has been touched by a number of authors in one or another aspect. In particular, Rodney Lowe's official history of the Civil Service provides a careful account of nearly 130 years of reform dating from Northcote-Trevelyan (1854), through to Fulton (1968) up until 1981 (Lowe 2011) [18]. Despite the researching in the civil service in foreign countries since the 1960s, interest in the civil service values has emerged relatively recently, reflecting concerns about the fight against corruption and the successful implementation of the "good governance" model (Frederickson and Ghore 2005; Frederickson and Ghore 2013, p.3-29) [10]; [11]. The New Zealand Civil Service Commission narrowly describes the concept of values as "the link between the daily work of civil servants and the main objectives of democratic governance in New Zealand" [26]. In a number of countries the civil service and personnel reforms have been extensively analyzed by Nick Manning and Neil Parison (Manning and Parison 2003) [23]. The paper draws its conclusions from an analysis of 14 countries selected by representatives of the Russian Federation government: Australia, Brazil, Canada, Chile, China, Finland, Germany, Hungary, the Netherlands, New Zealand, Poland, the Republic of Korea, the United Kingdom, and the United States. The World Bank was asked to look at a number of countries that faced similar challenges to those facing Russia in this area, while also looking at some countries that faced different problems but achieved interesting results (Manning and Parison 2004) [24]. The constitutional labor legal features of the civil service, the elements of labor law relations of civil servants are noted in the experience of the analyzed countries. In the literature it was noted that, the comparison between Scandinavian countries and the United States and United Kingdom is useful inasmuch as the governments represent very different positions on the spectrum of the welfare state and, perhaps, different views about public values. Naturally, we make no claims that the literature we examined is representative of literature from countries with quite different political and public value traditions. The outcome is approximately 230 studies dealing with public values (Jørgensen and Bozeman 2007, p.354-382) [14]. However, there is an emerging literature that, as a reaction, praises the old virtues of classic administration or, alternatively, launches new progressive models such as "new public governance" or "new public service" (Jørgensen and Bozeman 2007, p.357) [14]. According to the classical approach made by C. Hood and M. Lodge, the social status of my civil servants changes over time under the influence of ongoing reforms in the spirit of the concept of "New Public Management" (NPM) in Western countries (Hood and Lodge 2006) [12]. In the literature, the state is rightly characterized as an employer in the management of the civil service. There is said that the issue of civil service management is linked to the role and responsibilities of the state as an employer. Regardless of the scope of the civil service or the civil service model (career or position-based), in its capacity of an employer the state requires rules and policies that introduce common standards of human resources management across the civil service and sound management mechanisms and capacities that guarantee the uniform application of these standards (Trendafilova 2008) [28]. The Ministry of Finance is the central civil service management capacity in countries like Denmark, Finland, Sweden or Ireland, although it would be more correct to say that the Department of Finance and the Department of the Prime Minister in Ireland play the role of the "centre" for civil service management in this



country. In Portugal, it is the Ministry of Finance and Public Administration that deals with civil service management issues (Trendafilova 2008) [28]. The authors consider that: A further point emerges from current public management discussions (Hollingsworth 1982; Raksasataya 1985; Rice 1992; Baker 1993; DiIulio, Garvey, and Kettl 1993; Gore 1993; Morley 1993; National Commission on the State and Local Public Service 1993). Public service and not simply civil service is on trial. Whereas “civil” service most generally refers to the system of employment that binds people to the authoritative machinery of the state, “public” service is the more comprehensive term. Public service certainly includes civil service, but it also includes the competitors of civil service who may be thrown into the business of government in order to produce the action and results that public service demands and requires. Indeed, in the pursuit of government effectiveness and public productivity, the design and operation of modern civil service “systems” may even contemplate competition among a multiplicity of civil services, each with distinct and different founding principles. Thus, civil service is but one player in the public affairs play, and while it is perhaps correct to say that there will always be a civil service as surely as plays need players, set designers, and stage hands, there are clearly many possible roles and tasks to be performed. The allocation of major and minor parts involves a playwright and producer’s judgments about how the public play is to be put on (McGregor and Solano 1994, p.95) [25]. Building an effective human resource management system cannot be accomplished overnight; it requires internal competence and external support. As such, it is necessarily an incremental process whereby major actors in the organization (political leaders, management, employees, and citizens) gain confidence and respect in the human resource department and its ability to facilitate an effective and responsive system of personnel management. Those seeking an effective human resource system should not look to the latest management fad or quick fix but rather should concentrate on the proper resources (both monetary and human) and buy-in of the organization’s major stakeholders (Battaglio, Paul and Condrey 2006, p.134) [6]. In many countries, there are statutory or constitutional provisions concerning the status and performance of public administration and civil servants. For example, in France, Germany and other EU member states, there are legislative acts regulating the legal status of civil servants based on the specific features and scope of their powers (Kulakov 2015) [15]. We can state that subjects of civil service relations have a special status among the bodies of legislative power. In our opinion, civil service can be represented as an organizational and legal institution created to implement the goals and functions of a state. General and special provisions on civil service enshrined in the Constitution of the Republic of Azerbaijan cover both the public and private legal features of civil service relations (Mammadov 2015, p.104-113) [19]. Against the background of the rule of law, complex reforms and modernization of public administration in the modern Republic of Azerbaijan, the principles, goals and objectives of the civil service, legal regulation of civil servants' activities have been substantially improved. At the same time, there is a need for the adoption and application of new legal norms. The legislative bodies also includes in the scope of civil service legal relations. In the Republic of Azerbaijan, legislative government covers the following features related to civil service: (1) it is part of the regulatory legal framework formation for the civil service; (2) civil service is the activity performed by the subjects of legislative power; (3) persons holding political office in the legislative bodies are independent within the legislation. Civil service in the legislative bodies has the following distinctive features: (1) civil service relations are of a dual nature; (2) legislature is part of the regulatory legal framework formation for the civil service; (3) legislative bodies and structural units are managed through the civil service; (4) civil service is independent; (5) Azerbaijani governance is based on the principle of separation of powers, and the legislative branch of government interacts with the executive and judicial branches according to the provisions of the Constitution of the Republic of Azerbaijan staying independent within its powers; (6) individuals carrying out activities in the field of civil service

must have comprehensive theoretical and practical knowledge and sufficient professionalism (Mammadov 2018a) [20]. Bonifacio José Alberto and Falivene Graciela consider that: so it is not surprising that new modes of hiring would arise in the civil service, involving more flexible contracts, for specific time periods, or part-time. There are controversies about these, with respect to deterioration of the quality of employees, sometimes not represented by unions or deprived of the opportunity to take collective action and access career paths, and receiving fewer benefits than permanent personnel. In other cases, these personnel receive higher salaries than the permanent staff, perform the same functions, and even become quasi-permanent through continual renewal of their contracts. These personnel are not subject to selection and evaluation processes, giving rise to practices that smack of patronage (Bonifacio and Falivene 2002) [7]. The labor law of civil servants contains the categories of unity and differentiation. The unity and differentiation of the labor rights of civil servants is reflected in both national and international legal acts, including the acts of the International Labor Organization (ILO). The unity of labor law is reflected in the principles of legal regulation of labor and the common norms for all employees. Christoph Demmke writes: Still, civil service systems are a constituent part of our system of government. Modern government still depends to a great extent on the work of the national civil services and their employees; the millions of civil servants. In fact, the quality of life in Europe depends in many ways on those who work for governments and on how government works as such. Furthermore, civil services have a democratic and ethical function; they should serve society and the law, protect the population as well as function in a sustainable manner. For all of these tasks and duties the Member States have established specific civil services. No government functions as a private company or under labour law (Christoph 2010, p.5) [8]. Also in the coming years, most Member States will maintain the public law status of civil servants. At the same time they are introducing reforms which call into question the very sense of it. Civil servants are still numerous; however, their numbers are diminishing. They still enjoy greater job security (Christoph 2010, p.10) [8]. Scientific-theoretical provisions lead to the conclusion that the civil service has both public-legal and individual-legal features. On the one hand, the civil service is the basis of management relations, on the other hand, it acts as a special type of professional activity. Civil service as a special type of professional activity is labor legal characteristic. In other words, the civil service is a special type of professional labor activity. The labor law is one of the constitutional rights of citizens and it is necessary for life. The activities of civil servants are regulated by the complex application of norms of the various fields of law. In this system of norms, labor law occupies a greater place. So, the civil service is one of the forms of realization of the constitutional labor right of a citizen.

### **3. NORMATIVE LEGAL REGULATION AND PRACTICE**

National leader Heydar Aliyev has a special role in the formation of the normative base for the legal regulation of civil service relations in the Republic of Azerbaijan. The first national Constitution of the Republic of Azerbaijan was prepared under the leadership and authorship of national leader Heydar Aliyev and adopted by the nation (12.11.1995) [29]. The Law of the Republic of Azerbaijan on Civil Service (July 21, 2000) [17] and other legal acts was confirmed by National Leader Heydar Aliyev. In modern times the policy of creation and improvement of normative base in the field of civil service is successfully continued and developed by the President of the Republic of Azerbaijan, Mr. Ilham Aliyev. The legal activity of civil servants in Azerbaijan has constantly been in the focus of the country's leadership. President of the Republic of Azerbaijan Ilham Aliyev considers that: in our country at a time of dynamic development processes, perspective implementation of socio-economic development programs in all spheres of life in our country, completely new and modern requirements are set for civil servants.

By setting an example of high professionalism, competence, morality and ethics, they must respect the authorities with their decisions and actions, and instill in citizens the goals and objectives of public policy. In their activities, civil servants must be guided by the principles of the rule of law, loyalty to duty, humanism, social justice, and reconcile the interests of citizens and the state (Aliyev 2014, p.77) [1]. Among the systematic measures implemented in the field of civil service in the Republic of Azerbaijan, the establishment of the State Agency for Citizen Services and Social Innovations under the President of the Republic of Azerbaijan is of great social, political, economic and legal significance. At the opening of the 72nd session of the UN General Assembly on September 20, 2017 in his speech the President of Azerbaijan, Mr. Ilham Aliyev noted: "Today Azerbaijan exports not only its industrial and agricultural but also intellectual products. "State Agency for Services and Social Innovations to the Citizens" - ASAN Service is a modern model of public relations and services. 251 services under one roof, absolute transparency, zero tolerance to corruption and bribery made "ASAN Service" attractive to many countries. Being purely Azerbaijani brand during 5 years of its foundation ASAN Service provided over 1 million 600 thousand services to 5 million people. The total number of applications is 17 million. The rate of public appreciation of "ASAN Service" is 98 %. In 2015, in recognition of its contribution to excellence, creativity and considerable simplification of the delivery of public services, ASAN received the United Nations Public Service Award" (Aliyev 2017) [2]. At the opening of the VI Baku International Humanitarian Forum (October 25, 2018) on "Forming a new world and a new man: creativity and human development the president of the Republic of Azerbaijan Ilham Aliyev in his speech " noted: "The creation of the "ASAN xidmət" centers is a very important initiative in the social and humanitarian sphere. If guests have the opportunity, they can visit one of the five centers operating in the city of Baku. They can see how "ASAN xidmət" functions, which is really an intellectual product of Azerbaijan and is based on Azerbaijani technologies. This year, the number of centers will be increased to 15, five in Baku and 10 in the regions. In these centers, more than 300 services are provided in the same building. Public approval ratings of "ASAN xidmət" are close to 100 per cent. This created a kind of a revolution in public services. They have put an end to cases of bureaucracy, red tape, corruption and bribery typical of public services. In a matter of a few years, more than 24 million applications have been made to "ASAN xidmət" centers, and the absolute majority of them were granted" (Aliyev 2018) [3]. It should especially be noted that the "ASAN service" model, authored by President Ilham Aliyev of Azerbaijan, has become a source of international experience in preventing and combating corruption in the system of civil service, and has attracted the interest of many countries. For example: "Memorandum of Understanding between the State Agency for Public Service and Social Innovations under the President of the Republic of Azerbaijan and the Ministry of Public Services of the Republic of Uganda on cooperation in establishing advanced public service delivery mechanism was signed" [4]. Azerbaijan's "ASAN service" model serves the better regulation of public relations between the state and citizens, ensuring transparency in the activities of civil servants, etc. The norms on civil service and civil servants are established on the basis of general principles in international legal acts. With "Universal Declaration of Human Rights" it is determined that, "1. Everyone has the right to take part in the government of his country, directly or through freely chosen representatives. 2. Everyone has the right to equal access to public service in his country. 3. The will of the people shall be the basis of the authority of government; this will shall be expressed in periodic and genuine elections which shall be by universal and equal suffrage and shall be held by secret vote or by equivalent free voting procedures (Article 21); 1. Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.

2. Motherhood and childhood are entitled to special care and assistance. All children, whether born in or out of wedlock, shall enjoy the same social protection (Article 25) [33]. With "American Convention on Human Rights" it is determined that, "Every citizen shall enjoy the following rights and opportunities ... c. to have access, under general conditions of equality, to the public service of his country (Article 23. Right to Participate in Government) [5]. In the US Constitution within the powers of Congress the civil service norms were detected as follows: To provide for organizing, arming, and disciplining the Militia, and for governing such Part of them as may be employed in the Service of the United States, reserving to the States respectively, the Appointment of the Officers, and the Authority of training the Militia according to the discipline prescribed by Congress (Section 8 - Powers of Congress) [31]. In the law called "Civil Service Reform Act of 1978" of the US it is detected that: "(1) in order to provide the people of the United States with a competent, honest, and productive Federal work force reflective of the Nation's diversity, and to improve the quality of public service, Federal personnel management should be implemented consistent with merit system principles and free from prohibited personnel practices; ... (10) the right of Federal employees to organize, bargain collectively, and participate through labor organizations in decisions which affect them, with full regard for the public interest and the effective conduct of public business, should be specifically recognized in statute" [32]. Due to the legal nature of norms detected in the law called "Civil Service Reform Act of 1978" of the US attracts with the legal nature of labor. In the "European Convention for the Protection of Human Rights and Fundamental Freedoms" of the Council of Europe it hasn't been detected the right of equal access to the civil service of citizens. Unlike the Council of Europe, the Commonwealth of Independent States has paid more attention on the right to equal service in the civil service: In the "Commonwealth of Independent States Convention on Human Rights and Fundamental Freedoms" (1995) it is detected that, in accordance with national legislation, everyone shall have the right and opportunity and in the State of which he is a citizen: (a) to take part in the management and conduct of public affairs, either directly or through freely chosen representatives; (b) to vote and to be elected at elections held on the basis of universal and equal suffrage by secret ballot, that guarantees the free expression of the will of voters; (c) to have access, on general conditions of equality, to the public service of his country (Article 29) [9]. The right of equal access to the civil service of citizens – the Russian Federation (Article 32), the Republic of Belarus (Article 39), the Republic of Ukraine (Article 38), the Republic of Kazakhstan (Article 33), the Kyrgyz Republic (Article 23), the Republic of Moldova (Article 39), the Republic of Tajikistan (Article 27), the Constitutions of the Republic of Turkmenistan (Article 30) and the Republic of Georgia (Article 29) has been detected. Equal access of all citizens to public service and the right to hold public office are declared in the constitutions of many European countries (Article 70 of the Constitution of the Republic of Turkey; Article 25 of the Constitution of the Principality of Andorra; § 70 of the Constitution of the Republic of Hungary; Art. 101 of the Constitution of the Republic of Latvia; Art. 33 Constitution of the Republic of Lithuania; Art. 31 of the Constitution of the Principality of Liechtenstein, Art. 11 of the Constitution of the Grand Duchy of Luxembourg; Art. 23 of the Constitution of the Republic of Macedonia; Art. 3 of the Constitution of the Kingdom of the Netherlands; Art. 60 of the Constitution of the Republic of Poland; Article 50 of the Constitution of the Portuguese Republic; Article 101 of the Constitution of the Republic of San Marino; Article 30 of the Constitution of the Slovak Republic, Article 33 of the Basic Law for the Federal Republic of Germany; Article 44 of the Constitution of the Republic of Croatia, etc.) with specific characteristics. In Article 55 of the Constitution of the Republic of Azerbaijan ("Right to participate in administration of the state") it is detected that: "I. Citizens of the Republic of Azerbaijan have the right to freely participate in administration of the state. They may exercise this right directly or through their representatives.

II. Citizens of the Republic of Azerbaijan have the right to serve in state bodies. Officials of state bodies are appointed from among citizens of the Republic of Azerbaijan. Foreign citizens and stateless persons may be accepted into the public service in accordance with the procedure prescribed by law (Article 55) [29]. According to the Law of the Republic of Azerbaijan On Civil Service: "Civil service is the performance by civil servants their official duties in the area of implementation of state objectives and functions in accordance with the Constitution and othe Republic of Azerbaijan (Article 2.1) [17]. The norms established in the ILO legal acts have a specific scope and advantage in the implementation of the labor law of civil servants, determining the legal elements of their status, characterizing the civil service as a special type of professional labor activity, complex legal regulating of civil service activity. The norms established in the ILO legal acts show that civil servants are a category of workers with special status. ILO norms are applied on the basis of general principles in the legal regulation of labor relations of civil servants. However, in relation to civil servants, there are restrictive or prohibitive norms in some of the ILO's legal acts (Mammadov 2018b, p.181) [21]. The Republic of Azerbaijan is the member of the ILO since May 19, 1992 [13]. The different ILO bodies, the functioning of the Conference, and the adoption and application of international labour standards are governed by the Constitution. The original ILO Constitution formed Part XIII of the Treaty of Versailles (1919). Since that date it has been amended on six occasions, and has become a separate instrument. In 1944, the Conference adopted the Declaration of Philadelphia, which restated the fundamental aims and purposes of the ILO. The Declaration is annexed to and forms an integral part of the Constitution [13]. In the Constitution of the Republic of Azerbaijan on the basis of general principles the main normative provisions defining the role of the ILO in the legal regulation of labor relations of civil servants are detected as follow: "Republic of Azerbaijan builds its relations with other states on the basis of the principles enshrined in universally accepted international legal rules (Article 10), International treaties to which the Republic of Azerbaijan is a party shall be an integral part of the legislative system of the Republic of Azerbaijan (Article 148), If a conflict arises between normative legal acts of the legislative system of the Republic of Azerbaijan (with the exception of the Constitution of the Republic of Azerbaijan and acts adopted by referendum) and inter-state treaties to which the Republic of Azerbaijan is a party, the international treaties shall apply (Article 151) [29]. In the Constitution of the Republic of Azerbaijan and the legislation on civil service on the basis of general principles the civil service as a special type of professional activity is detected. In the Article 35 of the Constitution of the Republic of Azerbaijan it has detected that: "I. Labor is the foundation of individual and public welfare. II. Everyone has the right to freely choose activity, profession, occupation and place of work, based on his/her abilities. III. Nobody may be forced to work. IV. Employment contracts shall be concluded voluntarily. Nobody may be forced to conclude an employment contract. V. A court may order forced labour, the terms and duration of which are prescribed by law; there may be forced labour in connection with the execution of orders given by an authorized person during military service, or in connection with the performance of work assigned during times of emergency or marital law. VI. Everyone has the right to work in safe and healthy conditions, to receive remuneration for his/her work without any discrimination, for no less than the minimum wage prescribed by the state. VII. Unemployed persons have the right to receive social allowances from the state. VIII. The state shall apply all of its resources for the elimination of unemployment" (Article 35) [29]. According to these norms detected in the Constitution of the Republic of Azerbaijan, the main features characterizing the civil service as a professional activity can be expressed as follows: 1) the civil service belongs to public labor; 2) civil service is an integral part of labor law relations; 3) civil service is one of the special types of professional activity; 4) civil servants, who are one of the main subjects of the civil service law, are a category of workers with a special status.

In our opinion, these features are also included in the sum of elements that contain the socio-legal and individual-legal features of civil service legal relations.

#### 4. CONCLUSION

The norms and scientific concepts detected in international legal acts and constitutions of different states give grounds to conclude that civil service relations have public-legal and individual-legal features. This means that in the system of complex norms as an integral part of the civil service law the combination and application of relevant norms which belongs to the field of constitutional, administrative, labor and social security law is expedient. General and special norms on civil service detected in the Constitution of the Republic of Azerbaijan contain the public-legal and individual-legal features of civil service legal relations. The constitutional and legal regulation of labor relations of civil servants can be expressed in the following areas. As a result of the realization of the constitutional labor rights of civil servants: 1) the constitutional goals and functions of the state are ensured; 2) the constitutional powers of state authorities are executed; 3) civil service is characterized as a special type of labor activity; 4) civil servants are expressed as a category of workers with a special status. One method of the constitutional guarantees of exercise of state power is the right of citizens to civil service. In the Article 55 of the Constitution of the Republic of Azerbaijan it has been detected the following three rights belonging to the citizens of the Republic of Azerbaijan: 1) the right of citizens to participate directly in the management of the state; 2) the right of citizens to participate in the management of the state through their representatives; 3) the right of citizens to serve in public bodies, in other words, the right of citizens to civil service. The right to equal service in the civil service is detected in international and regional legal acts on the basis of general principles. It is clear from these acts that the right to equal service in the civil service is belonging to citizens' rights, this right is included in the system of political rights. Norms on the the right to equal service in the civil service are detected in both international and regional legal acts with similar content. This factor, on the one hand, contains the general principles of the right to civil service, and on the other hand, creates a legal basis for its detection in national constitutions. The detection of the right of citizens to access to the civil service in international legal acts and national constitutions is an important condition for the implementation of the constitutional principles of legality in the civil service. The detection of the right of citizens to serve in public bodies contains the possibility of realizing their constitutional labor right. In modern Republic of Azerbaijan choosing a unique development model and implementing it by means of targeted reforms the adoption and application of the Civil Service Code is expedient. In accordance with the principles and norms detected in the Constitution of the Republic of Azerbaijan, the mechanisms, methods, techniques and means of realizing the constitutional labor rights of civil servants may be comprehensively provided by this Code to be adopted.

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## ASSESSMENT OF THE MINIMUM WAGE IMPACT ON POVERTY IN OIL-RICH COUNTRIES

**Rahmanov Farhad P.**

*Professor at Azerbaijan State University of Economics (UNEC), Azerbaijan  
farhad52@live.ru*

**Gulaliyev Emil Ch.**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
emil\_gulaliyev86@gmail.com*

### ABSTRACT

*The provision of social protection for employees and a favorable business environment are not contradictory, as well as intertwined. One of the policies of social protection of employees is related to the minimum wage. However, researches on most countries show that the cause-and-effect relationship between the minimum wage and some socio-economic indicators, such as poverty, is not universal. In some countries, raising the minimum wage reduces poverty, but in some countries, such an increase has a negative impact by creating additional unemployment. The study conducted a panel analysis of the impact of the minimum wage on poverty in oil-rich countries. The results of the study show that in oil-rich countries, the relationship between the minimum wage and poverty is not strong.*

**Keywords:** *Minimum wage, Poverty, Oil-rich countries, Panel analyze*

### 1. INTRODUCTION

As one of the forms of state intervention in the economy, the minimum wage (MW) has a bipolar effect: on the one hand, the social protection of workers, often lower-skilled workers, is protecting by setting the threshold of the MW by legislation or collective agreements. On the other hand, employers are forced to increase their costs by paying high wages to lower-skilled workers. The increase of the wages of the low-skilled workers also creates new conditions for the increasing of the skilled workers' wages. The increase in wage spending has had a negative impact on the business environment, as it has led to an increase in the total costs of employers. This means that changes in the MW will also affect the average wage. However, such effects do not depend equally on the employee's level of qualification. In other words, since the level of the MW is more related to the social protection of low-skilled workers, in most cases, its change does not seriously affect the social protection of high-skilled workers. However, in countries where wage gaps between workers are small, as well as higher MW changes in the short term can have a strong impact. In such cases, they may decide to lay off some employees, as changes in the MW have a negative impact on the business environment and place an additional financial burden on entrepreneurs. This can lead to an increase in unemployment and social problems, as well as a decrease in gross domestic product. Given the bipolar nature of the MW, any state seeks to determine the level of MW in the country so that both the social protection of low-skilled workers is ensured and the business environment is not negative affected. This makes it necessary to determine the optimal balance between the MW and the unemployment rate.

### 2. LITERATURE REVIEW

There is particular interest in the economic literature on the impact of the "minimum wage" on economic growth, socio-economic development, foreign economic activity and other areas. Most countries are trying to reduce poverty by intervention to the level of MW by legislation. It is assumed that the income of households living below the poverty line will increase

according to the increasing of the MW. However, research shows that the use of MW levels for poverty reduction is not very successful way (Card and Krueger, 1995). Because the increasing of the minimum wage also affects the unemployment rate. With the increasing of the minimum wage, the dismissal of low-skilled workers may lead to their replacement by high- and medium-skilled workers (Card and Krueger, 1995). Studies by Lustig and McLeod (1996), as well as Clemens and Uither (2014), have led to similar results. Dube A. (2013), as well as Gulaliyev (2018) note that the minimum wage has maximum and minimum limits to reduce its negative impact on employment. On the other hand, it is necessary to take into account the time dependence of such a relationship. Dube (2013) argues that the link between MW and employment is not a cause-and-effect relationship. The possibility of a direct or indirect link between the level of MW and employment, as well as living standards also determines its impact on economic growth. On the other hand, MW can also have a positive or negative effect on economic growth through savings or investment. The effects of MW levels on economic growth may also be related to the effects of MW changes on labour productivity (Obeng, 2015). In another study, as a mechanism of the impact of MW on economic growth, an increase in the price of a product as a result of an increase in the price of labour, a decrease in profits may have a negative impact on real MW. On the other hand, if the MW increases, the incomes of low-skilled workers who continue to work will increase relative to those who have lost their jobs and the owners of the firm, and GDP will increase as the marginal propensity of such workers to consume increases (Obeng, 2015).

### 3. METHODOLOGY AND DATA

The impact of the MW on poverty can be direct or through the impact on other economic indicators, such as GDP growth and employment. Therefore, in the study, we will try to assess the indirect impact of MW on poverty by channels p.c. GDP growth and unemployment rate in 97 countries, as well as in oil-rich countries and Azerbaijan as case by panel and time series analysis. The survey data on employment and GDP growth were obtained from the World Bank's (WB, 2020) statistical database, and data on MW were obtained from TE (2020), WF (2020), IMF (2020), necessary data on Azerbaijan was obtained from SSCRA (2020) sources. The study obtained MW data only for 14 oil-rich countries for three years (2014-2016).

### 4. RESULTS

#### 4.1. Impact of MW on economic growth

A comparative analysis of existing researches on the impact of MW on economic growth suggests that the relationship between these two indicators is different from country to country. In some countries, the MW stimulates economic growth, but in some countries it does not have a significant impact. However, our panel analysis covered 97 countries show that there is no significant correlation between share of MW in GDP per capita (MWS) and per capita GDP growth (GDPPCG). Thus, although the F-significance of the relationship between MWS and GDPPCG is satisfactory, the coefficient of determination is very small (Table 1). The panel analysis consists of 291 observations covering 2014-2016. This includes countries with different levels of MWS and different levels of development. In some countries, even the of the MW is not defined by legislation. The panel analysis proves that the social nature of the MW is more important rather than economic growth driver.

*Table following on the next page*

*Table 1: The relationship between the NWS (NW share in GDP p.c.) and p.c. GDP growth rate (%) (GDPPCG) (panel analysis 97 countries)*

Variables	Coefficient	Std. error	T-statistic	Prob.
MWS	0.016765	0.005467	3.066611	0.0024
C	1.495226		6.201883	0.0000
R-squared=0.031515				

*Source: Calculation of the authors*

The Granger test for the existence of a cause-and-effect relationship between these two indicators also confirms the H0 hypothesis, i.e. there is no cause-and-effect relationship between these two indicators. The fact that economic growth does not depend on MW means that the impact of MW on poverty cannot be through the economic growth channel, and through this channel, MW does not play a role in poverty reduction. A similar panel analysis for oil-rich countries yields roughly the same result. Thus, in these countries, too, there is no serious link between MWS and GDPPCG. It should be noted that in some countries, as well as in some oil-rich countries, the MW is not defined by the legislation (Table 2). For example, in Norway, in the United Arab Emirates, in Qatar, and in Venezuela, MW is not applied. Nevertheless, we want to keep a study of these countries and make a comparative analysis of how the level of employment is changing in contrast to other countries in the absence of MW.

*Table 2: MWS, GDP per capita and employment dynamics in oil-rich countries (2014-2016)*

	2014			2015			2016		
	MWS c	GDPPC G (%)	Employe nt rate	MWS c	GDPPC G (%)	Employe nt rate	MW S	GDPPC G (%)	Employe nt rate
Azerbaijan	19.96	1.522	61.856	22.79	-0.146	62.266	19.96	-4.142	62.949
Bahrain	0.00	2.707	70.717	0.00	0.181	70.832	0.00	-0.441	71.389
Iran	53.27	3.275	36.969	62.53	-2.611	37.750	67.15	11.869	38.480
Kazakhstan	10.52	2.677	67.288	11.09	-0.268	67.399	10.76	-0.328	66.647
Kuwait	6.22	-3.980	69.876	8.62	-3.201	70.987	9.16	-0.229	71.192
Nigeria	41.68	3.514	52.057	40.62	-0.029	51.588	30.97	-4.168	49.436
Norway	0.00	0.826	62.464	0.00	0.958	62.102	0.00	0.185	61.362
Oman	46.52	-3.945	66.185	55.77	-1.152	67.872	63.54	0.015	68.648
Qatar	0.00	-1.206	87.020	0.00	-0.646	87.749	0.00	-1.280	87.169
Romania	32.24	3.799	51.051	32.69	4.361	50.742	32.64	5.403	50.554
Russian Federation	12.07	-1.081	59.390	12.34	-2.518	59.140	12.43	0.146	59.283
Saudi Arabia	39.06	0.754	52.030	45.68	1.478	52.912	47.64	-0.601	53.138
UAE	0.00	4.100	81.036	0.00	4.553	81.429	0.00	1.981	81.162
Venezuela	0.00	-4.731	58.282	0.00	n/a	58.087	0.00	n/a	57.369

*Source: Developed by authors*

On the other hand, it is difficult to determine the impact of MW on poverty in oil-rich countries, as economic growth is more dependent on the oil sector and less labour-intensive. Another difficulty in assessing the impact of MW on poverty in oil-rich countries connected with accessing to data.

Thus, it is very difficult to obtain more complete statistics for most oil and gas countries. Fourteen oil-rich countries were selected for such a panel analysis. The panel analysis shows that the amount of MW in these countries does not have a significant impact on economic growth (Table 3). The reason for economic growth in these countries is largely due to other factors, including oil and gas production and exports.

*Table 3: Correlation of MWS in oil-rich countries with GDPPCG (panel analyses)*

Variables	Coefficient	Std. error	T-statistic	Prob.
MWS	0.041995	0.021713	1.934157	0.0602
C	0.100721	0.613206	0.164253	0.8704
R-squared=0.085525				

*Source: Calculation of the authors*

The panel analysis shows that in an oil-exporting country, too, it is impossible to use MW increasing for poverty reduction through MW-economic growth relationship. This is largely due to the direct impact of MW on the income of households by social protection of low-income workers, but not on economic growth.

#### **4.2. Impact of MW on unemployment**

This is evidenced by a panel analysis of the impact of the MW on unemployment (UNEMP) in 97 countries. A three-year panel analysis of 97 countries with different levels of development and different levels of MW shows that there is no significant correlation between the MWS indicator and the UNEMP indicator (Table 4).

*Table 4: Correlation of MWS and UNEMP for 97 countries (panel analyses)*

Variables	Coefficient	Std.error	T-statistic	Prob.
MWS	0.005666	0.011577	0.489391	0.6249
C	7.644920	0.510575	14.97317	0.0000
R-squared=0.000828				

*Source: Calculation of the authors*

At first glance, the increase in MWS has a negative impact on employment. This is because the increase in MW has a negative impact on the business environment and increases the costs of entrepreneurs. They tend to hire fewer workers and fire some workers in order to make a profit. However, the panel analysis shows that even if this happens in some enterprises, unemployment in the economy as a whole does not suffer. There may be several reasons for this. For example, the share of MW in GDP per capita is almost less than 30% in most countries, and a slight increase or decrease in MW will not affect employment as a whole. In oil-rich countries, the panel analysis of the impact of MW on employment does not give similar results. Thus, in these countries there is a serious link between the MWS and the UNEMP indicator. MW increases the unemployment rate (Table 5). In contrast to the results for 97 countries, the dependence of the unemployment rate on MW in oil-rich countries is not due to a cause-and-effect relationship between these indicators. Thus, the application of the Granger test to determine the nature of this dependence confirms the hypothesis  $H_0$ , i.e. there is no cause-and-effect relationship between these indicators.

*Table 5: Relationship between MWS and unemployment in oil-rich countries (panel analysis)*

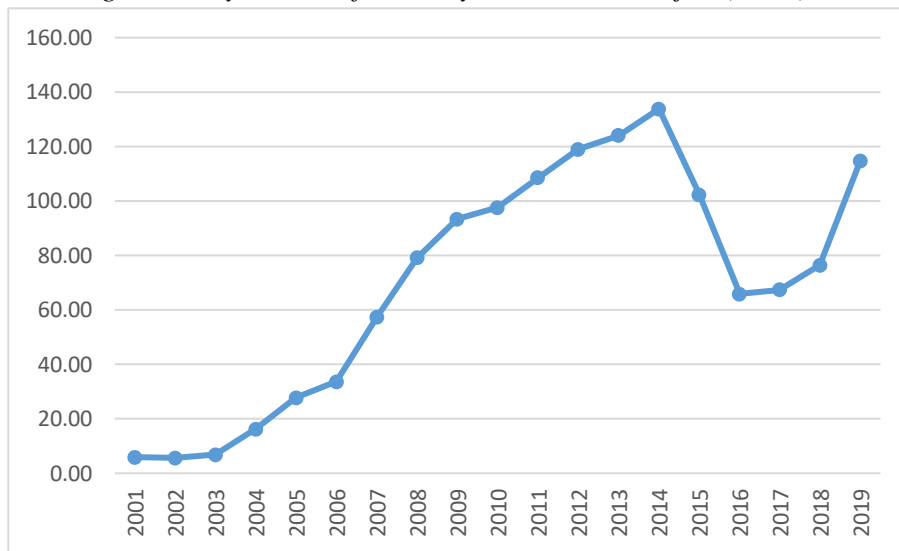
Variables	Coefficient	Std. error	T-statistic	Prob.
MWS	0.118089	0.011939	9.890713	0.0000
C	2.458749	0.337192	7.291840	0.0000
R-squared=0.709779				

*Source: Calculation of the authors*

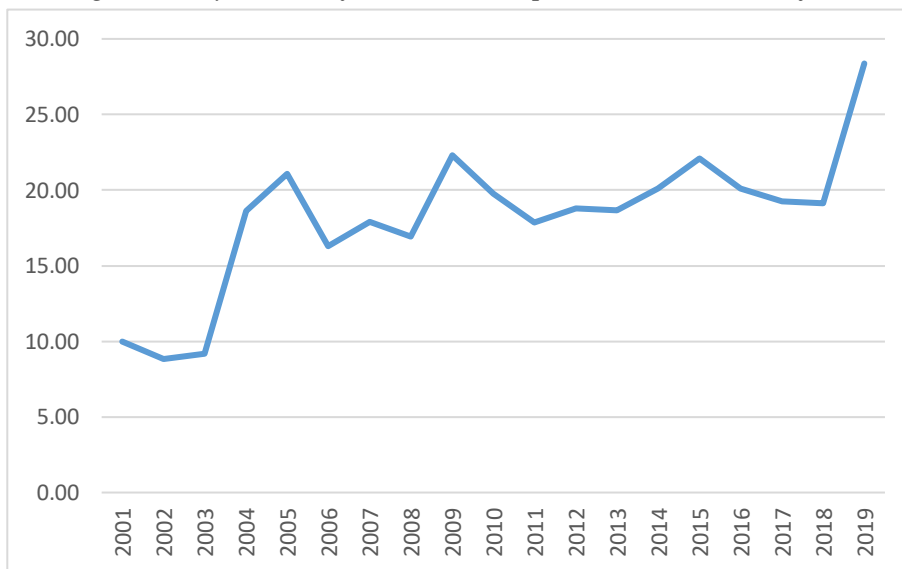
#### 4.3. Dynamics of MW in Azerbaijan

In Azerbaijan, the MW has been established by legislation and is increased in the period 2001-20015. However, as a result of the devaluation of Azerbaijan currency (manat) against the dollar in 2015, the volume of MW in dollars in Azerbaijan decreased sharply (even twice). However, starting in 2017, the government is implemented the necessary measures to increase MW once again. But the MWS indicator continues to be increased and decreased during these years (Fig.2).

*Figure 1: Dynamics of monthly MW in Azerbaijan (USD)*



*Figure 2: Dynamics of MW share in p.c. GDP in Azerbaijan*



We will use the time series to assess the impact of MW on poverty in Azerbaijan through economic growth and unemployment channels. The calculations show that in the last 18 years, the MW in Azerbaijan has not had strong impact on economic growth. This result confirms the results obtained through the panel analysis above. In other words, the volume of MW in Azerbaijan does not play a role in stimulating of economic growth at the macro level and has only social protection role. However, the relationship between MW and unemployment in Azerbaijan gives slightly different results. Thus, calculations show that the increase in MWS in Azerbaijan leads to a decrease in UNEMP.

In other words, as the share of MW in GDP per capita increases, the unemployment rate decreases. This result also contradicts the economic nature of MW. Thus, this result suggests that the increase in MW also increases employment. The main reason for this is that the level of MW in Azerbaijan is still much lower than its optimal level. In such cases, the increase in MW creates motivation for employment. This suggests that continuing reforms to increase MW in Azerbaijan may increase economic activity. However, exceeding the optimal level of MW can have a negative impact on the business environment.

## 5. CONCLUSION

Assessing the impact of the annual minimum wage share in GDP per capita on poverty for 97 developed and developing countries and for 14 oil-rich countries, as well as for Azerbaijan in the period of 2014-2016, allows us to make the following conclusions: 1) The impact of MW on poverty occurs at the micro level, not at the macro level; 2) The impact of MW on poverty is not realized through the effects on economic growth and employment; 3) The impact of MW on economic growth is not significant; 4) The impact of MW on unemployment is not significant; 5) MW in Azerbaijan has a positive effect on employment, although it does not have an impact on economic growth; 6) The MW level in Azerbaijan is much lower than its optimal limit.

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# MODELLING THE IMPACT OF EXCHANGE RATE VOLATILITY ON FINANCIAL SECTOR: IN CASE OF AZERBAIJAN

**Ali Rustamov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
alirustamov@unec.edu.az

**Tahmasib Huseynov**

*Azerbaijan State University of Economics (UNEC), Azerbaijan*  
tahmasib.huseynov@unec.edu.az

## ABSTRACT

*The considerable effects of exchange rate volatility on major macroeconomic factors, their transmission channels are well researched in the current literature. In general, it is assumed – for some countries statistically significant impact has been proven – that the more volatile the exchange rate is, the more negative impact it has on the major determinants of the economy due to uncertainty and risk. Regarding the characteristics of the economy the exchange rate volatility distinctly reflects itself. The stability of the exchange rate is today has been an immense guide of the country economy. It has especially expressed itself as a significant danger and major component of so called “Dutch disease” in oil-exporting developing economies. The exchange rate volatility risk have not passed the financial sector by in those countries. Financial sector, especially the banking sphere of these countries have seem to be affected in most of the studies conducted on this matter. The short and long-run, direct and indirect channels of the transmission have been researched in the literature review of the paper. Considering all these, the study will extend the existing literature by researching and analyzing the situation in Azerbaijan. The econometric method of a cointegrated VAR model, VECM model has been used for Azerbaijan in order to study the response of the exchange rate volatility on financial sector in the country. Both the short-term and long-term relationship between the key variables have been analyzed and some significant concluding remarks have been reached. Empirical findings indeed show that the volatility in exchange rate has statistically significant relationship with the financial sector indicator of the Azerbaijan economy.*

**Keywords:** Exchange rate volatilities, VAR model, VECM model, Financial sector, Econometrics

## 1. INTRODUCTION

A sharp domestic currency devaluation in Azerbaijan since late 2014s and ongoing depreciation of the currencies of major trading partners led to the negative responses of financial sector as well. In February and December 2015, Azerbaijan suffered double devaluation. However, as a result of the successful financial policy by the state, stability in the financial markets has been ensured since the second quarter of 2016. It should be noted that high liquidity of the financial market and the stability of the domestic currency could have successfully been provided despite the increase in short-term pressure and volatility in the domestic foreign exchange market in different periods. The financial performance of banks, non-bank financial institutions, and non-financial institutions also significantly depends on exchange rate fluctuations. The volatility of the foreign exchange and financial markets, changes in the liquidity requirements of banks, and other economic entities have a serious impact on operations in the government securities market. The stability of the exchange rate has an utter importance among the key macroeconomic factors and has become a broad guide for the country's economy recently. The study has been conducted to analyze the short and long-run analysis of the impact of exchange rate volatility on return on investments in banks.

Though the short-run relationship between the exchange rate volatility and return on investments is not found, that of statistically significant long-run causality running from Deposit dollarization, Deposit rate, GDP, Inflation, Loan dollarization, Loan rate and NEER to ROA is present. Speaking of the short-run outcomes, the currency volatility is not reflected in the return on assets of the banks in the country for the defined 2 lags. Thus, further research should be conducted in order to analyze whether the impact of currency volatility is reflected in ROA from 2 to 12 months. The paper aims to conduct the research via cointegrated vector autoregressive (VAR) model, specifically vector error correction model (VECM). This methodology have been broadly applied in empirical investigations recently. Briefly, the methodology is applied to assess the reflection of Exchange rate fluctuations in Return on Assets, since it allows to reveal not only long-run, but also short-run relationship between the key variables. Existing literature on the relationship between the exchange rate fluctuations and return on assets; cointegrated VAR, VECM to estimate the relationship between exchange rate fluctuations and return on assets; and interpretation of the major results are included in the relevant chapters of the paper. In general, the financial sector in Azerbaijan is quite sensitive to the changes in domestic exchange rate. It is highly expected and already seems that the health (due to COVID-19) and economic crisis (due to oil price drops) in the current year have considerable negative impacts on the country's economy and will not bypass the financial sector.

## 2. LITERATURE REVIEW

Sensitiveness of financial sector against the domestic exchange rate fluctuations has been researched in a number of studies. Before conducting the analysis for Azerbaijan, existing literature on the relationship between the exchange rate fluctuations and return on assets is reviewed throughout the chapter. According to Chit and Judge (2011), it has been found that economies with less developed financial sector are negatively affected by currency fluctuations. So, the result is that those economies, especially their exports have significant negative relationship with the exchange rate fluctuations. Taiwo and Adesola (2013) in their research have also found that exchange rate fluctuations are resulting into high level of bad loans in the economy. Its transmission channel goes through the ability of the lenders on managing the loans. However, capital deposit ratio doesn't show any statistically significant response against the currency volatility. In another study by Aghion et al. (2009), they present a simple monetary growth model that exchange rate fluctuations lead to the negative impact of credit market constraints on investments. Botta (2015) advises the constraints to some capital flows to manage exchange rate and capital flows cycles and hence, supports the implementation of a developmentalist monetary policy that focuses on exchange rates to encourage diversification in the economy. Another study by Abdoh et al. (2016) introduces the capital markets of the economies to have a vital role in exchange rate stability. It is believed to be due to the important role of the respective authorities and market players. Confirmed by different methodologies, the feedback effects of exchange rate fluctuations on financial factors are found to be much stronger in developing countries than in developed countries (Grossmann, A., Love, I. and Orlov, A.G., 2014). The related study by Denizet et al. (2002) states on the relative significance of banks within the finance sector and support their statement via banks' role in clarifying utilization, and speculation instability, and the extent of credit given to the private sector and other related matters. Devereux and Lane (2003) expresses the significant influence of foreign financial liabilities on exchange rate fluctuations in the developing economies. However, they do not see the same to be true for industrialized countries since these countries aren't limited with the same restrictions in international financial markets. The strong relationship between the volatilities of stock and foreign exchange markets in Pakistan is found to be significant in the study by Qayyum and Kemal (2006).



The study also states the considerable sensitivity of the returns of the stock markets against the returns of and the volatility in the foreign exchange market. On the other hand, the impact of volatility of stock market returns on foreign exchange market returns is found to be present.

### 3. RESULTS

The section examines the result of the study conducted within the framework of the methodology mentioned in previous section. As it has been stated, the VAR model is implemented in the analysis of nominal effective exchange rate on return on assets.

#### 3.1. Stationarity Test

The unit root test is checked for all variables via ADF test including intercept in test equation as the precondition to start the VAR process. Table 1 shows the results of the ADF test in level data for all the variables. As shown on Table 1, only Deposit rate, GDP variables at 5% and ROA variable in level at 10% don't have unit roots. However other variables are not significant in all critical values meaning that we fail to reject the null hypothesis of a unit root for these variables. Thus, they are considered not stationary in level. Due to non-stationary data in level, the data is transformed into their first differences in order to further continue the processes. Table 2 shows the result of ADF test in first differenced variables. All variables are statistically significant in the following test which means that we reject the null hypothesis of the presence of the unit root, so all variables are stationary in their first differences. All the shown variables in their first differences in table 2 are stationary even in 1% significance level of ADF test which are considered to be strong stationarity.

*Table 1: ADF test in level*

Variable	ADF test	Critical value (%)			Result
		1	5	10	
Deposit dollarization	-0.545596	-3.600987	-2.935001	-2.605836	Unit root
Deposit rate**	-3.456745	-3.605593	-2.936942	-2.606857	No unit root
GDP**	-3.204732	-3.600987	-2.935001	-2.605836	No unit root
Inflation	-0.764200	-3.600987	-2.935001	-2.605836	Unit root
Loan dollarization	-1.009496	-3.605593	-2.936942	-2.606857	Unit root
Loan rate	0.240228	-3.600987	-2.935001	-2.605836	Unit root
NEER	-0.186704	-3.610453	-2.938987	-2.607932	Unit root
ROA*	-2.774385	-3.600987	-2.935001	-2.605836	No unit root

\* - no unit root at 10% significance level

\*\* - no unit root at 5% significance level

\*\*\* - no unit root at 1% significance level

*Table 2: ADF test in first differences*

Variable	ADF test	Critical value (%)			Result
		1	5	10	
Deposit dollarization***	-6.717940	-3.605593	-2.936942	-2.606857	No unit root
Inflation***	-5.352169	-3.605593	-2.936942	-2.606857	No unit root
Loan dollarization***	-7.750318	-3.605593	-2.936942	-2.606857	No unit root
Loan rate***	-5.095501	-3.605593	-2.936942	-2.606857	No unit root
NEER***	-4.375417	-3.610453	-2.938987	-2.607932	No unit root

\* - no unit root at 10% significance level

\*\* - no unit root at 5% significance level

\*\*\* - no unit root at 1% significance level

So these tables conclude that Deposit rate, GDP and ROA are  $I(0)$ , while other variables are  $I(1)$ .

### 3.2. Determine Lag Order Selection

The results of the lag order selection criteria for VAR (Table 6), i.e., the LR, FPE and AIC show that the appropriate number of lags is 2 lags. Since 3 out of 6 criteria state the same lag level, lag 2 is chosen to be the optimal lag structure of the model and to be included in Johansen test of cointegration.

### 3.3. Cointegration Test

Cointegration test for the model states about eight valid cointegration vectors in the model. The processes is gone through testing the number of cointegration vectors starting from 0:

- $H_0: r = 0$  is rejected at the 5% level ( $355.4610 > 159.5297$ );
- Then the case of  $r = 1$  is tested and since the trace statistic is greater than its critical value ( $253.9385 > 125.6154$ ), we reject the null hypothesis again;
- Continuing until  $r=8$ , it is found that the trace statistics are greater than their critical values as it may be seen in the graph. Thus, null hypothesis is accepted when  $r=8$ . It results that there are eight cointegration vectors in the model.

The presence of cointegration vectors (eight cointegration in our model) is the existence of a long run relationship between the variables and hence, VECM methodology should be implemented for the model. As the results of cointegration tests have been obtained, VEC model may be built. Throughout the VEC estimation, the main points such as the short-run coefficients and long run relationship between the variables are estimated (Table 3).

*Table 3: Johansen cointegration test*

Sample (adjusted): 2017M01 2020M03				
Included observations: 39 after adjustments				
Trend assumption: Linear deterministic trend				
Series: ROA DEPOSITDOLLAR DEPOSITRATE GDP INFLATION LOANRATE LOANDOLLAR NEER				
Lags interval (in first differences): 1 to 2				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.925959	355.4610	159.5297	0.0000
At most 1 *	0.861695	253.9385	125.6154	0.0000
At most 2 *	0.789132	176.7852	95.75366	0.0000
At most 3 *	0.680596	116.0809	69.81889	0.0000
At most 4 *	0.545127	71.57021	47.85613	0.0001
At most 5 *	0.374444	40.84850	29.79707	0.0018
At most 6 *	0.340265	22.55301	15.49471	0.0037
At most 7 *	0.149869	6.332224	3.841466	0.0119

*Trace test indicates 8 cointegrating eqn(s) at the 0.05 level*

*\* denotes rejection of the hypothesis at the 0.05 level*

*\*\*MacKinnon-Haug-Michelis (1999) p-values*

### 3.4. VECM Estimation

As the paper aims to study one of the main causes of changes in the profitability of the banks in Azerbaijan which is the volatility in exchange rate, the transmission channel of this case should be reviewed first. Through the transmission channel and based on the economic situation in the country, oil price drops is expected to cause the devalued domestic currency in the economy. Before analyzing the transmission channel, there are some facts have to be considered as given:

- According to the Statistical Bulletins of the Central Bank of Azerbaijan, the share of the oil and gas sector in overall exports is about 89.5%, as of the last quarter of 2019;
- Petroleum products are traded in US dollar, also called petrodollar;
- Another main fact should be mentioned is that imports are more of an inelastic to the changes in oil prices, while the exports move in accordance with the oil prices. Besides, it is also found that decreases in oil prices are transmitted to high imported inflation since it lowers the value of domestic exchange rate and increases the value of imports (Hajiyev and Rustamov, 2019).

