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A Study of Spatial Compliance Rate of Socio-Economic Inequalities in Eight Areas of Yazd City

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Abstract: Urbanization process has been faced with servicing inequalities, population distribution, and unbalanced urban growth in developing countries. Instability caused by the unbalanced growth has been represented in the form of lack of spatial-social balances with manifestations of urban poverty, informal housing and employment, and environmental pollution. This research studies existing social and spatial inequalities in different areas and districts of Yazd City and their relationship with each other. Research methodology is descriptive-analytical and necessary data have been collected through library method and mostly using the information of Yazd detailed plan in 2009. Ranking Yazd areas and districts regarding social development using 15 indexes and TOPSIS and Taxonomy method showed that district 3, areas 2-2 are in the first rank, and area 1-2 is in the last place. Choosing the average of land price as a criterion for assessing economic inequality among different areas of the city and comparing this index using ANOVA test indicate that there is a difference among different areas of Yazd so that area 2-3 has the highest value and area 1-1 has the least. Correlation test among the rate of social development of areas and land price in them done with Pearson's correlation coefficient indicates significant and positive relationship between these two variables. Thus, we consider increase in land price in line with social development rise in different areas of Yazd city.

Keywords: social inequality, economic inequality, land price, sustainable development, Yazd city

JEL Classification: Q01, R19, R13, D63

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1- Introduction

Inequality is one of the general and constant aspects of human societies. Individual differences such as inherent and motivational abilities and various dispositions of individuals and social differences including different life style, rights, opportunities, rewards and privileges that society considers for people. They are institutionalized and they create inequality (Rabani, et al.2011). Therefore, inequality can be defined as differences among individuals regarding the enjoyment of economic and social resources (Osberg, 2001).

Despite inequality is not a new phenomenon regarding living standard among residents in any cities in the world, spatial differences of cities have been intensified in less-developed countries due to the significance of socio-economic differences, the emergence of substandard settlements, expansion of affluent class, and spatial differences of cities (Hataminejad, et al., 2008). A few neighborhoods always enjoy welfare in these cities and other residents of urban areas do not enjoy acceptable prosperity and welfare (Roostayi et al., 2012). Thus, living low-income class of the society in places that do not absorb other social groups may lead to poverty. This process results in the separation of low-income class from other social groups (Hataminehad et al., 2008). Therefore, economic inequality would lead to social inequality so that a class of people in the society does not enjoy access to primary principles of social welfare (Deverteuil, 2009).

Spatial inequality, i.e. socio-economic inequalities dependent on place, within

the cities is the reflection of socio-economic inequalities in the societies (Daneshpour, 2006). Social inequalities contain different aspects of deprivation and social ranking (Pakulski, 2008). Thus, economic development has social dimensions. One of its goals is reducing inequality in society and creating economic boom. The experience has shown that social justice in developing countries is one of the most important issues and macroeconomic policy agenda of those countries. As countries are more advanced, they attend this issue with more serious approach (Sharifzadegan, 2007).

Today, the issue of social justice is in the center of urban studies in all related fields (Amanpoor et al., 2014). In the recent decades, the geographers have attended to the impact of social justice and inequality in urban spatial morphology and organization more than before (Rostami and Shaeli, 2009). Spatial equity in cities means each individual living place (by social division of labor) does not deprive him/her from social entitlements and spatial inequalities only justifies when it is followed by the improvement of public living (Mousavi, 2012). However, we actually consider urban inequalities because of differences arising from natural infrastructures, the type of decision-making and spatial planning. In addition, inequality of physical appearance of neighborhoods increases spatial heterogeneity of urban neighborhoods in terms of texture, street network, accommodation facilities and access to various services (Rostami and Shaeli, 2009).

Spatial inequality of cities has been appeared in a new look in Iran and Yazd

City is not an exception in this case. This city had many neighborhoods before Land Reform in 1961. Close socio-economic relationship of neighborhood system and mode of workshop production affected spatial-social order of the city. It had organic growth and balanced spatial organization so that there was a harmony among population distribution and urban services. Spatial inequity and ecological segregation, particularly in the city, have caused people leave old context, more decay, change into a slum as well as unbalanced physical development and lack of coherence in the city in 1960s and 1970s. Non-organic growth of the city in this period caused spatial structure of the city take the form of sector and experience a kind of ecological segregation based on residents' socio-economic characteristics. Therefore, rapid growth of Yazd city in recent years has shattered the balanced and homogeneous spatial organization of the city and unbalanced physical development of the city caused ecological segregation so that some neighborhoods and areas are in better situation regarding access to services while some urban areas with high population are in undesirable situation (Zarrabi and Mousavi, 2010).