The mentioned facts help to understand and build the transmission channel from currency volatility to responses of financial sector in Azerbaijan. From the very beginning, oil price drops in the world affects trade balance of all oil importer and exporter countries. As an oil exporter country, Azerbaijan is affected negatively by oil price drops, since around 90% of the exports belong to oil and gas sector. It means the income of the country getting lower respectively which also leads to the loss of the value of the local currency. Devaluated currency along with high import dependency transform into higher demand for foreign currency in the economy. It, in turn, negatively affects profitability of the banks and hence, ROA decreases eventually. Examining the mentioned transmission channel, the short and long-run analysis have been implemented in the next phases of the study.

### 3.5. Short Run Analysis

In order to conduct a short-run analysis, the VECM estimation has been established first. Since there are eight variables included in the model, there have been eight equations under VECM estimation model. Out of them, the one with dependent variable of ROA is chosen to be studied, since the paper aims to analyze its relationship with other variables to explain the transmission channel empirically. Thus, chosen equation is estimated again with OLS method in order to interpret the short-run coefficients of the lagged variables on the dependent variable. The Wald test has been conducted in order to analyze the short-term effects of the chosen independent variables together with its lags on dependent variables. Considering that the monthly data is used for the paper, then the analysis of 2 lags (optimal number of chosen lags, 2 months) together may be considered as a short-run analysis as well. Table 5 states about short-run analysis of the VECM equations (the one with dependent variable of ROA). So the short-run equation for the model is given in the table 4 below.

*Table following on the next page*

Table 4: Short-run equation

Dependent Variable: D(ROA) Method: Least Squares (Gauss-Newton / Marquardt steps) Date: 05/25/20 Time: 15:57 Sample (adjusted): 2017M01 2020M03 Included observations: 39 after adjustments $D(ROA) = C(1)*(ROA(-1) + 5.71474525572*DEPOSITDOLLAR(-1) - 41.6255340849*DEPOSITRATE(-1) - 6.25120123229E-05*GDP(-1) + 0.00808900045805*INFLATION(-1) - 0.475061752103*LOANDOLLAR(-1) - 9.19735002154*LOANRATE(-1) - 1.13552611795*NEER(-1) - 1.50109887727) + C(2)*D(ROA(-1)) + C(3)*D(ROA(-2)) + C(4)*D(DEPOSITDOLLAR(-1)) + C(5)*D(DEPOSITDOLLAR(-2)) + C(6)*D(DEPOSITRATE(-1)) + C(7)*D(DEPOSITRATE(-2)) + C(8)*D(GDP(-1)) + C(9)*D(GDP(-2)) + C(10)*D(INFLATION(-1)) + C(11)*D(INFLATION(-2)) + C(12)*D(LOANDOLLAR(-1)) + C(13)*D(LOANDOLLAR(-2)) + C(14)*D(LOANRATE(-1)) + C(15)*D(LOANRATE(-2)) + C(16)*D(NEER(-1)) + C(17)*D(NEER(-2)) + C(18)$				
	Coefficient	Std. Error	t-Statistic	Prob.
<b>CointEQ</b>	-0.062543	0.018632	-3.356713	0.0030
C(2)	-0.068056	0.227048	-0.299742	0.7673
C(3)	0.046799	0.176707	0.264839	0.7937
C(4)	0.347848	0.138309	2.515007	0.0201
C(5)	0.061175	0.141879	0.431176	0.6707
C(6)	3.430463	1.905066	1.800706	0.0861
C(7)	-3.829864	1.818664	-2.105867	0.0474
C(8)	-5.38E-06	2.17E-06	-2.478405	0.0218
C(9)	-8.32E-07	2.21E-06	-0.376093	0.7106
C(10)	0.000850	0.000583	1.457692	0.1597
C(11)	-0.000327	0.000584	-0.560236	0.5812
C(12)	-0.244294	0.162549	-1.502892	0.1478
C(13)	0.131042	0.207364	0.631942	0.5342
C(14)	1.004537	0.650722	1.543726	0.1376
C(15)	0.256184	0.453188	0.565294	0.5779
C(16)	0.126538	0.155666	0.812884	0.4254
C(17)	0.016570	0.156585	0.105824	0.9167
C(18)	0.003232	0.002561	1.262177	0.2207

While conducting the analysis, the significance of the joint effects of the lagged coefficients of each including variable have been tested via the Wald test. From the table 5, it may be seen that at 10% significance level the deposit dollarization, deposit rate and GDP have statistically significant short-term relationships with ROA variable. The significant relationship between NEER and ROE is not found in the short-run. The signs of the each coefficient can be seen above table 4 within the short-run equation. The mentioned short-run analysis concludes that there is no statistically significant short-term relationship between nominal effective exchange rate and return on assets of the banks. The result is explained as that the currency volatility is not reflected in the return on assets of the banks in the country for the defined short time<sup>1</sup>. Thus, further research should be conducted in order to analyze whether the impact of currency volatility is reflected in ROA from 2 to 12 months.

Table following on the next page

<sup>1</sup> The short-run analysis includes 2 lags of each independent variable due to optimal lag selection procedure. Since the data is monthly, 2 lags is translated as 2 months in the analysis.

Table 5: Short-run analysis of the model

	ROA	Deposit dollarization	Deposit rate	GDP	Inflation	Loan dollarization	Loan rate	NEER
Wald test p-values	0.9243	0.0627*	0.0856*	0.0420**	0.3407	0.1720	0.2216	0.6038

\*Significant at 10% significance level

\*\*Significant at 5% significance level

\*\*\*Significant at 1% significance level

### 3.6. Long Run Analysis

The long run relationship in the VECM model is analyzed through cointegration equations. The order of variables is set based on what to analyze due to the placement of the variables in the cointegration equations. Since the paper aims to analyze the long-run relationship between ROA and NEER, the order of variables put in the model is as follows: ROA, Deposit dollarization, Deposit rate, GDP, Inflation, Loan dollarization, Loan rate and NEER. The Johansen test automatically restricts one restriction in the cointegration equation due to just one cointegration vector being included (one with the dependent variable of ROA) in the analysis. In order to conclude for the long-run causality, the coefficient of cointegration equation should be negative and statistically significant, since they are error corrections for the long run relationship. The short-run equation (the one with dependent variable of ROA) in table 4 shows that the coefficient of cointegration equation has negative and statistically significant value. So it states that there is a long-run causality running from Deposit dollarization, Deposit rate, GDP, Inflation, Loan dollarization, Loan rate and NEER to ROA and the coefficient of the cointegration equation shows the speed of adjustment in case of any deviation from the long-run equilibrium:

$$\text{CointEQ1} = \text{ROA}(-1) + 5.714745 * \text{DEPOSITDOLLAR}(-1) - 41.62553 * \text{DEPOSITRATE}(-1) - 6.25E-05 * \text{GDP}(-1) + 0.008089 * \text{INFLATION}(-1) - 0.475062 * \text{LOANDOLLAR}(-1) - 9.197350 * \text{LOANRATE}(-1) - 1.135526 * \text{NEER}(-1) - 1.501099$$

Since a cointegration equation helps to identify the speed of adjustment terms, they are error correction terms. If there is a deviation from the long run equilibrium, it will be corrected gradually through short run adjustment.

### 4. CONCLUSION

The study has been conducted to analyze the short and long-run analysis of the impact of exchange rate volatility on return on investments in banks. ROA banks has been used as a proxy variable for financial sector in Azerbaijan. As it is mentioned within the paper, the short-run relationship between the exchange rate volatility and return on investments is not found. However, it is believed that there is a short-run relationship to be found via conducting further research analyzing the effects with more than 2 lags in a short-run. On the other side, that of statistically significant long-run causality running from Deposit dollarization, Deposit rate, GDP, Inflation, Loan dollarization, Loan rate and NEER to ROA is present. The paper applied cointegrated vector autoregressive (VAR) model, specifically vector error correction model (VECM). This methodology have been broadly applied in empirical investigations recently. Briefly, the methodology is applied to assess the reflection of Exchange rate fluctuations in Return on Assets, since it allows to reveal not only long-run, but also short-run relationship between the key variables. Further research is needed to be conducted using ARDL model since it is believed to be much effective to analyze the mix of I(0) and I(1) variables.

Another key suggestion for further research is to try to analyze whether the impact of currency volatility is reflected in ROA from 2 to 12 months.

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## APPENDIX

Table 6: Lag order selection criteria

VAR Lag Order Selection Criteria						
Endogenous variables: DEPOSITDOLLAR DEPOSITRATE GDP INFLATION LOANDOLLAR LOANRATE NEER ROA						
Exogenous variables: C						
Date: 05/24/20 Time: 22:32						
Sample: 2016M10 2020M03						
Included observations: 39						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	327.5469	NA	1.59e-17	-15.97734	-15.63957	-15.85522
1	613.5983	443.3796	2.55e-22	-27.07991	-24.03993*	-25.98075*
2	689.8910	87.73663*	2.05e-22*	-27.69455*	-21.95236	-25.61835

*\*indicates lag order selected by the criterion*

*LR: sequential modified LR test statistic (each test at 5% level)*

*FPE: Final prediction error*

*AIC: Akaike information criterion*

*SC: Schwarz information criterion*

*HQ: Hannan-Quinn information criterion*

## TESTING OF FDI AND NON-OIL FDI INFLOWS IN AZERBAIJAN USING DUNNING'S ECLECTIC MODEL

**Abdulla Alikhanov**

*Azerbaijan State University of Economics, Azerbaijan  
Finance and Financial Institution Faculty, Azerbaijan  
abdulla.alikhan@gmail.com*

**Nizami Khudiyev**

*Azerbaijan State University of Economics, Azerbaijan  
Finance and Financial Institution Faculty, Azerbaijan*

### ABSTRACT

*The study investigates whether and to what extent FDI and non-oil FDI to non-oil sector are determined by some economic indicators in Azerbaijan applying Dunning's Eclectic model of the FDI theory. The study uses yearly time series data to examine the case of Azerbaijan with bivariate empirical regression models. Our empirical models are estimated in which FDI and non-oil FDI is dependent variables and trade openness, human development index (HDI), per capita GDP, and corporation tax are explanatory variables. The result show that both FDI and non-oil FDI flows are positively dependent on mainly on trade openness, HDI index and per capita GDP. Moreover, the sign of coefficients is also in line with our expectations, in which our empirical study confirms study results in this field. Further, the study provides economic interpretations of empirical findings. Finally, the paper also adds brief remarks to increase non-oil FDI inflows to the economy of Azerbaijan.*

**Keywords:** FDI, Non-oil sector FDI, HDI, Trade Openness, Per capita GDP

### 1. INTRODUCTION

Due to global integration and with the rise of globalization, Foreign Direct Investment (FDI) inflows increases dramatically worldwide. Over the time, countries liberalized their economies aiming to attract more FDI inflows to economies, primarily to non-extractive industries. After the collapse of the Soviet Union and implementation of open market policies in many countries including Azerbaijan accelerated the flow of FDI to our economy (UNCTAD, 2016). It should be mentioned that FDI is a fundamental part of an open and effective international economic system and a major catalyst to economic growth and development of non-oil industry. It is an investment made by a firm or individual in one country into business interests located in another country. Country strategies and the international investment architecture matter for attracting FDI to a larger number of developing countries and for reaping the full benefits of FDI for development. (Lee 1998). The challenges primarily address host countries, which need to establish a transparent, broad and effective policy environment for investment and to build the human and institutional capacities to implement them. Developing countries, emerging economies and countries in transition have come increasingly to see FDI as a source of economic development and modernization of their economies, income growth and employment. Given the appropriate host-country policies and a basic level of development, a preponderance of studies shows that FDI triggers technology spillovers, assists human capital formation, contributes create a more competitive business environment and enhances enterprise development.(OECD, 2002) As said above, after the collapse of the Soviet Union and restoration of its independence in 1991 Azerbaijan encountered developmental challenge through efficient usage of rich natural mineral resources to boost economic development. During that period, attracting FDI to the country was viable decision that would contribute to economic growth.



The main purpose of this research study is to analyze the factors that affect FDI and non-oil FDI, respectively in all economy and non-oil sector of economy in Azerbaijan. Our research question is “Which and to what extend determinants influence FDI and non-oil FDI in Azerbaijan?”. Empirical paper uses bivariate model with several explanatory variables and provides some recommendations and policy issues for attracting non-oil FDI in Azerbaijan.

## 2. REVIEW OF THEORY

According to the OECD, FDI triggers technology spillovers, assist human capital formation, contributes international trade integration. On the other, these factors further also increase additional FDI inflows to the non-oil sector of the economy. Thus, aiming to test the main hypothesis of the research, the study gained insight from some theories about FDI. Initially, some researchers have tried to describe FDI through this theory, however it cannot be said that there is an accepted theory by all researchers. However, as per our question we picked up “The eclectic paradigm of Dunning” theory as a motivation of our research study. The components of Dunning’s study are the mixture of three different theories (O-L-I) of FDI (Dunning, 2015). “O” indicates ownership of natural resources, patent rights and trade openness of country. L” refers to Location, which combines human development, costs of transport, market size, taxation policies etc. I” is about internal activities of companies that bring them competitive advantage in host country. From his conclusion, we refer trade openness, per capita GDP, human development index (HDI), and corporate tax rate as factors influencing FDI and non-oil FDI in Azerbaijan economy which helps to identify the factors attracting to FDI to non-oil sector.

## 3. EMPIRICAL MODEL AND DATA

We investigate hypothesis with full model and reduced form models. The reduced model is obtained through considering robustness check. Thus, multivariate empirical models are below:

- Full model:

$$\text{Log (FDIt)} = \beta_0 + \beta_1(\text{Opennesst}) + \beta_2\text{Log (HDIIt)} + \beta_3\text{Log (PGDPt)} + \beta_4\text{Log (TAXt)} + e_t \quad [1]$$

- Reduced model:

$$\text{Log (FDIt)} = \beta_0 + \beta_1(\text{Opennesst}) + \beta_2\text{Log (HDIIt)} + \beta_4\text{Log (TAXt)} + e_t \quad [2]$$

The model [1] uses effects of trade, HDI, and tax on FDI. The definition of variables is below:

- FDI: Net foreign direct investments inflow (\$);
- OPENNESS: Total trade (Sum of exports and imports) divide by GDP;
- HDI: Human Development Index value;
- PGDP: Per Capita Gross Domestic Product (\$);
- TAX: Corporation profit tax rate (%).

## 4. DESCRIPTION OF VARIABLES

Table 1 summarizes the data sources of the variables used in the regression and show the expected sign of the coefficients. Our data consists of 24 yearly sample data and range from 1995 to 2018 years. We take logarithm of variables in estimation.

*Table following on the next page*

*Table 1: Summary of Data sources and description*

Variable	Data source	Unit or Scale	Expected sign
FDI	WDI	US \$	
OPENNESS	WDI	0 to 100	+
HDI	UNDP	0 to 1	+
Per Capita GDP	WDI	US \$	+
Tax rate	Ministry of Taxes	%	-

The regression analysis will be conducted using 4 independent variables:

- Variable openness measures the degree of trade effect in Azerbaijan economy, local activities. We fetch this data from WDI. Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product;
- HDI in Azerbaijan for 24 years, which embodies GDP per capita, educational literacy, and life expectancy. Through HDI, we will be able to detect to what extent life standards of working age population play meaningful way in attracting FDI;
- As per definition GDP per capita World Bank “GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products”. Figures on GDP are in US dollars;
- Corporation Tax Rate can determine whether and to what extent various tax rate as well as changes in tax rate and allowances that are used by some countries in the empirical research.

Below Table 2 summaries descriptive statistics of the variables used in empirical study. Based on Jargue-Bera statistics result p-values are not significant and hence we cannot reject the null hypothesis of normality of the variables. Hence, we assumed that our variables are stationary.

*Table 2: Descriptive Statistics of variables during period of 1995-2018*

	TAX	PGDP	HDI	OPENNESS	FDI
<b>Mean</b>	22	3,311	0.69	86.1	3,311
<b>Median</b>	22	3,162	0.71	81.2	3,162
<b>Maximum</b>	25	7,891	0.76	121.5	7,891
<b>Minimum</b>	20	397	0.61	69.4	397
<b>Std. Dev.</b>	1.9	2,329	0.05	14.6	2,731
<b>Skewness</b>	0.2	-0.23	-0.26	1.01	0.40
<b>Kurtosis</b>	-1.7	-0.95	-1.58	0.34	-1.37
<b>Jargue -Bera</b>	3.0	2.6	2.2	2.3	6.2
<b>P-value</b>	0.2	0.26	0.3	0.3	0.06
<b>Observations</b>	24	24	24	24	24

*Source: World Development indicators (2018)*

We also present Correlation Matrix for variables. Table 3 gives an idea about the power and the sign of the relationship between variables. First, FDI is positively related with PGDP, HDI and trade openness. For instance, correlation between FDI and HDI is 0.67. Second, there is a strong positive relationship between PGDP and HDI. Both are individually reflecting different aspects of well-being of country. Third, correlation between FDI and PGDP is 0.58, which shows positive development. Whilst, tax rate is negatively correlated (-0.39) with FDI, as expected.

*Table 3: Correlation matrix of estimated variables during 1995-2018*

	TAX	PGDP	HDI	OPENNESS	FDI
TAX	1				
PGDP	-0.417	1			
HDI	-0.525	0.891	1		
OPENNESS	-0.122	-0.296	-0.036	1	
FDI	-0.395	0.581	0.670	0.444	1

The main triggering point we can detect from the above table is multicollinearity problem (MCP). As absolute value of correlation between some independent variables in the regression is greater than 0.7 (e.g. PGDP and HDI is 0.89), and we can suspect of MC problem.

## 5. REGRESSION RESULTS AND ANALYSIS

We estimate and run regression using bivariate models. Some studies also employ the same approach. Table 4 tabulates the estimation results. According to results, trade openness and GDP per capita have positive effect on FDI inflow. Both coefficients are statistically significant at conventional significance levels. In detail, the results show that 1% increase in GDP per capita lead 0.84% and 0.77% increase respectively in FDI and non-FDI inflows in Azerbaijan. Whilst, 1% increase in trade openness yield 3.7% and 2.06% increase respectively in FDI and non-FDI inflows. The most significant variable affecting non-oil FDI is HDI, in which 1% increase in HDI leads 16% in FDI flows to the non-oil sector. Moreover, tax rate is also significant variable affecting non-oil FDI at 10% significance. In study for robustness check purposes we estimated reduced model and cure multicollinearity problem (e.g. high correlation between HDI and PGDP). In short, after exclusion of PGDP, we found that HDI index is statistically significant. In reduced model, HDI slope is statistically significant at 5%, and the result show that 1% increase in HDI, increases FDI by 13%. It means that improvement in human capital over the 24 years aid Azerbaijan increase FDI inflows.

*Table 4: The effect of determinants on FDI and non-oil FDI*

Dependent variable Log (FDI)	Log (Non-oil FDI)		
	Full model:	Reduced model:	Full model:
LOG (OPENNESS)	3.7799*** (0.001)	3.1303*** (0.004)	2.0687** (0.024)
LOG (HDI)	4.2678 (0.551)	14.091** (0.027)	16.144 (0.000)***
LOG (PGDP)	0.8423** (0.044)	- -	0.7745 (0.008)***
TAX	0.0421 (0.281)	0.0726 (0.482)	0.0286 (0.099)*
F-statistics	20.15***	21.18***	57.47***
R-square	0.8174	0.7699	0.9769
Adjusted R-square	0.7768	0.7335	0.9377

<sup>1</sup>Notes: (\*\*\*) Significance at 1% level; (\*\*) 5% level; (\*) 10% level

<sup>1</sup> Due to the availability of the data, the author estimated the effects of non-oil FDI for the 2002-2018 period.

Finally, the coefficient of corporation tax is statistically significant at 10% only for non-oil FDI. In sum, both regressions F-statistics show overall significance and indicate overall goodness of fit of the estimated models in the study. In brief, our study also presents some issues on econometric model building. For further research, we will continue model building and run long run relationship between variables tested in the model.

## 6. ECONOMIC INTERPRETATION OF RESULTS

As we noticed in Table 4, trade openness, HDI and GDP have positive slopes which influence positively to net inflows of FDI and non-oil FDI flows in Azerbaijan. Positive slope in independent variables means that, they are moving in the same direction with FDI flows in oil and non-oil sector in Azerbaijan. As it is clear from regression results, FDI is expected to increase for each additional unit increase in trade openness. This is the proxy for economical explanation. For example, through the implementation of Free Trade Agreements, several Latin American (including Chile) countries have been able to attract greater inflows of net FDI (Ponce, 2006). According to research result conducted by Blomstrom (2013) et al. liberalizing trade openness in the emerging market countries leads to an increase in total FDI inflows. This is also because the countries that are open to trade have more chance to absorb technological advances generated over the world. As such, the process of trade liberalization not only yield increases in trade but also increase FDI flows, including in non-oil sector of the economy. Moreover, from another perspective economic and social stability in the country also can affect FDI and non-oil FDI to country as well. If the country is the member of trade agreements this provides mechanisms for making commitments to foreign investors about the treatment of their assets, thus reassuring investors and increasing investment. These international commitments are more credible than domestic policy choices. Another, variable that has positive correlation with FDI and non-oil FDI is HDI. As per our finding it can be said that the presence of a healthy and more highly educated workforce can increase the productivity of economic capital employed. Thus, this is are the country need to improve to increase more FDI to non-oil sector of the economy. Our result is also in line with the EU Business Climate Report for the year 2018 on Azerbaijan. One of the top areas in which reforms are encouraged is vocational educational system that should take into consideration of company needs. This is driven in part by economic activity shifting first from the primary goods to manufacturing sectors and then toward services, which are successively more knowledge intensive. Healthier workers, who have lower rates of absenteeism and longer life expectancies, acquire more job experience. Improved healthcare also improves the prospective lifespan of workers, a healthy workforce could enhance worker productivity and attract FDI and non-oil FDI inflows. However, health may also encourage non-oil FDI via other mechanisms. From microeconomic perspective, firm profitability may suffer if health-related costs are high. Companies operating in countries where health infrastructure and personnel are lacking may need to develop or significantly subsidize a health care system for their employees. This aspect our research also is in line with study performed by Vernon (2016). Third variable, affecting to FDI and non-FDI inflows is well being of the country measured by per capita GDP. GDP per capita helps to evaluate the economic growth of the country (Malhotra 2012). The next variable is tax rate, which is also appeared to be significant variable for non-oil sector at 10% significance level only. According to research results of Blomstrom (2013) et al, when reforming tax policies, there is good reason for governments to take account of the impacts of tax policy on its country's attractiveness to foreign investments. Moreover, as per EU Business Climate Report Azerbaijan 2018, improvement in tax reforms is one the top suggested areas to attract FDI to non-oil sectors in Azerbaijan. However, in our regression model we considered corporation tax rates considering that most FDI are directed by large multinational corporations. Although, it has rational meaning that, only adjusting corporate profit tax rate, countries will not be successful to attract

FDI. Because there are many other important tax policy issues and incentives including, insurance policies, patent rights. Therefore, according to our results, taxation policy and issues such as tax burden should be considered to estimate FDI and non-oil FDI in the country.

## 7. CONCLUSION

The study examined the effect of trade openness, HDI, per capita GDP, and corporation tax rate on FDI and non-oil FDI inflows in Azerbaijan economy. Preliminary correlation analyses of various factors relations on FDI that confirmed our expectations. Regression analyses reveal that all factor together have overall effect on FDI and non-oil FDI. We investigate trade openness has meaningful positive effect on FDI and non-oil FDI. Hence, increase in trade openness through advantage bilateral trades attract FDIs. Secondly, we confirmed that increasing health standards and enrolment and improvement in education, which are sub-components of HDI index, can attract significantly investors to non-oil sector. Third finding testify the importance of per capita GDP for attracting FDI and non-oil FDI. The result showed increase in well-being of the country attract FDI and non-oil FDI in a meaningful way. Hence, better education and health system, trade liberalization and increase in economic growth have remarkable influence on FDI inflows to non-oil sectors in Azerbaijan. Finally, other than taxation, all remaining economic indicators namely, trade openness, HDI index, and per capita GDP were in align with research papers referred and analyzed.

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## CONCEPTUAL ASPECTS OF THE ANALYZE OF AGRO INSTITUTIONS MANAGEMENT ACTIVITY

**Nadjiba Gabil Hajiyeva**

*Senior lecturer of “World Economy”,  
Department of “International relations and economy”,  
Faculty of Baku State University, Azerbaijan  
nadjiba\_h@mail.ru*

### ABSTRACT

*Factors which influences on agricultural enterprises activity, mutual relations between managed system and management system, the necessity of changes in agrar sphere management model, management mechanisms and their influence on managed object, finding out more suitable ways of mutual activity of managing subjects at various levels are described in the article. The aims of agrar enterprises activity, their auxiliary aims, their relations with other systems, duties during their management by public are analyzed. The necessity of changes in the regulation of agrar activity, participation degree of various level of managers in decision-making process, the complexity of current relations and approaches at different structure of agrar management system, shortages appeared during management are determined in this article. The combination of aims and priorities in agrar sphere of Azerbaijan are given at this research. The main directions of research are optimization of agrar management mechanisms, which will serve to national development, determination of development priorities of enterprises and satisfaction of duties to changing requirements. Compared analyze, logical generalization and grouping methods are used in this Article. Recommendations for increase of management efficiency in agrar sector are described as a result of research. Very important recommendations are given for increase of efficiency, application of mechanisms by considering factors, their execution and control for execution, perfection of information provision.*

**Keywords:** *Agricultural Sphere, Factors, Reforms, Management, Aims, Function, Mechanism*

### 1. INTRODUCTION

Ecological-climate changes in the world, increase of danger for exhaustion of resources, military-political conflicts, increase-decrease in market economy, stable problems of national currency, food security of the country, defense of human health, etc., of course, affect all spheres of economic system. Food and Agricultural Organization (FAO) forecast that if the world population number reaches 9.1 billion in 2050 year, the world production should increase 70 per cent and specially, food production in developing countries should be double increased [Jane G. Payumo, Shireen Assem, Neeru Bhooshan, Hashini Galhena, Ruth Mbabazi and Karim Maredia. (2018)]. Management mechanisms, like application of scientific technologies and farming methods, pest control and perfection of plant types by public selection institutions have given its yields to the increase of production by helping food provision and demand to be equalized in some places. Such innovations laid down the foundations in application of agrar sphere in all over the world. Continuous management of current technologies, application of new and efficient agricultural innovations, financed from public sector and other sources (industry, non-governmental organizations and local agricultural groups) will meet various problems of 21 century' agrar sphere [Rosegrant M, Paisner M, Meijer S. (2003); Alam MZ, Crump AR, Haque MM, Islam MS, Hossain E, Hasan S.B., Hossain M.S.(2016); World Bank (2007), Stevenson JR, Villoria N, Byerlee D, Kelley T, Maredia M. (2013)]. Difference of industrial and technical growth over the world, attempts for the defense of gen funds on the base of healthy nutrition against background of gen engineering development, aggravation of

competition among countries laid foundation for increase of the attention to agrar sphere which is the important part of economy and arise of new scientific-practical approaches under changing requirements. During some period of Azerbaijan economic development, administrative domination system obliged management in agrar sphere to be realized upon decree and orders by the center. It means the government has unique management authority and never give a chance to maneuver as per real conditions and behave naturally in production. But in current market relations, special ownership is preferred which is quite different from previous management system, management mechanisms are applied in a different way and choice is given to managers at various levels. Agricultural sphere differs from other spheres by having special peculiarities: the main production means are soil, labor means change their place over the soil, the subject of labor is land, plants don't change their place, so they are plants and cattle-breeding, so work period and production period doesn't coincide. That's why, management of agrar sphere is realized by state and territory ownership and maximum efficiency of management activity is considered.

## **2. THEORETICAL APPROACHES TO MANAGEMENT MECHANISMS OF AGRAR SPHERE**

Of course, peculiarities of economic development and system base also on some theoretical approaches and we can observe different approaches of many scientists by giving attention to theoretical approaches on management of agrar sphere. First model of economic development was offered by F.Gene. As per to F.Gene, reproduction of products and sales evaluation are realized under the influence of existing factors and some economic proportion is observed between producer and owner class [Glazyev S. Manevich V. (1998)]. Moreover, he compares products gained at current and rational management system by presenting agriculture as unique system. As a result, his approach was one of the attempts to determine as economic growth source of raw product and extra value [Gumerov Sh.A. (1985)]. The main aim of "Das Kapital" work by K.Marx which is very important for study of national economic development issues, is to determine namely economic law of society activity. This theory expressed the system which consists of static limits and based on determination of history in advance. Such approach also exists in economic development theory by J. Schumpeter, so his theory is the investigation of "economy turnover" by expressing balance situation of a closed economy. In a such way, changes emerging from economy itself at society turnover, i.e. accidental changes under its control are accepted and management of national economy with external impulses was not considered [Shumpeter J. (1982)]. Such theories were based on static preliminary terms and specially, not allowed to establish hypothesis reflecting real situation of the development of national and field economy. Some economists connect management with development. In a such way, differences in scientists' approach is clearly seen in the establishment of relations of process with result and choice of mechanisms in connection with this. Specially, D. McCulloch, T. Malthus, Saint-Simon, C. Rouvrouet, S. Fourier, R. Owen consider profit as a base element and source of economic development [Analogy of economical classic. (1993)]. But it can be unsuccessful if we determine production development via profit conception. It has some reasons and here are major of them: Firstly, despite profit is the final goal of production in economic system, management system differs and is always multipurpose. Despite each of the targets like expanding production and market, technological upgrades, improvement of working conditions together with profit can't be the same with the goal for getting benefit. If we determine that production goals are different, so development strategies related to it are also different. Difference of strategies create difference of goal and mechanism in management. Specially, by outlining goals, we can speak about current management problems on loss of sale market, technological competitiveness, deterioration of mental climate in collective, mistakes in staff policy, etc.



Finally, it is not correct to identify management with development, and development with gained profit. It is artificial limitation of concept related with management and groundless simplification of its content. Because, losses (decrease of profit) and damages is possible during development process. At the same time, technological wastes and decrease of natural weight of agricultural products during long-term storage are not connected with these processes. That's why, accidental events as the reason of damage should be noted and probability of their superiority from forecasted level should be considered. Moreover, additional costs may occur during minimalization of risks, occurred not accidentally, but undesirable events. For exp, if we consider veterinarian costs and rehabilitation costs of sick animals, of course, they are necessary costs. But if the danger of animal sickness is minimal, in that case prevention costs can be considered as unproductive. A. Y. Livshis considers economic development is possible when there are three major conditions: 1) economic development bases on the achievement of scientific-technical progress and the use of technologies, by saving resources and is accompanied with the growth of productivity; 2) material content of production growth is due to products of spheres, serving humanity and determines technological progress; 3) determination of boundaries of economic development, which are considered to be socially dangerous [Livshis A.Y. (1994)]. O. Maslennikova and other authors connect economic development with efficiency of production. They think efficiency is characterized with the improvement of population welfare [Maslennikova O.A., Bolshakov O.V. (1992)]. But efficiency of labor and production aren't only increasing, but also decreasing during development process. N. Petrakov and V. Rotar offer quietly different approach to development. They think development is the process for finding out the way in order achieve clearly determined aim [Petrakov N.Y., Rotar V.I. (1985)]. But despite to the fact that development is progressive, productivity and efficiency can go down in practice. Due to the manual "Economy and management of agrar sphere", prepared under the guidance of I.Sh.Garayev, "it is impossible to open some cause-reason relations, the purpose which determines management, its scope, forms and methods when we treat management relations only from organizational-technical point of view. If the ongoing processes in society are not reflected in management and consumer mechanisms, conflicts occur between production relations and management system, then it turns into discrepancies" [Economy and management of agrar sphere. (2011)]. Development should not be mismatched with its source, so contradictions of the system [Tuchtina V.S. (1988).] or situation of its adaptation process into the environments should not replace the development [21]. There are three ways in order to solve shortages: changeability, inheritance (reproductivity) and choice during competition. That's why, I.Ibrahimov correctly notes that "The main purpose of the management is to improve the current system by keeping its balance and dynamic growth and achieve final economic-social results. The purpose of management is to establish management in agrar system structure by considering changing conditions of the development" [Ibrahimov I.H. (2016)]. We should consider that management is the system of relations and its content and also principles are regulated by some functions, means mechanisms in order to realize these relations [Ibrahimov I.H. (2016)]. Field economy is not system which is taken as target. The purpose of economy is determined by management subject, because realization of purpose should be reflected in all system levels. Development of economy is related with finding coordination ways and serious changes in specialization degree, development of subject and motivation because of its activity and concussion. At the same time, development of agrar field is related with difficult and unpredictable cases, which are mainly noted as biological nature of labor means, natural climatic condition, division of production per areas. Development of economy changes economic growth types and degrees, mechanisms in all levels, relations, its components and elements (not only the subject but also the purpose of development). The main purpose of agricultural production management is the direction of economic, political, social

and other duties toward the increase of production, meeting demands, increase of economic efficiency of production as per requirements of economic law. Duties of management is determined for provision of aimed influence on some elements of activity in connection with peculiarities of a managed object. Management functions are its establishment in managements system, its subordination, determination of laws, duties and responsibilities of management objects and subjects. Content of management special functions during coactivity are investigated by analyzing economic and organizational sides of production at various social-economic formations (structures) in the articles of management theorists. They explained the essence and character of service and production cooperation during labor process and indicated the necessity of management function existence [Economy and management of agrar sphere. (2011)]. As per management function, management structure consists of three various structure: 1) production 2) organization 3) management. Production structure of economy in agrar sphere is related with its specialization. Plant-growing and cattle-breeding are its main fields. Organizational structure of economy is based on mutual relation of production units, divisions, extra and service fields. So, organizational structure covers production divisions, farm, warehouse, workshop, auxiliary workshops. Organizational structure of economy determines its management structure. Management structure is content and relations of production and service divisions, fulfilling various management functions. Independent agronomist, zoo veterinary, engineering, economy services are in agrar sphere [Ibrahimov I.H. (2016)].

## **2.1. Factors influencing the development of the agrarian sector**

The list of factors, determining various scenario and strategy for development of agrar sphere should be worked out. Due to scientists, two big factor groups – external and internal environment factors should be determined for development of agrar sphere. Internal factors determine integrity of production, object, their peculiarities and relations between them. To eliminate harms, win in competitiveness, defend its production stability of any agricultural enterprise related with its internal environment. Since internal changes related with one another, change to any of them will affect the rest ones. M. Meskon, M. Albert and others [Meskon M., Albert M., Xedouri F. (1994)] notes that internal factors are not always under full control of the management. Sometimes internal changes are stable, and management tries to reduce negative influence of production. External factors specify relation of production system, object of agrar sphere with other systems, objects, cases. Foreign environment is specified with economic condition of management and natural, political, economic, scientific, technological, ecological, demographic factors should be considered. Many aspects of environment are necessary [Kondratyev N.D. (1992)]. Mutual dependence is always between external and internal factors: internal – main element of development; external – is related with the status of development [Livshis A.Y. (1994)]. Factors are divided into objective (inflation, competition, political environment, ecology, policy, etc.) and subjective (production potential, technical equipment, finance, technical and production policy, employee skills, honesty of partners, public opinion, management level, business activity, organization of labor, technical security level, type of contracts with investors and customers, etc.). Current situation of agrar sphere in the region is determined via subjective factors, which means peculiarities of regulative process, quantity parameters, direction of support policy to agrar sphere. Thus, non-detailed estimation of objective factors, current economic, social, demographic structure of regions, as well as indexes reflecting potential of various sectors of economy, will result in delays of agrar sphere development. So, if subjective factor doesn't consider objective peculiarities of regional development, it will worsen status of regional economy [Livshis A.Y. (1994)]. It's notable that factors influence to each component of agrar sphere depending upon their main purpose and functions. For example, by using labor resources, here the main purpose is to increase efficiency of sowing areas, to grow plants, increase productivity.

As a result, realization of target functions is fulfilled via structure, organizational, economic and management factors. Structure factors are related with choice and placement of staff, rational content of labor objects, optimum comparison of material resources. Organizational and economic factors include the use of rational and advanced organization during establishment of economic relations of subjects, organization of labor and material initiatives for employees. Management factors should cover management system of collectives, technological processes of production in agrar sphere, investments and priorities of investments. For example, the main purpose of investments for irrigation is from one side the defense of water and land resources, from the other side increase of occupancy in agriculture and provision of the country itself with products. Thus, the main benefit of such investments is quantity of production results, reduce of the influence of non-stability in agro-ecological systems by considering the seasons. By identifying the factor and reason, V.B. Yakovlev and G.N. Kornev note that, "when we speak about efficiency of production activity of agricultural enterprises, factors characterize changeability of final result of complex investment, usage of production means and live labor" [Yakovlev V.B., Kornev Q.N. (1990)]. It's notable that there many changeable in development of agrar sphere. N.D. Kondratyev marks that reasons of such irregular cases cannot be determined from scientific point of view [Kondratyev N.D. (1992)]. By functioning separately, such changeable may have suitable and negative for any economic subject. Some factors provide increase of labor efficiency, plant-growing and cattle-breeding efficiency, reduce of labor capacity and cost, increase of profitability. Second group of factors influence negatively to production, efficiency of plant-growing and cattle-breeding reduce as a result of their influence increase and other indexes which characterize economic results get worse, too. Classic approach, production presented by J. B. Sey is related with cost creation of any product by three factors, like labor, soil (land) and capital. Description of production factors are widely expressed, like:

- Labor (quantity and quality of labor resources);
- Soil (quantity and quality of natural resources, turnover fund upon them);
- Capital (capital investments and technological levels);
- Ownership skills (alongside with economic activity of owners, its economic mechanism is also considered) [Yakovlev V.B., Kornev Q.N. (1990)].

By considering close relation of agrar sphere with other sectors of national economy, A.A. Nikonov presents it as unique, dynamic, complex production which base on human, nature and technology mutual relations [Nikonov A.A. (1975)]. E. Dolan and J. Lindsay, British economists base economic development problem by using sensitive matters like "labor force" and "education of population". This scientific platform caused debates. Because the number of factors is limited herein (for example, labor means are not considered) [Dolan E., Lindsey D. (1994)]. Many scientists consider Scientific Technological Progress as motivating forces of economic development. Scientific Technological Progress stimulates quantity changes of material production, increase labor efficiency and make its influence on all other aspects of society. Relations between current resources and economic growth are not proportional. We can compare Japan with low resources and some CIS countries with rich resources. Economic development, non-proportional relations between natural and labor resources are explained firstly by many factors influence on economic development. Quality of resources, mobility, replacements, foreign resource sources, tax and investment policy, volume of investments, collection standards, Scientific Technological Progress, degree and methods of state interventions to economy, legislation base, peculiarities of national psychology and mentality form all together the development strategy.

### 3. STRATEGICAL AIMS AND DUTIES OF THE MANAGEMENT OF AGRAR ENTERPRISES ACTIVITY: PROBLEMS IN PRACTICE

Many scientists indicate involvement of maximum resources into economy, maximum indexes within the frame of increase of agrar production efficiency, provision of continuous growth of village territories and economic interests of producers from agrar sphere as the main strategical aim of management [Prosyannikova Y.A.(2015)]. Such approach makes it possible to optimize the management of agrar sphere and balance use of territory, field models of development, climate, resources (soil and water) quality changes in the world and application of Scientific Technological Progress makes it necessary to use efficiently resources instead of maximum usage. That's why, provision of development must be strategical purpose together with current and possible opportunities for the usage of resources. Agrar sector is the main part of national economy in our country and due to statistics of 2017, by State Statistics Committee it was 5.6 per cent of GDP. Due to statistics of 2016, 36.3 per cent of occupancy is but for agrar sector. Being the main factor in formation of national income, quality of goods of enterprises, raw base of consumer market make influence not only on population health, but also on development of the whole economy. Agrar reforms cause core changes both in production and commercial activity of such enterprises. Despite the general number of agricultural enterprises decreased from 2487 in 1995 to 1721 in 2017, number of private ownership enterprises has grown sharply. So, if 315 from 2487 were private ownership enterprises in 1995, 1523 from 1721 were private ownership enterprises in 2017. If 1026 from 2158 of agricultural enterprises worked with income, but 1132 of them with loss in 2000, 1512 from 1608 worked with income and only 97 with loss in 2017. Thus, it was decrease in number, but increase in quality. Gross income of agricultural enterprises reached 115,025,000.00 AZN in 2017 from 1,118,000.00 AZN. General profitability for that periods went up from negative results to positive ones, i.e. from negative 19.2 percent to positive 14.1 per cent<sup>1</sup>. Management of agrar field is carried out within external environment so that it is the same both for managed object and managing subject. Here one of the main problems is difficulties for determination of boundaries of foreign environment and managing object. So, managing system can influence managed object. But it can't influence on external environment, which means managing can regulate managed one and keep control over it but can affect foreign environment. Impossibility over influence on foreign environment makes the necessity to correct management decisions and this requires keeping always under control both internal and external environmental factors. Coordination of mutual activity of all management system subjects and determination of management capacity of their purpose should be for high efficiency of agrar sphere management. Information provision of management process, use of information technologies in management of agrar sphere, its realization for fulfillment of management decisions play important role for increasing efficiency of management system. Due to 6.3 item of the decree#152, dated on April 16, 2014 by the President of the Republic of Azerbaijan on "Improvement of management in agrar sphere and speed up institutional reforms" and for "Electronic agriculture" organization of Information System, activity and its regulation with other governmental information systems and resources, "Electronic agriculture" Rules for use of Electronic information was confirmed by decision#408, dated on December 30, 2014 by the Ministry of Cabinets. Now, topicality of economic evaluation of state resources, establishment of soil and other cadasters are highlighted. It's obvious that one of the best means in then said sphere is remote probation based on use of digital methods, laser scanning, satellite technologies for estimation of territories, use of geographic information technologies. One of the poorest sides of current research system is absence of information management system at desired level. State management is necessary for analyze of agrar sphere management system, realization of some duties. If state management of agrar sphere is determined in advance as exact as it is possible,

1. <https://www.stat.gov.az/source/agriculture/>

in that case it will be easier to eliminate crisis of agrar sphere and will result in its successful development, stabile participation in the security of the country. Management subjects are determined at state level, regional level and enterprise level in order to realize management. In that case, division of management functions among them will result in decrease of costs and increase of efficiency. Management at state level is the application of economic methods of state regulation, like encouragement and limitation, aimed and complex programs related to agrar reforms, normative law base. Regional level management is similar with state level management and differs only for functionality and limited to territories. Decisions from regional level are discussed only within the competency by state management bodies. Regional level management treats subordination of agrar sphere enterprises and other sphere enterprises serving them, regulation of agrar sphere enterprises, formation of regional agrar structure, forecasting, study of consumer, processing and production volume of the region, protection from diseases, crop pests, epidemics, protection of eco system, efficient use of soil and water, technical security rules, labor protection, etc. Unlike from other two management system, enterprise and/or their combination has the possibility to adapt more easily to changing conditions, to react and conform the requirements. As per its economic and social interests, enterprise can easily react to foreign environment influences. Basing on local and foreign experience, we think application of concept to provide enterprise stabile development and formation of strategical management will yield good results. Strategical management is the ability to react adequately by managed staff to foreign environment influences by using current resources and provide enterprise long-term and efficient activity by making necessary changes in time. That's why, the main duty is the formation of below-mentioned management technologies:

- Work out of diagnostic methodology of the whole enterprise potential;
- Provision of methodology of enterprise development strategy;
- Project of stable development of enterprise and formation of the map of this process;
- Establishment and application of models for efficiency estimation processes which will serve continuous and stable development of the enterprise;
- Despite all subjects realize separately some management works, management best positive result is achieved during all three mutual and agreed activity.

By observing all together “game rules”, they can achieve increase of production volume and other important duties, for exp. provision of food security. One of today's major problems is proper division of authority and duties of various management subjects. This is mainly for state and regional management. Authorizing Ministry of Agriculture and demanding the execution results of regional works from Regional Executive Powers show inaccuracy of mutual activity and relations principles. This matter requires exactness of boundaries and division of authority in control function. Generally, solution of highlighted duties can result in formation of raw base, modernization of production in agrar sphere, synchronization of money and material flow movements. The state main purpose in the management of agrar sphere is creation of suitable competition condition, expectation of economic interest of agrar sphere subjects, not allow monopolization of agrar market, formation of the same conditions for various society forms, continuous provision of information flow in infrastructure provision and production sale chain. However, technological development and specialization trend at European Union are directed toward the junction of agrar sphere enterprises as cluster so that that clusters provide control for 30 per cent of the market, gain of competition advantages while getting price during business meetings and auctions. Correct realization of aims and duties of agrar sphere management depends much more from the essence of economic mechanisms. Restoration mainly requires application of mechanisms meeting maximum new economic conditions in management.

In a such way, economic mechanism of agrar sphere can consist of state regulation, regulation up to market rules and self-regulation of economic subjects. Depending on hierarchy management level, not element of management, but their functionality should be highlighted. So, management subjects at regional level can work out within their competency their exact and clarifying rules basing on state normative acts. Economic mechanism can form its influence system conforming to its activity which reflects relations with foreign environment and separate sub systems. That's why, exact and clear relations and mutual activity mechanisms must be formed in order to achieve goals in agrar sphere. Economic mechanism of one level should not impede other level's mechanism. Mutual activity of object and subject of management system have two side influences. For one side, management subject cause influence via normative law acts, aimed programs, various regulation methods, mechanisms and in a such way regulates managed object activity and subordinate it with other objects, from other side managed object pass information related with the result of activity to managing subject. Only after that it is possible to revise management influence, volume and content. If information flow lag between managing object and managed, correction of influences is either impossible or results are negative. That's why all elements mutual influence power is possible only when their correct and comprehensive application occur.

#### **4. CONCLUSION**

So, influence of foreign and internal, basic and auxiliary, direct and indirect, necessary and not basic, objective and subjective, controlled and uncontrolled factors is determined in the theoretical study. Any economic process including production in agrar sphere is combination of continuous and various quality and quantity changes. But as there are firm elements in economic system of agrar sphere, so the whole process of its economic development is staunch. Thus, development of agrar sphere economy is related with quality changes, happening in its content, structure, relations and activity. Due to analyses, there are the below mentioned problems in goal and duties on management of agrar sphere:

- Non correct division of authorities and functions among management subjects at various levels affect negatively efficiency of management;
- Non subordination of goals at various levels (state, region, enterprise) and formation not under basic and sub goals principles affect negatively on competition of agrar sphere;
- Relation and dependence of agrar sphere with other spheres can't be considered and such dependence occur in regulative measures via normative law acts, including non-exact formation of mechanisms for determination of price exact measurements.

After the analyze of approaches for formation of management mechanisms of enterprises, we can conclude that management mechanism of enterprise doesn't provide to get final wished result. Decisions based on experience; i.e. non-formal management methods are preferred in the solution of problems with foreign environment. While production means and technologies rapidly change, such approach doesn't give always positive results, that's why instead of enterprise management, management tools for formation of its future should be preferred.

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## BANKING MARKETING: TRENDS AND PROSPECTS

**Gasimov Alislam**

*Senior Teacher at*

*Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan*

*alislam.qasimov123@gmail.com*

### **ABSTRACT**

*The relevance of the topic of the study is due to the need to develop the theory and practice of banking marketing. The development trends of Azerbaijani commercial banks, their ability to quickly and efficiently solve the new challenges posed by the market, are possible on the basis of modern management methods, advantages and potential of banking marketing. Complexity, complexity and lack of development of problems of banking marketing, the existence of unresolved and debating issues related to the organization of an integrated marketing system in the bank, objective necessity of scientific analysis and determined the choice of topic, purpose, tasks, structure and content of scientific research. The aim of the work is to identify a special area of scientific interest within the boundaries of marketing theory - the banking services market - in which the task was to highlight the peculiarities of existence of the banking product, specific peculiarities of its use, to identify the peculiarities, patterns, trends of promotion of the complex of banking services and directions of development of the banking product infrastructure.*

**Keywords:** *Market of banking services, Bank marketing, Marketing policy, Marketing strategy*

### **1. INTRODUCTION**

The major goal of the paper is to study the features, principles, conditions and factors of appearance and prospects of development of banking marketing, and forms of its management in the new economic conditions. The urgency of the subject of research is caused by the need to develop the theory and practice of formation, features, and new trends in the development of banking marketing. To study the main trends in the development of banking marketing in the new conditions and to identify perspective areas of its development in Russia. Application of a systematic approach to the analysis of the subject of the article, conceptual approaches set forth in the papers by Russian and foreign scientists regarding banking marketing has been the methodological and theoretical basis of the paper. The article discloses the concept of banking marketing, considers the types and organization of marketing research, features, new forms and directions of development of banking marketing. At the modern stage of the economic development of Russia, the banking system shows an increase in competition between banks and non-banking organizations, which forces them to diversify their activities, and to master new technologies in the field of creating a banking product. Formation of a marketing policy as an integral part of banking management is a prerequisite for ensuring the adequacy of the bank's activity to the processes developing in the financial markets. If we compare this with the Russian commodity market, then we can see that the banking system of Russia cannot be completely isolated from the general trends of development of the global financial system. Appropriate operating procedures and tools for competitive activity should be developed in collaboration with Western banks, acting at the level of the global financial market. And marketing is one of such operating procedures and competitive activity tools. In the current situation of development of Russian banking, it is more appropriate to consider marketing as a system that should ensure a balance between the interests of bank, customers, and society as a whole and this is dictated mainly by the special place of banks in the structure of the economy.

## 2. DEFINITION OF BANKING MARKETING

The problems that organizations faced when using accessible marketing tools in the banking sector have been studied in detail by many foreign scholars such as P.Rose, M.Bitner, J.Gordon, T.Martin, M.Porter, and L.Berry. Among Russian literature, the issues of formation and development of banking marketing are examined in detail in the scientific works of G.N.Beloglazova, N.B.Kurshakova, S.A.Guryanov, S.P.Ivanova, Z.F.Mamedova, O.I.Lavrushin, N.P.Radovskaya, I.O.Spitsyn, G.L.Makarova, E.A.Utkin, and V.M.Usoskin. G.N. Beloglazova believes that marketing is the principle of management and the concept of activity in the financial market, the production of products and services, the sale and marketing, the way of thinking and the philosophy of doing business, the process of creating and reproducing the demand of end consumers for specific products and services with the aim of making profit by the bank on mutually beneficial terms with the client (G.N. Beloglazova, 2015). In the paper by V.D.Milovidov, banking marketing is considered as an entrepreneurial activity of the bank which directs the flow of financial services to its customers. In the structure of the banking marketing system, the author identifies elements of analysis and forecasting of the market, advertising, creating new services and working with bank customers ( V.D.Milovidov, 2012). Based on this, we can claim that banking marketing is nothing but a market strategy for creation, promotion and sale of banking products in order to meet customer needs in a way profitable for the bank. In addition to this point of view, there are also a huge number of the definitions of banking marketing concept; for example, E.A.Utkin gives it the following definition: "Banking marketing can be defined as the search and use by the bank of the most profitable banking product markets, taking into account the real needs of the clientele. This implies a clear statement of the bank's goals, formation of ways and means to achieve them, and development of specific measures for implementing plans"( УТКИН, Э.А., 1995). The characteristic of banking marketing by V.N.Stakhanov: "Banking marketing can be considered as a specific form of organizing financial marketing" is also seemed interesting (Стаханов В.Н., 2001). It should be noted that in a market situation, the priorities and goals of marketing activity are fundamentally transformed. In the foreground are no longer the interests of the bank, but the interests of its customers. Today, banking marketing relations are assuming urgency because, firstly, traditional bank products are personalized to the individual needs of the client, and secondly, customers who consume standard banking services often cannot evaluate the profitability offered by a new product. In both cases, the decision to purchase the service is based on the client's trust in his/her manager, because the manager knows not only the features, advantages of the banking product, but also the specifics of the enterprise. Combination of this knowledge is the basis of managers' orientation on clients, the basis of their constant work to keep these clients in the bank, to establish and develop long-term relationships with them based on trust and consideration of mutual interests. In the context of development of competition in the financial market and deterioration of banking activity as a result of this, the summing up of the customer market has forced banks to actively engage in banking marketing. There are various definitions of marketing in the research of foreign and domestic scientists. The same diverse interpretation is given to the concept of banking marketing. For example, in the theory and practice of US management, banking marketing is interpreted as a comprehensive program of bank actions that contains such important points as analysis of market and direction of its development, as well as determining the ways to influence the market (Котлер Ф., 2001. 45]. Experts consider banking marketing in the form of a system for creating and selling banking products through analysis and forecasting of the market, aimed at satisfying the demand of certain consumers and making profit [3,520]. In other studies, banking marketing is considered as an activity focused on bringing the banking product to the client through a complex of tools consisting of market research, advertising, service promotion, sales promotion, and after-sales control.

In a number of studies, banking marketing is characterized as a market concept of bank activity management focused on research of market and economic conditions, customer requests and adaptation of the services offered. Representing the banking marketing as a unity of the needs of customer, and search for the most profitable banking products markets, V.M.Usoskin recalls the importance of reconciling the needs of consumers and the capabilities of bank services (Усоскин В. М, 2013, p.124]. According to Western experts, with the lapse of time, financial services come under the influence of markets and consumers; banks with a purely market orientation are increasingly found: they are more sensitive to changes in consumer demand for financial services, more prepared to compete with other banks and non-bank financial institutions. Therefore, the importance of marketing is growing for bank managers, as it focuses on studying the external environment, and developing new products based on the preferences of customers and related parties. Marketing in banking is becoming an essential component of success, the other components of which are general management, finances and technologies. From our point of view, the essence of marketing activity in the banking sector is described most accurately in the interpretation in which the banking marketing is understood as a comprehensive system of research, formation and satisfaction of the needs of target consumers in banking goods (products, services), which allows achieving the bank's market benchmarks, namely the goals associated with profitability, liquidity, profit, as well as social goals and obligations. Banking marketing implies a thorough study of the dynamic preferences and tastes of consumers of banking services.

### **3. GOALS, PHILOSOPHY AND SPECIFICS OF BANKING MARKETING**

However, banking marketing is associated not only with the sale of products and services. At the same time, this is a philosophy that presupposes preparation, and a thorough analysis by the structural divisions of the bank. Relations between the bank and the client are fundamentally changing under the influence of the philosophy of the bank. Thus, while banks offered depositors and borrowers a certain set of banking products before, it is necessary now to concentrate efforts on developing new services aimed specifically at the real needs of a specific category of customers, large or small enterprises, one or another individuals (pensioners, young families, students, etc.). If one or another product is not in demand, then it cannot be offered. In terms of market, each enterprise has the goal of selling goods and services. The managers of the bank and the activities of all its structures are aimed at attracting customers, expanding the sales of their goods and services, and, as a result, increasing profits. The competition in the financial market that has intensified today is forcing banks to strive for sale of a full range of banking products and creation of a certain department store working on the principle of a single window in the name of survival. From a marketing point of view, banks should develop good design of new products that would be convenient for customer delivery. The organizational structure of the bank already organically includes the use of marketing strategy and sale technique as an integral part. Banks do not already impose services and strive for the greatest satisfaction of customer needs based on their own policies. Based on the principles of banking marketing, it can be characterized as activities focused on ensuring the interests of customers and the effective activities of the bank in the financial services market. The bank's philosophy that develops its goals and objectives focuses on the importance of the bank for customers, shareholders, the state economy, citizens and society as a whole, i.e. substantiation of its existence and results of economic activity. Being the starting point in the formation of bank's goals, benchmarks, strategies and plans, it helps to unite the team and concentrate the efforts of employees in the main and single direction. So, the philosophy of banking marketing presupposes the search for functioning and possible future markets for banking products, based on the real needs of customers, including a clear statement of the goals of the bank, determining ways and means of achieving them and specific measures for implementing plans.

The goals of banking marketing are rooted in the general goals of functioning of a certain bank in general. And these goals are determined by the mission of the bank, the place of the bank in the financial services market, external factors, resources and other factors. Marketing in the banking sector presupposes enhancing the bank's competitiveness and profitability by creating the necessary conditions to adapt the bank to the requirements of the financial market and changing external conditions. In fact, marketing is an organic link between the bank and the market, by means of which we can get a variety of information about the market, its specifics, needs and wishes of customers, the state of competition and influence the market by certain methods. In other words, marketing provides direct feedback of the bank with market entities (Мамедов З.Ф., 2008). Professional banking management based on the knowledge of customers, competitors, and other environmental factors becomes the main component of the bank's competitiveness. The specific features that distinguish banking marketing from production sales and trade marketing include, first of all, that the banking product has an intangible expression, which affects the objectivity of the customer's evaluation of the banking product: this implies the serious importance of advertising a banking product: direct contact with the buyer of services, i.e. with the client, which requires personalization of relations between participants in the banking services market, causes difficulties in standardization and strengthens the role of the place and atmosphere of communication with the client; the monetary nature of services, which requires to take into account special attention of the public to their contents and consequence. Thus, in the unity of all the essential elements, the category of "bank marketing" can be represented as a type of bank activity, a special way of managing and thinking of a bank employee, aimed at the banking services market. Bank marketing techniques include methods of contacting a client, providing the client with advantages when applying to the services of a given bank in the face of competing credit organizations, managing the profitability of services and mutual relations with the client, remuneration that motivates bank employees to sell the largest number of banking products.

#### **4. CONDITIONS AND FACTORS THAT LED TO THE EMERGENCE AND DEVELOPMENT OF BANKING MARKETING**

Banking marketing came later than production marketing. In the late 60s - early 70s of the 20th century significant changes occurred in the financial markets, including the banking products and services market, as a result of which competition sharply intensified. Let us consider the factors that caused these changes. Firstly, the number of banks and non-banking financial institutions that competed with banks operating in the markets sharply increased in the world. Secondly, the merger of banking and financial structures, the absorption of small and medium structures by large ones led to their enlargement. Thirdly, services diversified in the banking sector itself. Fourthly, competition both within the banking system and between banks and non-banking institutions for attracting funds and issuing credits and loans to the population, enterprises and organizations intensified. Fifthly, the internationalization of the commercial activities of banks has taken on a wide scope recently, having touched more and more new countries, especially the countries of Eastern Europe and the post-Soviet space. As a result, the competition between the largest banks in the world and non-banking institutions with weaker local banks has intensified. Sixthly, banking is increasingly tightly regulated by the state in many countries. First of all, this regulation catches the eye in limiting price competition, as a result of which banks expand the range of provided services and actively promote them to the market. Seventhly, the rapid development of information and communication technologies has provided banks and other financial institutions with free access to customers in their own country and abroad. In addition, these technologies have intensified competition in terms of the opportunities to provide new services offered by modern information technologies.

Nevertheless, the West, which had extensive experience in industrial and commercial marketing, quickly went all the way through the evolution of marketing in the field of banking marketing too. At the first stages, they were limited to the introduction of its certain components. For them, it acted only as a way to analyze demand and attract customers in the early stages. The concept of banking marketing that took shape in the 80s of the last century formed the basis of management in banks. The marketing services, systems of data collection and processing, development and monitoring of marketing programs that appeared at banks should ultimately provide the bank with adaptation to the changing external environment, its survival and success in competition (Штейн О.И., 2012). The famous American marketing specialist F.Kotler divides the development of banking marketing into five stages: use of advertising, other measures to position the bank's services in the market, establishing public relations; creation of a friendly atmosphere for customers; innovation: development of new banking products (a variety of plastic cards, new types of loans and deposits and services) in order to get ahead of competitors in the market; highlighting the bank's competitive advantages and its market position in comparison with competitors; differentiation of banking products due to a combination of the relative homogeneity of banking services and increased competition, identifying target markets and competitive advantages of the bank; service to target market segments; development of a banking system for analysis, planning and control over the implementation of marketing plans (Валиев Е, Вейсов Е, 2019. ]. F.Kotler called these five stages "the rule of slow learning", that is, the evolution of marketing in banks. Studies show that in the late 1990s many banks in America were in the third or fourth, or even in the first stage of marketing development. Marketing experts believe that those who want to work successfully in the rapidly changing competitive environment of banks, and the banking industry as a whole should go to the fifth stage. According to the given periodization, Russian banks are at different phases of marketing development. In general, the situation in the Russian banking market is extremely heterogeneous. However, with increased competition in the financial market due to the absence of restrictions on the opening of bank accounts by enterprises and organizations, the introduction of a notification procedure for opening bank branches in the regions, as well as the removal of some restrictions on the activities of foreign banks in the local market, Russian banks are actively using marketing as part of banking management. If we take marketing in terms of market instruments, then Russian banks are just developing new products, setting prices for their services, and determining a system for marketing and promoting products on the market. In other words, they have been using mix marketing or marketing complex used by banks abroad for a long time.

## **5. DIGITAL TRANSFORMATION AND BANKING MARKETING DEVELOPMENT**

Banking institutions strive to improve constantly their marketing concept implemented through the global Internet. In this case, it is important to understand the degree of influence of digital technology on the client. In the near future, the consumer of banking services and products will independently initiate changes, and will be available always and everywhere. One of the most effective areas of banking marketing at present is sales and advertising through the global Internet which has grown incredibly today. Internet resources are very popular in the banking system. Today, no banking institution can exist without the use of information technology in marketing. Use of various types of Internet marketing allows attracting new customers, and expanding the existing market. Advertising on the Internet is attractive also for new customers themselves, with relatively low costs for promotion of bank products. Researchers believe that the share of projects on the Internet amounted to 75% in the marketing budgets of commercial banks over the past two years. Hence we can conclude that digital technologies are used more often in banking marketing than traditional types of marketing communications (Мамедов, 2019).

Obviously, those banks that attach proper importance to these promising marketing tools will get a serious advantage over their more slow-reacting to changes competitors very soon. In this regard, such priority areas as online customer research (polls via the Internet, mobile phone, sending questionnaires, etc.) deserve attention. So far, these areas are poorly developed, but they are rapidly gaining momentum providing, as the main advantages, saving time and material resources, the possibility of their implementing online, and the simplicity of analyzing their effectiveness. In this regard, along with the development of online services delivery systems, banks should also develop online information collection systems. This will provide timely customer data and a relative reduction in research costs. Thus, development and conduct of effective customer research by banking institutions will allow them to improve their relations with customers and their own market positions. Banking organizations are increasingly using digital tools in their marketing activities: at the moment, banks such as Tinkoff and Sberbank are the largest advertisers not only on national television, but also on the Internet with advertising budgets of 682.8 million roubles and 666.5 million roubles for 2017, respectively. Social Media Marketing (SMM) is an integral part of the marketing strategy of most large banks. The author has conducted a study on promotion of the 10 largest banks in terms of assets as of December 2017 on the vk.com social network. Such parameters as community audience, active community audience, and average user activity per day for the period from 01-01-2018 to 31-03-2018 have been analyzed. The most significant is the Sberbank of Russia community; each month the bank covers more than 50 mln people through this communication channel]. In addition, the bank is actively using banner advertising on the social networks vk.com and Odnoklassniki. To further develop the direction, a special department for working with SMM was created: “the new unit will be responsible for the strategic and tactical tasks of marketing in social media and social media integration”. To compare the effectiveness of interaction between various banks in social media and to evaluate the quality of content, the indicator “number of interactions per 1,000 participants a month” has been introduced based on the methodology proposed by Socialbakers [19, p. 30]. The number of interactions per 1,000 participants has averaged 58.87 per month. The best indicator is in the Alfa-Bank community, 296.6 interactions per 1000 people; the lowest indicator is 9.7 in the UniCredit community.

## 6. CONCLUSION

Bank marketing is such a comprehensive system for the analysis, formation and satisfaction of the needs of target consumers in banking goods (products, services) which allows achieving the bank's market goals, namely goals related to profitability, liquidity, profit, as well as social goals and obligations. Adequacy of the bank's activities to processes unfolding in the financial markets is a necessary condition for the formation of a marketing policy, which is part of banking management. Bank marketing involves an in-depth analysis of the changing tastes and priorities of consumers of banking services. The goals set by banking marketing are rooted in the general goals of the functioning of a particular bank in general. And these goals are determined by the mission of the bank, the place of the bank in the financial services market, external factors, resources and other factors. Banking marketing philosophy presupposes the search for existing and potential markets for banking products, based on the real needs of customers that engages a clear statement of the goals of the bank, determining ways and means of achieving them and specific measures for implementing plans. Digital transformation is the main condition for effective operation in the banking services market. Under these conditions, a fundamentally new business model is created, a complete revision of traditional approaches to solving the problems of expanding the client base takes place, and the quality and speed of service increases. Use of various types of Internet marketing allows expanding already existing clientele and market. There is no doubt that those banks that pay due attention to these promising marketing tools today will have a serious advantage over their retarded competitors

already tomorrow. According to researchers, the share of projects on the Internet in the marketing budgets of commercial banks exceeded 75% over the past two years. This suggests that the use of digital technology in banking marketing prevails over the use of traditional types of marketing communications. Banking institutions strive to improve constantly their marketing concept implemented through the global Internet. In modern realities, the existence of a banking institution without the use of information and communication technologies in marketing is impossible. In recent years, digital financial marketing services have been actively penetrating the Russian banking market. According to the results of the analysis, we can say that most banking organizations actively use one or another promotion tools by means of digital marketing. Depending on their marketing goals, the largest banks apply traditional contextual and banner advertising, social media marketing, content marketing, and search engine optimization. It is worth noting that marketing activity is not always systemic in nature which entails a decrease in the effectiveness of the marketing strategy, and an increase in the cost of each new customer attracted.

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## ECOLOGICAL-CLEAN INNOVATION PROBLEMS IN THE IMPROVEMENT OF PRODUCT INNOVATIONS IN THE NEW MANAGEMENT SYSTEM

**Safarov Rashad Akif Oglu**

*Associate Professor at  
Azerbaijan State University of Economics (UNEC),  
Istiqlaliyyat str.6, Baku, AZ1001 Azerbaijan  
safarov\_rashad@mail.ru*

### **ABSTRACT**

*The article summarized the scientific and theoretical views of a number of local and foreign scientists on the formation of innovative development in Azerbaijan under the new management system and made conceptual generalizations. Taking into account the urgency of innovation processes and environmentally friendly innovations, the analysis of factors hindering the application of innovations based on data from the State Statistical Committee of the Republic of Azerbaijan. As a result of the analysis, the factors hindering innovation were assessed as economic, production, and other factors. The cost of innovation in Azerbaijani industry also pays attention to the types of activities and sources of financing. For this purpose, the financial costs of technological innovations in Azerbaijan and the dynamics of state, individual enterprises and foreign investments in these costs have been carefully studied. Based on the obtained data, the influence of product innovations, technological innovations on economic activity was studied in order to assess the current state of environmentally friendly innovations in the industry of Azerbaijan and to the formation of innovative development the author's ideas were put forward.*

**Keywords:** *innovation, management, product innovation, process innovation, technological innovation, ecologically pure innovation*

### **1. INTRODUCTION**

In the development of society the application of innovations to industry is aimed at the production of material goods, the manufacturing of means of production and meeting the needs of consumers. However, the impact of the environmental cleanliness of innovations applied to the industry in new management system is reflected in meeting the social needs of people and the application of new technologies. Economic development, the achievement of the application in innovative management to economic entities to meet the growing needs of the population with environmentally friendly products is one of the areas facing innovation management. From this point of view, a characteristic feature of the economic development of the country is the achievement of increasing the innovation potential through the application of new technologies and management methods in the country (5, 174). In the practice of developed countries, the concept of innovation is widely used, as it represents advanced innovation in business organizations. The economic literature states that the concept of "innovation" was first introduced to scientific research by culturologists in the 19th century, and the European customs were adapted to the traditional organizational methods of Asian and African communities. At the beginning of the twentieth century, the study of the application of technical innovations to economic entities started. For the first time in 1909, W. Zombart in his article "Capitalist Entrepreneur" substantiated this concept as an innovator and noted that the main function of the entrepreneur is not to be satisfied with the introduction of technical innovations in the market for profit and he has to share these innovations more widely (3, 13). Y. Schumpeter brought the role of the innovation process in the economy to the Economics with his "Theory of Economic Development" in 1911.



This theory was about the evolutionary change of the "new combination." According to Schumpeter, the "new combination" appears in the process of modernization of production in a "closed circle". This innovation is a high level of the simple production. He sees innovation as the economic effect of the technical changes, and shows that the production function reflects a change in the quantity of a product by a combination of changes in the factors affecting assembly. If we change the form of functions with the sum of factors, we get innovation (8, 185). Azerbaijani researcher Guliyev T. A. showing the approach to the concept of innovation as production innovation, technical-technological innovation, innovation in labor organization and management, noted the possibility of increasing trends in innovation activities such as product-innovation, process-innovation, social-innovation and management innovation (4, 438).

## **2. IMPLEMENTATION OF THE INNOVATION PROCESS IN AZERBAIJANI INDUSTRY BY TYPES OF ECONOMIC ACTIVITY**

The activity of innovation processes in the country is the readiness of enterprises, their research institutes and the state, shortly all the subjects of innovation activity to work in the market conditions. The data of the State Statistics Committee of Azerbaijan Republic published the statistical indicators of factors hindering innovation in industrial enterprises. In this data, industrial enterprises assessed the factors hindering innovation as follows.

1. main or decisive factors
2. important factors
3. less important factors

When we look at the statistics, we find out the factors hindering innovation by Azerbaijani industrial enterprises are assessed as economic data, production factors and other reasons. In 2017 compared to 2015, the number of industrial enterprises in Azerbaijan increased due to insufficient own funds, insufficient financial support of the state, low solvency demand for the new products and high economic risk as factors hindering innovation (table 1). This growth is also reflected in the industrial enterprises of Azerbaijan, which assess the factors of production as the main or decisive factors hindering innovation. In 2017 compared to 2015, industrial enterprises assessed the low innovation potential, lack of skilled workers, lack of information about new technologies as the main or decisive factors of production. However, in recent years, there has been a development trend in the composition of factors of production, and among the factors hindering innovation, there is a lack of information on sales markets, a lack of opportunities for cooperation with other enterprises and other scientific organizations. An examination of other reasons hindering innovation in Azerbaijan shows that the lack of development of the innovation structure (intermediation, information, law, banking services) is one of the main or decisive factors hindering innovation in 2015-2017. During these years, the country has successfully carried out activities in the field of innovation, worked on legislation and normative legal documents regulating and encouraging innovation, eliminated the uncertainty of the duration of the innovation process and developed the technology market.

*Table following on the next page*

Factors	Basic or decisive			Important			Less important		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>1. Economic factors</b>		7	3	1	1	1	1	8	1
- lack of own funds	16	24	20	29	33	40	12	15	13
- insufficient financial support of the state	15	18	14	222	317	218	212	119	116
- low solvency demand for new products	2	3	9	211	24	118	119	115	116
- high cost of innovations	9	11	8	23	26	22	16	14	17
- high economic risk	7	6	12	14	20	18	19	16	13
- long payback periods for new products	4	4	4	117	117	115	226	231	229
<b>2. Factors of production</b>		3	3	1	8	8	1	9	1
-low innovation potential of the enterprise	7	5	8	20	28	28	19	20	16
- lack of qualified staff	3	3	6	12	17	16	31	32	29
-lack of information about new technologies	7	2	10	219	124	116	125	123	121
-non-acceptance of innovations by enterprises	3	3	3	114	113	113	218	120	117
- lack of information on sales markets	3	1	2	117	116	19	111	117	120
- lack of opportunities for cooperation with other institutions and other scientific organizations	-	-	-	15	4	6	223	226	219
<b>3. Other factors</b>	1	1	1	1	8	8	9	7	7
- No need for new products as a result of previous innovations	3	2	1	16	10	12	220	122	216
- Lack of legislative and normative legal documents regulating and encouraging innovation activity	4	3	4	221	219	218	115	119	114
-The duration of the innovation process is uncertain	3	2	1	113	15	110	114	118	118
-Lack of development of innovation structure (intermediation, information, law, banking services)	2	2	3	218	218	116	114	118	119
-underdevelopment of the technology market	5	4	4	226	222	220	215	120	121

*Table 1: The number of enterprises that assess the factors hindering innovation in Azerbaijan's industrial enterprises as follows (2, 99-100)*

In general, the number of enterprises assessing the factors hindering innovation in Azerbaijan's industrial enterprises increased on both economic, production and other factors in 2015-2017. The economic factors such as high cost of innovations and long payback periods for new products, as well as production factors such as non-acceptance of innovations by enterprises and lack of information on sales markets, as well as lack of need for new products among the other factors, things hindering innovation, such as the lack of time, the uncertainty of the duration of the innovation process and the underdevelopment of the technology market, have been eliminated. Along the progress made in the formation of innovative development in Azerbaijan, there is a lack of own funds and financial support of the state, low solvency demand for new products and high economic risk, as well as low innovation potential of enterprises, lack of skilled workers and information on new technologies and factors of production awaiting its solution as factors that hinder innovation.

### **3. PERSPECTIVES OF ECOLOGICAL AND CLEAN INNOVATIONS IN AZERBAIJAN INDUSTRY**

In our century, the concept of human ecology is of global importance in scientific community. This approach creates a need not only in the theory but also in the practice to study the problem of the social ecology of product innovation, which arises in innovation activities and it is very necessary. The issue of studying the positive or negative impact of the application of product innovations on industry on the social ecology of people arises. This means that industrial enterprises, as the creators of material wealth, must protect and innovate the social ecology of the people, and not neglect the ecological purity of the innovations applied. In practice, two main ways of solving ecological problems have been formed. The first way is the possibility of solving environmental problems based on the application of environmental innovations in

production (9, 116). The second way is that the Russian researcher N. Moiseyev considers it is impossible to solve ecological problems by purely technical means and shows that “technical development is absolutely necessary, but it is unsatisfactory: in one case, human civilization, in another case, civilization is a requirement of man stands”. It should be noted that both ideas are relevant today and find their confirmation in theory and their manifestation in practice (7, 70). In this regard, taking into account the factors hindering the application of innovations in our country, the application of harmless and waste-free technologies, as well as equipment that can meet high productivity and modern standards is one of the most pressing issues. The law “On Protection of Foreign Investments” of the Republic of Azerbaijan also provides for an expert opinion on the observance of sanitary-hygienic and environmental requirements by its founders in cases and in accordance with the legislation of the Republic of Azerbaijan, establishing an enterprise with foreign investment. An enterprise with foreign investment must obtain such an opinion during its operation and in the event of liquidation. Besides, the law requires the relevant expertise of technical and environmental projects when establishing such enterprises in connection with large-scale construction and reconstruction works or the development of large mineral deposits (1, 4). Environmental requirements are expected to be observed in the activities of enterprises in the Republic of Azerbaijan. If we look at the world experience, it is shown that different ways are used to stimulate the application of environmental technologies: application of nature protection norms, rules, legislative acts; provision of subsidies for waste reduction; regulation of pollution taxes; realization of rights. Today, in the developed countries such as Japan, Germany, the Netherlands, Italy, Canada and France, the nationalization of national scientific and technical programs is taking place. In the United Kingdom and Norway government programs have developed for creating environmentally friendly technologies. In 1990, a research center on innovative land technologies was established in Japan, funded by the public and private sectors. The main direction of this work is related to the global warming and alternative energy resources. There is an Ecotechnology Program of the Ministry of Research and Technology in Germany. An organization for technological research and technology transfer has been established in the Netherlands, which accounts about 10% of its activities in the field of ecotechnologies. A Fund for Technological Innovations has been established in Italy, 5% of which is used for ecotechnologies. There is a program "Technologies for Ecological Decisions" in Canada. In many countries, ecotechnologies are included in important scientific and technical programs (6, 89). Due to the tightening of environmental legislation in the world, almost in all countries there is an increase in the production of eco-equipment and eco-technologies. This process has already begun in Western countries. If in the 1970s and 1980s the main efforts of companies were aimed at neutralization of the impact on environment, since 1990 this has been aimed at elimination of the environmental causes destruction. In our opinion, the solution of such large-scale problems in Azerbaijan industry is not possible only through the efforts of individuals, scientists and professionals involved in the development and implementation of development strategies. Ensuring sustainable development also requires industrial enterprises to be prepared for an environmentally friendly lifestyle and environmental development thinking. In other words, the application of ecological innovations to ensure economic development means new methods of production organization, new technologies, new products that provide environmental protection aimed at meeting the social needs of people. We are talking about the application of ecotechnologies, ecological marketing, ecological management system, which create the conditions for ensuring the interaction between economic development and environmental protection at the enterprise level.

#### 4. CONCLUSION

Innovative management is one of the main directions of modernization of the national economy and application of environmentally friendly innovations in industry in new management system in Azerbaijan. In this context, the formation of ecologically clean innovative development is characterized by a number of directions in the new management system in our country. The most important of these factors is to accelerate the formation of a legal and organizational institutional framework in order to eliminate obstacles to the application of innovations in Azerbaijani industry. On the other hand, it is to increase the share of funds allocated from the state budget in the structure of expenditures on technological innovations in order to create and increase the application of product and process innovations in existing enterprises. The formation of concessional environment in the country's innovation policy and, for this purpose, stimulating support of the state in financial, tax and customs policies should be strengthened. Another direction is to improve the ecological management system and ecological development thinking in the country's economy to accelerate the implementation of environmentally friendly innovations in industry.

**ACKNOWLEDGEMENT:** *State Statistics Committee of the Republic of Azerbaijan, UNEC.*

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# NOBEL LAUREATES AT THE GUARD OF THE WORLD ECONOMY

**Elshad Samedzade Ziyad**

*Azerbaijan State University of Economics, Azerbaijan*  
*selshad@yahoo.com*

## ABSTRACT

*While exploring Nobel laureates' researches as if the world economy appears in a large window. Nobel laureates are an exclusive collection of studies in terms of analyzing, directing the global economy, responding to global challenges. Firstly, it is necessary to applaud The Riksbank for showing initiative in front of the Nobel Committee to be established out of Alfred Nobel's testament and spending about 1 million euros per year for this purpose. The central bank of Sweden causes the creation of works responding new challenges of the world economy. In the 50 years since its inception (1969-2019), I have come to this generalization when examining the activities of 91 Nobel laureates, the goal of all of them is economic growth, economic development, standard of life. In my opinion, the previous winners received this high name for their research at the macro level and the subsequent ones on the micro level. So if earlier global challenges were at the international and country level, after global challenges fell to the company level. According to "Strong companies mean a strong state" principle The USA, which hosts 57 Nobel laureates, is the champion of the world economy, with the number of companies with capitalization exceeding \$ 1 trillion. In our modern world only 48 of the 100 largest economies are national, 52 places are owned by transnational companies. No matter how good the micro-level is, there are many problems waiting for the world economy to be resolved at the global and national levels. I wish that let researches which will come to Nobel platform guard in the more sensitive parts of the world economy climbing to the specified level.*  
**Keywords:** global challenges, Nobel laureates

## 1. INTRODUCTION

Well-known scientist of Azerbaijan, academician Azad Mirzajanzada, by analyzing the creativity of great Russian writer Lev Tolstoy, said: "While reading this masterpieces, it is possible to see Russia completely as if through large window". I think that, while getting acquainted with the research works of Nobel award winner, as though world economy is viewed through large window. Nobel award winner are collection of exclusive researches in point of analysis, direction of world economy, response to global challenges. Most of such award winners were placed in the masterpieces "100 great economists before Keynes" and "100 great economists after Keynes" (1985), written by Mark Blaug.

## 2. APPLAUSE TO THE RIKSBANK

First of all, Riksbank should be applauded, who initiated before Nobel Committee for being established beyond the will of Alfred Nobel and spending 1 million euros for this goal per year. Swedish Central Bank, acting with such initiation in occasion with its 300-year anniversary, by collecting summit studies of the year, causes the formation of masterpieces meeting the new challenges of world economy along with being the first reader of valuable economic information and using it in monetary regulation.

## 3. GOALS

During 50 years since its establishment (between 1969-2019 years), while studying the activities of 91 Nobel award winners, I come into such conclusion that, the goal of all of these is economic growth, economic development, life level. But, some of them reached it by support of mathematical apparatus, and some by psychological apparatus.

I should mention that, first Nobel award laureate Ragnar Frisch offered the division of economy into two parts such as “macroeconomics” and “microeconomics” on economy. As I think, previous laureates gained this great title due to studies in macro sphere and further due to masterpiece in micro sphere – firm level. That is while in past, global challenge resources were referred to the solution of social problems in international and local level, further global challenges fall to company level. According to principle “Strong company means strong state” the USA, hosting the studies of 57 of 91 laureates, along with keeping I place in world economy, is a champion with the number of companies, which capitalization exceeds 1 trillion US dollars. Lets indicate that, 48 of total 100 largest economic are national states. 52 belongs to transnational company.

#### 4. IS THE EFFECT EQUAL TO THE OPPOSITE EFFECT?

Several questions are arisen from these, which I will try to respond those in details:

- Do leader states of the world benefit from the studies of Nobel award winner? I will try to respond this question by showing in the example of China, as a 2nd national economy of the world. Belarus jewish origin Nobel laureate (1971) Simon Kuznets was an economic consultant in the government of China. Russian jewish origin Nobel laureate (1973) Vasily Leontyev began to act as and Advisor of the Minister of Railway of China in 1928. He was engaged in calculation of the optimal version of cargo shipping system in the railway of China. It should be noted that, other Nobel laureate (1970) –the authoro of Economics Paul Samuelson called Vasily Leontyev as “economic economist”. (1) In the event of International Union of Economists held in 2016, Professor Dinkin, PhD on Economy, the director of the Institute of World Economy of Russian Academy of Sciences, said: “Russia cannot compete in the sphere of railway with China in any way”. It is because, the processing of 1 container in Russia is realized in 3 days in average. But it is realized in 18 minutes in China. It is probably there is contribution of Vasily Leontyev’s intellect in such speed in China. Again, it makes the state-economist relations to be sensitive.
- Has Nobel laureate upbrought or the power of Nobel economist icnreased the economic power of the state due to state is strong, that is it has weighty opportunities and requirements? Tse emperor asked from Chinese philosopher Confutsi.
- Is there any word in the world to concern it to the relations of all people?
- Is reciprocity that word? – the wise responded.

This principle may be concerned to the relation of Nobel economist – state. Demands and opportunities have upbrought the economist, and strong economist has given its contribution to the strenghtening of the state It is possible to see that in the unity of the USA and Nobel laureates clearly. It should be indicated that, some of laureates became the President of the US Association of Economists. (2)

#### 5. CONCLUSION

In common I can say that, although it may be profitable up to micro level, there are lots of problems waiting the solution of world economic both in global and national level. I wish that, studies coming to Nobel plane, by rising to the mentioned level, would stay on its guard in more sensitive parts of world economy. I want to indicate that, in some cases, Nobel economist benefited from other researcher not obtaining such award. As Isaac Newton said “I reached current successes on the shoulders of yesterday’s physicists”. Nobel laureates Theodor Schultz (1979) and Gary Becker (1992) were conferred such highest title due to their studies in the sphere of human capital as well. But, as I said in ESD 2019 conference, the person using that expression for the first time and indicating its inexhaustibility property in his poem “Emotion leaves” in 1937 was Azerbaijani poet Mikayil Mushfig.

It happened 24 years before Schultz.

Of course, the research under this heading may be more diverse and extensive, but this article should be briefly summarized. Since the works of Nobel laureates cover almost all areas of economics, we regularly study and benefit from them. P.S. Referring to the studies of Nobel laureates as an Azerbaijani is a wish to applaud the studying both world economy and its devotion to the world science of Nobel wealth gained from my native city Baku, giving 50% of oil production in the world in the beginning of XX century. I would like to note that the Emanuel Nobel Prize was established in Baku in 1904 and was presented for the best works and discoveries in the oil industry.(3)

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# THE ROLE OF COTTON IN THE DEVELOPMENT OF REGIONS

**Tagiyeva Leyla**

*Azerbaijan State Economic University, Azerbaijan*  
*leylatagiyeva71@gmail.com*

## ABSTRACT

*Azerbaijan continues to realize its huge socio-economic potential. In the concept of a national economy, founded by a great leader, a key role is given to an innovative economy. State programs of socio-economic development of Azerbaijan for the period until 2017 stimulated the socio-economic development of our country. The strategic roadmap, prepared for various sectors of the economy and approved by the Presidential Decree of December 6, 2016, is intended to solve the main tasks of building industrial giants using the latest technologies. The strategic roadmap for the production and processing of agricultural products in the Republic of Azerbaijan primarily reflects complex systemic, organizational, economic and other activities. At the same time, intensification of production processes in the “State Program for the Development of Cotton in the Republic of Azerbaijan for 2017–2022” will allow solving a number of tasks on improving agricultural systems and creating new technical tools to increase soil fertility and cotton productivity with minimal energy and labor costs. The textile industry is actively developing on the basis of local processing, and a lot of money is being invested. The main tasks in this area are: increasing the proportion of fiber in the consumption of textiles; development of new technologies and cheapening of cotton production; stimulate cotton consumption worldwide; improving the quality and technical characteristics of the fiber. In general and from a regional point of view, the socio-economic importance of light industry is significant. On the one hand, its objects are very laborious, and on the other, they provide not only physiological, but also material and moral needs of people. All this is reflected in the scientific justification of our research and development.*

**Keywords:** *region, economy, social sphere, development, cotton, production, farmer, product, income, employment*

## 1. INTRODUCTION

Cotton plantation in Azerbaijan dates back to the early 19th century. According to statistics, cotton production has grown at the highest level since the 1950s, with an increasing trend of 283,600 tons over the years. The development of light industry in the country since 1970 and the provision of this area with raw cotton has made scientific development of cotton industry necessary. Increasing the level of specialization in this area has led to the strengthening of the material and technical base and the increase in cotton production in agriculture in the 1970s and 1980s by 2-3 times. The development of value chain cotton plays an important role in the process of socio-economic development and is of great importance to the economy of the country, dominating in terms of impact on successful development. Cotton products (fibers, etc.) processed in factories are very important raw materials for the light and food industry. Cotton products are also used in the heavy industry. At present, this area is a priority, with a constantly expanding market, countries producing cotton and consuming cotton all over the world paying particular attention to the development of this sector and it is difficult to give up. Cotton complex has the potential to affect the entire national economic complex of the country, including inter-industry, as well as the economy, as well as the processing industry and services. The adoption of the Cotton Law dated May 11, 2010 No. 1012-IIIQ demonstrates the strategic importance of the development of this sector of agriculture. To increase the production of raw cotton in the region, cultivation of drought-resistant, early-growing and leafy, as well as herbicide-resistant cotton varieties (China and Turkey) has begun.

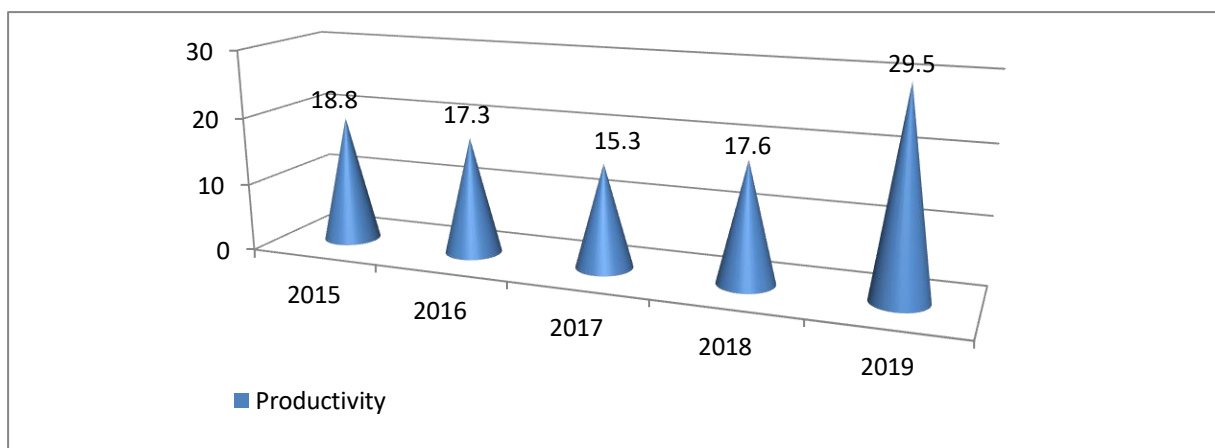


As a result, all of this enables us to: provide local cotton producers with the financial resources they need for timely and efficient farming, increasing the productivity and quality of the produce grown; creation of new jobs; to increase tax revenues to local and national budgets; increase the competitiveness of the local cotton industry and significantly increase the export of high quality cotton fiber to Azerbaijan in the future. The development of cotton fiber, value chain and other manufacturing and service industries are necessary to stimulate the creation of many jobs in the region and in the major cities (Ganja, Sumgayit and Mingachevir), reducing the dependence on imports of the most consumed products. At present, our republic is considered to be dependent on imports for the products of light industry. Production of the raw cotton is exported in form of raw cotton without seeds – Mahlic. It should be noted that cotton, being the most important agricultural culture in the Aran economic region, is an important part of the agricultural exports of the country and is the raw material for the textile industry in our newly created industrial parks. The textile complex, which is a part of the value chain, reflects a full-fledged manufacturing sector specializing in cotton yarn, woven fabric, finished sewing and knitting, making the production of raw cotton an important area. In this regard, establishing our own cotton base in the arid economic region of Azerbaijan is of strategic importance. The experience of developing countries in the cotton industry shows that the development of this sector has benefits for food and other security (such as heat resistance, strength and wear resistance), as well as for the production of cotton fabrics in the food industry and the textile industry for the production of cotton oil and margarine. . On the other hand, cotton wool and explosives are made from short-fiber cotton. Other areas are also useful products - lubricants, soaps, glycerin, animal feed, fertilizers and more is obtained. Cotton seeds (raw) are used as part of planting material, mainly as raw material for oil production. The rods and patties that remain after the grease is obtained are used as fodder for livestock. Cotton is profitable as a product with a high commodity level (2 p. 313)

## **2. MODERN TRENDS IN COTTON PRODUCTION IN THE ARAN ECONOMIC DISTRICT**

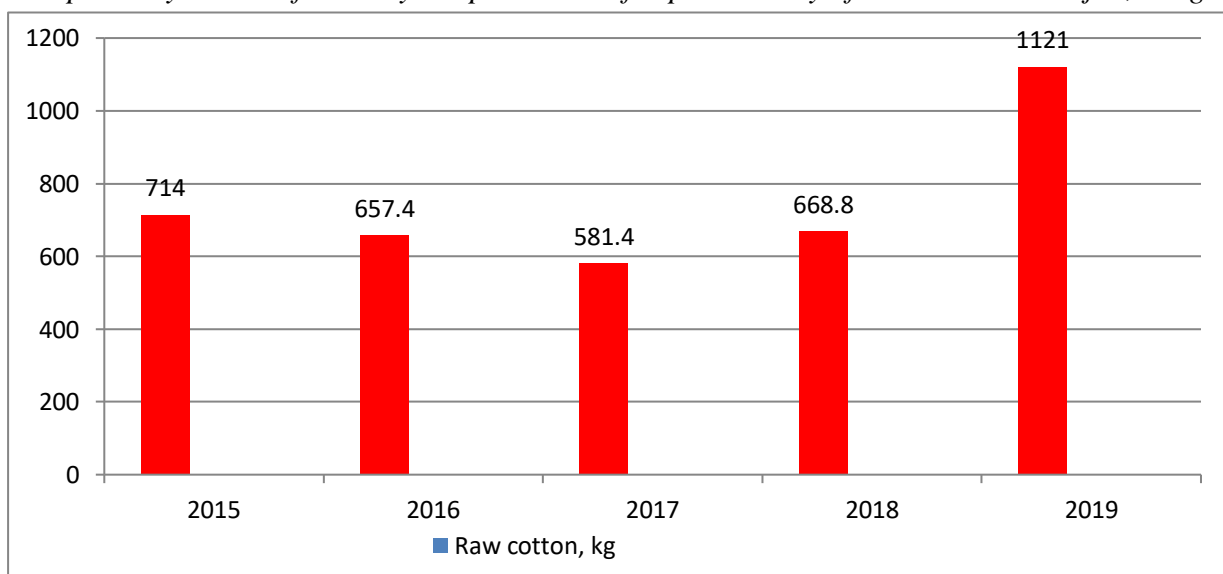
It is the most widespread and used cotton material in the production of clothing items in modern conditions. Clothes made from clean raw cotton are more reliable for human health, and at the same time, more products are needed to increase cotton production. At present, cotton production is one of the main export-oriented industries in the country. This product is mainly cultivated in 22 regions in 5 economic regions, including the Aran economic district. The analysis of statistical data shows that in 1981 the republic produced 1015.3 thousand tons of cotton with the highest yield of 35.9 centners. This is 1364 kg per hectare. It should be noted that currently 38% of raw cotton, 50% of seed and 12% of waste are extracted from raw cotton in Azerbaijan. About 30% of the raw cotton obtained is used as raw material for the purchase of new products by additional industrial methods. The productivity of cotton in Azerbaijan is presented in the graph 1.

*Graph following on the next page*

*Graph 1: Dynamics of cotton productivity in Azerbaijan*

*Source: State Statistics Committee*

Statistical data analysis shows that by 2019, productivity per hectare has been lower than potential productivity. The main reasons for this were the lack of water in some areas, the use of low quality local seeds and the disadvantages of cultivation. According to the Order of the President of the Republic of Azerbaijan No. 2350 "On State Support to the Development of Cotton Production in the Republic of Azerbaijan" dated September 22, 2016, the cotton producers received 0.1 manat subsidy per 1 (one) kilogram (conditional weight) of genetically modified raw cotton at the expense of the state budget is paid. At the same time, new subsidy rules have been introduced in the agricultural sector since 2020. 280 manats are paid for each hectare of tariffs. In other words, the farmer, who gets 30 centners per hectare, receives a total of 580 manats per hectare. As a result, the farmer's income per hectare with profit is between 1500 and 1600 manat, which is much lower than the average annual income for small farms. That is, if the farmer owns 5 hectares of land and earns almost 7,500-8,000 manat, despite high wages for almost a year. Studies show that the raw cotton used for cotton processing pays off, while the most profitable side is the processor. Therefore, new approaches in this area, in particular, require the development of mutual relations between the raw cotton producer and the processor. The production schedule for each hectare is shown in Figure 2.

*Graph 2: Dynamics of cotton yield per hectare for productivity of cotton in Azerbaijan, in kg*

*Source: State Statistics Committee*

Cotton productivity in Azerbaijan in 2019 was 29.5 cents / ha, equivalent to 1121.0 kilograms of mahogany. This figure is 67.8 percent higher than 2018. An additional 1475 kg of cotton seed per hectare is produced, of which 443 liters of cotton oil are obtained. All this indicates that the development of cotton production with the use of modern technologies can stimulate the creation of new industries. The dynamics of cotton production in Azerbaijan in 2015-2019 is given in Table 1.

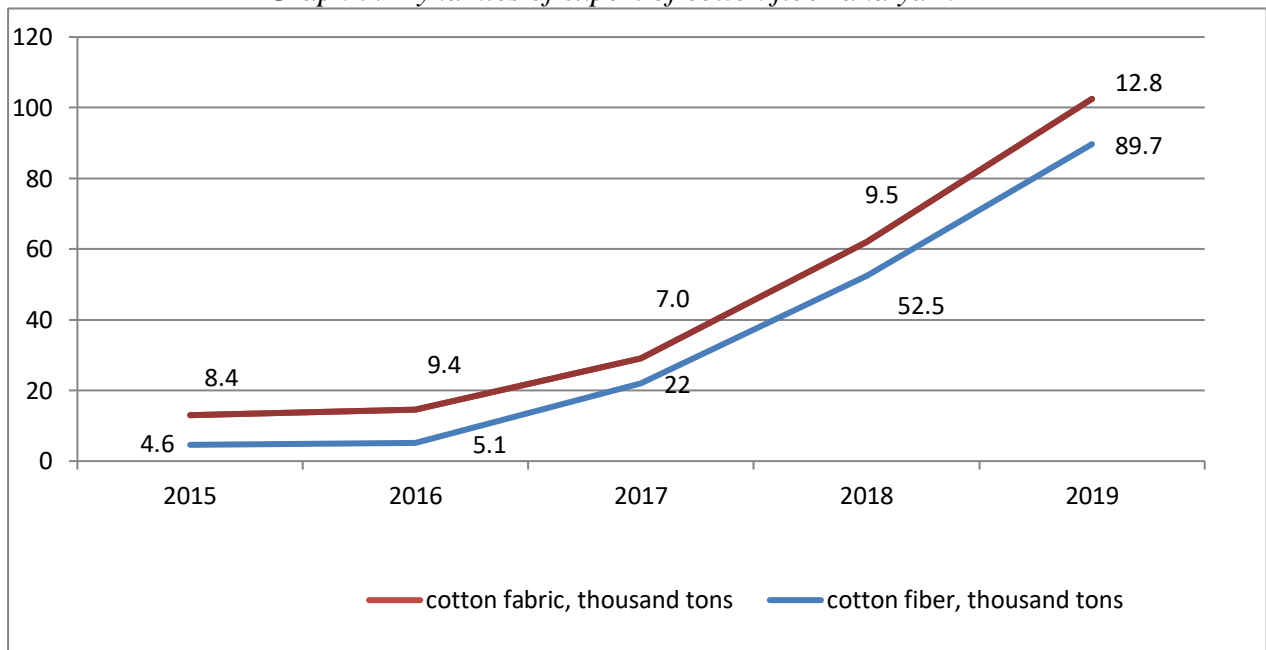
*Table 1: Dynamics of cotton production in Azerbaijan in 2015-2019*

	2015	2016	2017	2018	2019	% in 2019 compared to 2018
Cotton fiber, thousand tons	6.6	17.1	37.9	61.0	84.8	+39.0
Ready cotton cloth, thousand m2	9595.9	1782.0	16830.2	19314.4	21098.0	+9.2
Cotton yarn, thousand tons	9.1	19.4	17.3	24.7	34.8	+40.9
Cotton beds, thousand units	227.7	1325.1	371.6	580.7	610.4	+5.1

*Source: State Statistics Committee*

The analysis of statistical data shows that during the last two years the volume of cotton production has been increasing. Ready cotton fabrics and cotton linen are mainly produced in Baku, Ganja and Sumgait. The main purpose of increasing cotton production was to strengthen the export potential of the non-oil sector and to provide foreign currency inflow to the country. Exports of cotton fiber and yarn are shown in Figure 3.

*Graph 3: Dynamics of export of cotton fiber and yarn*



*Source: State Statistics Committee*

As can be seen from the statistical data, cotton fiber and yarn are mainly exported, which is increasing every year. This is not economically viable. The development of value chain industries is not only economically viable, but also through increased employment and provision of permanent jobs for the population, protection of foreign exchange reserves, and a significant share of the domestic demand for light industry.

### 3. SOCIO-ECONOMIC IMPORTANCE OF CAMPAIGN DEVELOPMENT IN THE REGION

Studies show that in developed economies, the supply of production resources, technical services and the development and application of new technologies are carried out by the private sector. Development in this area is based on existing farmers' needs rather than on the supply factors. That is, producers are provided with resources to meet their real needs in this area. In countries with relatively small farmers, there is a strong tendency for farmers to come together in the acquisition phase to benefit from expansion and collective bargaining. Studies show that cotton complex plays a great role in the economy of our country. As mentioned above, the increase in cotton production increases the raw material reserves, and stimulation of this area will create more raw cotton fiber in the future. As we have mentioned, the high level of cotton growing in the country in the 1970s and 1980s contributed to the development of industrial sectors. Because all the areas are state-owned, they are linked together as a whole. In other words, there is a mechanism experience as a value chain. Therefore, as it is necessary to introduce new technologies in a market economy and in a free competition environment, the raw cotton producers should be encouraged. In this regard, it is important to stimulate the development of the cotton complex on the value chain and increase the competitiveness of the country for national economic interests. In modern conditions, these complexes are replaced by cluster approaches, and such approaches lead to the creation of a more perfect and sustainable mechanism. Clusters are a community based on the principle of trust between participants and the principle of dispute resolution through arbitration. Does not have a co-owner and membership is voluntary. All participants are trying to build a strong brand, and their products should always be of the same quality as in the region (and this is a stimulus for competition). The economic effect of many is production redistribution, reduced operating costs and economies of scale (3). The most successful innovation clusters in the field of engineering and manufacturing technology has been or is expected to progress, then you have access to new market areas where gaps are formed. In this regard, many countries are increasingly using the majority approach to the formation and regulation of national innovation programs (4). Uzbekistan, which is ranked sixth in the world for cotton production, has begun to create cotton clusters for the high growth of cotton production. Uzbek producers produce more than 3 million tons of cotton annually, producing more than 1 million hectares of cotton. With a high raw commodity base, Uzbekistan has recently begun to develop value chain industries that minimize cotton fiber exports. The use of a cluster approach to the development of cotton production, which is an important area of agriculture, is inevitable. From this point of view, the most important task for the development of cluster initiatives is to create an effective regulatory and legislative framework without which the legal component of cluster structures cannot function properly. Thus, regulatory consolidation of cluster policy mechanisms is the main focus of legal regulation at the level of innovation entities today. The purpose of the cluster development is to improve the quality and standard of living of the population in the regions, improve the quality of human potential, which in turn can become a source of economic growth that will increase the competitiveness of the enterprise, region and the country as a whole. At the same time, it contributes to increased investment not only in production but also in human capital. This approach emphasizes the need to apply a cluster approach to addressing social problems, and secondly, to move economic development to innovative pathways (5. page 101). Cluster development, a new approach to the economy, is also in the spotlight of scholars from both developed and existing countries, and, as can be seen from their research, cluster development is seen as a mechanism that promotes economic development.