Balance and harmony among intended areas for development benefits are necessary as well as the goal of development and progress in the planning process (Hataminejad et al., 2008) since lack of accountability to deprived and less-prosperous residents and ignoring "social justice principle" may result in social damages such as crime, poverty, corruption, urban problems etc. As a result, it would disturb human

and natural ecological structure of healthy city based on sustainable development (Rostami and Shaeli, 2009). In this regard, this research studies the relationship among socio-economic inequalities in areas and districts of Yazd city. Therefore, the main hypothesis of the research is as follows:

There is a significant relationship between social and economic inequalities in areas and districts of Yazd city.

The secondary research hypotheses are as follows:

There is social inequality in areas and districts of Yazd city

There is economic inequality in areas and districts of Yazd city?

2- Literature Review

A. Foreign researches

Alvaredo and Gasparini (2015) in an article "recent trends in inequality and poverty in developing countries" studied data resources and issues related to measurement, evidences about inequality level and poverty in the country and region, assessment the process of these variables since 1980s, and general discussion of their determinant factors. They believe that there are extraordinary progresses in measuring inequality and poverty in developing countries, serious problems have been remained in compliance and comparison. Available evidence suggests that inequality level of national revenue in developing countries has increased in 1980s and 1990s and it has declined in 2000s. There was a considerable decline in poverty inequality in the early 1980s. It has been because of China exceptional performance more than

the entire period and general improvement in living standards across developing countries in 2000s.

Mendes (2015) in an article entitled “inequality, democracy, and growth in Brazil” stated that inequality has been reduced since mid-1990s, yet Brazil is one of the most unequal countries in the world. Reducing inequality is not only due to government’s redistribution policies, but it is also because of desirable condition in labor market. Moreover, such reduction does not mean government’s redistribution policies have been efficient. In fact, many federal government programs had reverse impact. Mendes believes that the process of reducing inequality slows down during the second decade of the twenty-first century and it may stop at a higher level. From one hand, the extension of middle class for this group creates a situation that they want better public services and more economic growth, and on the other hand, continuation of low growth and a higher number of poor households results in willingness to strengthen redistribution leading to low growth.

Binelli et al. (2015) did a research entitled “what is social inequality? and why it is important? evidences from central and Eastern Europe.” They believe that there is a poor understanding of social inequality in comparison with revenue or wealth inequality. It is measured heterogeneously in best situation. They have considered the concept of social inequality with people’s relative situation along with dimensions measuring obtained findings in the past and future. Evidences derived from twelve central and Eastern

Europe countries’ data indicated that national contradictory models of social inequality are considerably different from obtained models from revenue inequality assessment. Moreover, their assessment from social inequality than revenue inequality has more correlation with other countries’ differences such as higher levels of economic performance, human development, and stronger political institutions.

Lessmann (2014) in an article entitled “spatial inequality and development- is there inversely u-shaped relationship with these factors?” studied the hypothesis between spatial inequality and economic development. Kuznets’s (1995) and Williamson’s (1965) theory suggests that spatial inequality in development process increases at first and then it slows down. Data of unique panels for spatial inequality were used in 56 countries in different economic development steps during 1980-2009. Parametric and semi-parametric regression methods were used in this research with cross-section and (unbalanced) panel. The results strongly confirmed u-shaped relationship and evidences saying that spatial inequality will increase again in higher steps of economic development.

B. Iranian Researches

Generally, the issue of social justice is studied directly or indirectly in Iran. Global, regional, intra city, and village-city inequalities cannot be divided, but there are a few Persian articles and books addressing the issue of social equality with philosophical foundations. The researches of Hossein Shokuhi are one of them. His works studies intra city

inequalities. He mainly discusses marginalization, informal jobs, cheap housing and the manner of spatial distribution of municipal services. Several theses have been about intra city inequalities in recent years such as Emad Afrough (1997), Hossein Hataminejad (2000), Nafiseh Marsoomi (2003), Abdolnabi Marsoomi (2006), and Hataminejad et al (2008). Some of these articles and researches are as follows:

Ziyari et al (2013) in an article entitled “the study and measurement of spatial equality of municipal public services based on population distribution and access in Babolsar city” studied the level of prosperity in eleven-areas of this city. He concluded that inappropriate and sometimes controversial servicing and prosperity of different areas from public servicing are in contrast with spatial equality. The results indicated that there is not appropriate relationship between population as the most influential factor in presenting municipal services and the rate of different areas’ prosperity of the city from municipal services and most residents are not satisfied with access to mentioned services.