#### 4. CONCLUSION

The reconstruction of the cotton complex, the privatization of the state and collective ownership of the agricultural and agricultural services sectors contributed to the deformation and collapse of inter-farm relations, the development of monopoly in the processing and marketing of cotton products. The cotton complex of the regions, which is a single mechanism of raw cotton production and deep processing, has been completely destroyed. As a result of the violation of economic relations in the cotton complex, the transfer of products obtained in the form of raw materials to foreign consumers has led to a reduction in the value added at later stages of production in the country. Decrease in income of cotton producers, sharp decline in supply of production resources and non-stimulation of cotton production, and the lowest price offered by processors, have led to further weakening of this sector. Significant steps have been taken by the state in recent years to address the problems in this area. Despite the increase in production thanks to the measures taken, cotton production does not seem to be of interest to producers. Although subsequent production is profitable, these revenues are not accessible to the first major raw cotton producer. This shows that the development of raw cotton production cannot be long-term and sustainable. In addition to the strengthening of production-economic relations in the value chain in the cotton sector, an important area of increasing the economic efficiency of cotton production in the country is the integration of related cotton production sectors. Thus, the article provides cluster development, regulatory and legal frameworks for the development of raw cotton production, cluster development, regulatory frameworks, and regional cotton production, to provide specialization focused on the production of highly competitive products at a later stage is proposed to create a cluster.

**ACKNOWLEDGEMENT:** *I would like to take this opportunity to thank our esteemed rector A. Muradov for attaching great importance to the research work at our university and for unlocking the potential of young specialists. I would also like to thank the organizers of this conference and wish such conferences more often in the future.*

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## ECONOMIC EFFICIENT AND ECOLOGICALLY CLEAN THERMOELECTRIC ENERGY CONVERTERS

**Tagiyev M. M.**

*Azerbaijan State Economic University (UNEC),  
AZ 1001, Baku, Istiglaliyyat str., 6 , Azerbaijan  
mail\_tagiyev@mail.ru*

**Rzayev R. M.**

*Azerbaijan State Economic University (UNEC),  
AZ 1001, Baku, Istiglaliyyat str., 6 , Azerbaijan  
rovnaq.rzayev@mail.ru*

### ABSTRACT

*Thermoelectric energy converters are used in various industries, including photovoltaics, medicine, military industry, space facilities, maritime navigation systems, information technology and so on. Due to the fact that the areas are environmentally friendly, easy-to-use, with no moving parts, the ability to use small potential energy, as cost-effective alternative energy sources, interest in these areas has increased and research in this area has expanded. Cooling of electronic devices by thermoelectric coolers increases the stability of their parameters, improves the signal to noise ratio, increases the sensitivity and accuracy of amplifiers and measuring devices used in technological processes, thus will lead to an increase in the quality of the products, decrease in labor input and prime cost. The main parameters of thermoelectric transducers - generator efficiency, the cooling, the temperature, cooling efficiency, etc. are determined by the thermoelectric efficiency of semiconductor materials. Therefore, the study of semiconductor materials used in the manufacture of thermoelectric converters used in various industries, and the creation of highly efficient environmentally friendly alternative energy converters based on these materials is relevant. For this purpose extruded mechanical strong samples of  $\text{Bi}_2\text{Te}_3\text{-Sb}_2\text{Te}_3$  (p-type) and  $\text{Bi}_2\text{Te}_3\text{-Bi}_2\text{Se}_3$  (n-type) solid solutions are obtained for thermoelectric energy converters by extrusion, which are not inferior in thermoelectric parameters to single-crystal samples of the same samples and are more suitable for use, and based on these materials, thermoelectric modules have been developed. The developed modules can be used in various industries in the temperature range  $\sim 195\text{-}375$  K as environmentally friendly and cost-effective (profitable) alternative energy converters, as well as a devices for a physical experiment in determining the temperature dependence of various objects.*

**Keywords:** *cooling efficiency, generator efficiency, thermoelectric energy converters, thermoelectric refrigerators, temperature*

### 1. INTRODUCTION

Thermoelectric power converters (thermoelectric generators, thermoelectric coolers) are used in various industries, including photoelectronics, medicine, military industry, space facilities, maritime navigation systems, information and communication technologies (ICT), etc. Interest in these converters has recently increased due to the availability of environmentally friendly, easy-to-operate, non-moving parts, low-potential energy sources, and cost-effective alternative energy sources, and research in this area has expanded [1-6]. Currently, the growing interest in the application of thermoelectric cooling is also due to environmental problems (ozone depletion, greenhouse effect, etc.) that arise when using traditional methods of cooling. Thermoelectric coolers are completely environmentally safe, have no wear and tear elements and, therefore, operate quietly, are characterized by the absence of vibrations, do not require

staff to clean the operating objects, and can operate for a long time. Recent research on thermoelectric materials suggests a significant increase in the efficiency of thermoelectric cooling machines in the near future. In recent years, thermoelectric coolers have been widely used in photoelectronics to reduce the temperature of the photosensitive elements of photoelectric devices. Cooling of elements of electronic devices by thermoelectric coolers increases the stability of their parameters, improves the signal/noise ratio, increases the sensitivity and accuracy of amplifiers and measuring devices used in technological processes, which increases the quality of the production, reduces labor and cost price. The application areas of thermoelectric power converters depend not only on the required cooling temperature, but also on their geometric dimensions, i.e. mass and volume limits, energy required from the source, operating conditions, and are easily adjusted to the required parameters. This is one of the main advantages of thermoelectric power converters. The main parameters of thermoelectric converters, their efficiency (amount of energy produced, cooling temperature, cooling capacity, etc.) are determined directly by the thermoelectric efficiency  $Z = \alpha^2 \sigma / \chi$  of semiconductor materials from which thermoelements are made, here  $\alpha$  is thermo e.m.f. coefficient,  $\sigma$  - specific electrical conductivity,  $\chi$  - thermal conductivity [7]. For this reason, it is important to develop and research the technology for obtaining more suitable semiconductor materials used in the manufacture of thermoelectric converters used in various industries, and to create highly efficient environmentally friendly alternative energy converters based on these materials. Single crystals of  $\text{Bi}_2\text{Te}_3\text{-Sb}_2\text{Te}_3$  (p-type) and  $\text{Bi}_2\text{Te}_3\text{-Bi}_2\text{Se}_3$  (n-type) solid solutions are mainly used for thermoelectric energy coolers (converters) [8-9]. Due to the layered structure of these crystals, their mechanical strength is low, which limits their practical application [10]. In the manufacture of thermoelements, the formation of cracks in the layering planes when cutting plates and thermoelements from monocrystalline rods leads to a low percentage of output of usable thermoelements, which increases the cost of manufactured energy converters and reduces their service life. These shortcomings also limit the ability to develop micromodules used in modern electronics, especially in the cooling systems of microelectronic devices [11]. For this purpose, for thermoelectric energy converters, by extrusion method on the base of  $\text{Bi}_2\text{Te}_3\text{-Sb}_2\text{Te}_3$  (p-type) and  $\text{Bi}_2\text{Te}_3\text{-Bi}_2\text{Se}_3$  (n-type) solid solutions thermoelectric material with an efficiency ( $Z$ ) close to that of single crystals of these samples ( $\sim 3 \cdot 10^{-3} \text{ K}^{-1}$ ) and with mechanical firmness many times (4.5 times) higher than that of single-crystal samples and more suitable for application were obtained, and on the basis of these materials cost-effective thermoelectric modules were developed. The extrusion method allows to obtain more suitable, reliable and low-cost thermoelectric materials and converters for the production and storage of environmentally friendly micro-sized thermoelectric converters. Devices based on the obtained solid solutions allow for faultless diagnostics of electronic devices and diagnostics of semiconductor materials used in electronic equipment.

## 2. EXPERIMENTAL PART

Preparing of thermoelectric materials by extrusion method consists of the following stages:

- Cleaning of primary components. The primary components are melted and removed from the surface oxide layer in a vacuum in a specially shaped ampoule through a thin tube or by zonal melting.
- Synthesis of ingredients. The synthesis of solid solutions is carried out in an ampoule, with pre-etching in aqua regia ( $\text{HNO}_3$ :  $3\text{HCl}$ ), then washing with distilled and deionized water, filling the components in a stoichiometric ratio, sucking air to a pressure of  $\sim 10\text{-}2 \text{ Pa}$  and closing the mouth of ampoule by melting. The synthesis process varies at a temperature range of  $600\text{-}1000 \text{ }^\circ\text{C}$  depending on the composition. In the process of synthesis for homogeneous mixing of components, the heater is moved together with the ampoule at an angle of  $180^\circ$  around the axis passing from the center of the heater in a direction

perpendicular to its length. At the end of the synthesis process, the ampoule is removed from the heater, immersed in water and cooled to room temperature to prevent recrystallization.

- Crushing of the synthesized material. The synthesized solid solutions are crushed by mechanical crushing in a special ceramic bowl and separated into grains of the same size using a sieve with a size of 50-1000  $\mu\text{m}$ .
- Preparing of briquettes. Briquettes (discs) with a diameter of 30 mm and a height of 20 mm for the extrusion process are prepared from the obtained powders by pressing at room temperature under a pressure of  $\sim 5 \text{ ton/cm}^2$ .
- Extrusion of briquettes. Extrusion is the production of rods with a diameter of 6 mm from briquettes (material) heated to plasticity by pressing under pressure through a special die with a cross-section of 6 mm.

It has been determined experimentally that the optimal technological parameters are as follows:

n-type $\text{Bi}_2\text{Te}_3\text{-Bi}_2\text{Se}_3$	$T_{\text{eks}} = 653 \pm 3 \text{ K}$	$P_{\text{eks}} = 9 \text{ ton /cm}^2$
p-type $\text{Bi}_2\text{Te}_3\text{-Sb}_2\text{Te}_3$	$T_{\text{eks}} = 663 \pm 3 \text{ K}$	$P_{\text{eks}} = 8 \text{ ton /cm}^2$

Samples and thermoelement branches from extruded rods are made by cutting by electroerosion method. During electric spark cutting, a broken layer 3-15  $\mu\text{m}$  thick is formed on the surface of the thermoelements or specimens. Since the parameters of this layer are different from the bulk parameters of the sample, it has a negative effect on the efficiency of the thermoelements. This layer is eliminated by electrochemical etching with a solution  $\text{NaOH} + \text{C}_4\text{H}_6\text{O}_6 + \text{H}_2\text{O}$  for n- $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and  $\text{KOH} + \text{C}_4\text{H}_4\text{O}_6 + \text{H}_2\text{O}$  for p- $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  for  $\sim 20 \div 25$  seconds and current density of  $0.5 \text{ A/cm}^2$ . The main parameters (efficiency) of the thermoelectric power converter (thermoelectric cooler and thermoelectric generator) directly depend on the thermoelectric efficiency of the obtained materials. It was found that the maximum value of thermoelectric efficiency for samples of n- $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and p- $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  solid solutions is for samples with a particle size of 1000  $\mu\text{m}$  and 315  $\mu\text{m}$ , respectively. It is considered expedient to select the n- and p-branches to be used at the calculation and design of thermoelectric power converters [6]. Therefore, the choice is made for the maximum value of the thermoelectric efficiency ( $Z$ ) ( $Z_n$  and  $Z_p$ ) of mechanically robust and economically efficient n- $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and p- $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  materials obtained by the extrusion method used for converters. In the study of thermoelements, the direction of the current flow in the thermoelements is in the direction of the extrusion axis. The temperature of the hot and cold ends of the thermoelement is measured using a copper-constant thermocouple. The working pressure in the volume where the thermoelements are located was  $\sim 10^{-1} \text{ Pa}$ . Alloy of 57% Bi + 43% Sn composition with melting point  $\sim 413 \text{ K}$  is usually used for connecting of thermoelements. The contact resistance of the samples of n- $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and p- $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  solid solutions obtained by extrusion with the specified alloy is in the order of  $10^{-5}\text{-}10^{-6} \Omega\cdot\text{cm}^2$  [11]. The electrical conductivity ( $\sigma$ ), thermo-e.m.f. ( $\alpha$ ) and thermal conductivity ( $\chi$ ) coefficients of the obtained  $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and  $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  solid solutions samples were studied in the temperature range of  $\sim 80\text{-}300 \text{ K}$ . Electrical conductivity was determined by the probe method, and thermoelectric and thermal conductivity were determined by the stationary method.

### 3. RESULTS AND THEIR DISCUSSION

The values of thermoelectric parameters of extruded  $\text{Bi}_2\text{Te}_{2.7}\text{Se}_{0.3}$  and  $\text{Bi}_{0.5}\text{Sb}_{1.5}\text{Te}_3$  solid solution samples in the temperature range of 80-300 K and the calculated thermoelectric efficiency based on the formula  $Z = \alpha^2 \sigma / \chi$  are given in Table 1. As can be seen from the Table,



the thermoelectric efficiency of the solid solution samples obtained is more useful in the temperature range  $\sim 180$ -300 K, and  $Z$  increases with increasing temperature.

*Table 1: Thermoelectric parameters of extruded  $n$ -Bi<sub>2</sub>Te<sub>2.7</sub>Se<sub>0.3</sub> and  $p$ -Bi<sub>0.5</sub>Sb<sub>1.5</sub>Te<sub>3</sub> materials*

Parameters	Measurement Temperature, K								
	80	100	130	150	180	200	250	280	300
Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub> ( p-type )									
$\sigma \cdot 10^{-5}, \Omega^{-1} \cdot \text{cm}^{-1}$	2.50	2.37	2.23	2.05	1.80	1.62	1.40	1.31	1.10
$\alpha, \mu\text{V/K}$	120	132	143	155	165	173	187	194	210
$\chi, \text{W/cm} \cdot \text{K}$	2.40	2.26	2.12	1.91	1.75	1.70	1.63	1.55	1.51
$Z \cdot 10^{-3}, \text{K}^{-1}$	1.50	183	2.15	2.58	2.83	2.85	3.0	3.18	3.21
Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub> ( n-type )									
$\sigma \cdot 10^{-5}, \Omega^{-1} \cdot \text{cm}^{-1}$	1.32	1.28	1.25	1.20	1.15	1.13	1.10	1.08	1.07
$\alpha, \mu\text{V/K}$	155	160	170	175	186	184	197	202	208
$\chi, \text{W/cm} \cdot \text{K}$	1.82	1.76	1.65	1.65	1.58	1.56	1.54	1.52	1.51
$Z \cdot 10^{-3}, \text{K}^{-1}$	1.74	1.83	2.19	2.30	2.36	2.45	2.77	2.89	3.10

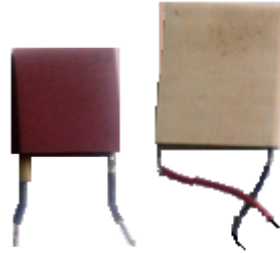
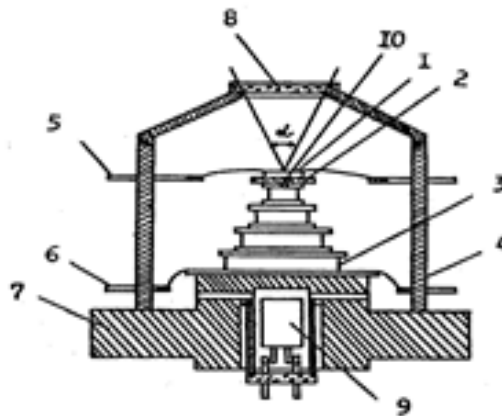
The effect of the thermal conductivity of ceramic heat exchangers used in the manufacture of thermoelectric converters on the value of the minimum temperature of the cooling area of thermoelectric modules (thermoelectric converters) was studied in the example of beryllium oxide (BeO) and aluminum oxide (Al<sub>2</sub>O<sub>3</sub>) transitions [10]. The specific thermal conductivity of ceramic plates made of BeO and Al<sub>2</sub>O<sub>3</sub> at  $\sim 300$  K is 2.10 and 0.34 W/m·K, respectively [10]. As can be seen, the thermal conductivity of BeO is  $\sim 7$  times higher than that of Al<sub>2</sub>O<sub>3</sub> and is close to the thermal conductivity of steel and lead. The specific resistance of BeO and Al<sub>2</sub>O<sub>3</sub> is  $\sim 1014 \Omega$  at 300K. It has been experimentally found that the application of a heat exchanger made of BeO for two-, three- and four-stage modules allows to reduce the temperature of the cooled area by 3÷5 K compared to Al<sub>2</sub>O<sub>3</sub>. As a result of recent research, significant progress has been made in the field of thermoelectric converters, and it has been possible to create converters that can reach temperatures down to 200 K [5]. Thermoelectric coolers on the base of extruded  $n$ -Bi<sub>2</sub>Te<sub>3</sub>-Bi<sub>2</sub>Se<sub>3</sub> and  $p$ -Bi<sub>2</sub>Te<sub>3</sub>-Sb<sub>2</sub>Te<sub>3</sub> solid solutions allow for more efficient cooling to  $\sim 195$  K. Because the thermoelements made of the materials obtained by this method do not have cracks, i.e. mechanical damage, their thermoelectric efficiency is the same as the values at the initial stage of preparation of thermoelements. Since single-stage thermoelectric refrigerators can lower the temperature by a maximum of  $\sim 50$ -60 K from room temperature, multi-stage cascade thermoelectric coolers are used to obtain deeper cooling. With multi-stage coolers it is possible to achieve both deeper cooling and more economical cooling process. One of the most important issues in this case is the optimization of the parameters of thermoelectric materials to be used in cascades of the manufactured multi-stage converters. Because, in this case it is possible to achieve deeper cooling. For this purpose, thermoelements prepared from extruded  $n$ -Bi<sub>2</sub>Te<sub>3</sub>-Bi<sub>2</sub>Se<sub>3</sub> and  $p$ -Bi<sub>2</sub>Te<sub>3</sub>-Sb<sub>2</sub>Te<sub>3</sub> solid solution samples were optimized and selected by cascades (Table 2).

*Table following on the next page*

*Table 2: Optimization of parameters of thermoelectric materials by cascades*

Cascade	Operating temperature range, K	Conductivity type	Parameters at 300 K	
			$\sigma, \Omega^{-1} \cdot \text{cm}^{-1}$	$\alpha, \mu\text{V/K}$
I	330-230	p-Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub>	1000±100	210±10
		n-Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub>	900±100	210±10
II	250-170	p-Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub>	700±100	225±10
		n-Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub>	700±100	230±10
III, IV	200-150	p-Bi <sub>0.5</sub> Sb <sub>1.5</sub> Te <sub>3</sub>	650±50	235±5
		n-Bi <sub>2</sub> Te <sub>2.7</sub> Se <sub>0.3</sub>	550±50	245±5

In multi-stage thermoelectric coolers, the thermoelements are connected to each other in the form of storeys so that the heat released from the hot contact of the upper cascade can be compensated by the cold created by the lower cascade in contact with it. By cascading it is possible to achieve deeper cooling, and reduce the power required by the cooler from the source, and this is very cost-effective. Below the schemes of single-cascade thermoelectric cooler (Figure 1) and of the photoreceiver cooled by four-cascade thermoelectric cooler manufactured on the basis of n-Bi<sub>2</sub>Te<sub>3</sub>-Bi<sub>2</sub>Se<sub>3</sub> and p-Bi<sub>2</sub>Te<sub>3</sub>-Sb<sub>2</sub>Te<sub>3</sub> solid solutions obtained by extrusion method (Figure 2) are presented. One- and four-stage thermoelectric coolers based on extruded n-Bi<sub>2</sub>Te<sub>3</sub>-Bi<sub>2</sub>Se<sub>3</sub> and p-Bi<sub>2</sub>Te<sub>3</sub>-Sb<sub>2</sub>Te<sub>3</sub> solid solutions were fabricated and their main parameters are given in Table 3.

*Figure 1: Single-cascade thermoelectric coolers**Figure 2: Construction of photoreceiver for 10-12 μm of the spectrum cooling by four-stage thermoelectric cooler*

1- photosensitive element, 2-leukosaphir base, 3 - thermoelectric cooler, 4 - cap, 5 - hermetic outlets for photosensitive elements, 6 - hermetic outlets for power supply, 7 - case, 8 - input window, 9 - getter, 10 - thermisto

*Table 3: Basic parameters of thermoelectric modules at the ambient temperature ~ 300 K*

Number of cascades	Source voltage, V	Power consumption, W	Minimum temperature of the cooled surface, K	Cooling capacity, W	Response time, s	Cooling area, mm <sup>2</sup>
1	4.0	13-14	250	2.5	40	32×24
1	1.3	2.7	241	0.8	30	10×10
1	0.45	0.9	239	0.2	25	7×7
2	0.65	1.3	220	0.12	45	3×4
3	2.1	4.2	205	0.10	70	4×4
4	6.0	6.0	195	0.08-0.1	90	4×7

The basic parameters of a 4-stage thermoelectric cooled photodetector for the 10-12  $\mu\text{m}$  region of the spectrum developed on the basis of n-Bi<sub>2</sub>Te<sub>3</sub>-Bi<sub>2</sub>Se<sub>3</sub> and p-Bi<sub>2</sub>Te<sub>3</sub>-Sb<sub>2</sub>Te<sub>3</sub> solid solutions obtained by extrusion are given in Table 4.

*Table 4: Basic parameters of 4-stage thermoelectric refrigerated photo receiver*

Photoreceiver type	IFE-2
Operating range of the spectrum, $\Delta\lambda$ , $\mu\text{m}$	10÷12
$\lambda_{\text{max}}$ , $\mu\text{m}$	10.6
Detection capacity, $D^*\lambda_{\text{max}}$ , $\text{cm}\cdot\text{Hz}^{1/2}\cdot\text{W}^{-1}$	$2\cdot 10^9$
Dimensions of the photosensitive element, $\text{mm}^2$	4 x 4
Dark resistance, $R_{\text{dark}}$ , $\text{k}\Omega$	1.5
Operating temperature, T, K	195-200
Thermoelectric cooler's response time, s	150
Thermoelectric cooler's source current, I, A	2.0÷2.2
Thermoelectric cooler's power consumption, W	8÷10

#### 4. CONCLUSION

The developed modules can be used in various industries in the temperature range ~ 195÷375 K as environmentally friendly and cost-effective (profitable) alternative energy converters, as well as the devices for a physical experiment in determining the temperature dependence of various objects - semiconductor materials used in information and communication technologies (ICT) and radioelements, photocells, etc. made on their basis. These single-stage modules can be used as Zeebek batteries, i.e. to convert heat energy into electricity.

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## CURRENT TRENDS IN THE ASSESSMENT OF THE TOURISM MARKET

**Samira Rustamova Rasim**

*Business Administration Department,  
Azerbaijan State University of Economics (UNEC)  
Baku, Abbas Sahhat, 45A, Nasimi, AZ1007, Azerbaijan  
vip.samira78@mail.ru*

### ABSTRACT

*Today, tourism offers multiple services, in particular has become the starting point in solving the economic problems facing the country's economy since the half of the 20th century. Common problems in this area are the lack of promotion, transport, modern means and state support of investors in this area is not enough. Development of tourism is a complex activity that ensures the economic development of the region, as well as has socio-cultural and environmental consequences. The article examines the tourist regions of Azerbaijan, which for many years have been a tourist destination and attracted the attention of the government and investors to its tourism potential. This study was conducted to study the local community's perception of the impact of tourism in the regions of Azerbaijan and its support for tourism development. In this regard, a survey was conducted among 500 people living in the regions. The article used a questionnaire to assess the current state of tourism business regulation in the tourism market in the country, and the survey results were analyzed in SPSS for Windows 17. The process of formation and development of the tourism sector in Azerbaijan is studied, the main points of growth of tourism efficiency in a market economy are analyzed, the article attempts to determine the necessary directions for the development of the tourism market in the republic. The article also explores the history and current state of public tourism policy, as well as the geographic and geological features of Azerbaijan.*

**Keywords:** *tourism market, tourism business, tour operator, tourism product, tourism potential*

### 1. HISTORY AND MODERNITY OF STATE TOURISM POLICY

The history of state policy in the field of tourism in Azerbaijan began to take shape in 1957 with the establishment of the Department of Tourism and Excursions in Azerbaijan. In 1984, this office was transformed into the General Directorate for Foreign Tourism of the Azerbaijan SSR and continued to function as an important element of the Soviet state's tourism policy. Of course, a new stage in the development of tourism policy began with independence. In 2001, the central executive body (Ministry of Youth, Sports and Tourism) implemented a tourism policy. The policy in the relevant area with structural reforms of 2006 is implemented by the Ministry of Culture and Tourism. The main goals of state tourism policy in modern Azerbaijan are the international recognition of the country's tourism potential, the organization of numerous trips to Azerbaijan, the development of various types of tourism, the adoption of legal acts, the development of small and medium-sized businesses in the field of tourism, conducting focused work on creating a modern tourism infrastructure and implementing activities. Having gained independence, Azerbaijan seeks to use the revenues from the oil strategy to solve its problems and objectives and achieve sustainable economic development. In this regard, tourism is currently supported in Azerbaijan as one of the priority areas of the non-oil sector. The development of the tourism sector in the "Strategic Roadmap for the development of the economy of Azerbaijan" is considered as a priority.

## **2. GEOGRAPHICAL AND GEOLOGICAL FEATURES OF AZERBAIJAN**

Azerbaijan has a wide range of attractions in terms of tourism, taking into account geographical and geological features and its natural beauties, natural assets. There are many historical monuments and protected areas in Azerbaijan. More than 6 thousand monuments of architecture and culture are protected in different areas. In Azerbaijan, you can live all four seasons at the same time and see the beauties of each season separately. Thanks to its mountains with snowy hills in summer, forests, lakes, rivers and the Caspian Sea, Azerbaijan has wealth that allows you to simultaneously engage in winter and summer sports. These types of climate, which are not available for every country, make Azerbaijan an important and attractive tourist destination. For tourists from abroad in Azerbaijan there is a season of sun and sea, which lasts from May to October. Healing underground and mineral hot and cold waters, oil (Naftalan) and a wide variety of resorts are some of the natural attractions that attract tourists especially for recreational purposes. People have visited places where such natural resources were found to heal their diseases from ancient times. Due to the various thermal means installed in these sources, nature is used in the field of medicine, and at the same time, economic benefits are provided in terms of health tourism. Azerbaijan has oil (Naftalan) and other hot springs, which are very important resources from the point of view of medicinal waters. The geographic form and geological structure of Azerbaijan, combined with a suitable climate, has shown great potential in terms of heat resources. Assessment of historical monuments is a bridge between Asia and Europe on the Silk Road.

## **3. THE IMPORTANCE OF TOURISM IN THE ECONOMY OF AZERBAIJAN**

Unlike other sectors of the economy, the development of small business in the tourism sector has several advantages. You can start a tourism business with a small starting capital, because investment in tourism is more effective. In other words, tourism has a high capital turnover and a quick payback period. This is very important for the economy as a whole in the context of market relations. The tourism industry allows SMEs to be more flexible and able to grow. Small and medium-sized enterprises that can solve many problems without major investments, such as expanding the production of many tourism products using local raw materials, solving employment problems, expanding property and creating a middle class population, which are the main guarantor of political stability in a democratic society, can be highly appreciated. The volume of income from tourism increased from 14.8 million manat in 2010 to 35.9 million manat in 2018, which is 2.4 times more. The analysis shows that the volume of expenditures on the production of tourism products in Azerbaijan increased in 2018 by more than 2.1 times compared to 2010 and increased from 13.8 million manat to 27.8 million manat. Such a high ratio of income and expenses is explained by the fact that the payback time of capital investments in the tourism sector is much higher. Over time, the return on invested funds is growing rapidly. One of the key indicators characterizing the development of tourism in Azerbaijan is related to the number and value of tourist tickets sold to the public. Thus, the number and cost of tourist packages sold to the population increased from 34,121 units and 25.8 million manat in 2010 to 49,992 units and 66.5 million manat in 2018, which is 1.4% and 2.6%, respectively. In recent years, the devaluation of the national currency and fluctuations in oil prices have also affected the tourism market. The growth of the dollar against the manat has reduced the cost of leisure for foreign tourists in Azerbaijan compared to previous years. This includes hotel prices and personal expenses. Tourists are interested in visiting the country where there are low prices. To do this, the government should encourage tourism facilities and travel companies to provide benefits. Most countries use subsidizing practices. Hotels and tourist facilities in Azerbaijan do not receive any subsidies or discounts. Of course, lower costs can lead to lower prices, which will increase the attractiveness for foreign tourists.

#### 4. ASSESSMENT OF THE CURRENT STATE OF TOURISM BUSINESS DEVELOPMENT USING A QUESTIONNAIRE

The questionnaire was used to assess the current state of development on the regulation of the tourism business in the tourism services market in Azerbaijan. Since the opinion of tourists on this matter is more important, a survey of some travel companies operating in the country was conducted. Interviewed 500 respondents from tourism enterprises Masalli, Ismayilli, Nabran, Hussar, Gakh, Guba, Gabala. The survey results were analyzed in SPSS for Windows 17, and the results are as follows.

*Table 1: Demographics of survey participants*

values		Frequencies (%)	Cumulative (%)
age	18-25	49,2	49,2
	26-35	15,2	64,4
	36-45	10,4	74,8
	more than 45	25,2	100,0
sex	male	52,8	52,8
	female	47,2	100,0
the level of education	secondary education	10,6	10,6
	lower secondary education	4,4	15,0
	higher education	85,0	100,0

The percentage of respondents aged 18-25 and 45 was the largest in the demographic assessment of the survey participants. Young people prefer recreational tourism with 49.2%. People over 45 years old prefer health tourism, which is 25.2 percent.

*Table 2: Cost and quality indicators of leisure centers*

values		Frequencies (%)	Cumulative (%)
What attracted you the most at the recreation center	high prices	49,0	49,0
	low service	25,0	74,0
	food	16,6	90,6
	nature	4	91,0
	entertainment	3,0	94,0
	low prices	1,4	95,4
	high service quality	8	96,2
	i find it difficult to answer	3,8	100,0
What do you pay attention to on vacation?	food	3,2	3,2
	nature	7,6	10,8
	medical tourism	8	11,6
	alcohol	9,8	21,4
	service quality	28,6	50,0
	extreme tourism	1,0	51,0
	price	49,0	100,0
Are you satisfied with the quality of the recreation center?	no	42,1	100
Your main impression of the recreation center	very bad	22,4	22,4
	poorly	34,4	56,8
	average	37,2	94,0
	good	4,0	98,0
	excellent	2,0	100,0

When viewing the survey data, it turned out that high prices and poor service were the focus of respondents during the holidays and their dissatisfaction with the recreation center. Thus, it was revealed that there are high prices for tourist services in exchange for low-quality services. In this regard, travelers travel abroad to get better products. It is necessary to emphasize three main points in the development of tourism (infrastructure, quality services and promotion), one of which is the correspondence of services to price. Travel companies in a country that has just begun to develop, it is more appropriate to keep this in the spotlight.

## 5. CONCLUSIONS

In order to effectively use the tourism potential in the sustainable development of the Azerbaijani economy, the state should always support tourism activities and create more favorable conditions for its development, determine priority areas of tourism activities and constantly focus on their implementation. Successful development of the tourism services market requires the development and implementation of a tourism business development strategy taking into account regional potential and promising types of tourism. This is due to the fact that the correct identification of promising forms and types of tourism can have a significant impact on the socio-economic development of the republic and its regions. Knowing the obstacles (real and potential) for travel, their disclosure and accurate conclusions are the first steps to developing specific measures to reduce or even eliminate them. Government bodies play an important role in the development of the tourism services market, in the development and implementation of strategic plans for the development of national and regional tourism services markets. Azerbaijan has great potential for the development of the tourism sector, which is not used properly. Tourism development in Azerbaijan depends not only on measures taken in the tourism sector. This issue requires an integrated approach.

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## ANALYSIS OF REVIVAL AND DEVELOPMENT OF BUSINESS LAW OF AZERBAIJAN

**Neriman Hanahmedov**

*Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan*

*Faculty of Economics of Turkish World,*

*Department of Economics and Business Administration*

*nermanhan@gmail.com*

### **ABSTRACT**

*Today, the specifics of business law and the level of its development in many secular states is important and of primary importance. Indeed, the concept of entrepreneurship allows the state to constantly develop certain industries, introduce new industries in the economy, subsidize and develop certain market niches, since small and medium-sized businesses are the driving force of the economy and development of the state. Today, Azerbaijan is developing in many areas and the level of legal consciousness, the degree of recognition in the world community, compliance with recognized legal norms and the necessary introduction of laws and by-laws regulating and stabilizing entrepreneurial activity depend on the level of development of law, the interaction of society and the state. This article reflects the historical processes of the formation of business law and the need to revive the legal framework of entrepreneurship and business. In addition, a specific problem is reflected in the involvement of small and medium-sized businesses in financial projects, the need to change the process of involving young specialists in international education projects, to increase financial literacy and legal protection, depends on many factors influencing the legal basis of entrepreneurship. Legal barriers to business constantly hamper the development of the Azerbaijani economy, which needs to be reviewed and adopted a new concept and program for the development of business law.*

**Keywords:** *legal basis, entrepreneurship, law, the need for introduction, Azerbaijan, business processes, protection of entrepreneurship*

### **1. INTRODUCTION**

The socio-economic transformations in Azerbaijan over the past 10-15 years have turned the country (especially the capital of Baku) into one of the business centers of the region. Due to the liberalization of legislation, a good atmosphere has developed for the development of entrepreneurship. Local authorities are trying to adhere to European business standards. But at the same time, there are shortcomings in the formation of the legal aspects of entrepreneurial activity, there are specific norms affecting business and the processes of increasing the scope of entrepreneurship. With the legal foundations of entrepreneurship should be constantly updated and stimulate financial processes and the economy. This in turn shows the need to study the foundations of entrepreneurship and expand the specifics, freedom and legal environment of entrepreneurs and business partners in Azerbaijan. The main goal of this article is to identify the legal need to create a special system of protection for entrepreneurs, as they occupy a large role in the development of Azerbaijan and stimulate the formation of business processes both within the country and abroad. In addition, tax deductions from the administration go to the treasury of Azerbaijan and allow you to redistribute the country's spending on social needs, the army and defense.

## **2. METHODOLOGY**

(Research Methods) The research methodology is presented by both general scientific and private scientific methods: universal dialectical, logical, formal-legal, historical-legal and comparative-legal methods.

## **3. LITERATURE REVIEW**

According to Fillis and Rentschler (2010) it has been observed that creativity is critical to the success of entrepreneurs at an early stage in identifying opportunities for product development and organizational growth. To this end, many scholars view entrepreneurship as a form and basis for developing the legal foundations of society (Golshekoh et al., 2010; Lee, Florida, & Acs, 2004; Schmidt, Soper, & Bernaciak, 2013) and recognize the importance of business support innovations for identifying new opportunities and creating new ideas in entrepreneurial endeavors, taking into account the strengthening of the legal framework and the introduction of measures to stabilize and optimize the conduct of business (Gielnik, Frese, Graf & Kampschulte, 2012; Lumpkin & Lichtenstein, 2005). Understanding the factors contributing to or weakening the birth of new firms is crucial for regional economic development efforts, since the high level of creation of new firms contributes significantly to regional economic viability and is a major signal of a vibrant economy. This is due to the development of the legal environment and the organization of financing and entrepreneurial growth of new firms (Lee, Sam & Florida, Richard & Acs, Zoltan, 2004). According to Lan Wang (2015), the government should support cooperation between domestic enterprises and foreign companies in developing new technologies, supporting the export of technologies, supporting enterprises in filing applications for foreign patents and joining the development of international standards, creating an international platform for protecting intellectual property rights and developing standards and implementing entrepreneurial activity.

## **4. THEORY OF BUSINESS LAW IN THE REPUBLIC OF AZERBAIJAN**

The right of citizens (individuals) to engage in entrepreneurial activity is established by the Constitution of the Azerbaijan Republic and civil law. Therefore, in accordance with of the Constitution of the Republic of Azerbaijan, the State of Azerbaijan on the basis of market relations creates the conditions for the development of the economy, guarantees freedom of enterprise, does not allow monopolism and unfair competition in economic relations, and each person is free to use his opportunities, abilities and property independently or together with others for engaging in entrepreneurial activity or other economic activity not prohibited by law (Constitution of The Azerbaijan Republic of November 12, 1995). An individual entrepreneur can be any competent citizen of the Republic of Azerbaijan. In accordance with article 28 of the Civil Code of the Republic of Azerbaijan (1999) a citizen's ability to acquire and exercise civil rights, create civil duties for himself and fulfill them (civil legal capacity) comes in full upon coming of age, that is, after reaching eighteen years of age. Civil rights and obligations arise primarily on the grounds provided for by laws and other legal acts. In accordance with article 14 of the Civil Code of Azerbaijan (1999) civil rights and obligations arise if:

- contracts and other transactions stipulated by law, as well as contracts and other transactions not prescribed by law, but not contradicting it;
- statutory acts of state bodies and local self-government as a basis for civil rights and obligations;
- judicial acts establishing civil rights and obligations;
- acquisition of property on the grounds provided by law;
- the creation of works of science, literature, art, inventions and other results of intellectual activity;
- causing harm to another person;

- unjust enrichment;
- other actions of individuals and legal entities;
- events for the occurrence of which the law requires the occurrence of civil law consequences.

These provisions of civil law are of great importance for the realization of the rights of citizens to engage in entrepreneurial activity. Characteristically, in article 6.2 of the Civil Code (1999) Republic of Azerbaijan indicated that citizens (individuals) and legal entities are free to determine their rights and obligations on the basis of the contract and to put forward any contractual terms that do not contradict the law. The position of the Civil Code of the Republic of Azerbaijan is very important, according to which civil rights can be restricted by law only if it is necessary to protect state and public security, public order, health or morality, protect the rights and freedoms, honor and dignity of others. A number of legislative acts establish restrictions for workers engaged in entrepreneurial activities related to service in other state bodies and governing bodies. In Azerbaijani practice, the existence of small business was allowed back in the Soviet period - in 1988. During this period, state-owned enterprises were classified as small, where the average number of employees per year did not exceed 100 people. In accordance with later decisions, in particular, a resolution of the Council of Ministers of the USSR adopted in August 1990, the number of small enterprises began to include the number of employees annually, not exceeding: in industry - 200 people., In science and scientific services - 100 people. , in other industries - 50 people., in non-productive industries - 25 people., in retail - 15 people. Along with this, the volume of economic turnover was taken into account, the right to determine the quantitative value of which was granted to the Union republics. However, the volume of economic turnover was practically not established. The principle of classifying an enterprise as a small number of employees, albeit with some additions, was retained in Azerbaijani legislation during this period. So, in accordance with article 2 of the Law of the Republic of Azerbaijan "On state assistance to small business (1999) "small businesses are determined on the basis of the average number of their employees (excluding seasonal workers) and the volume of annual turnover. Law of the Republic of Azerbaijan "On state assistance to small business" (1999) implies that the subjects of small business are also understood as individuals engaged in entrepreneurial activity without forming a legal entity. In accordance with Article 5 of the above Law, "registration of individuals engaged in entrepreneurial activities without forming a legal entity in the tax authorities as a taxpayer is regulated by the tax legislation of the Republic of Azerbaijan." In accordance with article 43 of the Civil Code (1999), legal entities are divided into commercial and non-profit organizations. Commercial organizations are legal entities pursuing the main goal - making profit, and non-profit organizations - not pursuing the main goal - making profit and not sharing the profit between the participants. However, non-profit organizations can carry out entrepreneurial activity only to the extent that they serve the purposes for which they were created and correspond to these goals. Therefore, in accordance with civil law, small businesses are legal entities as commercial organizations and individual entrepreneurs who have the right to create small enterprises in various organizational and legal forms, as will be discussed below. Thus, the legislation of Azerbaijan establishes one of the most important indicators, on the basis of which enterprises (organizations) are classified as small enterprises - the number of employees. Therefore, the correct determination of the number of employees in the enterprise is of paramount importance both for the classification of the enterprise as an economic entity, and for obtaining the right to appropriate support. In accordance with the law, the average number of employees of a small enterprise for the reporting period is determined taking into account all of its employees, including those working under civil law contracts and part-time employment, taking into account the actual hours worked, as well as employees of representative offices, branches and

other units specified legal entity, but excluding seasonal workers. The following forms of entrepreneurship operate in the economy of the Republic of Azerbaijan:

- individual entrepreneurship
- Collective entrepreneurship
- state property

These types of entrepreneurial activities are regulated by the Civil Code of the Republic of Azerbaijan. There are two basic principles of a deep analysis of the theory of entrepreneurship.

- 1) One of them is the study of theoretical considerations of scientists involved in the history of economic training. From the very beginning, they deal with theoretical problems and express their practical ideas in this area.
- 2) The second principle is a scientific generalization of the past and present. They allow you to determine the process of forming a business.

The main features of entrepreneurship include: independence and independence of business entities. Any entrepreneur is free to make decisions on a particular issue, of course, within the framework of legal norms; economic interest. The main goal of entrepreneurship is to obtain the maximum possible profit. At the same time, pursuing its purely personal interests of obtaining a high income, the entrepreneur also contributes to the achievement of public interests; economic risk and responsibility. For any, most verified calculations, uncertainty and risk remain. These important features of entrepreneurship are interconnected and work simultaneously.

## **5. HISTORICAL VIEW ON THE DEVELOPMENT OF BUSINESS LAW IN AZERBAIJAN**

The development of the legal framework, the formation of law and entrepreneurship in Azerbaijan has a long historical path, its formation and development. Since the existence of Muslim states in Azerbaijan, cultural, domestic, economic relations have been based on Sharia law. At the same time, laws-firms were issued in ancient times by local rulers. The execution of judicial powers was entrusted to the clergy - cadia. Along with the presence of traditional Islamic norms, there were usually legal orders, and there were foundations and branches of family, private law, while mutating and intertwining with each other (2003). During the establishment of Soviet power in Azerbaijan, legal changes and the influence of the legal system of socialist law of the RSFSR were already observed, which already established completely new foundations for a new level of legal basis. Further, already in the period of the 1960s, the Criminal Code, the Code of Criminal Procedure, Civil Code, and Civil Procedure Code were legally codified. During the formation of a new stage in the history of Azerbaijan, the creation of an alliance of the CIS countries, the legal system moved to a new level of development embodying the features of a homogeneous space of the CIS. In the period 2000, the Land, Family, Civil, Tax, Criminal, Criminal Procedure Codes were adopted that completed the codification and interaction of the legal system. If we consider the historical process of entrepreneurship development in Azerbaijan, we can conclude that the legal system is directly related to socio-economic transformations in the country, political reforms and changes in the development of society. The main trends and manifestations of the legal framework included the presence of in-depth processes to change the system of legislation and the manifestation of private scientific methods of applying the law. But at the same time, the relationship between the concepts of man and law already had a different structure, putting at the center of the man and his rights and freedoms in choosing the field of activity, freedom of business development, etc. (Constitution of Azerbaijan, 1995). Azerbaijan experienced a big step in shaping the establishment of a business law system with the adoption of the Declaration of the Rights and

Freedoms of Man and Citizen, the Constitution of the Republic of Azerbaijan, the Civil Code of Azerbaijan, in turn, securing a more secular development of the legal foundations and setting norms for regulating relations in society. At the present stage of the formation of Azerbaijan, international agreements and diplomatic relations were concluded with many countries of the world, which allowed applying the latest legal norms of cooperation in the field of Trade Law, Contract Law and Entrepreneurial Law, thereby creating new industries and institutions, corporations, financial institutions, commodity exchanges; having formed the education system of the younger generation and “sharks” of doing business, taking into account the specifics of the exchange of experience in Malaysia, Singapore, Japan, the United States and other countries in the field of doing business and its formation in Azerbaijan. Today, the development of the legal system of Azerbaijan has incorporated historical features and the specifics of historical experience and traditions, the influence of world experience, preserving national values and conditions for the progressive development of the economy (Modern Azerbaijan as the embodiment of a national idea. <http://news.day.az/politics/269099.html> 2020). The Azerbaijani legal system is currently in the stage of structural transformation, since it may take years to form and establish it, because progress does not stand still and requires the introduction of new standards for protecting entrepreneurs, regulating the processes of interaction between the state and businessmen, globalizing investment processes and expanding business.

## **6. THE SITUATION OF BUSINESS LAW IN AZERBAIJAN**

Today, the development processes of Azerbaijan in the socio-economic aspect dictate the need to deepen the democratic foundations, ensure the national interests of the country and modernize relations between the state and society, stimulate the activities of the business environment. Today, Azerbaijan is actively implementing the civil society development system and the “National Program of Action in the Field of Civil Society Development,” which provides for the introduction of new legislative acts, strengthening the processes of interaction between the state and private entrepreneurship, providing financial assistance and supporting business development programs, establishing and stimulating tax benefits, the creation of training centers and business incubators to expand the volume of entrepreneurial activity of the business. Today much attention is paid to the processes of improving the interaction of public organizations and society, the selection and development of alternatives to solve existing business problems. The potential of doing business is aimed at the joint interaction of international organizations and the interaction of all representatives of the business environment of Azerbaijan, excluding infringement of rights and a one-sided orientation of a national character, eradicating the Armenian-Azerbaijani and Nagorno-Karabakh moods, because Azerbaijan is a multinational country that seeks to strengthen the rights of the multinational people and compliance with all legal principles of interaction between society and the state. It is necessary to introduce a system of development of the donor institution to support the private sector and the development of civil society, thereby forming a new institutional level for the formation of a corporate culture of business and social responsibility, increasing social investment programs in the existing business structures of Azerbaijan. In addition, it is necessary to increase the role of the media as an indicator of civil society activity and openness of public opinion, thereby raising the level of democracy in the country. It is necessary to strengthen the material and technical base of traditional information resources, thereby supporting the activities of the media with the help of the “State Support Fund for the Media in Azerbaijan”. State policy to strengthen social protection of media employees will help to create a level of democratic, responsible press. In addition, to establish transparency of Internet resources and to ensure openness and public trust, increasing the level of awareness of the processes in the state on the basis of full openness and justice, increasing the legal framework.

Particular attention in Azerbaijan should be paid to the simplification of foreign trade activities through the optimization of internal customs control procedures. In addition, Azerbaijan should universally switch to the “one-stop shop” principle, both in foreign and domestic trade, using the Singapore business system as an example - this will be a significant contribution to the formation of international processes, taking into account compliance with legal norms. In addition, the one-window principle, using the example of Russia and Kazakhstan, will create and open service centers where you can open an IP, a joint venture, register a private company in a matter of minutes, obtain a license, trade permit, patent, etc. This, in turn, would reduce queues at state business registration services allowed to arrange everything in one place, without the need to travel to different authorities. In addition, in Azerbaijan, in accordance with the current legislation, for conducting business or other entrepreneurial activities, it is necessary to obtain a license for a period of 5 years with the right of renewal, which is subject to 57 types of economic activity, including banking, insurance, tourism, medical and pharmaceutical, audit, transportation, production, sale and import of ethyl (food) alcohol and alcohol products, tobacco products, communication services, activities in the securities market, etc. The banking license is enshrined in the Law on Banks and is issued indefinitely. In addition, in accordance with the Tax Code, a special regime has been introduced for entrepreneurs in the form of payment of income tax, VAT, excise tax, trade tax, land tax, and transport tax. Profits of enterprises (residents and non-residents of the Republic of Azerbaijan) are taxed at a rate of 20%. The object of taxation for a resident enterprise is profit derived from sources both in the Azerbaijan Republic and abroad. The legal framework of Azerbaijan in the field of state regulation of foreign economic and investment activities in the Republic of Azerbaijan is regulated by the fundamental regulatory acts. Investment activities in Azerbaijan are regulated by the laws "On the Protection of Foreign Investments" and "On Investment Activities". In accordance with the provisions of the law, the investor is provided with guarantees of the safety of capital investments and invariance of agreements, unless otherwise agreed upon by the contract between the investor and its beneficiary. In the long term, the implementation of the concept of developing entrepreneurial law in Azerbaijan is aimed at openness and development of freedom of speech and information, strengthening legal standards for doing business, improving a set of measures to form a legislative base based on norms, rules and international standards for regulating business structures, comprehensive support entrepreneurs, the introduction of modern technologies in the system of optimizing business processes, increasing the potential of entrepreneurs in economic th space of the Republic of Azerbaijan and the republic's transition to a new economic level and expansion of financial turnover and profits.

## **7. DISCUSSION - THEORETICAL AND PRACTICAL RESEARCH RESULTS**

An important role in the development of dynamic economic and social aspects of business is played by factors of increasing economic activity (including environmental, institutional, etc.). The interaction of various forms of business and the institutional environment is necessary for a state of natural balance. Providing the best balance between different forms of business is a rather complicated issue requiring the use of a wide range of regulatory effects. In the context of globalization of market relations in the world, it becomes possible to consider business as a kind of activity with specific functions from a single methodological point of view. Studies show that the speed of business development and its scale should be considered as an important factor in the development of the Azerbaijani economy (Aliiev, 2003, p.324; Gadzhiev, 2014 pp. 92-98;. Kuliev and Gadzhiev 2016, p. 105-114). Strengthening and expanding business in Azerbaijan as a whole will give a powerful impetus to the country's socio-economic development, administrative regions and territories, and will contribute to balanced development, reducing unemployment and poverty, and protecting the domestic market.

## 8. CONCLUSIONS AND RECOMMENDATIONS

In order to optimize the legal framework and regulate processes to improve the business environment, it is necessary to constantly review current legislation in the light of the specifics of the competitive environment and the policy of improving mechanisms for protecting investors' rights. The basis of attention is always in the first place in Azerbaijan Constitutional norms, sustainable and fair application of laws, the formation of the rule of law system. In addition, it is necessary to periodically regulate measures aimed at simplifying and improving foreign trade procedures, strengthening state support for entrepreneurs to enter international markets and increasing competitiveness in foreign markets. It is necessary to review incentive measures for business development in order to increase the export capacity of small and medium-sized enterprises, the level of provision by the state of business entities with preferential loans, loans, and loans to protect the domestic market from unfair competition is to implement antidumping and other protective measures adopted in international practice. It is necessary to constantly strengthen not only customs, but also migration fundamentals, gradually eliminating the factors that stop foreign investors from entering local markets. Implementing reforms in accordance with the international trade system and joining the World Trade Organization (WTO), bringing laws in line with the practice used in the world trade system will ultimately open up new opportunities for the development of local companies and the country's economy as a whole. At the same time, measures to optimize tax rates and the structure of contributions for compulsory state social insurance (parts paid by employers and policyholders) will help create an enabling business environment. Also, in order to strengthen legal norms in Azerbaijan, it is necessary to improve the system of antitrust laws and the practice of applying measures to eliminate non-tariff barriers in trade. At the State level, it is necessary to intensify efforts to protect consumer rights, introduce effective mechanisms for product quality control, implement developed national quality control standards, and improve the certification process for products and services. All these measures and directions will allow Azerbaijan to become a new level of development of both the economy and the legal foundations of the business environment, conducting business processes and optimizing investments in the region.

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## SEA SHIPPING : PORT OF AZERBAIJAN

**Malak Novruzova**

*Azerbaijan State University of Economics (UNEC)  
Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan  
Meleknovruzova3@gmail.com*

### ABSTRACT

*Maritime transportation is conceptually a form of transportation made with ships, ferries and other watercrafts. It is mostly used in international trade and logistics. The history of Maritime transport dates back to ancient times. In 3200, B.C. the first examples of maritime transportation were coastal boats used by Egyptians. On the other hand, Vikings were the ones who open up to oceans and increased the commercial maritime transportation to the closest level of current situation. In the development of maritime transport, the discovery of new regions with geographical discoveries and industrialization, as well as the introduction of steam technology on ships have had an important effect, making it possible to build ships that can travel on long routes and have more cargo transportation than in the past. The development of sea transportation in Azerbaijan is related to the Caspian sea. From the past to the present, Caspian has always attracted the attention of border states as a great fortune. The purpose of this research is to examine the international maritime transport situation in general, and to analyze the structure and development of Azerbaijani maritime transport in particular. As a result of the findings, suggestions were made in the direction of the economic perspectives of maritime transport in the country.*

**Keywords:** *Sea trade, Logistics, Port of Azerbaijan, International sea shipping*

### 1. INTRODUCTION

Sea transportation is conceptually a form of transportation made with ships, ferries and other watercraft. Maritime transportation is mostly used in international trade and logistics.<sup>1</sup> The maritime industry goes back much further than any date, and it dates back to 4000 to 3000 BC. Many scientists and a lot of evidence show that the first maritime and first maritime trade was directly related to sea between Babylon and India, as well as along the Asian coast three thousand years before Jesus' birth. The main reason for this is that people living on the Greek islands are exchanging goods and ideas with Egyptians and making it easier to communicate.<sup>2</sup> The first examples of maritime transportation in 3200 BC were the coastal boats used by the Egyptians. Looking at historical evidence, Egyptians used the original coastal boats in large rivers by 3500 BC and gradually transformed these boats into sailing ships. Later, the river where these ships settled was the Nile delta. Here trade was between Egyptian and Phoenician ports.<sup>3</sup> On the other hand, Vikings are the ones that open to the oceans and increase their commercial maritime transportation to a level closer to today's meaning. In the development of maritime transport, the discovery of new regions with geographical discoveries and industrialization as well as the introduction of steam technology on ships have had an important effect, making it possible to build ships that can travel on long routes and have more cargo transportation than in the past<sup>4</sup>.

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<sup>2</sup> A SHORT HISTORY OF THE WORLD'S SHIPPING INDUSTRY by C., 'ERNEST FAYLE , With tJ For,word by SIR ALAN G. ANDERSON, K.B.E. PQS/-P,uii4nI qf Ik Cİlami" qf Shipping qfIkU,K. Page.34

<sup>3</sup> "Deniz Ticareti" <http://www.taussmarine.com/seyirdefteri/index.php/deniz-ticaret-yollari/>

<sup>4</sup> Aynur CİVELEK, Özgün BAŞIBÜYÜK "ANTİK DÖNEM SERAMİKLERİ İŞİĞİNDA GEMİLER" Adnan Menderes Üniversitesi, Sosyal Bilimler Enstitüsü Dergisi, Cilt 3, Sayı 1, sayfa 15

The development of sea transportation in Azerbaijan is related to the Caspian sea. From the past to the present, Caspian has always attracted the attention of border states as a great fortune. After the occupation of Azerbaijan in the 30th years of the XIX century, Russia and Iran used freely from the Caspian. But because of Caspian has borders with the 5 states in the present period, the use of borders is realized with equal rights among border states. Despite this, 5 states (Azerbaijan, Iran, Turkmenistan, Russia, Kazakhstan) on the border make different claims related to the situation of the Caspian.<sup>5</sup> Azerbaijan's claim on the Caspian: Let the base of the Caspian Sea remain a division like in the Soviet Union. This claim was accepted by Russia and Kazakhstan. But in response to the USA, who was injured by the "Caspian Guards" project, Russia wants to make "Military cooperation" here, which is not accepted by Azerbaijan.<sup>6</sup> Iran's position on this situation: According to Iran, the region of the sea in the Soviet era is not fair. Justice demands that the Caspian has to be divided into 5 equal regions compared to border countries. This claim is not foreseen by Azerbaijan. If the region is divided into 5 equal parts as to location border states then Baku bay will be remain within Iran borders<sup>7</sup>. Russia's opinion on this matter defends the division that agreed with Azerbaijan and Kazakhstan during the Soviet era. But in addition, it demands that there will be no intervention to Caspian from states that are not on the border and a military unit has to be established there.<sup>8</sup> According to Turkmenistan, the middle line principle is used, in this case Azerbaijan loses a few oil and gas deposits, so Azerbaijan does not accept the middle line principle<sup>9</sup>. Kazakhstan accepts the claim of Azerbaijan in terms of the location of the Caspian. According to the location of the Caspian, it is not directly related to the ocean. Here, when sea transportation is made, it is built as a closed area. The reason for this, is that the Caspian is a closed basin, and it is used from the Volga Don channel and Volga streams in order to get access to the ocean. This always leads Azerbaijan to the north during sea transportation.

## 2. THE PLACE AND IMPORTANCE OF MARINE TRANSPORTATION IN INTERNATIONAL TRANSPORTATION

Marine transportation is the backbone of foreign trade. International maritime transport and maritime trade are united<sup>10</sup>. The world has been changing with a dizzying pace especially in the last 25-30 years and is experiencing a phenomenon called globalization, that is, globalization.) For this reason, markets are becoming more and more integrated, the walls between economies are collapsing, distances are falling<sup>11</sup>. XXI. In these days of the first years of the century, the world is going through a period when traditional political blocks disappeared, liberal tendencies have strengthened in every field and technological development has led to significant changes without any boundaries<sup>12</sup>. The rapid development in transportation and communication technologies is the product and the engine of this process and pushes the world towards an economic, political and cultural globalization. In the meantime, international standards become compulsory for the transportation of goods and passengers from one place to another, just as it has become imperative to produce goods and services at international standards. Now, overcoming international competition has also become one of the key factors in terms of

<sup>5</sup> "Xəzərin Hüquqi statusu" <http://www.anl.az/down/meqale/525/2010/noyabr/141345.htm>

<sup>6</sup> Nurə Mahmudova Sahib qızı, "XƏZƏR PROBLEMİ DİPLOMATİK MÜNƏSİBƏTLƏRDƏ" Bakı, 2015 səh 28

<sup>7</sup> "Xəzərin Hüquqi statusu ölkələr tərəfindən" <https://modern.az/az/news/73649>

<sup>8</sup> "Xəzərin hüquqi statusu bölümü" <https://banker.az/x%C9%99z%C9%99r-d%C9%99nizinin-huquqi-statusu-razilasmasi-bar%C9%99d%C9%99-n%C9%99l%C9%99ri-bilm%C9%99liyik/>

<sup>9</sup> Nurə Mahmudova Sahib qızı, "XƏZƏR PROBLEMİ DİPLOMATİK MÜNƏSİBƏTLƏRDƏ" Bakı, 2015 səh 25

<sup>10</sup> İrfan KALAYCI "Deniz Ticareti ve Küresel Mali Kriz: İpek Yolu'nda Türkiye İçin Yeni Stratejiler" AVRASYA ETÜDLER sayfa - 97

<sup>11</sup> Muhtəşem Kaynak, "ULUSLARARASI TAŞIMACILIK VE LOJİSTİK BAGLAMINDA AVRASYA ULAŞTIRMA KORIDORLARINDA BOLGESEL REKABET VE TÜRKİYE" sayfa-5

<sup>12</sup> Muhtəşem Kaynak, "ULUSLARARASI TAŞIMACILIK VE LOJİSTİK BAGLAMINDA AVRASYA ULAŞTIRMA KORIDORLARINDA BOLGESEL REKABET VE TÜRKİYE" sayfa- 4

quantity and quality, because entering new markets requires reliable, inexpensive and fast transportation systems with high standards. Therefore, not only the practices for liberalization of foreign trade policies are effective in the globalization that has increased in the world economy in recent years, but also the fundamental advances and inventions in the storage, communication and current transportation sector, which are our current subject. Beyond that, there is now a concept called logistics. The traditional transportation and transportation concept, which has undergone radical changes as a result of global trade trends and technological developments, is handled within the concept of logistics today. Logistics is the possession of a good in the right place, at the right time, in the right amount, with the highest quality, in the safest way and at the most affordable costs<sup>13</sup>. Logistics is a planning, implementation and control activity carried out to ensure that all kinds of goods, services and related information flows in the supply chain are carried out forwards and backwards in an effective and efficient way<sup>14</sup>. Therefore, logistics is a concept that expresses an understanding rather than moving a product from one place to another. Logistics, in its broadest sense, can also be defined as all the necessary activities to deliver a product from its source to the final consumer. These activities are carried out in a flow called the supply chain. In the traditional supply chain, besides transportation activities, distribution, storage, handling, packaging, customs, insurance exist. It is necessary to carry out these activities effectively and efficiently in terms of micro basis as well as regional, national and international transportation and logistics on a macro basis. As a result of efforts to reduce production costs and delivery prices to consumers, the emergence of the flow of physical goods has led the concept of logistics on both a micro and macro basis to gain more importance than ever before. Global maritime trade has been given more superiority east and west routes in 2019. All data are written in detail on the table below<sup>15</sup>.

*Table 1: Sea trade in East- West in 2016-2019*

Table 1.10 Containerized trade on mainlane East-West routes and other routes, 2016–2019 (Million 20-foot equivalent units and annual percentage change)				
	2016	2017	2018	2019*
	TEUs			
Mainlane East-West routes	54 845 031	57 950 975	60 721 427	63 710 784
Other routes of which:	84 802 064	90 097 054	91 236 532	96 744 144
Non-mainlane East-West	18 530 451	19 609 905	19 463 013	20 517 827
North-South	11 396 198	11 995 463	12 131 139	12 691 808
South-South	17 178 486	18 475 650	18 927 033	21 191 690
Intraregional	37 696 928	40 016 036	40 715 347	42 342 819
<b>World total</b>	<b>139 647 095</b>	<b>148.048 029</b>	<b>151 957 959</b>	<b>160 454 928</b>
	Percentage change			
	2016	2017	2018	2019*
Mainlane East-West routes	4.07	5.7	4.8	4.9
Other routes (non-mainlane) of which:	3.05	6.2	1.3	6.0
Non-mainlane East-West	3.43	5.8	-0.8	5.4
North-South	-0.05	5.3	1.1	4.6
South-South	0.25	7.6	2.4	12.0
Intraregional	5.19	6.2	1.8	4.0

<sup>13</sup> Muhteşem KAYNAK, "Ulaştırma Yeni Eğilimler ve Türkiye'nin Bölgesel Lojistik Güç Olma Potansiyeli", *Avrasya Etütleri*, Sayı: 24, 2003, s.3-18.

<sup>14</sup> Mahmut Nevfel ELGÜN, "ULUSAL VE ULUSLARARASI TAŞIMA VE TİCARETTE LOJİSTİK KÖYLERİN YAPILANMA ESASLARI VE UYGUN KURULUŞ YERİ SEÇİMİ" Afyon Kocatepe Üniversitesi, İİBF Dergisi, 2011, 207-208 sayfa

<sup>15</sup> United Nations Conference on Trade and Development, Review of Maritime Transport 2019 Sales No. E.19.II.D.20.. 31 January 2020 PAGE- 14

During international transportation the most preferred one is the sea transportation. This is because of with sea transportation it is possible to transport more products or people at less cost. On the table below, which products were given superiority in which countries in 2018, they were used as total data<sup>16</sup>.

Table 2: International maritime trade 2017-2018

Table 1.4 International maritime trade, 2017–2018 (Type of cargo, country group and region)									
Country group	Goods loaded					Goods unloaded			
	Year	Total	Crude oil	Other tanker trade <sup>a</sup>	Dry cargo	Total	Crude oil	Other tanker trade <sup>a</sup>	Dry cargo
Millions of tons									
World	2017	10 716.2	1 874.6	1 271.6	7 570.1	10 702.3	2 033.7	1 289.4	7 379.2
	2018	11 005	1 886.2	1 308.1	7 810.7	11 002.2	2 048.5	1 321.8	7 631.9
Developed economies	2017	3 709	152.7	491.2	3 065.1	3 795	979.1	494.7	2 321.2
	2018	3 821.7	157.7	511.2	3 152.7	3 822.9	946.5	495.8	2 380.5
Transition economies	2017	694.4	206.8	41.6	445.9	81.4	0.3	4.6	76.4
	2018	713.3	203.8	39.6	469.9	86.5	0.3	4.8	81.3
Developing economies	2017	6 312.8	1 515	738.8	4 059	6 825.9	1 054.3	790	4 981.6
	2018	6 469.9	1 524.7	757.3	4 188	7 092.8	1 101.6	821.2	5 170
Africa	2017	740.9	291.3	70.4	379.1	496.8	40.5	93.8	362.6
	2018	767.2	289.3	73.8	404	516.3	42.5	93.9	380
America	2017	1 371.8	225.2	71.9	1 074.7	617.2	47.5	141.4	428.2
	2018	1 403.7	219.3	78.3	1 106.1	652.5	51.8	149	451.8
Asia	2017	4 192	996.9	595.6	2 599.5	5 696.9	965.4	549.4	4 182.1
	2018	4 290.7	1 014.4	604.1	2 672.1	5 908.3	1 006.5	572.5	4 329.3
Oceania	2017	8.1	1.6	0.8	5.7	14.9	0.8	5.4	8.7
	2018	8.4	1.6	1.0	5.8	15.6	0.8	5.8	9

Table 3: International sea shipping<sup>17</sup>

Country group	Goods loaded					Goods unloaded			
	Year	Total	Crude oil	Other tanker trade <sup>a</sup>	Dry cargo	Total	Crude oil	Other tanker trade <sup>a</sup>	Dry cargo
Percentage share									
World	2017	100	17.5	11.9	70.6	100	19	12.1	69
	2018	100	17.1	11.9	71	100	15.5	11.6	72.9
Developed economies	2017	34.6	8.1	38.6	40.5	35.5	48.1	38.4	31.5
	2018	34.7	8.4	39.1	40.4	34.7	46.2	37.5	31.2
Transition economies	2017	6.5	11	3.3	5.9	0.8	0	0.4	1
	2018	6.5	10.8	3	6	0.8	0	0.4	1.1
Developing economies	2017	58.9	80.8	58.1	53.6	63.8	51.8	61.3	67.5
	2018	58.8	80.8	57.9	53.6	64.5	53.8	62.1	67.7
Africa	2017	6.9	15.5	5.5	5	4.6	2	7.3	4.9
	2018	7	15.3	5.6	5.2	4.7	2.1	7.1	5
America	2017	12.8	12	5.7	14.2	5.8	2.3	11	5.8
	2018	12.8	11.6	6	14.2	5.9	2.5	11.3	5.9
Asia	2017	39.1	53.2	46.8	34.3	53.2	47.5	42.6	56.7
	2018	39	53.8	46.2	34.2	53.7	49.1	43.3	56.7
Oceania	2017	0.1	0.1	0.1	0.1	0.1	0	0.4	0.1
	2018	0.1	0.1	0.1	0.1	0.1	0	0.4	0.1

<sup>16</sup> UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT “REVIEW OF MARITIME TRANSPORT 2019”, United Nations Conference on Trade and Development, Corr.1, 2020, Sales No. E.19.II.D.20 (31 January 2020) page 26

<sup>17</sup> UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT “REVIEW OF MARITIME TRANSPORT 2019”, United Nations Conference on Trade and Development, Corr.1, 2020, Sales No. E.19.II.D.20 (31 January 2020) page-26

Global perspectives of maritime trade are always increasing from past to present. Future perspectives of international maritime trade are expected to increase. Based on sea trade data in 2018 and 2019, product statics and sea routes in 2020 and 2024 were estimated. According to the International Monetary Fund, the GDP in 2006-2018 will increase even more in the maritime trade GDP in 2019-2024<sup>18</sup>. The reason for this is that sea trade is more affordable, and sea trade is more suitable in terms of perspective and countries' policies.

### 3. MARINE TRADE IN AZERBAIJAN

Marine transportation in the economy of Azerbaijan plays an important role in state borders, passenger transportation, offshore oil and gas production and cargo transportation in import-export operations. Different types of ships are used in sea transportation to increase the competitiveness of the economy. "Azerbaijan Caspian Maritime" CJSC "Marine Oil Fleet" and "Marine Transportation Fleet" played an important role in the Caspian Sea. The technological character of the Caspian Marine Oil Fleet, vessels that produce offshore oil and gas, ships operating in the foreign waters of the Marine Transport Fleet in international transportation, and naval ships in the Caspian Sea determine the importance of maritime transportation in strengthening the political and economic power of our country and ensuring the protection of our borders. The efficiency and competitiveness of maritime transport in the country's economy have increased due to the renewal of the Great Silk Road. The fact that Azerbaijan is located on the ancient Silk Road, which is considered as the most crucial global goat point of the world, and its location in the combination of North-South and East-West, increase the countries importance . Therefore, it is necessary to further develop the sea trade here. If the development process and capacity are good enough , the country will be able to increase both its economy and its maritime trade potential<sup>19</sup>. There are a few goals here, the most important of which is the further development of logistics across the country. Great Silk Road Rehabilitation is of great importance for Azerbaijan. The borders of the Republic of Azerbaijan intersect from east to west (TRACECA)<sup>20</sup> and from south to north. The main infrastructure projects for the development of trade relations between China-Europe, Central Asia-Europe Central Asia and the Black Sea, Iran-Russia, Iran-Black Sea, Russia and India, according to important trade routes, have put the trade volume and Azerbaijan into an important regional logistics center. But Azerbaijan needs to take some precautions for this. Sea transportation plays an important role in the economic life of the Republic of Azerbaijan. Azerbaijan ships have the opportunity to enter the world ocean with the Volga-Baltic and Volga-Don water systems. All the sea routes of Azerbaijan are from Baku. Baku-Astrahan, Baku-Makhachkala, Baku-Anzali, Baku-Bekdash, Baku-Turkmenbashi, Baku-Aktau lines operate in international transportation, there are rail-ferry connections on the last 3 lines. Small cabotage transportation operates in Baku-Astara, Baku-Salyan, Baku-Lenkeran, Baku-Chilov Island. Baku port (Alat) is of special importance in the implementation of these 3 main infrastructure projects to strengthen the integration of Azerbaijan into international corridors in trade and economic relations. Alat Free Economic Zone was founded by Ilham Aliyev, the president of the Republic of Azerbaijan, to play a leading role in international maritime transport and Eurasian logistics chains, promote local production and promote the "Made in Azerbaijan" brand worldwide<sup>21</sup>. The President stipulated precautions to establish a free trade zone type special economic zone, including the new Baku International Sea Trade Port region, in the Alat settlement of the Garadagh district of Baku, essentially to his charter of March 17, 2016.

<sup>18</sup> UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT "REVIEW OF MARITIME TRANSPORT 2019", United Nations Conference on Trade and Development, Corr.1, 2020, Sales No. E.19.II.D.20 (31 January 2020) page-36

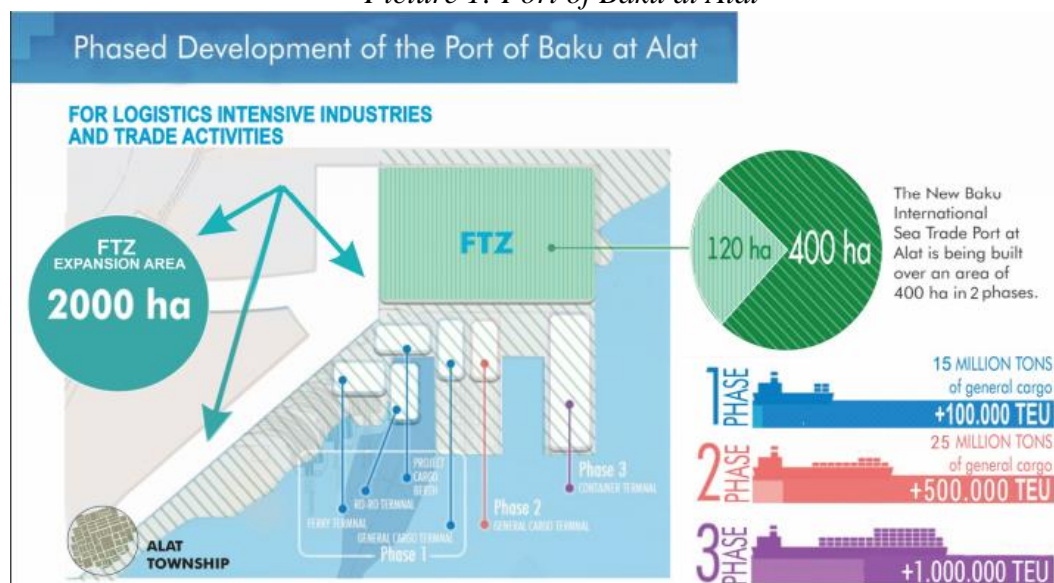
<sup>19</sup> "Port of Baku" <https://portofbaku.com/az/about-port-of-baku/>

<sup>20</sup> "TRACECA" <http://www.traceca-org.org/az/home/>

<sup>21</sup> "Alat FEZ" <http://www.e-qanun.az/framework/40055>

Based on this regulation, on September 7, 2016, a contract was signed with DP World, a well-known United Arab Emirate company with an annual revenue of \$ 1 billion<sup>22</sup>. DP World, which has 78 terminals worldwide, prepared a development plan for Alat SEB and presented it to the government on 23 May. Then, on September 18, 2018, the economic region was brought to full shape. The free economic zone, which includes the new Baku Port (Alat settlement), will initially be located on an area of 400 hectares and then 1,000 hectares. It envisages the creation of value added production and services. For example, petrochemical, pharmaceutical, agriculture, furniture production, etc. It is planned to build production facilities in different areas. Overall, FEZ's South Caucasus, Central Asia, Iran, to serve a regional market of 130 million people, including South Russia and Turkey are planned. The cumulative impact on GDP is estimated to be \$ 57 billion by 2040<sup>23</sup>.

*Picture 1: Port of Baku at Alat*



It is possible to consider the existence of Alat in exactly 3 aspects. Economic, social and technological.

Economic evaluations<sup>24</sup>:

- Deep penetration of the national market to the world economic system
- Attracting domestic and foreign investments for the development of high-efficiency production;
- Expanding export products;
- Increasing foreign currency earnings in the country budget;

Social evaluations<sup>25</sup>:

- Extensive development of economically backward regions;
- Increasing the number of workplaces and ensuring employment;
- Increasing the education and professional experience of local skilled workers, engineers, economy and management personnel;
- Filling the national market with high quality products;

<sup>22</sup> "Ələt iqtisadi zonna" <https://president.az/articles/30005>

<sup>23</sup> "Alat" <https://portofbaku.com/az/Alyat-Logistics-and-Trade-Zone-ALTZ/>

<sup>24</sup> "Alat" <https://president.az/articles/30005>

<sup>25</sup> "Sea shipping" <http://www.e-qanun.az/framework/40055>

Technological evaluations<sup>26</sup>:

- Use of the latest domestic and foreign technology;
- Implementation of new forms of management;
- Participation of practical and scientific achievements of engineering and technical centers;
- Increasing the production capacity and quality of its infrastructure;

In order to further improve the development of maritime trade, the number and technical status of the ships should be reviewed. In the current situation, the number and condition of the ships in the Republic of Azerbaijan are not at all pleasant. There are a total of 123 ships in the country. 22 of them are tankers<sup>27</sup>, 15 are for dry cargo transportation<sup>28</sup>, 2 are Ro-Ro<sup>29</sup>, 13 are ferries<sup>30</sup>, 21 crane ships<sup>31</sup>, 23 spare ships<sup>32</sup>, 5 geological ships<sup>33</sup> and 21 ships<sup>34</sup> are put into service. In addition, there is a submarine called Hankendi<sup>35</sup> in Azerbaijan. As can be seen from here, the number of ships is small and insufficient, and the ships are not at the capacity to serve more commercial purposes. The speed of the newly purchased ships should be high, and their tonnage should be increased even more. Since Azerbaijan is a member of the CIS, the number of ships should increase. In addition, because Azerbaijan is on the Great Silk Road, the country should renew its maritime trade part since it is in the large geostrategic and commercial and economic regions. In addition to port operations in the Republic of Azerbaijan, development efforts at other TRACECA ports may affect Azerbaijan due to the lack of logistics services (ferry lines, logistics centers and lack of lodging services). A total of 13 ferries (one container transport) in a commercial fleet of 73 ships with a loading capacity of more than 300KT, which can carry a container of 512 at a time (40 feet). According to the estimates on the route, the cargo transport volume is expected to reach 300,000-400,000 containers, including 2020. Currently, the use of the Azerbaijan Caspian Shipping CJSC Fleet ferries for container shipping causes prices to go up. Therefore, investing in "container ferries" with a capacity of 400-500 containers, by reducing prices, will increase economic efficiency. Therefore, by taking advantage of the growth of trade on the Trans-Caspian route, great importance should be given to maritime transport vehicles and investments should be made in this area. In addition, private maritime transport companies should be established in the Republic of Azerbaijan to develop the area. Addressing the privatization of Azerbaijan Caspian Shipping CJSC for the optimal development of this sector in the future will lead to further development of this sector<sup>36</sup>.

*Picture following on the next page*

<sup>26</sup> "Sea shipping" <http://www.e-qanun.az/framework/40055>

<sup>27</sup> "Ships in Azerbaijan" <https://asco.az/donanma/neqliyyat-donanmasi/tankerler/>

<sup>28</sup> "Ships in Azerbaijan" <https://asco.az/donanma/neqliyyat-donanmasi/universal-quru-yuk-gemileri/>

<sup>29</sup> "Ships in Azerbaijan" <https://asco.az/donanma/neqliyyat-donanmasi/ro-ro-gemileri/>

<sup>30</sup> "Ships in Azerbaijan" <https://asco.az/donanma/neqliyyat-donanmasi/gemi-bereler/>

<sup>31</sup> "Ships in Azerbaijan" <https://asco.az/donanma/ixtisaslasdirilmis-donanma/kran-gemileri/>

<sup>32</sup> "Ships in Azerbaijan" <https://asco.az/donanma/ixtisaslasdirilmis-donanma/techizat-ve-yedek-gemileri/>

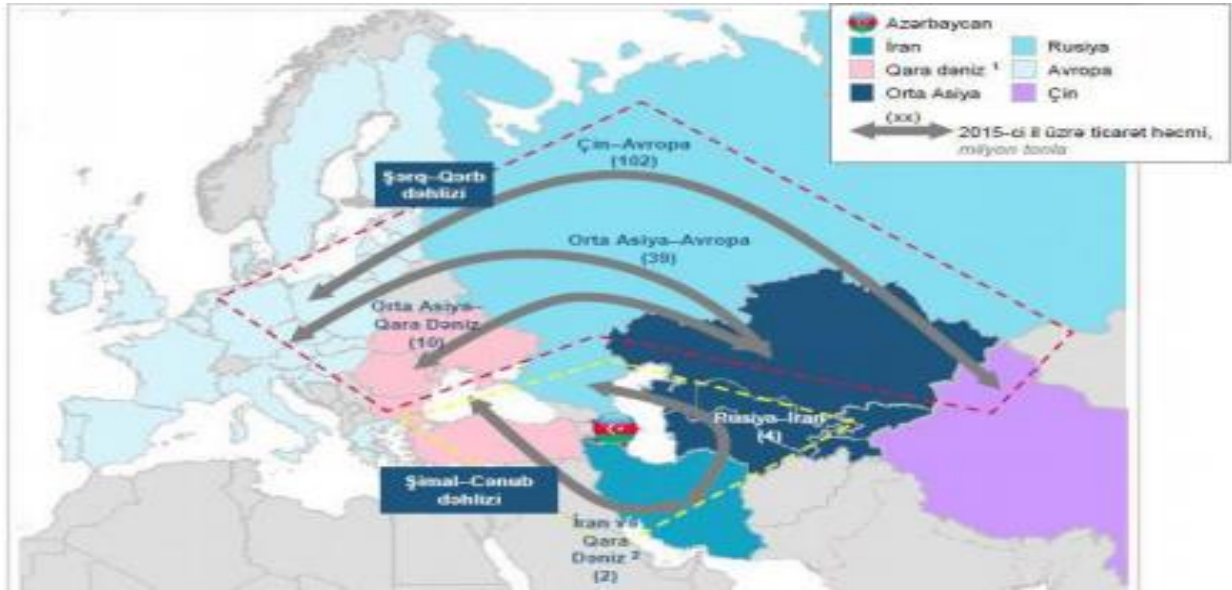
<sup>33</sup> "Ships in Azerbaijan" <https://asco.az/donanma/ixtisaslasdirilmis-donanma/muhendis-geoloji-gemiler/>

<sup>34</sup> "Ships in Azerbaijan" <https://asco.az/donanma/ixtisaslasdirilmis-donanma/sernisin-gemileri/>

<sup>35</sup> TƏBRİZ YADİGAROV AZƏRBAYCAN İQTİSADİYYATINDA DƏNİZ NƏQLİYYATI: PROBLEMLƏR VƏ PERSPEKTİVLƏR, Bakı, «Avropa» nəşriyyatı, 2018 səh 62

<sup>36</sup> TƏBRİZ YADİGAROV AZƏRBAYCAN İQTİSADİYYATINDA DƏNİZ NƏQLİYYATI: PROBLEMLƏR VƏ PERSPEKTİVLƏR, Bakı, «Avropa» nəşriyyatı, 2018 səh 64



*Picture 2: Trade way in Great Silk road*

The important actor in the further development of maritime trade is customs tariffs. Since Azerbaijan is a developing country and production is low compared to developed countries in the country, it would be more appropriate to reduce customs tariffs and even export to some products without applying tariffs in order to increase the interest in “Made in Azerbaijan” products in the country. When we look at the “Young Industrial Thesis”<sup>37</sup>, the products should be exported from the “Made in Azerbaijan” products at low tariffs or without any customs tariff for the export of new products produced in the country. Most of the products exported in Azerbaijan are petroleum and petroleum products, in addition, the country exports oil in the form of raw materials or semi-finished products, whereas the oil makes it possible to export oil at a lower price and to be limited to the Caspian basin by using submarine pipes. At the same time, the number of products exported to the world through the country's Volga Don channel remains in the minority. If the Republic of Azerbaijan concentrates on the non-oil sector, maritime trade develops, as in the world, and it positively penetrates its economic development. Looking at the CIS countries, it is inevitable that countries within the CIS have tight export and import relations with each other. Considering this situation, common customs tariff should be made between the CIS countries and this tariff should be made under the leadership of the European Union. This situation provides positivity for its economic development both in terms of CIS countries and in terms of Azerbaijan Republic.

#### 4. CONCLUSION

As a result, it is seen that maritime trade is an important sector in the globalizing world. When considered on the basis of developed countries, it seems that seafaring has come from past to present in these countries. These countries used the sea both for its strategic importance for war and for its commercial value. On the basis of developed countries, it is of great importance in these countries that maritime has a strategic importance from the past to the present and also in a commercial sense. At the same time the importance of shipping is also necessary in carrying people. As for Azerbaijan, the country's settlement on the Great Silk Road spontaneously imposes a great strategic commercial meaning on this country. Therefore, the country should develop for maritime trade. The creation of the Alat free economic zone plays a role in the development of the country's commercial and essential logistics sides.

<sup>37</sup> “Genc endüstri tezi” <https://aspompi.wordpress.com/2010/12/29/genc-endustri-tezi-ve-dis-ticaret/>



Therefore Azerbaijan needs to take certain precautions. In addition, in order for the product of "Made in Azerbaijan", the brandy of the country, to be spread to the world and to be recognized, it should be made on the basis of the "young industrial thesis" when the country customs tariffs must be determined. This will also serve for the continuity of developing the country's economy.

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## DEVELOPMENT OF MEDICAL BUSINESS IN AZERBAIJAN

**Sevda Mamedova**

*Azerbaijan State University of Economics (UNEC), Azerbaijan  
dr.smks@mail.ru*

### ABSTRACT

*The medical business is one of the most profitable types of business activities. In Azerbaijan, its development became possible after the country's independence and the transition to a market economy. On the other hand, the economic crisis in the country created the conditions for attracting private capital to healthcare. The article provides information on the main types of medical business developing in the country, which include medical and diagnostic business, pharmacy and pharmacological business, voluntary medical insurance, which is a financial mechanism for managing risks associated with impaired human health, etc. The state encourages the development of private medicine, which in most cases does not play a complementary, but a substitute role for public medicine. Azerbaijan is characterized by a wide network of private medical and diagnostic institutions with a concentration in the capital. An important problem is the redirection of the flow of patients from state medical institutions to private ones, where doctors can earn more and patients have access to better equipment, as well as the quality of medical services. Corporate voluntary health insurance is growing rapidly. The development of individual voluntary medical insurance is hindered by high package prices, lack of culture, insurance promotion, and compulsory medical insurance. The main feature of the modern pharmaceutical market of Azerbaijan is a weak pharmaceutical industry, however, positive dynamics is observed in the development of the industry. The country's market has great potential for the development of the medical business, and this, along with its favorable geographical position, makes it interesting for foreign investors. At the same time, the devaluation of 2015 made it possible to more deeply feel the need to support local producers, both in the economic and social context.*

**Keywords:** *insurance companies, licensing, medical business, pharmaceutical business, private medical institutions, privatization of medical institutions, voluntary medical insurance*

### 1. INTRODUCTION

Until 1991, Azerbaijan was a part of the USSR and had a health care system similar to all Soviet countries. The country had a wide network of medical institutions. Health care was funded by the state on a tax basis. Medical institutions were mainly state-owned, and patient had no choice of a doctor or institution, which led to the almost complete elimination of competition. Paid medicine was represented only by a limited number of institutions (mainly dental clinics). At the same time, unofficial payments took place during the existence of the USSR, however, by the time the country collapsed, they reached the peak. After the collapse of the Soviet Union, the country found itself in a critical condition, which determined a significant reduction in government spending on health. Furthermore, the reduction of the guarantee package of medical services declared by the state was not undertaken. Growing financing gap created the conditions for attracting private capital to health care.

### 2. TERMS, DIRECTIONS AND PROSPECTS OF MEDICAL BUSINESS DEVELOPMENT IN AZERBAIJAN

#### 2.1. Prerequisites for the development of the medical business

Since 1994, according to decree of president, in order to form an additional source of financing, some specialized services have been declared paid. The presidential decree of January 27, 1997 allowed private entrepreneurship in the field of medicament, traditional and alternative

medicine[1]. During the same year, a law was adopted on the protection of public health, which, particularly determined the financing system and the list of medical services included in the guarantee package. All other services became paid (excluding some categories of the population). Privatization mainly affected small dental clinics and pharmaceutical industry. In 2003, 350 medical institutions were privatized (( Kholli D., Akhundov O., Nolte E..(2004), p.16)) [7]. However, since their costs were insignificant, and most of them were closed due to non-payment of taxes or bankruptcy, the privatization process did not affect the overall health spending very much. The official payment for medical services in state medical institutions was introduced in 1998 in order to reduce the shadow market, also as an additional source of funding. The funds from official payment for services were mainly spent on additional salaries for doctors, as well as on the purchase of medicines and in 2004 amounted to about 10% of the local health budget ( Kholli D., Akhundov O., Nolte E..(2004), p. 22)) [7]. However, 18% of the earned funds were transferred to the Ministry of Finance as a value-added tax on the medical institutions, and therefore, this money was lost for the health budget. Although it was assumed that the prices for the same services should be the same, in fact it turned out that they may vary depending on institutions. Moreover, special attention is drawn to the fact that official payment sometimes exceeded the average monthly wage. In some cases, the patient had to pay \$ 70 for surgical care, which was twice as much as the average monthly salary. This contributed to the development of a vicious circle: while they were trying to replace informal payments with official ones, the conditions for the reverse process were practically created. However, it was satisfactory for both patients and medical staff. It should be underlined that the introduction of official payment led to the reduction of accessibility of the population to medical care. A survey conducted in 2001 showed that one in three families was unable to get the necessary medical services because of their high cost. Among poor families, this figure reached 40%. A survey conducted in May-June 2003 showed that the income of at least two-thirds of those surveyed was insufficient to meet the needs for medical care. For workers in non-productive sectors (medicine, education, public administration), agriculture, and especially unemployed, this figure reached 79-89% ( Kholli D., Akhundov O., Nolte E..(2004), p. 22)) [7]. . And although out-of-pocket payments contribute to increasing inaccessibility of medical services for the population, an incorrectly organized system of paid services leads to the growth of informal payments. It was intended to increase the health budget by 10% introducing service charges. However, this funding policy was unsuccessful. First, release planning was not well-planned. Thereby, exemption from payment was granted to the majority of the population (approximately 75% of the population) ( State Programme on Poverty Reduction and Economic Development 2003-2005 (2003),p. 74)) [13]. Secondly, the introduction of paid services was incorrectly organized, and significant portion of the funds flowed into the pockets of doctors, bypassing the general treasury. Thirdly, the introduction of paid services was accompanied by a decrease in government funding. Since February 2008, by order of the Minister of Health, paid medical services were canceled in all state institutions, which are the part of the Ministry of Health and financed from the state budget. The decision was caused by "an increase in the healthcare budget, which amounted to 385 million AZN in 2008 (\$ 1 = 0.81 AZN)" (for comparison, health care expenses made up 257.2 million AZN in 2007). This contributed to the creation of a good conditions for the development of the medical business.

## **2.2. Development of private medical and diagnostic institutions**

The network of private medical and diagnostic institutions in Azerbaijan is very wide, although it should be mentioned that most of these institutions are concentrated in the capital. This is explained by insignificant difference between informal payments in the state clinics and official payments in the private ones, but the patient wins the conditions, terms of receiving help, a positive atmosphere, and usually a quality.

Generally, this is the only possible case of receiving medical services, considering the infrastructure, staff structure and the provision of equipment to public sector institutions. According to 2012 data, more than 700 private medical centers functioned in the country, today their number has been reduced to 593, and about 100 doctors are private employees [10]. Only 26% of rural population go to state hospitals, others prefer private diagnostic centers and private clinics (Azerbaijan Health Sector Review Note) (2005)), p. 49-50)) [4]. At the same time, it should be noted that the devaluation of 2015 led to the closure of a considerable number of private medical institutions, which is associated with an increase in prices and a decrease in the purchasing power of the population. It is worth noting that the private sector plays an important role in the provision of preventive services, especially for the wealthy and rural population. The state encourages the development of private medicine, which in most cases plays a role of not complementary, but a substitute for public medicine. Private practice licenses are issued by the Ministry of Health. In 2005, 300 medical licenses were given to medical institutions, including diagnostic laboratories, outpatient clinics and dental institutions ( OECD (1993) p. 100))[11]. After the decree of President “On some measures in the field of licensing” in 2015, licenses issued for private medical and pharmaceutical activities became unlimited. In accordance with the list of licensed activities approved by this decree, the state fee for obtaining a license in the field of private medical activity is 2250 AZN, in the pharmaceutical industry for the production and wholesale of medicines (individually) is 2250 AZN, for the retail sale of medicines is 1000 AZN, to collect raw materials in the form of wild medicinal plants is 250 AZN [2]. The practice of attracting foreign specialists to private clinics is widely used. According to reports, only in 2015, the State Migration Service of Azerbaijan issued a work permit to 61 foreign doctors. Moreover, there are medical institutions in Baku where almost all staff consists of foreigners. For example, the International SOS clinic. The range of services provided in private medical institutions is quite wide. Private suppliers can provide services to employees of local and transnational companies on a contract basis within the framework of voluntary medical insurance. Since the salaries of doctors cannot be classified as high, doctors try to find work in private clinics along with existing work in public clinics. The income of doctors in private clinics is a percentage of revenue of the clinic (from medical visits, from observations). The greater number of patients and medical appointments is better for the doctor. This creates the temptation to increase the number of visits and observations of patients. Besides, a significant issue is the redirection of the flow of patients from public health facilities to private ones, where doctors can earn more, and patients have access to better equipment. Another important issue is the quality of services provided in private clinics. Ministry of Health of the AR revealed a lot of shortcomings during the review in first half of 2015. As a result, 6 clinics completely stopped their activities, 8 clinics suspended the provision of certain types of services, 9 clinics were fined for providing services, not included in the license or even without license [10].

### **2.3. Voluntary health insurance**

There is also a growth in the voluntary health insurance market. VHI in Azerbaijan was introduced in 1995. As in the whole world, corporate voluntary medical insurance is rapidly developing in Azerbaijan and there are several reasons for this. On the one hand, the work team is a complex multifunctional organism in which everyone is connected by a chain. And the disability of one employee activity can beat out the rhythm the activity of entire organization. From this point of view, VHI worth its cost, because it allows to increase labor productivity and reduce the loss of qualified specialists. On the other hand, care of institutions about their workers is one of the indicators of the high level corporate culture, which is the main factor in shaping the image of the organization, both in the eyes of its business partners and the general public. Finally, the corporate insurance contract for legal entities includes all kinds of discounts and bonuses, depending on the number of insured employees.

The largest collective contract in our country was concluded between SOCAR and the insurance company Pasha Insurance. Within the framework of contract, about 50 thousand oil workers across the country were insured. In 2003, approximately 15,000 people, or less than 0.1% of the country's population, were covered by voluntary medical insurance (( Kholli D., Akhundov O., Nolte E..(2004), p.23)) [7]. According to 2006 data, 0.2% of the population is covered by voluntary medical insurance( Zoidze A., Mekhtiev F.(2006), p.1)) [17]. In the first quarter of 2008, health insurance was one of the main types of insurance services, making up 12.1 percent of market. According to the WHO data for 2015, VHI expenses made up 1% out of the total expenses on Healthcare of the country (WHO)[14]. Nowadays, any self-respecting insurance company considers it a duty to provide voluntary health insurance services, among them the following: A-GROUP, Paşa Insurance, MBASK, Standard Insurance, International Insurance Company, Xalq Insurance, Ateshgah, Most Insurance, Thames Insurance Group, Atasigorta, Garant Insurance. Services are provided through a network of private and public hospitals. Voluntary health insurance policies vary in price, structure and scope of services. VHI in today's life is the only type of voluntary insurance growing in Azerbaijan. The VHI market in Azerbaijan is expanding, but it is rather a slow process. One reason is quite expensive prices. The cost of a minimum set of services for individual patients is 400 AZN, for corporate patients — above 250 AZN per year. Considering that the minimum monthly salary is set at 130 AZN, and the average salary in the country is about 500 AZN, it becomes clear that only particular portion of population can afford to buy private insurance. On the other hand, the development of VHI is prevented by the fact that MHI has not yet been introduced in the country. Because, exactly the clear boundaries provided by the mandatory medical insurance allow you to go beyond them and offer something better. Nowadays, VHI programs in Azerbaijan perform a substitute function. The introduction of MHI would make it possible to expand additional programs, and it would be more appropriate to formulate them, first of all, according to more burdensome types of medical care for family budgets, for example, medical and dental. Actually, if we develop this security according to the insurance principle and with a large number of participants (for example, a million people insured), then the population will get the right to a package of medicines worth at least 3-4 times higher than the size of the insurance contribution (Vishnevskiy A. G. , Kuz'minov Y. I , Shevskiy V.I. , etc. 2006), p. 24-25) [12]. In order to increase the availability of voluntary medical insurance in the future, after the introduction of mandatory medical insurance, a combination of mandatory and voluntary medical insurance can be introduced, which provides for the offsetting of the per capita standard for compulsory medical insurance when citizens and organizations purchase a voluntary medical insurance policies. As in other countries, it makes sense to introduce tax benefits. The attractiveness of the additional program for the population depends, firstly, on the clarity of determining the package of additional services, and secondly, on the ratio of the size of the insurance contribution paid by the citizen under this program and the potential costs that it will incur if there is no insurance, in other words, the amount, which he will spend on getting paid services and purchasing drugs in a pharmacy. Furthermore, the physical accessibility of the services to which the insured person is entitled is of great importance. In addition, the low insurance activity of individuals is due to the underdevelopment of the insurance culture of the population, as well as the reluctance of most insurance companies to work in this field. As you know, this is a rather risky and resource-absorbing sphere. The devaluation of 2015 negatively affected the activities of insurance companies. Higher prices for medical services and reagents have led to higher costs on the one hand and on the other hand, a decrease in the number of people who want to insure themselves. In these conditions, the most competitive and flexible companies were able to survive. In the age of innovation and technology development, insurance companies try to excel by providing an advanced product. So, the A-Group Mobile Concierge application proposed by A-Group allows you to find the nearest clinic or pharmacy,

choose a route, find a specialist, evaluate a doctor's and clinic's service on a five-point scale, save observation results, apply for reimbursement of expenses, calculate the cost of policies, call an ambulance help by simply pressing the SOS button (the ambulance will find you by geolocation), turn on a reminder about taking medications, about a visit to the doctor, etc. In addition, online insurance purchases through the app and websites are growing.

## **2.4. Pharmaceutical business in Azerbaijan**

The pharmaceutical market is one of the most dynamically developing areas of the economy of Azerbaijan. During the years of independence, almost the entire pharmaceutical sector was privatized, including pharmacies. Speaking of pharmaceutical market of Azerbaijan, the following figures should be mentioned: the market volume is \$ 700 million, a wide network of pharmacies is about 2000, local production is \$ 3 million, prospects for the potential market are \$ 1 billion, 1st place in the CIS according to the number of pharmacy customers. The main feature of the modern pharmaceutical market of Azerbaijan is a weak pharmaceutical industry. Wherein, the needs of the population are growing. Import of pharmaceutical products in Azerbaijan in January-August 2018 compared to the same period last year increased in quantitative terms by 31.7%, in value - by 45% [6]. However, there are tendencies to stimulate such an important sphere of production. A major supplier of drugs to the territory of Azerbaijan is European countries (55% of registered drugs), followed by Russia and Ukraine (14% and 9% of registered drugs, respectively). In general, the dependence of the regional pharmaceutical market on imports of medicines in term of value and volume is at least 98% of the total pharmaceutical market capacity. Products of local manufacturers make up about 2%. The pharmaceutical industrial products in the republic are currently represented by the following major manufacturers: "Bakikimyaəczasanaye", "Biol", and "Azerfarm". Radical changes in the situation are expected from 2020, when a new factory will be put into operation, supposing to produce about 90 high-quality drugs (Agaev E.M., Gadzhibalaev P.F.(2017)) ,p. 100-101)) [3]. The number of local companies in the market is 23. Azerfarm LTD JSC (Azerfarm) is a market leader among local producers; the share among local producers is 74 and 71% (in value and quantitative terms, respectively). The price range of production is up to 2 USD and from 5 USD to 10 USD [16, p. 35]. However, it should not be forgotten that medicines are a specific product and potentially hazardous to human health. Therefore, strict control by the government bodies of the entire chain is necessary. For this purpose, many laws and regulations governing pharmaceutical activities have been issued. Important aspects in the management of the pharmaceutical business are legislative initiatives in the field of drug circulation, customs regulation, the creation of innovative drugs, and the issue of drug price regulation. The tariff council has regulated prices of the majority of drugs. Base prices are determined by referring to at least 5 of the 10 base countries for us (Turkey, France, Italy, Spain, Portugal, Greece, Poland, Hungary, Bulgaria and Slovenia). This makes it possible to adjust prices and sales margins. The main distributors are Avromed, Azerimed, Alfa-Med, Pharma-Service, Logman-Farm, Velga, Pasha K, Novavita P, etc. The situation above reveals the importance of establishing local production of drugs. This is necessary to provide the market with cheaper drugs, which is especially significant during devaluation, however, the fact of the creation of new jobs is also worth mentioning. For instance, Azersun Holding, company of Azerbaijan together with the government, represented by the Azerbaijan Investment Company and the Iranian Tamin Pharmaceutical Investment Company, is constructing a drug factory in the Pirallahi Industrial Park. In the near future, 20-30 percent of the pharmaceutical market in Azerbaijan will belong to the company [5]. The state is interested in the development of local production, however, it is also attractive to foreign companies, taking into account the potential market size, for example in the case of Turkey, Iran or Russia, and the country's geographical position, for instance in the case of USA, which provides access to the markets of the Caspian

region and the Middle of Asia. The Russian pharmaceutical company R-Pharm, which is one of the largest pharmaceutical distributors in Russia, has signed an agreement with the Azerbaijani Vita-A and the Azerbaijan Investment Company on the establishment of a joint project "Hayat Pharm", 45% of which will be received by "R-Pharm", 55% by "Vita-A". The volume of investments will be EUR 70 million. In 2019, the enterprise is expected to reach full capacity [15]. In 2016, a representative office of the FAVEA Group of Companies was opened in Baku. The representative office will focus on the integrated design, construction and commissioning of modern industrial facilities of the pharmaceutical industry, ensuring the production of high-quality medicines. In addition, an important activity of the FAVEA representative office will be training for the pharmaceutical industry and state inspection bodies, including an internship in the Czech Republic [8]. Moreover, it is planned to establish a large pharmaceutical enterprise with Belarusian investments, which will provide the Azerbaijani market with modern medical products, primarily in the field of oncology. Besides, this implies the export of products manufactured at the enterprise to third countries [9].

### 3. CONCLUSION

Thereby, the development and establishment of the medical business in Azerbaijan became possible only after the transition from a planned to a market economy. The main stimulus was the support of the state: the creation of a favorable business environment, the development of organizational and legal mechanisms and the formation of the necessary infrastructure. The country's market has great potential, and its favorable geographical position makes it attractive to foreign investors. At the same time, the devaluation of 2015 made it possible to feel the need to support local producers, both in the economic and social terms. The development of the medical business sets new goals for business entities and state. Along with this, the formation of a competitive environment forces business participants to innovations and developed technologies in order to maintain and increase competitiveness.

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# PRECIOUS STONES - WEALTH HIDDEN BEHIND GLITTER

**Khaver Babayeva Ali**

*Azerbaijan State University of Economics, Azerbaijan*  
*babayeva.khavar22@gmail.com*

## ABSTRACT

*Diamonds are forever as heroes. The precious stones market is one of the important components of the financial market. Before we talk about the importance of precious stones in the world market, which are an indispensable piece of jewelry for women and have historically been a source of conflict in some countries, let's define what they are. Precious stones are ore minerals that come from the earth's crust and have a beautiful appearance given to people by nature. The main types are alexandrite, ruby, turquoise, emerald, diamonds and others. It is most common in geographically older areas. For example, Russia, Botswana, South Africa Republic etc. These stones are used not only in jewelry, but also in other fields: optics, electronics, radio engineering. At the same time, these stones have healing properties. The most traded precious stone in the world is the diamond, which is characterized as a symbol of endurance and courage. In 2018, the size of the global diamond market was \$ 87.81 billion. The largest share here belongs to the international company DeBeers. The growing demand for diamonds is causing this market to grow even more. Because diamonds are produced, processed and sold in different countries, it is considered that a diamond travels to more countries than the average person. Precious stones are also considered a safe investment tool. For example, the prices of diamonds, rubies and emeralds do not change as much as gold, and the size of investments in them increases because they are a rare find. As the Chinese proverb says: A diamond with a flaw is worth more than a pebble without imperfections.*

**Keywords:** *precious stones, market, diamonds*

## 1. INTRODUCTION

The subject of precious stones is a subject that combines several sciences. Behind this glow are geology, physics, medicine, economics and astrology. Perhaps this is the feature that distinguishes it from other ordinary stones.

### 1.1. The formation of precious stones

The precious stones of our mysterious beauty, given to us by nature, are billions of years old. Some of these minerals, which come from the earth's crust, are formed in the Earth's crust (sapphire) and in the mantle. Known as the hardest gemstones, diamonds are formed in the Earth's mantle. Diamonds are made of carbon. The high pressure and hot carbon in the mantle changes the crystal lattice, combines its molecules and turns them into diamonds. This process takes place at a depth of 160 km. The rise of diamonds to the Earth's surface occurs through kimberlites, which are volcanic rocks. Thus, when magma erupts in the form of a volcano, diamonds appear together with kimberlites. Due to this feature, scientists even call kimberlites carriers of diamonds. For this reason, precious stones are found in geographically older areas. Diamond-rich areas in the world:

- Russia – 38 million carats of diamonds
- Botswana – 23 million carats of diamonds
- Congo – 16 million carats of diamonds
- Australia – 12 million carats of diamonds
- Canada – 11 million carats of diamonds
- Zimbabwe – 10 million carats of diamonds
- Angola – 9 million carats of diamonds

- South Africa – 8 million carats of diamonds
- Namibia – 2 million carats of diamonds
- Sierra Leone – 609 thousand carats of diamonds (1)

## **2. DIAMOND WAR**

Africa accounts for about 50 percent of the world's diamond reserves. But did diamonds, a symbol of courage and strength, bring power and wealth to Africa? To answer that question, let us examine the pages of history. The diamond was discovered in 1930 in Sierra Leone, West Africa. These diamonds were in the form of alluvial layers at the bottom of the river, they were not extracted from deep mines. They just had to be sifted. Even because of this feature, such diamonds were called "democratic diamonds" by sociologists.(2) However, these diamonds went down in history as bloody diamonds. In the country's 1991 civil war, launched by a former soldier who escaped from prison, rebels seized diamond fields to supply themselves with weapons. Weapons were bought at the expense of the proceeds from the diamonds sold through Libya. According to Sierra Leone's Information Minister Septimus Kai Kai, it was not just a civil war, but also a desire by foreign forces to seize the diamonds.

As a result of a 12-year war that claimed many lives, the United Nations named the diamonds in Sierra Leone bloody diamonds and banned their export to the world market. It took a long time for Sierra Leone to recover from this war.

Unfortunately, in today's world, despite the wealth in Africa, the well-being of the people living there is not high.

## **3. DIAMOND MARKET**

Diamonds, first discovered in India in the 4th century BC, have attracted people's attention ever since, and the market has grown over time. In 2018, the size of the global diamond market was \$ 87.81 billion(3). Because diamonds are produced, processed and sold in different countries, it is considered that a diamond travels to more countries than the average person. Let's take a brief look at the world journey of this mysterious stone:

- Stage 1. Diamond mining. This process takes place in areas rich in diamonds, and through large companies such as DeBeers, Alrosa, Rio Tinto, Dominion Diamond.
- Stage 2. Sale of the extracted diamond in the markets.
- Stage 3. Production of diamond products. This process is more common in Antwerp and New York.
- Stage 4. Sale of diamond goods in the world market.

DeBeers has the largest share of the global diamond market. Founded in the 19th century, the company's revenue in 2019 will be 4.6. billion dollars(4).

## **4. AREAS IN WHICH DIAMONDS ARE USED**

Marilyn Monroe said that the diamonds are the best friend of the girls. Probably, when we say diamond, each of us thinks of jewelry that is indispensable for women. In 2018, the total value of the global diamond jewelry market was \$ 76 billion. Diamonds used in other industries make up 70 percent of this market. A total of 10 million people work in this area(5).

## **5. DIAMONDS IN FUTURE**

The brilliance of diamonds is so dazzling that sometimes its other features are forgotten. The heat and electrical conductivity of diamonds make it necessary to use in many places, from smartphones to space equipment. Already in the world Artificial diamonds are produced that combine the properties of real diamonds.

Artificial diamonds are made from graphite with the same atomic structure as real diamonds. And this production is expected to increase in the future.

## **6. CONCLUSION**

The precious stones market is one of the components of the financial market. It is considered one of the safest investment tools. However, it is sensitive to global processes. Undoubtedly, this market has also suffered from the recent coronavirus pandemic. Jewelry stores, large shopping malls were closed, diamond sales fell, and many people working in the field lost their jobs. But we believe that soon humanity will get rid of this scourge and the world economy, as well as the precious stones market will shine again like a diamond.

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## THE PRINCIPLES FOR ESTABLISHMENT OF THE EFFECTIVE QUALITY MANAGEMENT SYSTEM OF THE ENTERPRISE

**Seydaliyev Ilham Mohammed**

*Candidate of Technical Sciences, Associate Professor at  
Azerbaijan State University of Economics (UNEC)  
Baku, Istiglaliyyat 6, Azerbaijan  
ilham.seydaliyev@mail.ru*

### ABSTRACT

*It is possible to establish an enterprise activity management system that can achieve its goal on the basis of ISO international standards, TQM concepts and business excellence models. At the same time, the quality of the enterprise acts as a management object, the principles of quality management acts as the principles of management, and the quality management system (QMS) acts as a management system. It is necessary that the QMS including the following elements: processes; staff; documented information; resources. The QMS must cover logistics, production, strategic management of the enterprise, control of the stuff. The requirements for modern QMS are explained in the international standards ISO 9000. The establishment of the QMS in accordance with the requirements of ISO standards, requires the following tasks: development of the criteria for the description of processes and their assessment; development of the documents for the QMS; the organization and the conduct of the internal audits of the QMS; independent assessment of the QMS. Currently, integrated quality management systems are more effective for improving of the competitiveness of enterprise. The methodology for the development of an integrated management system is based on functional systems. The main idea of the quality management is an effective organization that can be implemented through systemic and process approaches. The basis of the concept of the process approach in management are: the principles of the establishment of QMS according to ISO 9000; PDCA Deming cycle; BSC construction principles; principles of project management; the best world experience in the field of the establishment of QMS. Due to documentation, control, analysis of the processes in accordance with the requirements of international standards, transparency, better manageability and continuous improvement of the enterprise activities are ensured.*

**Keywords:** *competitiveness, consumer, control, process approach, quality management*

### 1. INTRODUCTION

Nowadays, the implementation of quality management system (QMS) is an objective necessity for an enterprise that increasing of competitiveness and constantly improving of product quality. A quality management system is a complex of systems, methods and tools. The enterprise uses them to satisfy the requirements of consumers and increase its competitiveness and competitiveness of specific products, improve the activities of the enterprise as a whole. The purpose of the QMS is not to control each unit of production, but to eliminate possible errors those causing defects. To do this, it needs to determine the right actions to create high-quality products, develop instructions for the implementation of actions, monitor, analyze and evaluate them. It is possible to build a business management system capable of realizing the goal, based on principles that take into account international ISO standards, the concept of total quality management (TQM) and business improvement models.

### 2. THE CHALLENGES OF DEVELOPING OF THE EFFECTIVE QMS

The introduction and development of QMS is a necessary component in the enterprise quality management. The presence of QMS is the basis for the implementation of the TQM concept [4].

There are several reasons that require the presence of a functional quality management system:

- a thorough increase in production at a particular enterprise;
- increased consumer confidence in products;
- access to domestic and world markets, by increasing the sphere of influence.

The QMS includes the following elements:

- processes;
- personnel (with distribution of responsibility and authority);
- documented information;
- resources (human, material, financial).

Strategic and long-term planning of improving of the quality is feasible only with the clearly organized QMS aimed at the interests of consumers, affecting all departments [1]. The QMS implementation process includes complex activities. All these can affect various aspects of the enterprise. In addition, the implementation process can also affect the QMS subsystems - logistics, production, strategic enterprise management, personnel management and many others. From this we can conclude that the implementation of the QMS is a rather laborious and lengthy task [3]. In most cases, the development and implementation of QMS is carried out in several stages:

- analysis of the situation that currently exists in the enterprise and working conditions of staff;
- processing of the necessary documentation and changing of the working conditions of staff;
- conducting internal audit of the QMS.

The implementation of these steps is a time-consuming process, including the implementation of complex and extensive work. The longest and most responsible stage is the development of the necessary documentation for the employees of the enterprise. The requirements for the QMS are formulated in the international standards ISO 9000, and the main provisions are presented in the standard ISO 9001: 2015 [5,6]. Any enterprise that aims to optimize business processes to increase efficiency and competitiveness, as well as improve product quality, can develop and implement the QMS. The construction of an effective QMS in accordance with the requirements of ISO standards is achieved by solving the following tasks:

- a description of the processes of the enterprise, their relationship, monitoring, development of performance criteria and evaluation of processes;
- development of QMS documents;
- implementation of the developed documentation;
- organization and systematic conduction of internal audits of the QMS. The purpose of QMS audits is to identify its strengths and weaknesses, as well as its continuous improvement;
- an independent assessment of the QMS by the certification body and the receipt of the certificate of compliance with the QMS requirements of ISO 9001: 2015.

International practice has confirmed that only targeted implementation of the QMS can bring the success to the enterprise and only it will give the desired result. Therefore, each manager, all personnel must understand the importance of the implementation of the QMS. For understanding of the importance of QMS implementation, it is necessary to consider the classification of functions of the enterprise:

- primary activity. It is aimed at the implementation of the life cycle of a product - the production of specific products;

- secondary activities, including management. It aims to increase the effectiveness of primary activities;
- secondary regulatory activities.

The latter activity includes the QMS, as its role is to present requirements for the management system in the enterprise and to monitor their implementation. The competition that exists between enterprises is the primary activity. The usage and apply modern management technologies will help the enterprise to increase the effectiveness of the QMS. In modern economic conditions, the goal of competitive enterprise is development that both overtaking of market and shaping it. At the same time, the quality of the enterprise acts as a management object, the principles of quality management acts as the principles of management, and the QMS acts as a management system. Today, more attention is paid to the formation of the integrated management systems that take into account the requirements of ISO standards. In many enterprises, the usage of integrated management systems, developed in accordance with international standards, covering all functional management systems, including the sphere of financial management, is highly valued. The integrated management system in such enterprises includes the following procedures:

- full production process, providing procedures for quality, environmental protection, labor protection;
- procedures for a complete financial unit, including investment projects management;
- development procedures in various areas of activity.

In such enterprises, the goals of the integrated management system are set at the top management level and then are transformed to the next levels. These goals should reflect the specifics of the units, the planning system, etc. The methodological basis for the development of the integrated management system is the theory of the functional systems. While designing of the integrated management system, with the principles setting forth in ISO 9001: 2015 standard, it is also necessary to take into account the following general system principles of management [4]:

- the principle of the unity of purposes;
- principle of effectiveness;
- the principle of necessary diversity.

The goal of the integrating management systems is to achieve the highest competitiveness of the enterprise using modern achievements of management theory and practice. In the production of products in a quality management mechanism, the manifestation, influence and interaction of the subjective and objective conditions are an extremely complex process. There are non-production and intra-production effects that characterize the positive impact of QMS. The non-production effects of the QMS include: consumer confidence to the enterprise, improving the image of the enterprise, a large degree of trust of financial institutions, implementation of consumer requirements in all processes of the enterprise. The intra-production effects of the QMS include: reliable organization of the production and information structures and production processes, the creation of intra-production mechanisms to coordinate and manage the activities of the enterprise, saving costs on eliminating defects or preventing them, optimizing processes based on a regular analysis of the functioning of the QMS, preserving the existing “know-how” even in unplanned events (for example, a change of personnel), the creation of effective systems for reliable correlation supposed errors and their prevention. The decision to implement QMS based on ISO 9000 standards is a strategic decision of the top management of the enterprise.

With implementing of the QMS, the enterprise receives:

- continuous monitoring of key business processes, which allows to increase the efficiency of the enterprise, and consequently, increase profits;
- a guarantee of the reliability of fulfilling the requirements of the customer, and therefore-increasing market attractiveness;
- better risk management;
- expanding export opportunities;
- competitiveness in the domestic and foreign markets;
- the ability for selling products in world prices for similar products;
- the possibility of cooperation with foreign partners (including obtaining investments);
- advantages over competitors when participating in tenders;
- an opportunity to attract foreign and local investors;
- facilitating the management of all activities of the enterprise;
- reduction of non-production costs;
- improving the quality of products or services;
- improving the management system and increasing the efficiency of employees at all levels.

The need for a system to maintain and ensure its effectiveness requires large resources. To optimize such costs of the enterprise, it is necessary to consider and find a solution to the following problems:

- consistency between the QMS and the objectives of the enterprise. Achieving the goal from the implementation of the QMS will be possible only with general focus;
- introduction of a complete process approach. Often, such a factor as the process approach remains only in theory and is not implemented in practice, due to the complexity of implementation at the enterprise. When implementing the process approach, a number of structural changes are necessary, which subsequently may cause additional difficulties;
- building a system of reports on the functioning of the QMS, which will be a fundamental fact for the implementation of management decisions.

QMS raises the client's interest in products and attracts more than less quality products. And this is a good position for competition in the market. Increased quality is also needed to better satisfy consumers. Having established the level of quality, the enterprise must hold or increase it, since a negative process can adversely affect the image of products and efficiency. Quality management will help more effectively control the quality of products at the required level. On the other hand, an increase in the level of quality will lead to higher production costs, which will affect the price of products. And here it is necessary to identify the golden mean. The product must satisfy the needs of consumers in quality and safety, but also have an acceptable price. Of course, the introduction of the QMS can positively affect the attractiveness of the product, and further the market share can grow, but it is better set the level of product quality initially for consumer 's confidence [2]. For this, there is a need to study the external environment, for more accurate product information. By studying this information, the enterprise will be able to respond in time to changes in consumer demand. But it is also necessary not to forget about the internal environment of the enterprise and monitor the trends in the work of all personnel. To control the entire amount of information, a quality manager will sum up everything and act according for quality control system.



### **3. THE MEASURES TO IMPROVE THE EFFECTIVENESS OF THE QMS IMPLEMENTATION**

The main idea of quality management is an effective organization that can be implemented through systemic and process approaches. The enterprise, implementing the quality policy within QMS, manages the quality of products and processes based on certain principles, the process approach is one of them. A process is a combination of interconnected and interacting activities that transforms inputs into outputs [4]. The international standards of ISO 9000 series are aimed at applying a “process approach” in the development, implementation and improvement of the effectiveness of the quality management system. The goal is increasing customer satisfaction by fulfilling their requirements. In order to function effectively, enterprises must define and manage multiple interconnected and interacting processes. Often the output of one process forms directly the input of the next. The application of a system of processes at an enterprise with their identification and interaction, as well as process management, can be considered a “process approach”. The advantage of this process approach is total management, which covers both individual processes within the process system, and their combination, and interaction. The process approach provides “control continuity” at the junction between individual processes within the process system, as well as in combination and interaction. With the correct, informal implementation, the interest of senior management and the involvement of staff, the QMS will indeed be able to systematize and regulate all types of activities of the enterprise. To do this, you need to clearly understand the essence of the process approach, and also to interpret and understand the requirements of the ISO 9001: 2015 standard. The basis of the concept of the process approach in management are:

- the principles of establishment QMS based on ISO 9000 standards;
- Deming PDCA cycle;
- the principles of building BSC (Balanced Scorecard);
- the principles of project management, since any changes in enterprises, including the introduction of the process approach, are carried out as a project;
- the best world experience in the field of establishment QMS.

When implementing the QMS, the following principles must be taken into account:

- the implementation of full control in the enterprise. If at small enterprises the exchange of information occurs quickly, then at large enterprises the time of making decision can greatly delay the adoption of the necessary decision. To make the right decision, the quality control service must be formed by trained specialists who are not afraid to make decisions;
- attracting a qualified quality manager. These staff are necessary for a complete QMS. He must possess all the necessary skills and knowledge. In order to make timely, necessary decisions, he must know the fully appropriate production, and who exactly is doing what, to present a complete picture of the issue and the exact reaction to it. He must also have good leadership qualities, so that he could set up staff to work effectively. He must know the QMS and have knowledge of ISO 9000, he should be able to use them. Also, the department under his control should report directly to senior management for faster decision making. In order for the activities of the quality manager to be more effective, it is advisable to subordinate him directly to the first head of the enterprise and give all the necessary powers to manage the QMS processes;
- staff training. Personnel should also be involved in the implementation of the QMS. To improve skills, enterprises can conduct trainings or send personnel to other enterprises to exchange experiences and enhance personal skills. It is also worth encouraging personal initiatives of employees to improve their skills;
- adherence to the principle of reasonable sufficiency. The enterprise introduces all the QMS standards on its own.

Therefore, it is necessary not to exceed the indicators, but to take into account what they can influence, what to improve, and what to reduce. The entire system should be built in such a way as to avoid unnecessary requirements [3]. It can also increase the time for making an important decision;

- the formation of an enterprise culture in which quality will be the leading goal. Workers should understand without penalty or punishment that their goal is to produce high-quality products. The quality control service should educate personnel for what quality management is needed and that the effectiveness of the enterprise depends on each one. Only real facts are capable of forming the faith of employees in the effectiveness of the QMS, therefore even small victories are important here. If the manager publicly notes all the facts of increasing the efficiency and quality of work, linking them with the system being built, the likelihood of a general positive attitude towards the QMS from the staff will increase significantly;
- attracting external consultants. Qualified specialists in the field of QMS can provide the enterprise with very significant assistance in the development and implementation of this system. Their involvement will reduce the time of implementation of the system, as well as reduce the number of errors and shortcomings that may arise. You can also find new personnel abroad who have rich experience in quality management or create better conditions for managers from other enterprises.

Thus, the implementation of the QMS at the enterprise is a long and labor-intensive process, which can pay off by increasing the share of products on the market or obtaining other economic benefits. This system must be flexible in order to adapt to changes on time and provide the necessary level of quality for the end user. For quality management, in principle, it does not matter how large the enterprise is. A working QMS can become a real tool for continuous improvement of the enterprise and a source of economic benefits. Due to the documentation, control, analysis and periodic review of key production (technological) and management processes in accordance with the requirements of the international standard, transparency, better manageability and continuous improvement of the enterprise's activities are ensured. If the owner sets the goal of increasing the value of the enterprise (for further sale, capitalization, attracting investments), then obtaining a certificate for a quality management system according to ISO 9000 standards can become a real tool to achieve this goal. QMS will give the last consumer a higher level of quality, and this must be done for that it can continue to purchase goods. If the balance point is found and the customer is satisfied, it will begin to treat the products more confidently. And this, in turn, will strengthen the position in the market. Consequently, the competitiveness of products is growing, because the enterprise will be able to demonstrate the safety and quality of its production activities, including the purchase of raw materials, production and delivery of products.

#### **4. CONCLUSION**

The creation of the QMS should be part of creating a business model of the enterprise, where each process of obtaining products is considered as a link in a continuous chain at the end of which there is a consumer. This model assumes the emergence of new horizontal ties and relationships aimed at removing interfunctional barriers. QMS can be used as an effective tool not only for improving the management system, but also for its substantial reorganization. At the same time, the process of introducing innovations at the enterprise is easier and more painless. An informal approach to the implementation of the QMS, leadership of senior management, staff involvement and the involvement of qualified specialists in the field of quality will help enterprises make the most of the opportunities that are laid down in the requirements of the ISO 9001: 2015 standard.

This standard clearly defines the composition of the documented information of the enterprise, conditions of traceability and identification products, selection of external suppliers, methods and tools for measuring the effectiveness of the enterprise, types of corrective actions and measures in impact on risks, etc. Integrated QMS is turning into an effective tool, necessary both to improve the quality of the enterprise as a whole, and to improve product quality.

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# ENTERPRISE RISK MANAGEMENT STRATEGY

**Shafa Guliyeva**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001 Azerbaijan*

*Shafa\_Guliyeva@unec.edu.az*

## ABSTRACT

*Modern enterprises operate in conditions of uncertainty and increased risk. A risk management problem is the most critical part of any organization's activities. The risk management plan encompasses all facets of the company's long-term operation and defines the risk management program features. The main objective of risk management is to get the most benefit with a reasonable benefit-and-risk ratio. Risk management is, of course, correlated with some of the company's costs but its implementation is important and justified. The company is sacrificing less by minimizing risk to retain more. The key goal of the risk reduction plan at the company is to ensure that the organization can work effectively in the future. The Company's growth plan determines risk control characteristics. The relationship between the company's development strategy and the risk management system is evident not only in the fact that the former dictates the latter but also in the presence of input, namely: selecting a particular risk management choice may require some adjustment of this strategy or preliminary consideration of certain risks before it is developed. In the face of uncertainty, each organization must select a risk management approach geared towards ensuring its long-term strategic advantage. To all organizations there is no single risk management solution, as much depends on the details of each organization. The implementation of strategic planning involves an anti-risk strategy aimed at mitigating negative phenomena. The strategic strategy is translated into risk planning taking into account the impact of risks on the achievement of the organization's goal. Changes in the organization's external environment are associated with strategic risk planning. The choice of a consistent sequence of activities, taking into account the organization's internal and external environmental variables, has a positive impact on the results expected during the implementation of a risk management strategy. Strategic risks are the most "expensive" for companies, as they impact shareholder interests. Therefore, when setting targets, management of the organization should consider the degree of risk it typically finds appropriate in the value-creating cycle to itself. This will give the company a greater degree of confidence in achieving strategic objectives in the face of uncertainty and risk.*

**Keywords:** *business strategy, entrepreneurial risk, risk management, strategic risk planning, uncertainty*

## 1. INTRODUCTION

In an unpredictable economic situation, risk management strategy is the practice of risk management focused on risk analysis and the use of various approaches to reduce it. Risk management at the organization involves an overview of the company's business environment and capabilities, targeted at strategic research to find the company's most promising areas of operation, with a preliminary evaluation of the degree of risk and the quest for methods to eliminate or minimize it [1]. The unit's roles in risk management are calculated within the company's resources and strategic priorities when assessing the financial position of the organization as a whole. It is especially important for divisions engaged in volatile securities operations. An entrepreneur's main task in this area is to find an option that provides the optimum combination of risk and income for a given project. The plan for growth encompasses all facets of the firm's long-term functioning. The relationship between the company's growth plan and the risk management system is reflected in the fact that they complement one another.

The existence of such a relationship suggests, first, the likelihood of considering risks and taking steps to handle them, and, second, that risk management is an essential component of corporate general management. In the face of uncertainty, risk management decisions have to be compatible with decisions on the operation of a company.

## **2. BUSINESS PROBLEM: ENTERPRISE RISK MANAGEMENT STRATEGY**

The danger is an important part of the business. Economic risks are inevitably present where there's an industry. The company's growth plan and its market place decide the characteristics of the risk management system. The company's growth strategy could be to establish a new business niche or to sustain a stable financial position. Improvement is the goal of any program. It is only possible for a business with a steady flow of capital required for growth. And this inflow begins only when the company receives a higher rate of return (than prevailing in the sector concerned) [2]. The corporate development approach is rarely limited to organic growth, and managers set unrealistic targets that are not always justified in our opinion. For certain cases, company priorities might include targeting neighboring markets, introducing regional expansion, and creating new products and technologies. For such a declaration of the issue that fits into the company's plan, a scenario of rapid growth due to internal capital is unlikely and there is a need to acquire an already-operating existing business (company) on the market. A strategy focused on other companies' mergers and acquisitions can produce the fastest outcome [3]. It should be remembered that the mergers and acquisitions function is determined by the strategy of the organization and will adhere to its strategic goals. The key criteria for mergers and acquisitions performance are the growth of the capitalization of the business. The key issue for a company's top management under conditions of uncertainty is risk management and value development in a complex society with a high degree of risk. Following on from T. Stuart, risk management is not about reducing risk, as the remuneration will then vanish, but about controlling it. It is important to decide what risks should be taken, and when they shouldn't be done at all [4]. Remember that there needs to be a systematic and systemic approach to risk management. However, the need for isolation was expressed from the very beginning of risk management, even at the most productive enterprises. Insurance, technical, political, and environmental risk management was distinct and focused in separate departments. This led to the fact that, as a rule, there was no collaboration in the field of risk management in the organizations and new risks were gradually discovered unacceptable. The modern enterprise-wide risk management model or risk management represents a paradigm shift in which entrepreneurs rely on to handle risks in achieving strategic goals. Whereas the old model was characterized by a separate risk management approach, the new approach is holistic and risk response approaches are built within it. The peculiarity of integrated risk management, i.e. risk control within the whole company, is that risk management around the organization is systematic and organized. At the same time, the company is developing a different risk management culture [5]. Within the entire organization, there is no single risk management choice, as much depends on the cultural climate of each company. The growing organization has its approach for implementing risk management at all management levels. Risk management is not an appendage to the general management structure of the organization but its central feature. The enterprise-wide transition to risk management is a significant cultural change for the business. The combination of terms management and risk means a "structured and consistent approach" that incorporates policy, procedures, assets, technology, and skills to identify and handle the uncertainties an organization faces in the value creation process [6]. Therefore, corporate risk management aims to develop, protect, and grow shareholder capital, that is, share market value through uncertainty management. Confronted with rising uncertainty, which is marked by a high degree of financial risks, one of the main fields of financial management is ensuring the financial stability of the company.

The Financial Security Strategy is one of the types of a functional strategy of the company that protects its financial interests from various threats by defining long-term objectives of this defense, choosing the most effective ways of achieving them, and adjusting adequately the directions and forms of protection while changing the factors and conditions of its operating financial environment[7]. A plan to neutralize the financial risks of the undertaking is highlighted as an especially important area in the general plan framework for ensuring the financial stability of the undertaking. For this purpose, the following strategic problems in companies need to be solved:

- ensuring the successful composition of an enterprise's portfolio of financial risks;
- ensuring that internal capacity is used efficiently to neutralize the financial risks of the enterprise;
- ensuring optimal arrangements for the foreign protection of the company's financial risks.

A successful enterprise is inextricably connected to the organization's sustainable growth. Amid complexity, the existence of rising risks complicates sustainable development management. Since the enterprise is studied as an open socio-economic structure that is exposed to the external world, it can be inferred that the organization's economic stability is determined by internal as well as external sustainability [8]. Financial stability is one of the key characteristics of the company's financial situation. This reflects the firm's long-term stability, financial source quality, solvency, and creditworthiness. To establish a system of interconnected and effective measures to improve the company's financial stability, it is important to identify and recognize risks and problems which adversely affect the company's financial position. Not all actions should be by the company's main objective-to raise its value [9]. Financial stability offers the opportunity to attract additional investment which contributes to the company's growth. The issues of evaluating the attractiveness of investment and finding ways to increase it today are important for investors focused on the risks of financial and economic activity, and for companies involved in strategic business development [10]. Determining the optimal amount of cash reserves to meet unexpected costs and uncertainties in conditions of uncertainty is one of the company's most critical tasks of financial management. Within finance theory, the following reasons for holding a cash stock are distinguished: transactional, insurance, (speculative) investment [11]. Lack of cash can have a detrimental impact on liquidity, solvency, operational performance, the company's corporate image, and even lead to bankruptcy. On the other hand, the surplus funds reduce the enterprise's overall performance, because they do not carry any profit themselves. They're losing their initial value under inflation [12]. Therefore, based on the financial state of the business and its economic operation, the optimum sum and cash reserves are calculated according to the particular circumstance to ensure the viability and solvency of the company. In the final analysis, the cumulative effect of cash flows will be expressed in the form of an improvement in the valuation of the company, which is achieved only if its profits surpass payments, and in amounts sufficient to satisfy investors' objectives and requirements [13]. Strategic management is the process of strategic decision-making and execution. As they are directed at the enterprise's long-term goals, they are distinguished by a high degree of risk in the future. The company's success in the face of uncertainty is due to an advanced approach that relies on forecast changes [14]. In this case, several alternatives are not specified, as opposed to tactical decisions, and the process for producing potential alternative solutions plays an important role. Strategic decisions are arbitrary, their effects which are long-term in nature are difficult to determine in advance. Under the strategy of management, it refers to the ways and strategies of using funds to accomplish the goal. That approach has a specific set of rules and constraints for making the best decision.

The strategy helps focus resources on specific strategies that do not contradict the strategy's general line and ignore all other alternatives. That strategy ceases to exist after the accomplishment of this aim because new goals pose the challenge of designing a new strategy.

### **3. THE PRINCIPLES OF CHOOSING THE EFFECTIVENESS OF STRATEGIC DECISIONS IN THE FACE OF UNCERTAINTY AND RISK**

Significant ambiguity is associated with strategic decisions, as they are affected by factors not regulated by companies. Hence, a rational choice of methods and techniques for a probable evaluation, taking into account random economic processes and justifying the decision calculation choices, is especially relevant. Here the regulated and unmanaged processes and influences have to be distinguished from one another. All of which will contribute significantly to mitigating the effect on rising volatility of such variables. Thus, in implementing an economic strategy, the neutralization of uncertainty factors can be estimated to some extent as a form of regulation of uncertainty and effectively taking into account uncertainty factors [15]. There are many methods to determine the efficacy of the decisions under uncertainty  $X = \{x_i\}$ , where  $i = 1, \dots, n$ . The following regulated factors will act as set X: manufacturing technology, capital expenditure, amount of production, product type, prices, etc. A collection of managed factors entails unsystematic risk, that is, a risk inherent in this particular business. The phrase "the company's peculiar risks" means unsystematic risks that are unique to this business. They are an important part of the company's overall investment risks, covering, besides unsystematic and systemic risk. Thus, R. Reilly characterizes different threats, including those associated with the very existence of the product and obtained by contrasting the product with its analogs [16]. Also, the "company's special risk premium" is a quantitative evaluation of particular risks, which is then incorporated into the appropriate equity return rate [17]. Because this is a particular risk, it can be minimized by including different assets in the portfolio, that is, diversification. There are also several uncontrollable variables  $Y = \{y_j\}$ , where  $j = 1, \dots, m$ , to determine the efficacy of the decisions under uncertainty. One example of unregulated factors may be the degree of demand for products, the exchange rate, resource and commodity costs, competitor behavior, natural factors, government policies, etc. The systemic risk associates a range of unregulated variables. This risk is unavoidable, it is decided by the market and cannot, therefore, be that due to systemic changes. Hence, it is not known which of these variables (or their combination) will have the greatest effect and will function while the forecast is being made. To determine the effectiveness of decisions, an efficiency indicator E is introduced. Profit, revenue, profitability, net present value, a payback period of capital investments, etc. can be used as an indicator. A general assessment of the organization's activity is given based on such resulting financial indicators as profit — an absolute indicator and profitability — a relative indicator [18]. It is possible to establish the dependence of the performance indicator on controlled and uncontrolled factors, that is, the function  $E = \{x, y\}$  is considered known. Since the set of controlled and uncontrolled factors is discrete, it means that the efficiency indicator is a discrete set of numbers. Thus, each pair of controlled and uncontrolled factors  $\{x_i, y_j\}$  is associated with a value of the efficiency indicator  $E = \{x, y\}$ . Having a set of values of performance indicators, the matrix  $\|E = \{x, y\}\|$  is formed. The following principles are primarily applicable in the selection of the most desired options in the face of uncertainty, that is, in the presence of unregulated factors:

- optimism principle;  
Uncontrolled variables characterizing the external world are regarded as the most conducive to decision-taking according to this theory. In this case, the regulated variables are chosen optimally, and the outcome must be decided.

- pessimism principle;  
The implementation of this theory can be correlated with great risk because the external environment can change unfavorably under real conditions. For this case conditions are likely where it is likely to choose the regulated variables in the most irrational manner. It may be attributed to altered market conditions, defects in machinery, bad labor organizations, etc. As a consequence, the income indicator minimum values are calculated.
- Theory of an assured result;  
When using this principle, the guaranteed value of one or another result is provided regardless of the action of uncontrolled factors.
- Savage Principle;  
One or another unregulated element is set in the analyzed output matrix. The optimum efficacy value is calculated with this value of the unregulated component. The effectiveness values are calculated in the remaining matrix cells, which are defined as the difference from the optimum output value. The method for evaluating the defined variations for various values of unregulated variables is carried out similarly.

Different principles of optimality that find application in the market economy in the presence of uncertainty for evaluating the effectiveness of investment projects. For reality, a blend of all values can be used to improve the objectivity of the decisions.

#### **4. PROBLEMS OF STRATEGIC RISK MANAGEMENT TECHNOLOGIES AT ENTERPRISES**

Any company should start from the premise that risks have a strategic basis for developing a risk management program. Strategic threats are related to the organization's future, with certain issues not of a momentary nature. Distinguishing between strategic risks for quasi-stable and life-time crisis periods is required. Quasi-stable security threats contribute mainly to the mission of the organization. The mission defines the company's distinctive characteristics in detail and sets the course for objectives and strategies at various organizational levels. In reality, by referring to the mission as the organization's main objective, management creates customers who will in future support their business. Following on from P. Drucker, "All approaches have one thing in common: they build a customer-and that's the ultimate aim of any company, any company, any business. But this is done in four different ways: ensuring the product (or service) is effective, selecting the optimal quality, adjusting to the consumer's social and economic realities, creating value for the consumer"[19]. The challenge for certain companies in conditions of instability is precisely the inability to quickly adjust their tasks, taking into account changes in customer demand. Innovation-related crisis, or strategic transitional threats. In this scenario, the key feature of the internal management structure is a long-term focus, scientific analysis, diversification of technology, innovative operation and optimum use of imaginative workforce. The implementation of strategic planning involves anti-risk strategy aimed at mitigating negative phenomena. The more preparation is moving into the future the more inaccurate the data from the source. Therefore, strategic planning is translated into risk planning, taking into account the impact of risks on the achievement of the organization's target. Changes in the external environment are important in strategic risk planning: long-term policy changes, the political climate, changes in consumer behavior, the rise of new rivals in the sales markets and much more. Based on I. Ansoff, "the axiom of strategic management is as follows: The organization must adhere to extreme organizational and competitive conduct in order to survive and prosper in every industry. Only in this situation can it balance the volatility of demand and the different business opportunities"[20]. Strategic risk-planning as the practice of forecasting is simultaneously a structured method focused on logic and intuition.



The process of implementing risk strategies is typically divided into two specific stages:

- the phase of strategic risk preparation, that is, the development of a set of strategies for sustainable development under conditions of uncertainty, beginning with a set of basic strategies for the organization and ending with practical strategies and individual projects.
- the strategic management process, that is, the implementation over time of a particular strategy with risk control and the transition (reformulation, if necessary) of strategies in the light of new circumstances.

## 5. CONCLUSION

As an integral part of the economic activity conditions, instability lies at the center of economic processes, interaction with which causes the appropriate behavior of economic entities. In an unpredictable economic situation, risk management policy is the art of risk management. The approach to risk management in organizations' growth policy should be a systematic one. The risk management approach that relies on forecast changes is centered on the focused organization of the long-term risk mitigation research. In the face of uncertainty, the correct concepts of optimality are applied to choose the most desired solutions according to the company's growth strategy. A blend of all values can be used to improve the efficiency of the decisions in practice. Strategic threats vary for organizations during quasi-stable and crisis times. Developing a risk management plan includes setting general directions that take into account the risk field dynamics and promoting which will ensure the growth and strengthening of the firm's role. Strategic risk preparation is the management mechanism that creates and manages strategic communication between the organization's mission, priorities, future opportunities, threats, and chances. The risk preparation activities are decided by each organization, based on the operation details. The method of implementing a company risk policy consists of two phases (the strategic risk planning process and the strategic management process).

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## ESTIMATION OF SECTORAL ELASTICITIES OF SUBSTITUTION: CASE OF AZERBAIJAN

**Yadulla Hasanli**

*Azerbaijan State University of Economics, Azerbaijan*  
yadulla.hasanli@unec.edu.az

**Gunay Rahimli**

*Azerbaijan State University of Economics, Azerbaijan*  
g.rahimli@unec.edu.az

### ABSTRACT

*In this paper, the share of capital (fixed assets) and labour (employed population) in the volume of production (GDP) for the different sectors of the Azerbaijan economy has been estimated. For this purpose, the elasticity of substitution and other parameters of the CES production function have been assessed using the Marquardt method in the Mathcad software based on time series for the years of 2006-2017. For various sectors, the values of elasticity of substitution have been determined and comparative analysis has been conducted. Furthermore, we compared obtained results and examined which features of the economy of the country have affected the forming of these values, and recommendations have been given in this direction to improve the situation.*

**Keywords:** capital, CES production function, the elasticity of substitution, factor income share, labour

### 1. INTRODUCTION

One of the most important conditions of the economic growth of a country is to increase production and ensure the effective use of production factors. In this context, as economic growth is the most important economic policy objective of countries as it was in the past, the effective use of production factors is among the main issues that are needed to be investigated. By estimating parameters of production functions, the productivity of the production system can be assessed and the possibility of replacing one of the production factors with another can be determined. The widely used production function in practice is Cobb-Douglas function (Douglas and Cobb 1928). In this function elasticity of substitution of capital with labour is accepted as unit and the form of the function allows to estimate its parameters easily. However, Arrow, Chenery, Minhas and Solow (1961) suggested that, the elasticity of substitution is not always equal to one and they proved this by using empirical analysis and they introduced a new production function - CES production function which has more general characteristics. It should be noted that some research had been put forward for assessment of Azerbaijan economy with CES production function for different periods. Hasanli (1998) had estimated the CES production function for the country's economy based on the indicators of the years of 1990-1996 and the elasticity of substitution had been greater than unity which meant that at that time there had been the lack of capital in the country. Hasanli, Musayev, Ismayilova, Rahimli (2019) had estimated the parameters of CES function for 2006-2017 years and this time elasticity of substitution was less than one which can be explained with the lack of skilled workforce. This was due to the increase in capital inflows to the country from oil revenues, which could not be used because of the lack of qualified workers in the country. Although the assessment of the parameters of production function for the country's economy as a whole provides an overview of the use of factors in the economy, these parameters may vary from sector to sector, and in this regard, the determination of sectoral substitution elasticities is important in assessing the current situation in these sectors and in determining development prospects.

Jorgenson and Timmer (2011) suggests that to understand the process of economic growth and structural change, it is important to dig into sectoral disaggregation because even the classic sectoral breakdown into primary, secondary and tertiary sectors is inaccurate when it comes to productivity. The parameters of CES production function also can be used to examine unemployment problem and job-creating potential of different sectors (Gebreselasie 2008). Moreover, Salem (2004) highlights the importance of estimating sectoral elasticity of substitutions for constructing Computable General Equilibrium model. In this regard, the estimation of production functions gains special importance. Therefore, we estimated CES production function for agriculture, mining, manufacturing and construction sectors of Azerbaijan economy.

## 2. METHODOLOGY

Arrow, Chenery, Minhas and Solow (1961) suggested CES production function as follows:

$$Y = A_0 \cdot (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{v}{\rho}}, \quad (1)$$

Where, Y stands for GDP, K is capital and L is for labour. Parameters that are required to be estimated are as follows:

$A_0$  ( $A_0 > 0$ ) – is referred to as the efficiency parameter, because when all inputs remain the same, a change in  $A_0$  changes the output. The value of this parameter depends on the unit of measure of other indicators, and if the variables are given as percentages, then this indicator fluctuates near to one.  $\delta$  – is distribution parameter, and determines the functional distribution of income for any given value of  $\rho$ ,  $v$  – is the degree of homogeneity ( $v > 0$ ),  $\rho$  – is substitution parameter ( $\rho \geq -1$ ) which is used for calculating the elasticity of substitution ( $\sigma$ ).

$$\sigma = \frac{1}{1+\rho}, \quad (2)$$

when  $\rho = -1$ , we get an infinite elasticity of substitution, and in this case, CES production function becomes Leontyeff production function. If  $\rho$  is between -1 and 0, elasticity of substitution becomes greater than unity which means an increase in the capital/labor ratio increases output per unit of labour, but as the ratio of capital to labour approaches zero, output per unit of labour reaches a positive lower limit.  $\rho = 0$  implies an elasticity of substitution of unity and CES production function becomes Cobb-Douglas function. And the case  $\rho > 0$  gives us the elasticity of substitution less than 1, and in this case when a fixed amount of labour is supplied with capital, the output per unit of labour approaches an upper limit, but a fixed amount of capital is leveraged by labour, the productivity of labour approaches zero. According to Hicks, taking into account technical progress, CES production function is written as follows:

$$Y = A_0 \cdot e^{\lambda t} (\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{v}{\rho}}, \quad (3)$$

Here,  $\lambda$  – is the parameter characterizing the level of technical progress.

CES production function remains non-linear, even after logging. Therefore, non-linear least squares method is applied to assess its parameters (Кубанива, М. Табата, М. Табата, С. Хасэбэ, Ю., 1991). In this case, approximation methods of optimization are used and one of these methods is Marquardt method (Marquardt, 1963) which is a modification of Newton-Gauss method (Björck, 1996).

To apply this method, firstly we need to log each side of the equation (3):

$$F_i = \ln Y_i = \ln A_0 + \lambda i + \frac{\sigma}{\sigma-1} \ln(\delta K_i^{1-\rho} + (1-\delta)L_i^{1-\rho}) + U_i, \quad i = \overline{1, m}; \rho = \frac{1-\sigma}{\sigma}, \quad (4)$$

Here,  $v$  has been accepted as 1.

When using non-linear least squares method, we minimize the sum of squares of errors -  $U_i$ . Doing so, we get an optimization problem –  $\min U_i^2$  subject to equations (4). This problem has been solved with the help of program in Mathcad software and here initial approach for parameters generally is taken as follows:

$$A_0 = 1; \lambda = 0,05; \delta = 0,5; \rho = 0,5$$

In this paper, we estimated the parameter of CES function for different sectors of Azerbaijan economy based on the indicators for the years of 2006-2017 by applying Marquardt method.

### 3. FINDINGS

The data base of the research constitutes data on sectors of the country's economy from State Statistics Committee of the Republic of Azerbaijan (SSC). In the article, we took GDP as  $Y$ , fixed assets for  $K$  and workforce of sectors as  $L$ . We used the indicators of the years of 2006-2017. However, for some sectors some years have been omitted from the model because of the adequacy of models. We brought GDP and fixed assets to real terms using deflator. Let's look at the results obtained from models for different sectors.

#### 3.1. Agriculture

*Table 1: Statistics for agriculture*

Years	GDP (current million manat)	Fixed assets (current million manat)	Labor force (thousand people)
2006	100.8	126.0	25.3
2007	163.2	141.7	25.7
2008	307.1	209.1	26.0
2009	348.7	209.3	26.3
2010	442.7	218.0	46.9
2011	757.2	225.8	48.1
2012	897.4	375.7	48.9
2013	1,069.2	509.7	49.2
2014	1,269.1	524.2	55.7
2015	1,312.8	572.5	61.5
2016	1,424.1	755.3	68.4
2017	1,664.8	1,020.9	73.5

*Source: SSC*

The results obtained for agriculture sector based on the indicators 2006-2017 years are as follows:

$$Y = 1,02e^{0,02t} (0,69K^0 + 0,31L^0)^{-\infty}$$

$$R^2 = 0,92 \quad DW = 2.69 \quad \sigma = 1$$

Statistical characteristics of the model show that the model is adequate. As can be seen, distribution coefficient for capital is greater than for labour.

69% of the output is because of capital and 31% is because of labor. Technical progress increases production by 2% every year. Elasticity of substitution for this sector has been obtained 1, as it is assumed in Cobb-Douglas production function.

### 3.2. Mining

*Table 2: Statistics for mining*

Years	GDP (current million manat)	Fixed assets (current million manat)	Labor force (thousand people)
2006	9 534.0	16,989.1	44.1
2007	15 219.2	22678.9	44.3
2008	21 164.5	24159.5	44.2
2009	15 090.4	25687.4	42.7
2010	19 482.2	27830.2	41.5
2011	24 980.0	30710.6	41.2
2012	23 570.1	34617.8	41.8
2013	22 790.2	39045	42.3
2014	20 222.3	45205.6	41.5
2015	14 370.2	51742	39.1
2016	18 557.0	88472.5	38.1
2017	24 039.4	96709.6	37.9

*Source: SSC*

The results obtained for mining sector based on the indicators 2006-2017 years are as follows:

$$Y = 1,15e^{-0,12t} (0,88K^{-4.263} + 0,12L^{-4.263})^{-0.235}$$

$$R^2 = 0,98 \quad DW=1.58 \quad \sigma=0.19$$

Statistical characteristics of the model show that the model is adequate. We can see that distribution coefficient for capital is significantly greater than for labour, 69% and 31% respectively. Technical progress seems to have negative impact on this sector and elasticity of substitution has been obtained less than one.

### 3.3. Manufacturing

*Table 3: Statistics for manufacturing*

Years	GDP (current million manat)	Fixed assets (current million manat)	Labor force (thousand people)
2006	1082.2	3248.1	203.4
2007	1413.5	3531.3	206.7
2008	1888.7	3820.8	211.4
2009	1967.3	4207.3	214.2
2010	2011.9	4385	208.9
2011	2077.2	4734.4	210.3
2012	2321.8	5449.9	215.6
2013	2452.8	5833.7	224.1
2014	2777.8	7162.4	227.1
2015	2714.0	7210.4	229.8
2016	2978.9	7504.6	242.2
2017	3305.5	7934.9	249.1

*Source: SSC*

The results for manufacturing sector based on the indicators 2006-2017 years have been obtained as follows:

$$Y = 0.95e^{-0.009t} (0.68K^{-1.5} + 0.32L^{-1.5})^{-0.666}$$

$$R^2 = 0.92 \quad DW=1.33 \quad \sigma=0.4$$

Statistical characteristics of the model allow us to accept that the model is adequate. As can be seen, distribution coefficient for capital is greater than the coefficient for labour in this sector, too. Technical progress has negative effect on this sector and elasticity of substitution for this sector has been obtained less than 1.

### 3.4. Construction

*Table 4: Statistics for construction*

Years	GDP (current million manat)	Fixed assets (current million manat)	Labor force (thousand people)
2006	1445.5	1204.1	217
2007	1892	1394.9	222.5
2008	2800.3	1733.9	226
2009	2554.3	2224.5	229
2010	3439.7	2605.2	287.5
2011	4141	2911.7	308.9
2012	5507.9	3311.8	321.8
2013	6753.7	3840.1	325.5
2014	7454.4	4216.3	334.1
2015	6499.5	4371.1	336.4
2016	6338.9	5448.4	343.8
2017	6750.6	5552.3	347.9

*Source: SSC*

The results obtained for construction sector based on the indicators 2006-2017 years are as follows:

$$Y = 1.1e^{0.02t} (0.89K^0 + 0.11L^0)^{-\infty}$$

$$R^2 = 0.94 \quad DW=0.99 \quad \sigma=1$$

Statistical characteristics of the model show that the model is adequate. In the construction sector distribution parameter for capital is significantly higher than distribution parameter for labour. Technical progress increases production 2% every year. And elasticity of substitution for this sector has been obtained 1, as it is assumed in Cobb-Douglas production function.

### 4. CONCLUSION

In the research we estimated the parameters of CES production function for the main sectors of the economy and we can generalize the results as in the table 5.

*Table 5: The parameters of CES for some sectors*

Sectors	A	$\lambda$	$\delta$	$\sigma$	R2	DW
Agriculture	1.01	0.02	0.69	1	0.92	2.69
Mining	1.15	-0.12	0.88	0.19	0.98	1.58
Manufacturing	0.95	-0.009	0.68	0.4	0.92	1.33
Construction	1.1	0.02	0.89	1	0.94	0.99

*(Source: authors' calculations)*

As we can see, the production function for the sectors of agriculture and construction appears as Cobb-Douglas production function, that is to say, in these sectors, capital and labour can be substituted with each other equally. However in the other 2 sectors, elasticity of substitution is significantly less than 1, which means that there is a lack of labour in these sectors. And this can be explained low level of education in the country, which makes difficult to leverage existing capital in the country. Therefore, focusing on preparing skilled workers for these sectors can help to improve the situation.

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## **SUSTAINABLE DEVELOPMENT OF REAL ESTATE MARKETS IN THE REPUBLIC OF AZERBAIJAN**

**Shamil Shirinov**

*Azerbaijan State University of Economics (UNEC)*

*Baku, Istiqlaliyyat str.6, AZ1001, Azerbaijan*

*shshirinov@gmail.com*

### **ABSTRACT**

*By the gradual shrinking of the world market, even small fluctuations can change the course of markets, the real estate market is also developing under the influence of economic developments and internal dynamics. Sustainable development is not possible without growth in real estate. In the implementation of sustainable development of real estate, it is important to enhancing transparency in the management of property and land management, strengthen governance in the real estate sector, and creating a supporting regulatory system by integrating regional and international norms and standards into the national legislation. The principle of sustainability play extremely important role in development of real estate markets. Real estate market development can only be based on solid foundations through an efficient urban planning discipline and an advanced financing system that can reach different segments of the society. Considering that the real estate sector accounts for half of global wealth, it is playing a key role towards achieving the United Nations Sustainable Development Goals. The article contains construction boom, mass appraisal, innovation in real estate registration and the principles of accessibility and transparency in the provision of services to citizens, open government, establishing of National Spatial Data Infrastructure and statistical data on state registration of real estate rights and social housing in Azerbaijan. This study investigates solving of critical issues facing the real estate sector and strategies to obviate those issues in the case of Azerbaijan. This paper was based on ‘Policy Framework for Sustainable Real Estate Markets’ by UNECE and six principles have been analyzed in the study.*

**Keywords:** *Azerbaijan, Sustainable development, Real estate market, Cadastre, Land registration*

### **1. INTRODUCTION**

In recent years interest in “sustainable real estate” has experienced enormous growth. Sustainable real estate development is a crucial practice implemented by successful countries and other countries are following them, adopting good practice in this field (Mishra & Kauskale, 2017: 186). The current important aspect of the national strategic development plans around the world is the development of sustainable investment environment (Kauskale & Geipele, 2019: 376). That is, the true test of sustainability is the ability to satisfy this proposition over time; to provide a durable solution that is appropriate for use decisions which constitute an “irretrievable commitment” of scarce resources (DeLisle, Grissom & Hogberg, 2013: 11). Sustainable development is not possible without growth in real estate. In the implementation of sustainable development of real estate, it is important to enhancing transparency in the management of property and land management, strengthen governance in the real estate sector, and creating a supporting regulatory system by integrating regional and international norms and standards into the national legislation.

### **2. STATE PROPERTY IN AZERBAIJAN**

After the collapse of the Soviet Union, the people of Azerbaijan gained independence, the government undertook economic reforms aimed at the application of market mechanisms in the economy. In this sense, the state control over the prices was abolished and the liberalization of

the economy began. During the past period two state programs, the law on "Privatization of state property" and more than 50 regulatory and legal documents were adopted by studying the experience of other countries in the field of privatization. The era of transformation of state-owned property to private was launched. In the initial stage, the mentioned process started with the privatization of trade and service facilities and gradually covered wider and leading sectors of the economy, such as transport and communication, construction, chemistry and heavy engineering, metallurgy and other industries. Generally, the social welfare of the people and active involvement to the process have been the main priority in both State Programs. On the other hand, legal entities and individuals of USA, Great Britain, France, Switzerland, Turkey, Germany, Russia, China, Israel and other countries have participated in the process of privatization carried out in Azerbaijan. Due to privatization of state-owned property nowadays 84 % of GDP is generated by private sector. It should be noted that the principles of accessibility and transparency are provided in the provision of services to citizens in the field of real estate registration. One of these innovations was the presentation of the extracts from the state register in electronic format. Another was the creation of an electronic archive and digital electronic database as one of the important prerequisites for electronic real estate registration. This has helped to eliminate time loss and increase efficiency in the registration of real estate and other related services. Consistent measures have been implemented to ensure unified management in the regulation of property relations. As a progressive step in this direction, the "single window" principle has been applied in real estate registration and land management. Extraction of issuance, drawing up of technical documentation, as well as usage of land, rent, ownership are resolved in a single window system. Additionally, mobile office services also provided different types of registration services throughout the country. In the "Doing Business-2020" report compiled by the World Bank Group, Azerbaijan ranks 44th out of 189 countries for the simplicity of real estate registration. Notice that, this report reflects the conditions created for small and medium businesses in the country. Therewithal, Azerbaijan has made the registration of property simpler and more transparent by expanding the cadastral coverage and digitizing cadastral plans. As a result of policies aimed at the development of the non-oil sector, the creation of favorable conditions for foreign and domestic investments, and a significant increase in capital investments the construction boom has been on since 2005. The construction sector plays a significant role in the rapid and dynamic growth of the economy. This sector is appreciated as an additional source of income in Azerbaijan. The government is taking various stimulus steps to revitalize the construction sector. "Heydar Aliyev Center", "Baku Flame Towers", "Baku Crystal Hall", "Baku White City" and social homes by the State Housing Development Agency, can be referred as a part of this steps. Necessary to emphasize that with the development of this sector new and long-term jobs have created and employment rates has increased. All above mentioned have led to increase of economic potential of the Republic of Azerbaijan, formation of a competitive environment in the country, as well as the use of modern management techniques leading to improvement of the living standards of the population.

### 3. PRINCIPLES

As is known, the real estate sector is one of the most profitable fields in economy and one of the indices of measuring economic growth of a society. The principles of sustainability have become particularly important in the real estate sector over the past decade. The construction of real estate is a crucial aspect that in the stated visions and plans in many developing countries has the potential to advance sustainability in terms of meeting economic and social criteria (Mouzughi, Bryde & Al-Shaer, 2014: 1709). Despite extended efforts to evaluate the sustainability aspects of the real estate development, very few attempts have been exposed in the scientific literature pursuing integrating the investors (Apanaviciene and others, 2015:

6497). So, this paper was based on ‘Policy Framework for Sustainable Real Estate Markets’ by UNECE. The following 6 principles have been analyzed in the study.

### **3.1. Principle 1: Contribution of the real estate sector to sustainable economic growth**

A well-developed real estate sector contributes to the conversion of unused or underused resources into productive capital, hence increasing employment and other economic opportunities and reducing poverty. Sustainable housing and urban development are key to achieving better quality of life for citizens. Specialized institutions have stressed that the real estate sector can be a driving force for development in both emerging economies and industrialized countries due to its close connection with other sectors of the economy. Also, real estate investments provide a direct way to participate in the strong growth of these economies. Across the world, real estate markets are divided into three (UNECE, 2019: 12):

- Developed;
- Emerging;
- Informal real estate markets.

The development of the real estate sector can decisively contribute to a country’s development point of social and economic view. The following components play an important role in improving land management efficiency:

- Developing and monitoring the correct transactions of land and real estate markets;
- Protecting publicly owned land and facilitating land reforms;
- Providing sustainable transactions and control of land use as well as measures to prevent and manage land disputes.
- Guaranteeing ownership and security of transactions and etc.

### **3.2. Principle 2: Creating a supporting regulatory system by integrating regional and international norms and standards into the national legislation**

Norms and regulations, use of real estate provide the necessary foundations on which to create and develop efficient and integrated markets. A supporting regulatory framework should integrate codes and standards which can support sustainable design and sustainable construction practices. Within the framework national methodologies should be integrated and harmonized with international standards and international best practices to promote economic efficiency and transparency. Other issues are about property rights and expropriation for public reasons, set of laws for agricultural lands. In order to protect property rights and reduce costs, the State must regulate property rights issues. However, there should be a comprehensive set of laws for agricultural lands to allow transparent trade, legitimate property and possession rights, so that land use is not a source of disputes.

### **3.3. Principle 3: Enhancing Governance on Real Estate Sector**

In order to create sound business climate and foster more stable real estate markets, these should be based on unambiguous set of rules. National rules should encourage the possibility of implementing projects which enhance transparency and governance, in particular those aimed at creating urban infrastructure and housing, whether through private, public or civil society cooperation. State property management includes the issues of privatization and effective management of state property, registration and cadaster of real estate, as well as implementation of state control over the efficient use and protection of land. Good governance and good practices contribute to defining environmental protection, economic effectiveness, social inclusion and participation, and cultural adequacy (UNECE, 2019: 17). Moreover, e-government and customer-friendly proceedings should remove substantial unnecessary delays in the administrative approval of procedures for real estate development.

Azerbaijan has achieved great success as a result of its ongoing strategy to increase transparency and fight corruption. Open government principles have always been an integral part of this strategy. Activities on increasing transparency and the anti-corruption are successfully implemented and the elimination of cases that create provisions to corruption are provided. These measures have also completed economic reforms and created new opportunities for sustainable economic development. Adoption of the "National Action Plan on Promoting of Open Government" and the scope of the proposed measures are the next indication of the strong political will to expand the principles of open government and prevent corruption in Azerbaijan (The Decree on "National Action Plan on Promoting of Open Government", 2016).

#### **3.4. Principle 4: Enhancing efficiency of land registers and cadastral operations for transparent land and property management**

The usefulness of land to the development and wellbeing of any group of people is dependent first on its availability and then on how well it is being managed. Land tenure, clear acquisition procedures, and documentation of land transactions are therefore essential if society is to benefit fully from its land resources (Nara & Mwingyine: 2014, 24). It should be emphasized that land management system became more important issue for maximizing the benefits of land resources. From this standpoint, works have been successfully implemented in Azerbaijan. From a cadastral point of view, whereas cadastral accounting has been carrying out, lands of municipality, state, private lands are defined, and maps of municipalities, reliefs and trends have been developed in Azerbaijan. As well as, the relevant electronic database has been created on economic valuation of lands. On the other hand, as a result of reforms in the field of real estate management, Azerbaijan has been leading in this area in the reports of international rating agencies in recent years. At the same time, it should be noted that the property management system in the Republic of Azerbaijan is efficient, transparent and flexible and more than 40 services are provided electronically to citizens of the country in this area. On this point, Azerbaijan is expanding cooperation with foreign countries (e.g. Turkey, Austria and etc.) in the field of real estate management.

*Table following on the next page*

Criterias		TOTAL
Number of state registration of property rights		235488
	initial	68899
	anew	166589
<b>Including;</b>		
Personal accommodation and country house	initial	16075
	anew	24224
Apartment (privatization)	initial	27213
	anew	40797
Land areas	initial	20484
	anew	95479
Non-residential building	initial	1229
	anew	2796
Non-residential areas	initial	3566
	anew	2630
Real estate complex	initial	288
	anew	615
Multi-story apartments	initial	44
	anew	24
Perennial plantings	initial	0
	anew	24

*Table 1: Statistical data about state registration of rights implemented on real estate for 2019  
(Source: Statistics of the State Service for Real Estate Registration)*

Also, establishment of National Spatial Data Infrastructure (NSDI) is crucial to make management decisions, improve the quality of public and municipal administration, and ensure sustainable business environment development. Establishing of National Spatial Data Infrastructure is one of the factors that have a positive impact on the efficiency of the economy and management in the country. Azerbaijan started implementation of NSDI referring to the best international experience of countries such as Holland, Israel and etc. NSDI has a special role in ensuring operational and transparent interaction between government-to-government (G2G), government-to-business (G2B) and government-to-citizens (G2C).

### **3.5. Principle 5: Supporting property valuation based on transparent asset appraisal criteria in line with international standards**

Property valuation criteria based on commonly shared appraisal principles and standards should be promoted and applied systematically (UNECE, 2019: 33). The property mass appraisal project was implemented within the "Real Estate Registration Project" that executed with the support of the World Bank in Azerbaijan. Determining the official market value of real estate is important in areas such as social subsidies, mortgages, insurance, investments in real estate, sales transactions, and state statistics on the real estate market. From this point of view, it is very important to evaluate various types of real estate based on economic and other parameters. In addition, modern mass-appraisal systems contribute to tax equalization by avoiding very different tax rates being applied to assets with similar economic and technical characteristics. Property valuation for mortgage or loan-granting purposes should be based on transparent criteria, in line with international valuation methodologies, that are comprehensible and reproducible also by third-party appraisers (UNECE, 2019: 33). The pilot project has been implemented in Sumgait and Khachmaz with the financial support of the World Bank. Unfortunately, the project did not receive further development and the whole country was not covered.

### **3.6. Principle 6: Promoting social housing and affordable housing for social cohesion, inequality reduction and inclusion**

Affordable and social housing should be considered an integral part of the real estate market, as a means to promote social cohesion and inclusion, economic growth, urban development, reduction in housing pressure, and as a policy option to address the problem of informal settlements (UNECE, 2019: 35). State Housing Development Agency has been established to improve the quality of life by meeting the housing needs of Azerbaijani citizens and to contribute to the realization of the State policy for development of the national economy. The aim of this Agency is to broaden every opportunity for the country's citizens to own an affordable flat, based on continuous and sustainable development to hit our targets. In order to establish and finance a long-term payment system for the sale of the apartments, works have been done with the relevant state institutions. The Mortgage Fund of Azerbaijan is the main source of funding here. At the same time, opportunities for cooperation with state banks in the country have been assessed to ensure long-term financing of the sale of apartments. In total, 1390 apartments out of 1634 apartments owned by the State Housing Development Agency have been received by the citizens on preferential terms. In this regard, 514 citizens got apartments by their own funds and 876 citizens got by preferential mortgage loans. All the apartments were delivered to the citizens in a complete renovation, provided with kitchen furniture, combined heating, water, gas and electricity meters. In accordance with the Strategic Road Map Action Plan, State Housing Development Agency builds apartments within the framework of relevant programs financed by the state budget on the basis of state orders, as well as improving housing conditions for employees of government agencies, organizations and enterprises (<https://mida.gov.az>). Thus, based on the project construction works have a positive impact on the development of the construction sector in the country. It stimulates the production, application and operation of building materials and equipment, and provides new jobs. The stated project will simulate investment attractiveness of the sector and this will have a significant impact on the country's industrial potential.

## **4. CONCLUSION**

The content of this study recognizes that all abovementioned principles need addressing. This study set out to explore the solutions of critical issues facing the real estate sector and strategies implemented in national real estate markets in the Republic of Azerbaijan. As is known, the real estate sector is one of the most profitable fields in economy. Therefore, different state programs, more than 50 regulatory and legal documents were adopted for development of real estate sector. "The Policy Framework for Sustainable Real Estate Markets" by UNECE suggests that the mentioned document can contribute to the achievement of Sustainable Development Goals with the implementation of effective and compatible principles. This paper was based on stated document of sustainability and implication of relevant principles were discussed on the case of Azerbaijan. The study contains strengthening governance and enhancing efficiency on cadastral and state registration system of rights, protecting the principles on transparency and open government, creating National Spatial Data Infrastructure, carrying out mass appraisal and developing a social housing project in the Republic of Azerbaijan.

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## MANAGEMENT ACCOUNTING SYSTEM IN HIGHER EDUCATION AND ITS DISTINCTIVE FEATURES FROM FINANCIAL ACCOUNTING

**Irada Pashayeva**

*PhD student at "Accounting and Auditing" Department,  
Head specialist of Russian Economic School,  
Azerbaijan State University of Economics (UNEC), Baku, Azerbaijan  
irada.pashaeva@mail.ru*

### **ABSTRACT**

*The development of a market economy in the country has led to major changes in the system of higher education, including the financing of State higher education institutions. Whereas, until recently, higher education institutions were considered to be purely budgetary organizations, they now have a high degree of autonomy in their internal management and extra-budgetary funds are an important source of income. For the use of extra-budgetary funds, the university reports to the respective customers and investors. All this leads to the need to collect, register, process and analyze data describing the activity of the university not only as a budget organization, but also as a «business enterprise». Management accounting is a new approach to accounting. In a literal English translation, management accounting means management and accounting, that is, accounting for management. Management accounting is a management tool. Management accounting interprets, that is to say, recycles the accounting data to provide management with a view to making effective decisions without any doubt or delay. Thus, the role of management accounting is to assist the management decision-making process. Reporting information is re-engineered so that top management can effectively manage business processes. It follows that management accounting collects data from both internal and external sources, analyses, processes, interprets and transmits information to management for better planning, decision-making and management of operations within the organization.*

**Keywords:** *management accounting, financial accounting, management efficiency, controlling, planning, organization, decision making, strategy, improvement of university management*

### **1. INTRODUCTION**

With the creation and operation of transnational corporations, increased concentration of capital and competition and expansion of production, the requirements for maintaining and organizing accounting have changed significantly. As of today, in commercial accounting such accounting subsystems as financial accounting, tax accounting and management accounting has already been firmly divided. Budget accounting, as an integral part of the national accounting system, cannot exist in isolation from modern trends in the development of accounting science. However, most government entities are limited to conducting budget accounting. The introduction of the principles of management accounting is still a fundamentally new element in the organization of accounting and requires a long preparatory process related to the development of methodological recommendations, retraining of personnel and analysis of the experience of colleagues who have taken the first steps in forming their own management accounting system. Building management accounting is a complex process related to solving a number of problems, both organizational (administrative) and problems related to software for accounting. The adoption of sound management decisions by higher educational institutions (HEI) in these conditions is largely due to the precise work of the mechanism for planning, accounting, analysis and control of income/expenses and performance results. The development of a market economy in the country has led to major changes in the system of higher education, including the financing of state higher education institutions.



Until recently, universities were considered to be purely budgetary organizations, but nowadays they are endowed with a fairly high degree of independence in intra-university management and extra-budgetary funds are an important source of income. For the use of extrabudgetary funds, the university reports to the relevant customers and investors. All this creates the need for the collection, registration, processing and analysis of data characterizing the activities of the university not only as a budget organization, but also as a “commercial enterprise”. Management accounting is a new approach to accounting. In the literal translation from English, management accounting means management and accounting, that is, accounting for management. According to R. Anthony and J. Rhys, management accounting is a process within an organization that provides the organization’s administrative apparatus with the information that is used to plan, manage and control the organization’s activities. This process includes the identification, measurement, collection, analysis, preparation, interpretation, transmission and reception of information necessary for the management apparatus to perform its functions [2]. According to the US National Association of Accountants, management accounting is “... the process of identifying, measuring, accumulating, analyzing, preparing, integrating and transmitting financial information used by managerial personnel to plan, evaluate and monitor production activities and resource usage efficiency” [4]. Management accounting is a management tool. Management accounting interprets, e.g., processes accounting data to provide it to management in such a way that it can with no doubt and without delay be able to make effective decisions. Therefore, the role of management accounting is to assist management in the decision-making process. Reporting information is being restructured so that senior managers can effectively manage business processes. This means that management accounting collects data from both internal and external sources, analyzes, processes, interprets and transfers information to the managerial level for more effective planning, decision making and management of operations within the organization. The use of management accounting system contributes to the improvement of the entire process of management in the organization, creates real opportunities for its optimization [1].

## **2. COLLECTION CHANGE AND PROVISION OF DATA**

Top management must have reliable data to plan, predict and make decisions. Management accounting collects data from various sources, although the primary source of data is financial reporting. Management accounting is not limited to the use of data only in a monetary unit, but uses any suitable unit. Data obtained from financial statements and other sources may not be fully understood by top management. Data is modified and presented to managers in such a way that it is useful for decision making. The manager changes the data in accordance with the requirements of the management for each specific issue that needs to be addressed. The important point is that the information provided to the management should be relevant and specific in order to allow managers to concentrate and with no hesitation make certain conclusions, even if the problem is complex. Management accounting plays an important role in making strategic decisions. Even good managers may not always have technical knowledge. To simplify the decision-making process, figures and facts are provided to the head officer in various sections and in different visual forms. The responsible employee interprets the data and expresses his opinion about the various alternatives available, and as a result, the decision-making process becomes easier. In contrast to cameral accounting, the essence of which is simple accounting of operations, management accounting emphasizes analysis and interpretation to help management achieve the best results.

## **3. PLANNING, ORGANIZATION, AND CONTROLLING**

Planning represents the real beginning of an activity. Planning defines the goals of the company and draws up an action plan to achieve them. Planning is a statement of what and how should

be done and what should be the deadlines. For the efficient operation of the enterprise, planning is a necessity. It is believed that if the planned goal is achieved, then the company worked successfully. Nevertheless, work is effective only when the goal is achieved with minimal cost, both in-kind and in money terms. To achieve these goals, they must be brought to the attention of various departments. Coordination between various departments is essential for the success of the organization. The organization is a process of creating an organizational structure and the distribution of responsibility between working personnel. The organizational structure may not be the same in all organizations. In some it can be centralized, in others decentralized. Controlling is the process of monitoring, measuring, evaluating and correcting actual results. It guarantees the achievement of the goal and the implementation of the plan. The main task of controlling is to objectively and qualitatively analyze and evaluate the work of the organization, to identify ways for its development or improvement based on the goals set. The use of executive and tracking reports perform the function of controlling. Executive and tracking reports do not show to managers what needs to be done. Instead these reports are for the feedback and determine where to pay attention and point out weaknesses. Management accounting at a HEI is much more difficult to create than at an industrial enterprise. This is due to the following main reasons:

- 1) The complexity of combining financial tasks and the mission of the HEI.
- 2) The workflow of a HEI is not purely based on business process.
- 3) "Processed" and "manufactured" "products" in the face of students and graduate students actively affect all work processes.
- 4) The large (long-term) duration of the training process.
- 5) Lack of clear definitions of the quality of higher education.
- 6) The complex relationship between the educational and scientific activities of the HEI.
- 7) The complexity of the structure of a large HEI.
- 8) The predominantly conservative position of the university faculty and management staff in relation to financial control.

Financial accounting has changed significantly over the past 20 years, especially in the XXI century. Moreover, management accounting is also changing. If financial accounting is no longer similar to that previously considered simple accounting ("posthumous"), then management accounting also cannot remain traditional, dealing with only cost accounting, cost price calculations, etc. Economy of the 21st century is a virtual economy [3]. The principles and rules of management and financial accounting are different. In contrast to financial accounting, management accounting is not regulated by law and can be carried out based on the principles of Russian, international standards of financial accounting and reporting, as well as the internal rules of a particular organization in accordance with the information requests of their heads. Management accounting provides the HEI's management with qualitatively different information, which is necessary for the planning, accounting, monitoring and evaluation of activities both in the HEI as a whole and in its structural divisions. Currently, in most cases, decisions made by the managers are intuitive and are not supported by appropriate calculations based on data of management accounting. The efficiency in performance of an economic entity is guaranteed the managers choose optimal solutions from the set of many possible solutions based on the information available for this. The initial information on the activities of an economic entity used in the systems of financial, tax and managerial types of accounting is the same. Management accounting additionally requires specific information. Financial and managerial accounting are using incoming information in different directions. The data required for financial accounting are also needed for management accounting, whereas management accounting requires an impressive amount of additional information [5].

#### 4. CONCLUSION

Many experts consider management accounting as an integral part of financial accounting, although they have many differences. Let's review some features of financial and management accounting:

- 1) The main purpose of financial accounting is to prepare a balance sheet, profit and loss statements, and accordingly show the rate of return and financial position of the enterprise. Management accounting is designed to collect the information necessary for managers to make quick and effective decisions.
- 2) Financial accounting is conducted in accordance with the law, strictly within the framework of the Budget Code, instructions and regulations. In management accounting, complete freedom is given while choosing schemes and the formation of the system. It is a type of system that is flexible and specially designed to meet specific management needs.
- 3) Financial accounting covers all the activities of the enterprise, while management accounts for individual segments of entrepreneurial activity, centers of responsibility within the institution, individual programs, e.g. a specific area of activity.
- 4) In financial accounting, absolute accuracy of accounting for all objects is necessary. Management accounting is allowed deviations or the use of approximate values; emphasis is placed on prompt and timely reporting, even if it is less accurate.
- 5) The source of financial accounting data is internal information, whereas management accounting uses both internal and external data sources.
- 6) Financial accounting is mandatory in accordance with applicable law; there is legal coercion. Management accounting is completely optional; it is formed at the discretion of management.
- 7) In financial accounting, reporting is compiled for government entities and external users of information. Management accounting provides reporting exclusively to internal users.
- 8) Unlike financial accounting, which is maintained in monetary terms, management accounting uses any unit.

The development of management accounting is an actual direction for improving accounting information to determine the efficiency of performance of state HEIs in the transition to the management of results. It should be noted that management accounting should provide not only more detailed, but also qualitatively different information about the activities of an economic entity in comparison with other suppliers of management data. With regards to the activities of HEIs, it seems appropriate to integrate managerial and budgetary accounting.

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## THE ANALYSIS OF CONSUMER-ORIENTED BEHAVIORS IN AZERBAIJAN'S FOOD SECTOR

**Parvin Pashayeva**

*Azerbaijan State University of Economics, (UNEC), Baku, Azerbaijan  
Istiglaliyyat 6, AZ1001, Baku, Azerbaijan  
parvin.pashayeva@unec.edu.az*

**Shamil Rahimov**

*Azerbaijan State University of Economics, (UNEC), Baku, Azerbaijan  
shamilrehimov1@gmail.com*

### ABSTRACT

*In the chosen research paper, following the study of consumer behavior in Azerbaijan's Food Sector, the behavior patterns on food products were determined by investigating them in line with the preferences of consumers living in Azerbaijan. During the study, the survey was conducted with the involvement of 284 people in total, based on their responses to a pre-prepared questionnaire, who are influential in the food consumption decisions in the country. The selected study was carried out in Azerbaijan within a month in April 2020. The survey was conducted on people who do shopping mainly for food products based on research findings and consumer behaviors. Based on the questionnaire, the preferable behaviors of the costumers were identified in terms of the features, priorities, and topics. In this regard, the different variable groups were found in the research, which is divided into demographic variables including age, gender, income, and education level as well as variables determining the purchasing behavior of consumers. The research was conducted among consumers over the age of 16 and Azerbaijan was considered as the example country amid the study. The questionnaire as one of the fundamental research methods was shared on social media platforms and got answered by 284 people. Besides, in the study, the important data regarding the consumer behaviors on food products obtained based on the SPSS 24.0 program and "Factor", "Validity", "Reliability" and "One-way Anova" analyses.*

**Keywords:** Food Sector, Consumer behavior, Azerbaijan, Purchasing, ANOVA

### 1. INTRODUCTION

Due to the shifting demands and needs of consumers, managers are more thrilled to know in detail, which products would be consumed in what amount and with which consumer groups. Under this, the marketing managers not only require to learn the wishes and needs of consumers but also the buying behavior of consumers to market the products and services produced. Therefore, the needs of the consumers to understand, explain and predict the buying behavior can emerge during the marketing approach towards consumers, So that we can define consumer behavior as a result of important decisions and activities of individuals while purchasing and using products and services. Consumer behavior encompasses the key methods used by consumers while deciding to purchase products, services, attitudes towards them, and the features of selecting and using the products or services. It is an undeniable fact that businesses and companies inclining to successfully affect consumer behavior is considered great importance in today's intensely competitive environment. Taken the cultural, social, psychological, and personal situations of businesses, it is a key point in influencing consumers' behavior and achieving within a competitive environment. The companies are thrilled to make a profitable result to survive within the business atmosphere. Hence, the good recognition and in-depth analysis of consumer behavior for businesses as well as companies mean continuing to make a profit by achieving consumer-purchasing behavior and ensuring customer loyalty.

Given that business managers aiming to keep customer satisfaction at the highest level should have to first know their customers' needs and demands, be close to them, listen to them, comprehend and evaluate possible complaints. Therefore, they would have taken important steps to gain loyal customers while evaluating their purchasing behaviors. Moreover, complaints from customers should be viewed as an opportunity rather than a problem. After complaints are evaluated and solved, the policy towards products and services should be changed and reshaped if necessary. As a result, the main purpose of a modern marketing strategy is to ensure consumers' satisfaction for business success, which merely could be achieved with the supply of goods and services suitable for consumer demands. Although quite complex behaviors are encountered in determining the demands and needs of consumers correctly, consumer behavior can also be identified through detecting demands and needs and revealing hidden requests and needs with the involvement of behavioral sciences. In this context, it is crucially necessary to scrutinize consumer behavior to carry out marketing activities and decisions effectively and to provide products and services to consumers as they wish.

## **2. OBJECTIVE AND SCOPE OF THE RESEARCH**

In the previous sections, the food industry, consumption concept, consumer behavior, and purchasing decision process behaviors were examined. The research has been conducted in Azerbaijan's food industry focusing mainly on customer behavior while purchasing procedures. The study aims to consider the pivotal characteristics that the participants should have to pay attention to while doing shopping on food products.

### **2.1. Research methods**

In this study, the survey research method was applied and conducted around a month in April 2020 in Azerbaijan. The survey was conducted for people going shopping for food products based on their consumer behaviors. In this section, the core features that consumers should pay attention to in shopping are tried to be researched referring to different variable groups. The first of these groups is demographic variables in respect of age, gender, income, and education level, and the second one envisages consumer purchasing behavior.

### **2.2. Analysis and evaluation of data**

The research was conducted among consumers over the age of 16 in the food sector, as Azerbaijan was chosen as an important case-country amid the study. The survey was shared on social media platforms and answered by a total of 284 people. In the research, important data achieved with the conduction of the SPSS 24.0 program and “Factor”, »Validity», “Reliability” and “Anova” analyses.

## **3. DEMOGRAPHICS FEATURES**

The demographic characteristics of the 284 respondents in total with different variables including gender, age, income, and educational background are given in table 1 depicted below. 126 out of those participants, constituting 44.5% are men, and 157 out of 254 attendees are 55.5% women. While 59% of them are between the ages of 16-25, 1.1% of them have participated in the survey with the number of 3 people aged 65 and over. The number of people who participated in the survey from Baku constitutes 47% and the respondents from other regions or cities are 17%. According to the educational level, 60.8% of the participants are undergraduates and 6.7% are doctorates. 2.7% of them consisted of 2, 38.2% of them consisted of 4 people in family members, essentially answered the question in conjunction with the number of people in the family.

17.9% of the participants answered 0-500 AZN(Azerbaijani currency), 33.3% of respondents selected 501-1000 AZN according to the question of the monthly income of the family.

*Table 1: Demographics features*

Variables		In number	In percent (%)
Gender	Male (M)	126	44.5
	Female (F)	157	55.5
Age	16-25	167	59
	26-36	64	22.6
	37-45	38	13.4
	46-65	11	3.9
	65+	3	1.1
City and other districts	Baku	133	47
	Sumgait	102	36
	Other	48	17
Educational background (level)	College/High school	52	18.4
	Bachelor	172	60.8
	Master	40	14.1
	Doctorate	19	6.7
Number of people in the family	2	7	2.5
	3	40	14
	4	109	38.2
	5	100	35.1
	Other	29	10.2
A monthly salary of family	0-500	51	17.9
	501-1000	95	33.3
	1001-1500	89	31.2
	1500 + (more)	50	17.5

### 3.1. Validity and reliability analysis

As a result of the factor analysis, the KMO value in Table 2 shows that the questionnaire is in perfect validity with 0.93.

*Table 2: Validity analysis (KMO)*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.936
Bartlett's Test of Sphericity	Approx. Chi-Square	2428.248
	Df	66
	Sig.	.000

(KMO .936)

The result of the reliability analysis for the whole of the questions asked (Table 3) shows that the analysis was performed with a high-reliability level of 0.94.

*Table 3: Validity investigation*

Reliability Statistics	
Cronbach's Alpha	N of Items
0.941	12

### 3.2. Participants attention to the core features of food products

*Table 4: Features that the participants pay attention to while purchasing food products*

Core features on food products	Does not matter		Not important		Neutral		Important		Very important	
	N	%	N	%	N	%	N	%	N	%
The quality of the product	21	7.4	15	5.3	7	2.5	97	34.3	143	50.5
Energy value	18	6.4	57	20.1	43	15.2	112	39.6	53	18.7
Content/ingredients	18	6.4	24	8.5	19	6.7	130	45.9	92	32.5
Fat amount	25	8.8	54	19.1	56	19.8	107	37.8	41	14.5
Price	15	5.3	34	12	19	6.7	120	42.4	95	33.6
Type of species	23	8.1	44	15.5	66	23.3	110	38.9	40	14.1
Production process	15	5.3	45	15.9	58	20.5	107	37.8	57	20.1
Validity	11	3.9	22	7.8	23	8.1	114	40.3	113	39.9
Production and Hygiene	13	4.6	23	8.1	49	17.3	99	35	99	35
Brand and manufacturer	12	4.2	50	17.7	55	19.4	104	36.7	61	21.6
Production and expiration date	9	3.2	17	6	19	6.7	81	28.6	157	55.5
Being a natural and additive-free (organic) product	11	3.9	24	8.5	44	15.5	98	34.6	106	37.5

As seen from Table 4, 50.5% of the respondents stated that the quality of the product is very important while 2.5% of them stated that they are undecided regarding it. However, the number of people who reported that they paid attention to the energy value while buying the product constituted 39.6%, 6.4% responded that it is not important. While 45.9% stated that it is necessary to draw attention to the content of the product, 6% of participants answered the question like "not important at all". On the other hand, 37.8% of people stated that the amount of oil in the content of the food product is a fundamental factor to be taken into account, while 8.8% hold the opinion that it cannot be considered dominant. Besides, 42.4% of the people answered the question on the pricing factor, which is taken as important, 5.3% replied that it is not important at all. The answer to the question of having different varieties in its type is 38.9% necessary and 8.1% is not important at all. While the production process is an important feature to be considered for 37.8%, it is not an essential feature of 5.3%. The reliability of the product is considered an important feature for 40.3% of the participants, but not an important feature for 3.9% of them. Product production and hygiene are very important for 35% of people and not important for 4.6%. 36.7% of the people paying attention to the brand and the manufacturing company answered the question "as necessary", and 4.2% of them did not matter it strictly. It is determined that the expiration date of the product is supreme for 55.5% of users and not essential for 3.2%. Having natural and additive-free products is taken strictly into account for 37.5% of people, and not for 3.9% of participants.

### 3.3. Research hypotheses

- H1. While purchasing a food product, the gender factor is considered effective in paying attention to the amount of oil in the product.
- H2. When buying a food item, the gender factor is taken as an important one in giving importance to the brand and the manufacturer.

- H3. Educational status plays a crucial role in defining the quality of the product while purchasing a food product.
- H4. Educational background is taken as a pivotal feature in product reliability while selecting a food item.
- H5. The ages of the consumers are not far more influential in the hygiene of a food product
- H6. The income status of a family member is considered relevant while giving importance to the product price during purchasing.

### 3.4. Independent sample “T- test” (average difference) analysis

Table 5: T-test

Scales	Gender	N	Mean	SS	t	P(sig2)
Fat amount	Male (M)	126	3.17	1.192	-1.698	0.91
	Female (F)	157	3.41	1.182	-1.697	
Brand and manufacturing company	Male (M)	126	3.33	1.120	-2.812	0.005
	Female (F)	157	3.71	1.128	-2.814	

\* $p < 0.05$

Looking at Table 5, there was not any significant difference between the gender of the customers and the amount of fat they noticed when they purchasing the food items. ( $p = 0.91 > 0.05$ ) By moving from this finding, it can be released out that "When buying a food product, the sex factor is taken importantly in drawing attention to the amount of fat in the product." In this regard, the chosen "H1 hypothesis" is not supported. As a result of another "T-test" analysis, there was a significant difference ( $p = 0.005 < 0.05$ ) between the gender of the customers and the brand they were paying attention to when they buying food. As a result of this study, it can be shown that "The gender factor is considered necessary in giving importance to the brand and the manufacturing company when buying a food product." So that "the selected H2 hypothesis" is not able to support it.

### 3.5. One-way analysis of variance (one-way anova)

Table 6: ANOVA test between the quality-validity of the product and the educational status while choosing a product

Scales		N	Mean	Std. Deviation	F	Sig
Product quality	College/High School	52	3.98	1.276	4.009	.008
	Bachelor	172	4.24	1.092		
	Master	40	4.35	.975		
	Doctorate	19	3.37	1.707		
	Total	283	4.15	1.180		
Validity	College/High School	52	3.85	1.178	.871	.457
	Bachelor	172	4.10	1.018		
	Master	40	4.13	1.067		
	Doctorate	19	3.95	1.224		
	Total	283	4.05	1.069		



According to Table 6, an overt difference was found between the education status of the customers buying food products and their perceptions of the quality of the product ( $F = 4.009$ ;  $p = 0.008 < 0.05$ ). According to this, the Tukey test was carried out to determine the source of this difference between those mentioned features. As a result of the Tukey test (shown in Table 7); significant differences were detected between customers with doctorate level and those with undergraduate level (0.011). At the same time, there was a huge difference between customers with doctorate level and those with master (0.014) level. Having taken the mentioned factors, it can be released that the "H3 hypothesis" mentioning the importance of educational background, which is effective in terms of determining the quality of the product while purchasing a food product is supported.

*Table 7: Tukey test between the product quality and educational status*

	Educational status	Educational status	Mean	Std. Error	Sig
Product quality	Doctorate	College/High School	-.612	.311	.203
		Bachelor	-.876*	.281	.011
		Master	-.982*	.324	.014

In conjunction with Table 6, between the education status of the customers purchasing food products and their perception of the product's reliability, no significant difference was detected. ( $F = .871$ ;  $p = 0.457 > 0.05$ ). In this matter, the "H4 hypothesis" that education levels are effective in giving necessity to product reliability when buying a food item is not supported.

*Table 8: ANOVA test between product hygiene and age*

Scales		N	Mean	Std. Deviation	F	Sig
Product hygiene	16-25	167	3.76	1.158	1.101	.357
	26-36	64	4.05	.999		
	37-45	38	4.05	1.114		
	46-65	11	4.00	1.183		
	65+	3	4.00	1.000		

According to Table 8, no significant distinction was found between the age of food customers and product hygiene ( $F = 1.101$ ;  $p = 0.357 > 0.05$ ). Based on this, the age of consumers while choosing a food product is not considered an effective feature in drawing attention to the hygiene of the product - "the H5 hypothesis" was supported.

*Table 9: ANOVA test between the price of the product and the income*

Scales		N	Mean	Std. Deviation	F	Sig
Price	0-500	50	3.94	1.168	1.937	.124
	501-1000	95	4.04	1.129		
	1001-1500	89	3.81	1.127		
	1500+	49	3.57	1.242		
	Total	283	3.87	1.161		

Following Table 9, there was no vital distinction between the income of customers going shopping for food and the price of the product ( $F = 1.937$ ;  $p = 0.124 > 0.05$ ). Therefore, while selecting a food product, income status is highly important in paying attention to the product price. "Here, "the H6 hypothesis" is not supported.

#### 4. CONCLUSION

In a society, the production-marketing-consumption chain is considered triadic nexus" in which people should have to be necessarily involved. It is an overt fact that the responsible and educated producers, marketing experts, and conscious consumers are urgently needed for the socio-economic development of society. Particularly educated and conscious consumers will change the economy and society by causing development that will affect both the production patterns and the features of the marketing sector. In this chosen research investigated in Azerbaijan's Food sector, the most determinant factors for food shopping are the price of the food products produced, the date of production and expiry, the product content, as well as freshness, taste, food processing, and hygiene. Another issue that families strictly care about is the validity of food items. In light of the findings obtained from the research, the following suggestions and recommendations can be released out. As it is one of the most important features of food products, it can be easily spoiled, and the unconscious use of the food product can affect the health of the person, so it is crucially necessary for consumers to draw attention to a few issues related to the product. Increasing the education level and awareness of consumers who prefer food products provide to support this attention to the food product. For this reason, necessary studies should be carried out for consumers to act consciously. Besides, all companies operating in the food industry, namely companies producing, manufacturing, or selling food products, should have to provide some programs including panel, workshops, educational and virtual programs, etc. which will well ensure the consciousness of consumers while buying the food products. In a globalizing world, consumers now much more are about and value information such as manufacturer brand, product durability, validity, and the duration of use of products. It may be immensely important for businesses to show interest in including this information in the labels and general information about the product, to guide well consumers' purchasing preferences. Ultimately, the studies was carried out for the businesses and the state operating in the sector to make conscious and careful food choices of the public. It could bring a conscious and healthy shopping environment in Azerbaijan and the creation of the "consumer-oriented behavior environment" will provide optimum efficiency and benefit to both the food marketing companies and the consumers of this market. For consumers to know the properties of the goods they select or buy there should be labels on the food products that provide detailed information about the product features, and in this matter, the clear-cut measures and legal procedures should be determined and applied by the state for companies that do not show the necessary sensitivity over food labels. Ecological agriculture practices, which are given great importance all over the world, should be taken strictly into account in Azerbaijan, and based on this; an effective "Ecological Agriculture Policy" should be determined and implemented in this regard. It will be far more beneficial to educate the consumers upon this issue by making effective programs from various broadcast organs, virtual programs and social networks, especially TV broadcasts, to fee well consumers by making conscious choices and to evaluate their income rationally. Therefore, laws and decisive actions should be enacted for those confusing the consumer or containing deceptive rules for them with abusive behavior and lack of knowledge. Therefore, it is necessary to provide an effective market environment to ensure a certain level of trust between consumers and producers. Given that, the world's demand for healthy and safe food is significantly growing day by day, and people's minds on healthy eating are affected mainly by age and education. Thus, consumers' information on conscious food choices must be supported by new and more comprehensive research findings.

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## **ROLE OF FOREIGN LOANS IN DEVELOPMENT OF THE REAL SECTOR OF ECONOMY (THE CASE OF AZERBAIJAN)**

**Fikret Yusifov**

*Associate Professor at Department of Economics and Business Management,  
Azerbaijan State University of Economics (UNEC),  
6 Istiglaliyyat str., Baku, AZ 1001, Azerbaijan  
f.yusifov@unec.edu.az*

**Nazim Hajiyev**

*Azerbaijan State University of Economics (UNEC)  
Department of Economics and Business Management,  
Development Economic Research Center,  
6 Istiglaliyyat str., Baku, AZ 1001, Azerbaijan,  
Davis Center for Russian and Eurasian Studies, Harvard University  
n.hajiyev@unec.edu.az; nazimhajiyevaz@gmail.com*

### **ABSTRACT**

*The aim of the research is to study the processes that occur in connection with the attraction of foreign loans to the real sector of the Azerbaijan economy under the new globally formed macroeconomic and geopolitical challenges, to analyze the current situation and to make scientific and practical proposals and recommendations towards improvement of their management mechanisms. To this end, the important issues such as improving the structure of the public debt portfolio and diversifying the sources of borrowing to the optimal extent in order to prevent the risks that may arise in attracting foreign debts were studied. The research was fulfilled under the research methods as a scientific abstraction and systemic analysis and logic generalization. As a result of the research, the analysis of the situation with the public debt in the real sector of the economy, the state-guaranteed loans and the loans attracted by state-owned legal entities without state guarantees, direct foreign public debt, expected risks and measures to be taken were studied. Limits of the research: requires more extensive practical information in the world level. Practical importance of the research: may play a positive role in enriching of scientific and practical knowledge of the specialists conducting researches in natural monopolies and working in this field. The scientific innovation and originality of the research: further strengthening of the country's financial stability against the processes that occur in the global economy and financial markets, increasing of the efficiency of public borrowing, effective risk management and improvement of control mechanisms in this field, considering new challenges and opportunities set, optimal ensuring the financial needs of the state with minimum costs, especially the necessity of the role of foreign loans in development of the real sector were scientifically and practically substantiated.*

**Keywords:** *Bank loans, Effective conditions, Foreign loans, Public debt, Real sector*

### **1. INTRODUCTION**

The processes of transformation in a market economy, the reconstruction of the economy, and the formation of modern infrastructure create a high demand for financial resources in each country. If the country's domestic financial support cannot meet this demand, there is a necessity in attracting external sources. In such a situation, apart from the search for such sources, the effective use of these funds drawn in the country's economy is of strategic importance. Otherwise, the attracted funds will have a significant negative impact on development, becoming a heavy burden on the country's economy and future generations. In many cases, this impact can be long-term for the country's economy.

Consequently, debt-ridden countries become dependent on external financial resources, which pose severe threats to their economic and even overall security. Therefore, establishing an improved management system for the efficient use of foreign loans, reducing the debt burden, and the transformation of foreign funds into a development factor of the real sector of the economy should be one of the top priorities of state economic policy. Achieving a solution in this way makes it necessary to develop and implement not only short-term activities but also a long-term strategy to ensure the country's sustainable development. Realization of this need, on its side, requires the development of a shared conception of rational use of foreign loans and the optimal coordination of the actions of the competent authorities in solving the problem to ensure the superior development of the real sector of the economy.

## **2. DEBT RELATIONS IN A MARKET ECONOMY AND THEIR EMERGENCE REASONS**

The implementation of structural reforms in the socio-economic system of countries, and efforts to reduce the economy's dependence on oil, in parallel, in countries with resource economies create the need to find additional financial resources. There are two possible ways to meet this need. Firstly, states manage to raise additional funds for the treasury by increasing the tax burden, and in a second way, they eliminate the shortage by loans. The first way is dangerous, as the unreasonable increase of the tax burden usually directs it to the shadow economy. Thus, the need for the state to fulfill its obligations creates the basis for the use of loans. As a result, the concept of state debt, the category of debt relations has emerged and developed. It is not accidental that in present market economy, the debt factor has become one of the determining factors of socio-economic development, and debt relations arising in this context are an integral part of international economic relations [Y Hasanli, S Ismayilova (2017)]. The emergence problem of foreign loan relations is studied in the context of the capital flow and its international movement within the limits of present economic globalization. It leads to the conclusion that tendency of countries to foreign loans, capital movements, is a characteristic feature of present economic globalization. The different development level of separate countries is one of the determining factors for the emergence and development of debt relations between them, the movement of capital, and financial flows. Foreign debts, debt repayment, and interest payments on debts include the opposite side of the international movement of capital in the form of credit [Fikret Huseyn Yusifov, Yadulla Hamdulla Hasanli, Nazim Ozbey Hajiyeve, Emin Teymurov, Anar Ibrahimov (2019)]. In this regard, we consider that the development of foreign loan relations should be one of the key priorities of foreign economic activity strategy for any country that integrates into the world community, the world economic system in the modern globalized arena.

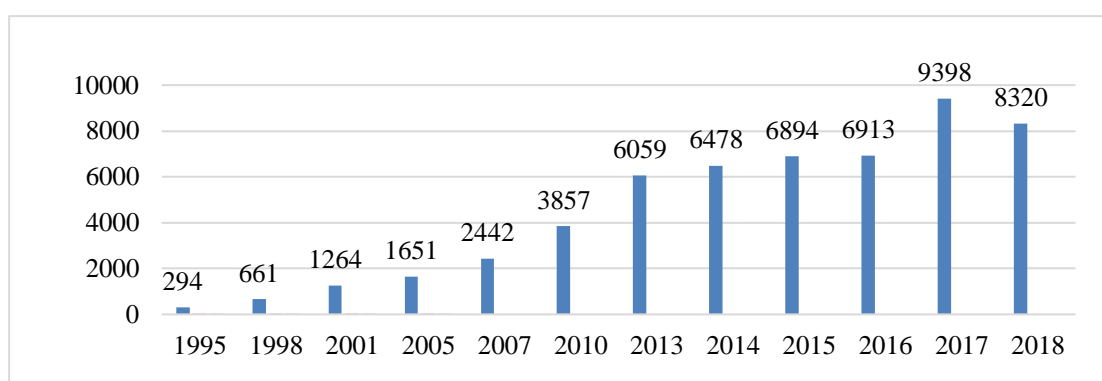
## **3. FOREIGN LOAN PROBLEM AS PART OF ECONOMIC DEVELOPMENT**

The research examines the features of the debt economy and its development in market relations, the formation of foreign public debt, restructuring, mechanisms of use of debt conversion in its regulation, the activities of institutions representing the state in overcoming the external debt crisis, attracting debt from foreign sources, the role of foreign financial sources in the formation of relations with the foreign loan, etc. The research considers three aspects of foreign loan's role in the development of the real sector of the economy: The extent, quality, and structure of the loan. The length of foreign loans differs for each state. One of the critical issues here is the share of debt in the country's GDP. The quality of foreign loan depends on its solvency and borrowing capacity and can be forecasted based on several indicators. The most important of these is the ratio of foreign loan to GDP and the country's annual export capacity. These indicators reflect countries attracting foreign loans to recover debts at the expense of domestic resources. Internationally it is experienced that the foreign loan within 50% of GDP creates a foreign loan crisis.

If the country's foreign loan exceeds this figure, it discredits its solvency, indicating that its debt burden is a real problem [Krugman. P. (1995)]. The quality indicator of foreign loans shows the country's ability for foreign funding in the classical form. It provides for the ability to refund its foreign debts at the expense of the currency received from the national export.

#### 4. ANALYSIS OF THE CURRENT STATE OF FOREIGN LOANS OF THE REPUBLIC OF AZERBAIJAN

Formation of our country's foreign loan has been intensive since the first years of independence. As known, this period coincides with the first years of independence and the transition time. The implementation of large-scale reforms was of great significance for a newly independent country and required a large amount of funding. Usually, in such a situation, when a new independent country does not have its sources of funding, it had to apply for foreign funding sources. Consequently, fundings from various sources as in debt are attracted to the country economy.



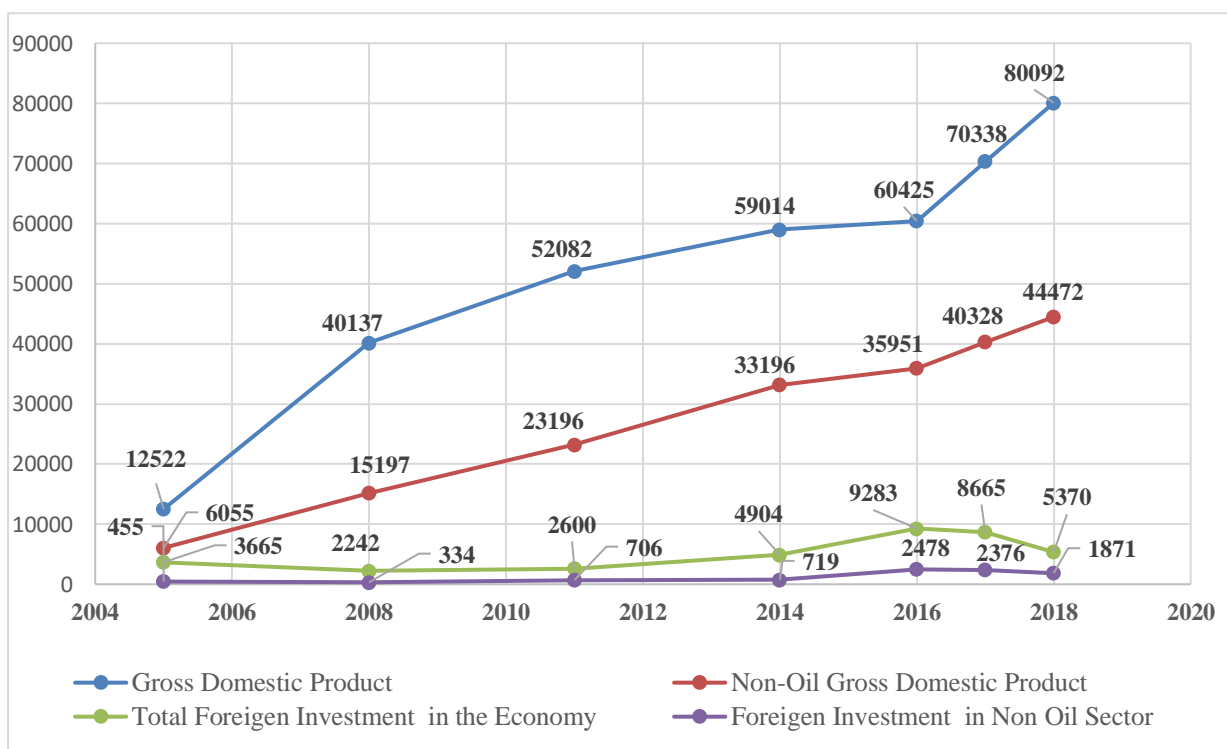
*Graph 1: Foreign public debt of the Republic of Azerbaijan, mln. US dollars  
(Source: Prepared by the authors based on the real information of the Ministry of Finance)*

In 2005-2018, Azerbaijan's foreign debt increased by more than 28 times. In the years of independence, the threshold of debt was recorded in 2017 in the amount of 9,398 million US Dollars. It was primarily due to the financial difficulties caused by the sharp decline in oil prices. However, today Azerbaijan's strategic currency reserves are about 50 billion US Dollars, which is six times more than the country's foreign debt. While the foreign debt was borrowed in, the early years of independence mainly to cover the budget deficits to achieve macroeconomic stability in the country, in the last 20 years, when the country economy began to grow steadily, these debts are usually attracted to invest in the economy.

	Fixed capital investments	Including			
		Oil and gas sector		Real sector	
		Total	Special weight	Total	Special weight
2005	3665,0	3209,7	87,6	455,3	12,4
2008	2242,0	1908,0	85,1	334,0	14,9
2011	2600,1	1894,3	73,0	705,8	27,0
2014	4903,6	4184,6	85,3	719,0	14,7
2016	9282,5	6805,0	73,3	2477,5	26,7
2017	8665,1	6288,9	72,6	2376,2	27,4
2018	5370,0	3498,6	65,2	1871,4	34,8

*Table 1: Foreign investments in oil and gas and non-oil sectors of the economy of the Republic of Azerbaijan (mln. Manat)  
(Source: The table is based on the materials of the State Statistics Committee of the Republic of Azerbaijan)*

During 2005-2016, the volume of investments in the Azerbaijan economy due to foreign loans increased more than 2.5 times, from 3,665.0 million manat to 9,282.5 million manat, but in 2018 this figure reduced to 3,912.5 million manats and or by more than 42.0%. In 2005, 12.4% of foreign investment was directed to the real economy sector, and in 2018, it was up to 34.8%. Notwithstanding, foreign investment in the real industry in the light of declining total foreign investment in 2018 decreased by 606.1 million manats or 24.5% compared to 2016. In terms of existing theories about the critical threshold of foreign debt to GDP (critical threshold arises when the share of foreign loan is more than 50% of GDP), Azerbaijan has ample opportunities to attract foreign investment to the real sector potentially. However, these opportunities cannot be realized spontaneously. In this regard, the government should have a severe concept of developing the real sector of the country's economy through foreign investment. One of the essential conditions for overcoming the dependence of the government on oil is to attract more funds to the real sector from all sources.



*Graph 2: Description of the dynamics of growth of foreign investment in the Gross Domestic Product of the Republic of Azerbaijan (in million manats)*

*(Source: The graph was prepared per materials of the State Statistics Committee of the Republic of Azerbaijan)*

As illustrated, Azerbaijan's economy and its non-oil sector are developing in parallel. However, foreign investment in the economy has been declining in recent years. Although the volume of foreign investment in the real sector increased more than 4 times in 2018 compared to 2005, this figure is 24.5% lower than in 2016. Thus, although much work has been done to attract foreign investment to the Azerbaijani economy and its real sector during the years of independence, if the volume of GDP exceeds 80.0 billion manats, foreign investment in fixed assets in the amount of 5,370.0 millionmanats or 6.7% of GDP in 2018 is not enough. It is impossible to achieve normal economic growth rates with foreign investment at 4.5% of the value of this product to the non-oil sector, which accounts for more than 52% of the total economy. Accordingly, the Azerbaijani government shall intensify its efforts to find new, more productive ways to attract foreign investment into the country's economy.

## **5. ASSESSMENT OF THE ROLE OF THE FOREIGN DEBT IN THE SUSTAINABLE ECONOMIC DEVELOPMENT OF AZERBAIJAN**

The impact of foreign loans on the development of the country's economy with the acceleration of the integration process of national economies in the context of the transformation of economic relations and the consequent study of economic processes is becoming increasingly important. Moreover, there is no unequivocal position in economics on the impact of debt on the development of the economic system, and the relationship between the debt factor and economic development itself is very complicated. When researching the interaction of the economic system with debt, it is essential to consider the relationship between economic and debt growth. The determination of this ratio is approached in terms of the level of growth of the gross national product. The higher the economic growth rate and the lower the interest rates on debt, the more effectively the government can use the loans to finance its expenditures. In 1995-2018, the share of the country's foreign loan in its GDP increased from 13.2% to 17.7%. Due to economic development, the volume of GDP in our country has risen more than 6.5 times over the past 15 years. The country's foreign debt per capita increased from about \$ 37.9 in 1995 to \$ 832.0 in 2018. It can be concluded from the research that when the GDP growth rate is positive, the increase in public debt is not so risky, i.e., economic growth creates the conditions for this. In this case, it does not pose much of a problem in recovering the debt. Besides, the level of income from government securities has a significant impact. If interest rates are higher than the GDP growth rate, or if the GDP growth rate tends to decrease, then the cost of debt repayment exceeds the number of new loans. In this case, the state has to attract additional funds from the budget to repay debts. There are recognized international experience that the growth rate of public debt is acceptable to exceed the economic growth rate for a short period. However, the increase in debt relative to economic growth and the long-term continuation of this ratio may result in several negative trends in the foreign loan, including debt relations and the quality of the borrowing process. In the impact of foreign public debt on economic development, it is important to study its relationship with fiscal policy, as well as the inflation process. These funds also serve as a vital tool in financing the budget deficit, play the role of a means of fiscal policy, and are valued as an alternative financial instrument to the financing public expenditures. This trend is common in countries with developed financial markets. The research examines the thresholds characterizing the level of foreign loans that can pose a threat to the country from a socio-economic perspective. If the amount of foreign loan exceeds 50% of GDP, if the volume of foreign loan service obligations, including repayment of the total debt, exceeds 30% of exports, if interest payments exceed 20% of exports, this threatens the debtor country. In this regard, we estimate that it is important to develop service mechanisms preventing the growth of debt to a dangerous level and repaying the debt to avoid the volume of the foreign loans attracted to the country's economy to pose a problem for future economic development, to eliminate the debt crisis, and apply these mechanisms in the management of foreign public debts, and ensure their flexibility.

## **6. OPPORTUNITIES AND WAYS TO USE INTERNATIONAL EXPERIENCE IN SETTLEMENT OF FOREIGN DEBT OBLIGATIONS**

The research notes that the settlement of the foreign debt problem is a process requiring constant improvement. On the one hand, the involvement of new countries as debtors and creditors in these processes, on the other side, the fact that foreign debt is a serious factor in the socio-economic development of the recipient country, forces both debtors and creditors to look for new options. Therefore, the research deals with foreign debt crises, their causes, mechanisms for solving the external debt problem and its improvement, international experience in the regulation of foreign debt obligations, the formation of international mechanisms in the regulation of debt relations, cooperation, foreign debt exchange, conversion processes, their types and issues related to international agreements in the field of foreign debt settlement.



Within the framework of the complex development of the national economy, it is essential to solving the problem of foreign loans, including the development and implementation of the foreign loan policy. Since the attracting, using and repaying of foreign loans for the socio-economic development of the country is closely related to the level of development of the country's economy and development prospects, production increase, improvement of the industrial structure, establishment of the innovative industries, their development, acceleration of economic growth in the country, expansion of the local market, export, intensification of the export potential of the industry, increasing its international competitiveness, maintaining the active trade balance, improving the loans to the private sector, privatizing large state enterprises and other measures are essential to protect the country's economy against foreign loan pressure and negative impacts.

## **7. PROSPECTS OF AZERBAIJAN'S FOREIGN LOAN POLICY**

One of the most important directions of economic policy pursued to ensure macroeconomic stability in each country is foreign loan policy carried out in two courses. The first direction is to find foreign sources to finance the development of the country's economy, to direct funds to the national economic system, its development, and to identify specific priorities for their use. The second direction is to ensure the repayment of foreign loans. It is worth noting that both courses are closely interrelated and complement each other. The implementation of an effective, improved policy on any priority stimulates activity in another direction. Otherwise, it would be difficult to talk about such an incentive. One of the critical issues to be considered in the state's foreign loan policy is the selection of the right timeframe for attracting new foreign loans and correct determination of the optimal structure of foreign loan per the development strategy of the real sector of the economy, especially in an oil country. Besides, the number of new debts and loans should be close to the amount of foreign loan repaid each year. Ensuring this compliance can be one of the critical factors preventing the annual increase in foreign debt, its transformation into a debt burden for the state budget, and future generations. Two aspects should be considered to achieve optimal foreign loan structure. First, the optimal structure must be determined regarding the term of the debt. Second, a schedule of principal and interest payments on the foreign loan must be established. It should also be stressed that the condition adopted for each new loan amount can have an aggregate effect on the overall schedule of foreign loan payments. Issues related to the timing of foreign loan repayments and the reduction of expenditures on them should not be excluded from the foreign loan policy. Development of the local debt market, balancing the state budget, achieving a positive opinion in the international arena on the solvency of the debtor country, issues related with the increasing the state's financial and gold and foreign exchange reserves should also be considered in the foreign loan policy. One of the essential priorities of the loan policy is to optimize the conditions for attracting foreign loan and normalize its position in the international loan capital market, to provide the establishment of the relations with the international financial institutions, financial organizations of the debtor country and foreign investors for facilitating their access to this market, to improve and to optimize the institutional structures. The formation of a unified public debt management system, which is one of the essential elements of public debt policy, and the improvement of its activities create conditions for the targeted use of these funds. Particular attention should be paid to the coordination of the activities of relevant bodies, development of mechanisms and rules for their interaction based on legislation, and establishment of mechanisms for the exchange of information between these bodies. The provision of these elements in the debt management system allows for constant control and optimization of debt-related expenses. The country's foreign debt policy should serve and complement each other in the context of economic development, in close interaction with the policy's priorities to stimulate economic growth.

## 8. CONCLUSION

- To develop market methods of attracting foreign loans, the development of the securities market and the issuance of various types of debt securities should be ensured;
- the potential of the country's banking system to provide long-term loan should be increased to implement and develop the export activities of local production;
- a network of analytical information and consulting services should be established to study the world market's situation and ensure continuity;
- it is advisable to use the indicators of the labor force, the volume of the foreign loan per capita for the economically active population and those engaged in the structure of the economically active society along with the indicators used in the light of the study of the impact of external debt on economic development;
- in some cases, the problem of managing the exchange rate of the national currency also affects the issues mentioned above. The low exchange rate of the national currency is provided to protect the competitiveness of domestic production and the country's export potential. Maintaining the exchange rate of the national currency low has a negative impact on the growth of imports and stimulates exports, and increases the physical volume of exports;

To successfully integrate the country into the international loan capital market, it is necessary to:

- Establish a simple, flexible mechanism to provide timely and accurate information to foreign investors and rating agencies on the country's economic and financial situation in the country;
- to coordinate the activities in establishment of the interaction with the foreign creditors and investors, including the regulation of these relations;
- establishment of a mechanism for coordinating the joint activities of government agencies and departments;

We consider it expedient to take the following measures to increase the state's domestic and foreign loan policy effectiveness and ensure flexible control:

- the volume of public debt should not exceed the amount of public debt to be repaid;
- the size and structure of public debt should allow the government to repay its debts and fulfill its obligations. It should provide an opportunity to refinance the debt, regardless of the capabilities of the state budget and changes in the external economic situation for a particular period;
- the public debt policy should be flexible against changes in the conditions for attracting debt resources from its domestic and foreign markets;
- to identify the optimal sources for the repayment of foreign debt, including reducing the foreign debt burden, and providing this within the framework of the development of the national economy of the debtor country and its integration into the world market;
- to achieve the maximum reduction in the share of foreign debt in relation to the domestic debt in the structure of public debt;
- repayment of foreign debts and interest payments must be made on time;
- The country's integration into the system of international loan relations must be ensured within its political, economic, and social interests.

The debt management system should address the following issues:

- the level of domestic and foreign loan should be kept at a level that can have a positive impact on the country's economic security and the implementation of socio-economic programs;
- To define the expediency and opportunities of financing different areas of the real sector of the economy of state-wide programs within the framework of the foreign loan;
- to expand the application of modern tools relevant to the developed market economic system in the process of foreign borrowing and to improve the debt management system;
- investment projects financed by foreign loans should be carefully designed, and their implementation should be monitored continuously until the end;
- a monitoring system should be established to ensure constant control over the efficiency and expediency of foreign loan;
- the activities of all competent authorities in the implementation of the above tasks should be optimally coordinated.

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## ASSESSMENT OF THE IMPACT OF STATE ADMINISTRATION ON ENTREPRENEURSHIP DEVELOPMENT

**Afag Huseyn**

*Associate professor at Department of Economics and Business Administration,  
UNEC Business School, Azerbaijan State University of Economics (UNEC),  
The Republic of Azerbaijan  
afag.huseyn@unec.edu.az; a.huseyn@mail.ru*

**Fikret Yusifov**

*Associate professor at Department of Economics and Business Administration,  
UNEC Business School, Azerbaijan State University of Economics (UNEC),  
The Republic of Azerbaijan  
yfikrat@mail.ru*

### ABSTRACT

*The article discusses: the need to make changes to the model of government administration; issues of determining the relationship between the state and entrepreneurs; as well as the effectiveness of decisions of government bodies on the development of entrepreneurship. The tasks are to determine on the basis of statistical data the correlation between government spending and business regulation; find out what is the relationship between the goals, costs, quality of government administration and the development of entrepreneurship; and evaluate the effectiveness of state administration. The article uses methods of comparative analysis, logical generalization and synthesis, as well as a universal methodology for assessing the quality of state administration. The authors analyzed the theoretical foundations and practical consequences of public service decisions for state-business relations. Performed analysis of various approaches to ensuring the opportunities and freedoms of public servants and the expectations of the interests of entrepreneurs in the decision-making process on the regulation of entrepreneurial activity. The study examined the experience of various developed countries, revealed the relationship between gross national income, human development index and state administration efficiency. Outlined are reforms in the model of state administration in Azerbaijan. Particular attention was paid to optimizing the structure of state bodies, which will contribute to the development of entrepreneurship, identifying priorities in their activities and improving implementation mechanisms. As a result of the research, were made recommendations to improve the efficiency of state administration, which in turn contribute to the development of entrepreneurship.*

**Keywords:** *Civil Service, Public Administration, Government Intervention In The Economy, Government Relations, Partnership Between State And Private Sector*

### 1. INTRODUCTION

Requirements for the likeness of reducing economic risks, the ability to withstand external and internal difficulties, the crisis reveal the need for an effective state apparatus. However, when determining the components of a rational state apparatus, it becomes clear that there are different approaches. On the one hand, it is important that the functions of the state correspond to its potential; it is important to increase the potential of the state. On the other hand, budget restrictions imply a reduction in government spending and the allocation of savings to the implementation of urgent goals. Usually, the reduction of administrative costs of the state is called the process of budget optimization. One of the ways to increase rationality is to optimize the number of public servants and expenses from the state budget to state administration, as well as to reduce the functions of state bodies.

Since the public service system is strategic, it is required that the number of government bodies and their functions, the number of public servants meet modern requirements and the situation. During optimization, it may be necessary to eliminate repetitions in functions and powers, strengthen material and technical bases, switch to advanced management methods, and improve control methods. But in practice, achieving this rationalization leads to a number of problems. Thus, the desire to do as much as possible with limited resources negatively affects the quality and other indicators, and as a result does more harm. Therefore, if the state's capabilities are limited and most often it is justified by the rational use of the state budget, it is necessary to determine the directions, forms and means of state intervention in economic processes. The complexity and multidimensional nature of public administration makes it necessary to analyze factors not separately, but as a complex with mutual influence and as a result of one of the other. Despite the fact that each element of public administration has specific functions and purpose, they should be analyzed as a holistic system. As a result, in an oriented budgeting system, it is important not only to achieve the goal set by the state body, but also to choose priorities for financing in conditions of limited resources. Questions about which of the existing state bodies to keep, and how much to allocate budgetary funds to them, which state functions to reduce or increase, are always relevant and are on the agenda. This article is aimed at assessing the impact on the development of ownership of budget expenditures that ensure the functioning of the institution of public service, which forms the basis of public administration, in particular, the executive branch; functions performed by public servants - employees of state bodies; rationalizing the costs of their maintenance. The ideas on rationalizing budget expenditures are especially noted in the speech of the President of the Republic of Azerbaijan in the past three years. During the preparation of the strategy and tactics of the activities of state bodies, one of the main goals is to save money. On the other hand, in order for professionals to remain in the public service, and the salary of a civil servant to be competitive in the labor market, measures are being taken to gradually increase wages and improve the system of material incentives. Raising the salaries of public servants, as well as a number of other tasks, are regulated by the Presidential Decrees. At the moment, the government is undergoing reassessment of vertical integration, the transition from quantitative to quality management, transfer of management and leadership to the private sector in order to abandon unnecessary posts and powers (Huseyn A. (2017)). One of the interesting areas for research at the moment is the relationship between budget planning and the dynamics of socio-economic development. A. Kudrin and E. Gurvich (Kudrin A., Gurvich E. (2014)) note the need for specialties in public sector workers and the importance of raising wages in connection with an increase in productivity. However, it has not been established how these measures will affect budget rationalization and socio-economic development. D.V. Skrypnik, based on the apparatus of dynamic panel regression, shows that the direct influence of budget rules on economic growth depends on the effectiveness of the state (Skrypnik D.V. (2016)). Baranova V. notes that if there is a causal relationship: if "the quality of management - the quality of work of the management object - the quality of the product created by the management entity" is interconnected, then the quality of state economic management can be judged on the basis of an assessment of state financial efficiency and the rational use of budget funds (Baranova I.V. (2009)). In many studies, the rationality of public service is determined on the basis of the results of public expectations or program documents (Plaksin S. M., Semenov S. V. (2015)). In most cases, the rationality of public service is assessed from a political point of view. However, there are very few approaches to assessing the rationality of public administration from both perspectives - both political and economic. The studies mainly assess the dynamics of spending on maintaining the public service apparatus and public spending (Heredia B., Gaetani F. (2002)). A number of specialists (Fedorishchev V. (2013)) analyze only the relationship between the activities of governing bodies and indicators of economic development.

However, it is also clear that the rationality of public service cannot be determined by the activities of a public authority, in which not only officials, but also political leaders play a decisive role. The rational work of a state body is, of course, based on the rational work of public servants, but the effectiveness of public service is a completely different problem (Grazhdan V.D.(2007)). Without increasing the rationality of management at all levels of the state, it is impossible to achieve the successful implementation of the state development strategy (Babynina L. (2014)). Government agencies operate within certain restrictions. To carry out their activities, they have certain capabilities, characterized by process indicators and performance indicators. The most important duty is to apply during the analysis a balanced system of performance indicators (individual success criteria) of ministries and departments, and even civil servants. A special methodological base is required to determine the existence and nature of the relationship between public service reform and budget financing of public administration. Until now, indicators of the performance of a state body have not been finally added to the arsenal of management of government departments. Our study covers the 2005-2018th years, and the analyzes (Borshevsky G.A. (2015), Nagimova A.M. (2009)) show that budget rationality indicators are not used in assessing the performance of public servants; no tools are used to determine the optimal level of budget costs for financing public services at the regional level; the relationship between budget spending on the maintenance of state bodies regulating proprietary activities and the impact of their results on socio-economic development, especially on proprietary activities, is not analyzed in detail. In the article we will try to clarify these points.

## **2. METHODOLOGICAL PROBLEMS EXISTING IN THE ASSESSMENT OF THE RATIONALITY OF STATE GOVERNANCE**

In the study of the rationality of government bodies, we found that the rationality of state governance is a complex concept. It can be measured only by a special system of indicators. To measure the rationality of public administration, there are several methodological approaches that are the basis of the qualitative content of efficiency. Let's pay attention to some of them: According to A.Nagimova, to assess the rationality of the public administration system can be used various approaches, reflecting certain criteria of activity related to the direct influence of government bodies on processes in society (Nagimova A.M. (2009)). According to V. Tikhvinsky, rationality is a rating of powers of state bodies; the proportion of timely completed tasks and assignments; percentage of public servants promoted according to job performance assessment; the ratio of the total premiums paid to the total number of states; the ratio of the costs of government to the functions that it performs (Tikhvinsky V. (2014)). Approaches to the rationality of public administration, on the basis of which an assessment of the rationality of public administration is carried out, can be divided into the following:

- legal (based on compliance with the requirements of the law in carrying out activities, as well as on the results of inspections of the tax inspection, audit and other control bodies)
- socially oriented (based on surveys, complaints and appeals),
- expert (based on the opinion and information given by specialists, including employees with great professional experience),
- pragmatic (in quantitative and qualitative indicators based on monthly, quarterly, annual reports).

In practice, a complex combination of a number of assessments is also used to assess the effectiveness of the activity of a government body (Nagimova A.M.(2009)). To assess the quality of public administration, the World Bank uses the GRICS indicator every two years. This indicator of assessing the quality of public administration consists of 6 indicators reflecting 6 parameters of public administration: the right to vote and accountability, political stability

and the absence of violence, rationality of government, the quality of legislation, the rule of law and the control of corruption. In the GRICS indicator, the index of rationality of public administration reflects the quality of public services, the qualitative characteristics of public structures, the competence of public servants, the level of trust in government policies, etc. Another indicator is the index of quality of state regulation, and its value is associated with the assessment of policies in the field of state regulation in the economy. With the help of it are evaluated: state regulation of prices for labor, goods and services; inadequate control in the financial sector; excessive regulation of entrepreneurship, etc. The World Bank's Doing Business report evaluates the environment and rationality of entrepreneurship processes using 11 indicators and 45 sub-indicators. The 10 indicators pointed in the report in aggregate constitute the business permeability index, and when preparing the report, data from four main sources are used: relevant laws and regulations; results of surveys conducted by business respondents; data provided by the government, as well as the regional staff of the World Bank. The negative side of this report is that when calculating the overall rating, labor market and public procurement indicators are not taken into account. And finally, the most widely used method of assessing rationality, based on a pragmatic approach, is a method of assessing the level of achievement by government of the main goals ( $C_{gen} = C_{surv} \times C_{ls} \times C_{vhr}$ ) (Zenkov M. (2007)). The scoring indicators noted above reflect only one part of rationality. We need to determine the rationality of the state management system as a whole and establish its influence on the development of property ownership. In particular, it is necessary to justify and develop a system of criteria and indicators corresponding to the complexity of the control object itself; along with special criteria reflecting individual characteristics and management levels, use generalized criteria and integrated performance indicators. Limitations in the research methodology are associated with a lack of access to some public service data and difficulties in obtaining primary data on financing principles. Therefore, the article used only the materials of openly published statistical and regulatory acts. Was carried out an analysis of the mutual influence of: the dynamics of budget spending; some indicators affecting the development of public service, for example, the dynamics of the level of budget spending on public service; a number of macroeconomic indicators - GDP and investment in the economy; dynamics of development of subjects of ownership.

### **3. STATE OF RATIONALITY OF STATE GOVERNANCE IN AZERBAIJAN**

#### **3.1. Legal support**

Currently, is required a transition from a theoretical approach to practical results-oriented management. That is, it requires the implementation of activities consisting of determining the correct and measurable results, preparing activities for their achievement and implementation; measuring actual results and making certain managerial decisions to increase productivity. The main stage of the reforms is the definition of sequential, multi-vector measures aimed at developing the public service system, and covering long and short periods of time. For this purpose, by Order No. 739 of the President of the Republic of Azerbaijan dated November 23, 2018, was adopted the "Strategy for the development of public service in the Republic of Azerbaijan for the years 2019-2025." The main areas of reform for the development of the public service system, carried out over the next 6 years, were selected as follows:

- institution building,
- personnel policy,
- civil servants rotation,
- increase in rationality of activity and professionalism in public service,
- application of competency and progressive motivation models in public service,
- improving information support for public service, etc.

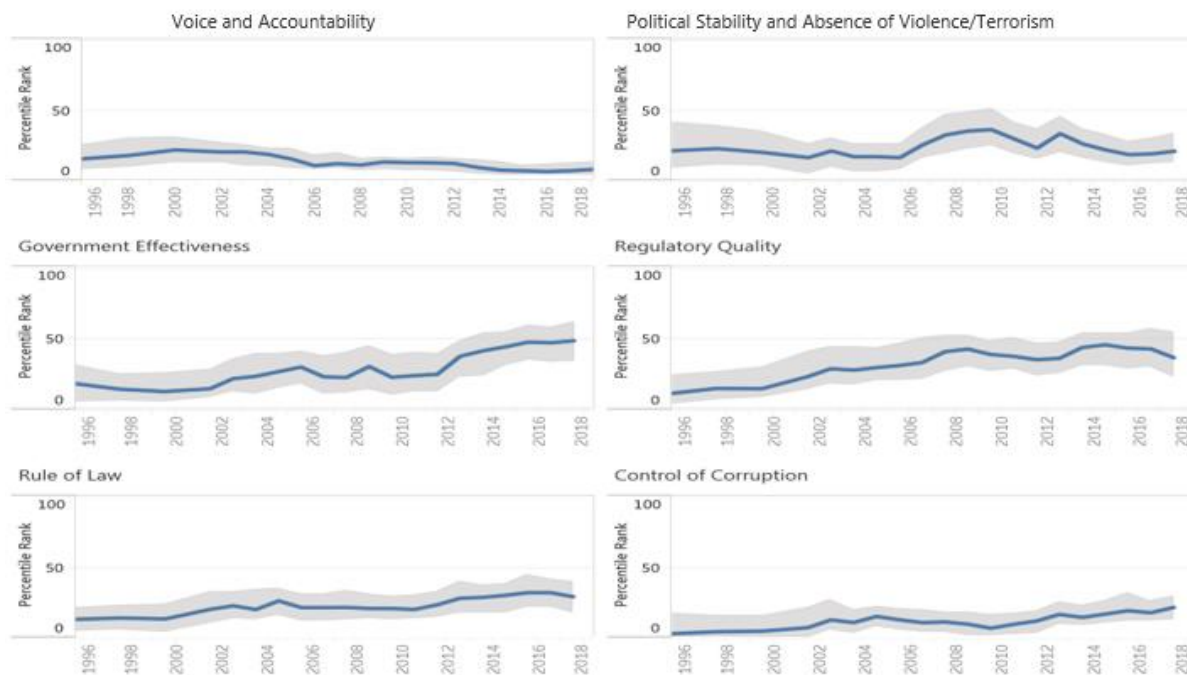


The implementation of thorough reforms in these areas and in a number of related areas implies the stability of the public service system. According to the 11th article of the law "On the budget system": "Justification materials and reports for the preparation of the state budget can be requested by the relevant executive authority from the central and local executive authorities, and even departments of their structures; from state organizations financed from the state budget ; as well as, if necessary, other legal entities, regardless of their legal form; municipalities and extrabudgetary state funds. " According to article 16 of the same law: "The amount of funds allocated from the state budget for the maintenance of organizations financed from the state budget, as well as for their various activities, is established by the relevant executive authority in accordance with the administrative classification within the expense items approved by law. " The administrative classification of budget expenditures of the Republic of Azerbaijan was adopted by Decree "On Approval of a Unified Classification of the Budget of the Republic of Azerbaijan", number 440 of the Cabinet of Ministers of the Republic of Azerbaijan dated by October 11, 2018. After amending this decree, the administrative classification of expenses of the Republic of Azerbaijan, approved by Decree No. 514 of the Cabinet of Ministers of the Republic of Azerbaijan dated by December 28, 2019, consists of 214 directions, of which 27 are ministries; 22 - Services and Agencies under the ministries; 2 - Agencies subordinate to the ministry; 3 - ministerial services; 8 - Committees; 4 - Head Office, Services and Agencies under the Committees; 3 - Commissions, etc.

### 3.2. International rating and estimation

The results of the World Bank assessment for the 1996-2018th years of the rationality of the government of Azerbaijan (according to GRICS indicators of the quality of public administration) we can see on the graphs below. It is positive that, starting in 2012, these indicators began to grow.

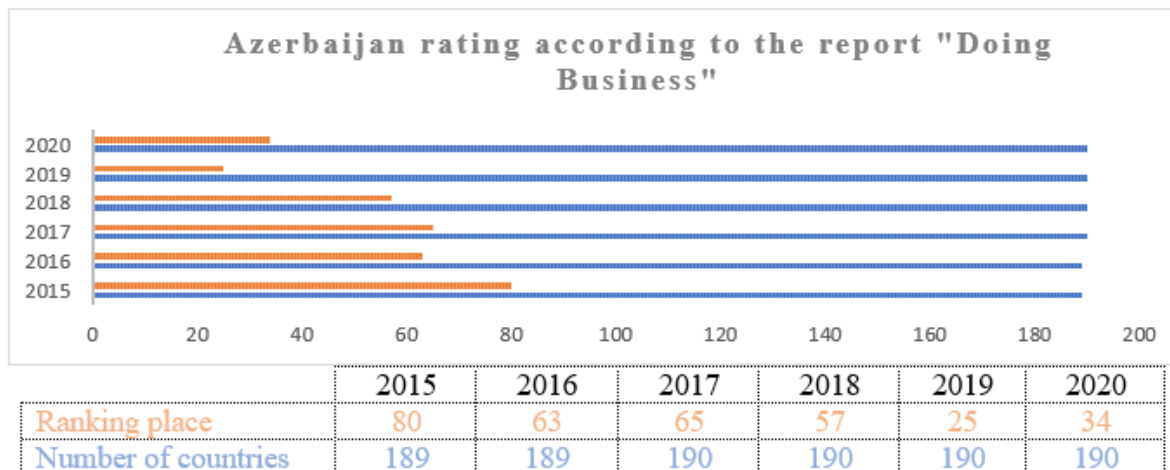
Figure 1: The Worldwide Governance Indicators



Source: Kaufmann D., A. Kraay, and M. Mastruzzi (2010), *The Worldwide Governance Indicators: Methodology and Analytical Issues*  
[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1682130](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130)

Azerbaijan for the first time began to be fully analyzed in the Doing Business World Bank report starting since 2015. The rating of Azerbaijan among other countries has changed as follows:

Figure 2: Azerbaijan rating according to the report "Doing Business"



Source:

<https://www.doingbusiness.org/content/dam/doingBusiness/country/a/azerbaijan/AZE.pdf>

The decline in the situation in Azerbaijan at the beginning of 2020 compared with the previous year is associated with 5 indicators shown below: "Payment of taxes" (dropped from 20th to 40th place), "Registration of property" (from 17th to 44th place), "Bankruptcy Regulation" (from 45th to 47th place), "Electricity Production" (from 74th to 80th place), "Protection of Small Investors" (from 2nd to 105 th place). The report for the 2020th year showed that in Azerbaijan the number of tax payments amounted to 9, time costs - 159 hours, the total number of taxes and their contribution to profit - 40.7%; One of the main reasons for this was an increase in the time spent on changing and returning VAT payments, as well as a large share of social insurance payments in profit. According to the indicator "Property Registration", although the number of procedures for registering real estate has been reduced to 4, and the number of days to 4.5, costs are still high. At the same time, the potential for improving property registration in Azerbaijan is related to the regional management quality index. In this index, Azerbaijan lags behind Europe, Central Asia, and also the OECD countries. In this area, reforms should be carried out in the direction of dispute resolution, transparency of information and improvement of infrastructure. The lag in the Bankruptcy Regulation indicator is associated with a low percentage of obligations performed by enterprises operating in the country (39.2%). The "Electricity production" indicator shows that Azerbaijan has 7 electrical connection procedures. For comparison, we note that in Europe and Central Asia this indicator is 5.1, and in the OECD countries it is 4.4. The main reason for the lag in the "Protection of Small Investors" indicator is a small number of measures on corporate transparency, shareholder rights, property and control (report «Doing Business 2020»).

### 3.3. Analysis based on existing methodology

If we assess in Azerbaijan the degree to which the main goals of public administration have been achieved (for the 2005-2018s) in order to assess the rationality of the activities of state bodies on the basis of a pragmatic approach, we will get the following result:

$$C_{gen} = C_{surv} * C_{ls} * C_{vhr} = 6,68$$

Here,

$$C_{surv} = (138982/57250)/(141901/51962) = 0,88$$

$$C_{ls} = 130/25 = 5,2$$

$$C_{vhr} = 26381/18049 = 1,46$$

Where:

- $C_{gen}$  – generalized coefficient of achieving goals by the public administration system.
- $C_{surv}$  – coefficient of survival rate of the population. It characterizes the living conditions in a certain territory as a result of the activities of state bodies. This indicator is determined by the ratio of the number of births to the number of deaths in the state for the current and previous periods, respectively. If the ratio is greater than 1, it is believed that in this area the activities of state bodies give good results.
- $C_{ls}$  – coefficient of living standards in the relevant territory. It is defined as the ratio of the living wage for the estimated period to the amount of the cost of living for the previous period. If the ratio is greater than 1, the activity of state bodies is regarded as positive.
- $C_{vhr}$  - coefficient of violation of human rights in the state for a certain period. This indicator is determined by the ratio of the number of cases of violation of human rights (or the general crime rate) for the estimated period to the previous period. And in this case, if the ratio is more than 1, the activity of state bodies is regarded as positive.

As a result of the calculations, it was revealed that only  $C_{surv} < 1$ . And this is due to the decline in the birth rate in the country, starting in 2013. The fact that the other two indicators are greater than 1 allows us to positively assess the work of government bodies. Also, having performed calculations based on data for the 2005-2018th years, we found that:

$$\underline{LOG(DBG01) = 16.431164726 + 1.08904694559 * LOG(DQIVT\_EH) - 0.944795064405 * DUMMY2005}$$

The coefficient of elasticity is 1.089. That is, an increase in the monthly nominal wage of a civil servant holding an administrative position by 1% causes a 1.089% increase in state revenue.

*Table 1: Analysis based on existing methodology*

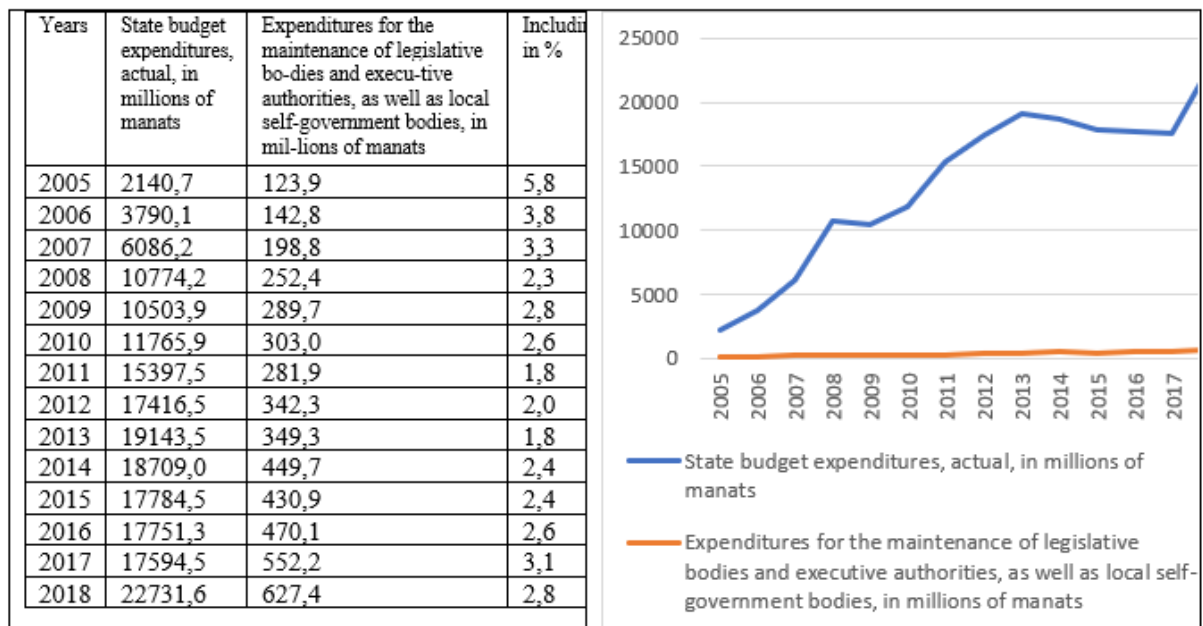
Dependent Variable: LOG(DBG01) Method: Least Squares Date: 02/25/20 Time: 16:29 Sample (adjusted): 2005 2018 Included observations: 14 after adjustments					Years	State budget revenues, actual, in millions of manats	Average monthly nominal wages of civil servants for administrative positions (manat)
Variable	Coefficient	Std. Error	t-Statistic	Prob.	2005	2055,2	237,5
C	16.43116	0.892603	18.40813	0.0000	2006	3868,8	229,5
LOG(DQIVT_EH)	1.089047	0.141343	7.704980	0.0000	2007	6006,6	285,8
DUMMY2005	-0.944795	0.247738	-3.813687	0.0029	2008	10762,7	397,4
R-squared	0.922727	Mean dependent var	23.16181		2009	10325,9	481,1
Adjusted R-squared	0.908678	S.D. dependent var	0.695419		2010	11403	496,2
S.E. of regression	0.210153	Akaike info criterion	-0.094554		2011	15700,7	533,6
Sum squared resid	0.485806	Schwarz criterion	0.042387		2012	17281,5	533,7
Log likelihood	3.661878	Hannan-Quinn criter.	-0.107230		2013	19496,3	556
F-statistic	65.67633	Durbin-Watson stat	1.052802		2014	18400,6	760,3
Prob(F-statistic)	0.000001				2015	17498	758,2
					2016	17505,7	777,8
					2017	16516,7	854,3
					2018*	22508,9	1003,1

*Source: The analysis was carried out using the EViews program based on data provided by the State Statistics Committee*

### 3.4. The relation between public service reform and public administration financing from the budget

The reform carried out in the direction of institutional construction implies an economical, but highly effective activity of the public service. For analysis, first of all, we will consider the civil service from the point of view of cost, in particular, the cost of maintaining executive bodies. Table 2 shows the amounts of administrative expenses and the costs of maintaining the public service apparatus in comparison with the total amount of expenses from the budget.

Table 2: Analysis of budget expenditures allocated to public administration



Source: <https://www.stat.gov.az/source>

An analysis of the data in Table 2 showed that changes in actual expenditures from the state budget and expenditures for the maintenance of legislative and executive authorities, as well as local self-government bodies, are closely related. If you pay attention to the overall dynamics, you can see that in both indicators there is an increase. However, in 2011, the relationship between total expenses and administrative costs was negative, that is, despite the increase in expenditures from the state budget, the costs of maintaining the legislative and executive authorities, as well as local self-government bodies decreased. The contradiction between these two indicators suggest a weak mechanism for budget planning. As a result of the analysis of actual expenditures from the state budget and the costs of maintaining the legislative and executive authorities, as well as local self-government bodies for the 2005-2018th years, we got the following model:

$$\text{LOG}(\text{DBX}) = 1.98941629869 + 1.28990755331 * \text{LOG}(\text{DIX}) + [\text{AR}(6) = -0.870839495394, \text{UNCOND}, \text{ESTSMPL} = "2005 \ 2018"]$$

And this shows that an increase in expenditures on the maintenance of legislative and executive authorities, as well as local self-government bodies by 1%, has led to an increase in total expenditures from the state budget by 1.289%.

Table following on the next page

Table 3: The analysis carried out using the EViews

Dependent Variable: LOG(DBX) Method: ARMA Maximum Likelihood (OPG - BHHH) Date: 02/25/20 Time: 16:24 Sample: 2005 2018 Included observations: 14 Convergence achieved after 13 iterations Coefficient covariance computed using outer product of gradients					Years	State budget expenditures, actual, in millions of manats	Expenditures for the maintenance of legislative bodies and executive authorities, as well as local self-government bodies, in millions of manats
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
C	1.989416	0.507224	3.922164	0.0029	2005	2140,7	123,9
LOG(DIX)	1.289908	0.090922	14.18698	0.0000	2006	3790,1	142,8
AR(6)	-0.870839	0.130058	-6.695791	0.0001	2007	6086,2	198,8
SIGMASQ	0.013939	0.011978	1.163674	0.2716	2008	10774,2	252,4
R-squared	0.968793	Mean dependent var	9.358639		2009	10503,9	289,7
Adjusted R-squared	0.959431	S.D. dependent var	0.693544		2010	11765,9	303
S.E. of regression	0.139693	Akaike info criterion	-0.255085		2011	15397,5	281,9
Sum squared resid	0.195140	Schwarz criterion	-0.072497		2012	17416,5	342,3
Log likelihood	5.785593	Hannan-Quinn criter.	-0.271987		2013	19143,5	349,3
F-statistic	103.4795	Durbin-Watson stat	0.969072		2014	18709	449,7
Prob(F-statistic)	0.000000				2015	17784,5	430,9
Inverted AR Roots	.85-.49i	.85+.49i	-.00+.98i	-.00-.98i	2016	17751,3	470,1
	-.85-.49i	-.85+.49i			2017	17594,5	552,2
					2018*	22731,6	627,4

Source: The analysis was carried out using the EViews program based on data provided by the State Statistics Committee.

Thus, in the 2009th, 2014th, 2016-2017th years, an increase in managerial expenses amid a general decrease in budget expenditures indicates an imbalance in this area. In our opinion, the dependence of managerial expenditures on the pace of socio-economic development should be strengthened.

### 3.5. Assessing the impact of public administration rationality on possessiveness development

In recent years, the government has taken very important steps towards protecting the rights of owners, preventing inappropriate interference with the activities of owners, and ensuring transparency. Thus, according to the Law of the Republic of Azerbaijan "On the Suspension of inspections in the field of possessiveness " dated October 20, 2015, checks in the field of possessiveness in the Republic of Azerbaijan are suspended for the period from November 1, 2015 to January 1, 2021 (subject to exceptions). In the next 38 months after the adoption of this Law, on the subjects of ownership, with the exception of tax audits, a total of 640 inspections were conducted, including 483 inspections for the 2018th year. For comparison, in the previous 38 months before the adoption of the law, more than 185 thousand inspections were carried out, not including tax audits (report MoE for the year 2018). To determine the relationship between the financing of the state administration apparatus and the national economy, including the development of possessiveness, we consider the indicators of financing state bodies in comparison with a number of macroeconomic indicators.

Table following on the next page

Table 4: Mutual analysis of some macroeconomic indicators and possessive activities

Years	GDP, in millions of manats	Investments in the economy, in millions of manats	Total value added, in millions of manats	Number of possessiveness subjects	Including		The number of newly formed enterprises and organizations of special property	The number of abolished enterprises and organizations of special property	Expenditures for the maintenance of legislative bodies and executive authorities, as well as local self-government bodies, in millions of manats	State budget revenues, actual, in millions of manats	State budget expenditures, actual, in millions of manats
					large and medium	small and micro					
2005	12522,5	6 733,4	11 576,0	270266	9203	261063	31172	180	123,9	2055,2	2140,7
2006	18746,2	7 415,6	17 721,8	307080	8098	298982	55922	587	142,8	3868,8	3790,1
2007	28360,5	10 353,9	26 490,3	327627	8286	319341	44590	424	198,8	6006,6	6086,2
2008	40137,2	13 328,0	37 448,6	349362	8370	340992	42785	189	252,4	10762,7	10774,2
2009	35601,5	10 475,0	32 791,5	351540	5167	346373	42669	163	289,7	10325,9	10503,9
2010	42465	14118,9	39 588,5	389048	4890	384158	38084	5818	303	11403	11765,9
2011	52082	17048,8	49 026,0	429242	4438	424804	65144	9778	281,9	15700,7	15397,5
2012	54743,7	20251	51 351,7	499821	4781	495040	70990	10873	342,3	17281,5	17416,5
2013	58182	21448,2	54 304,0	529485	5269	524216	72069	16077	349,3	19496,3	19143,5
2014	59014,1	21890,6	54 601,1	600691	5712	594979	82311	11949	449,7	18400,6	18709
2015	54380	20057,4	49 521,0	661332	5499	655833	76681	16490	430,9	17498	17784,5
2016	60425,2	22706,4	55 503,7	777534	6773	770761	145485	33667	470,1	17505,7	17751,3
2017	70337,8	24462,5	65 333,4	896641	6870	889771	148499	33809	552,2	16516,7	17594,5
2018	79797,3	25877	73 569,1	955978	7878	948100	84378	30041	627,4	22508,9	22731,6

Source: <https://www.stat.gov.az/source>

An analysis of the data in Table 4 shows that for the 2005-2018th years the number of possessiveness subjects increased 3.5 times (large and medium - 0.8 times, small and micro - 3.6 times), GDP - 6.37 times, total value added - 6.35 times. Investments in the economy increased 3.8 times. State budget revenues increased 10.9 times. Expenditures from the budget increased 10.6 times, and expenses for the maintenance of legislative and executive authorities, as well as local self-government bodies – 5.6 times. Which again indicates a small increase in government spending. The analysis of indicators for the 2005-2018th years shows that there is a close relationship between GDP and the costs of maintaining the legislative and executive authorities, as well as local self-government bodies, and this relationship is as follows:

$$\underline{LOG(UDM) = 4.87012923306 + 1.01253545308 * LOG(DIX) + [AR(6) = -0.586101977709, UNCOND, ESTSMPL = "2005 2018"]}$$

Table following on the next page

*Table 5: close relationship between GDP and the costs of maintaining the legislative and executive authorities*

Dependent Variable: LOG(UDM)

Method: ARMA Maximum Likelihood (OPG - BHHH)

Date: 02/10/20 Time: 14:25

Sample: 2005 2018

Included observations: 14

Convergence achieved after 5 iterations

Coefficient covariance computed using outer product of gradients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.870129	0.465579	10.46038	0.0000
LOG(DIX)	1.012535	0.082275	12.30679	0.0000
AR(6)	-0.586102	0.259197	-2.261218	0.0473
SIGMASQ	0.013530	0.007122	1.899701	0.0867
R-squared	0.945986	Mean dependent var		10.66804
Adjusted R-squared	0.929781	S.D. dependent var		0.519390
S.E. of regression	0.137632	Akaike info criterion		-0.713141
Sum squared resid	0.189426	Schwarz criterion		-0.530553
Log likelihood	8.991986	Hannan-Quinn criter.		-0.730043
F-statistic	58.37866	Durbin-Watson stat		1.243995
Prob(F-statistic)	0.000001			

Years	GDP, in millions of manats	Expenditures for the maintenance of legislative bodies and executive authorities, as well as local self-government bodies, in millions of manats
2005	12522,5	123,9
2006	18746,2	142,8
2007	28360,5	198,8
2008	40137,2	252,4
2009	35601,5	289,7
2010	42465	303
2011	52082	281,9
2012	54743,7	342,3
2013	58182	349,3
2014	59014,1	449,7
2015	54380	430,9
2016	60425,2	470,1
2017	70337,8	552,2
2018	79797,3	627,4

Inverted AR Roots	.79-.46i	.79+.46i	.00-.91i	-.00+.91i
	-.79+.46i	-.79-.46i		

Null Hypothesis: RESID05 has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=2)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.342779	0.0343
Test critical values:		
1% level	-4.057910	
5% level	-3.119910	
10% level	-2.701103	

\*MacKinnon (1996) one-sided p-values.

Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 13

Augmented Dickey-Fuller Test Equation

Dependent Variable: D(RESID05)

Method: Least Squares

Date: 02/25/20 Time: 16:16

Sample (adjusted): 2006 2018

Included observations: 13 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RESID05(-1)	-0.788631	0.235921	-3.342779	0.0066
C	0.010860	0.028419	0.382136	0.7096
R-squared	0.503927	Mean dependent var		0.017449
Adjusted R-squared	0.458830	S.D. dependent var		0.138951
S.E. of regression	0.102218	Akaike info criterion		-1.582780
Sum squared resid	0.114934	Schwarz criterion		-1.495865
Log likelihood	12.28807	Hannan-Quinn criter.		-1.600645
F-statistic	11.17417	Durbin-Watson stat		1.786573
Prob(F-statistic)	0.006561			

*Source: The analysis was carried out using the EViews program based on data provided by the State Statistics Committee.*

According to the analysis for the 2005-2018th years, an increase in expenditures for the maintenance of legislative and executive authorities, as well as local self-government bodies by 1%, leads to an increase in GDP by 1.012%.

#### 4. CONCLUSION

Based on the results of the analysis, the following conclusions and recommendations are made: It is necessary to create mechanisms for assessing the costs of maintaining the public service apparatus and the overall economic results achieved. It is necessary to plan the rationality of public service, taking into account the indicators of socio-economic development of the

country. If this problem is not resolved, it will be difficult to carry out rational public service reforms. During the analysis it is seen that, on average, 2.8% of the expenditures from the state budget are related to management expenses. The actual share of the costs of maintaining the public service apparatus remained at a relatively lower level. The results of the analysis show that an increase in expenditures on the maintenance of legislative and executive authorities, as well as local self-government bodies by 1%, leads to an increase in expenditures from the state budget by 1.289%. The contradictions between the dynamics of expenditures from the state budget and expenses for the maintenance of legislative and executive authorities, as well as local self-government bodies, indicate the weakness of budget planning mechanisms. Government spending is growing at the expense of other items. Thus, the costs of maintaining the public service apparatus are not the largest amount of basic expenses from the state budget, and in 2009, 2014, 2016-2017, an increase in managerial expenses amid a general decrease in expenses from the state budget shows an imbalance in this area. In our opinion, the dependence of managerial expenditures on the pace of socio-economic development should be strengthened. Both investments in the economy and the results of the activities of property owners manifest themselves in the dynamics of GDP and the growth rate of total value added. That is, an increase in expenditures on the maintenance of legislative and executive bodies, as well as local self-government bodies by 1% leads to an increase in GDP by 1.012%. A 1% increase in the nominal salary of a civil servant holding an administrative position leads to an increase in state budget revenues by 1.089%. This shows us that the costs of public service bodies are related to the economy, including general trends in the development of possessiveness.

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