Mousavi (2012) studied sustainable form of the city and social justice in Miyandoab city. The purpose of this research has been studying the impact of urban development model on the mode of service distribution and urban facilities in Miyandoab city. The results indicated that there was a relative significant relationship between population density and service distribution. In such a way that areas with high population have quite unbalanced service distribution. Therefore, the

vulnerability of Miyandoab urban development reveals with the criterion of service distribution (social equality). For this purpose, optimal model of population density with 250 people in each hectare in every neighborhood has been suggested as sustainable urban development model.

Tirband and Azani (2012) studied the distribution of municipal facilities and services based on social equality in Yasuj city. The findings showed that there is not much difference in Yasuj areas regarding access to urban facilities and services. Land price and as a result value added of land have followed significantly from studied indexes and presented services have been distributed equally according to the location and mode of city development. Therefore, urban areas 1, 2, 3 and 4 have obtained the facilities of development and added value respectively.

Hataminejad et al (2012) in an article entitled “city and social equality; an analysis on neighborhood inequalities (case study: old neighborhoods of Miyandoab city)” analyzed and ranked neighborhoods through quality of life indexes using Entropy and SAW methods. The results indicated that there was a significant relationship between the per capita of urban land use and quality of life.

Generally, the results of these researches show that those areas with high-income inequality have higher rate of unemployment, people spend less for each individual’s education, and they are in lower educational status (Tahmasbi et al., 2012).

3- Theoretical Principles

Equality has been one of the most important concerns and the most supreme

goals of human being. Theoretically, it is considered as one of the most important issues of social and economic sciences (Lashkari, 2009). Equality concept can be studied from different aspects. Concepts such as social equality, spatial equality, geographical equality, and environmental equality are affected by multi-dimensional of this concept (Varesi et al. 2008). However, the important point is that any change affect directly spatial organization in socio-economic relationships and revenue distribution in society. Definitely, using different mechanisms and planning can affect controversially in establishing or lack of justice (Varesi et al. 2007).

The first role has been dedicated to social justice and welfare in human and urban geography. Human geography has been validated scientifically only in the improvement of human living environment and social welfare (Varesi et al., 2008). On the other hand, the important part of new science of sustainable development emphasizes on social equality or justice. Agyeman and Evans (1994) have argued that all sustainability interpretations imply on equality principle (Burton, 2001). The social equality is one of the most important issues in school of Islam (Marsoosi, 2007).

The concept of social equality in city means maintaining the benefits of different social groups in general, and target groups in particular through the development of urban resources, revenues, and costs (Hataminejad et al., 2012). The concept and function of social equality have been entered into geographical literature since late 1960s. It affected radical and liberal geography more than

other schools. This type of popular geography that strives to achieve social justice goes back to Peter Kropotkin's suggestions in the field of fight against poverty, European nationalism, and racism in more than a century ago. Issues such as social welfare, immense inequalities, poverty, spread of diseases, racism, ethnicity, crime, life expectancy, women's originality and slums, which it had been forgotten in geography until then was quickly attracted the attention of geographers. Each of these topics has found its own geography. Therefore, value and moral system have changed geographical thoughts into new paths (Tirband and Azani, 2012).

David Harvey (1973) in his book entitled "social equality and city" opened new chapters in urban geography. He related urban geography to use social justice in urban society more than before (Varesi et al., 2008). Harvey believes that equality can be considered as a principle or a set of principles that it has been created to resolve the conflicting claims. In fact, social justice is the special function of principles to overcome conflicts that needs social cooperation for people's development (Tabibiyan et al., 2010). According to David Harvey, social and spatial justice in city should be in a way that can be accountable for needs of population, direct the regional allocation of resources and urban facilities in such a way that people have the least gap and objection about their rights, and meet the needs of the population in different dimensions. In a word, the social justice means, "equal distribution equitably" (Amanpour et al., 2014).

According to Harvey, the concept of justice is not so inclusive that a good society can be judged in its form. Social equality should monitor the division of production and distribution of responsibilities in the process of collective work. In addition, these principles include social institutions and organizations related to production and distribution activity. Therefore, different issues such as locating the ability of decision-making, penetration distribution of controller and organizer institutions of activities can be examined by the help of these principles. Harvey emphasizes on moralistic aspects of geography for providing social justice and geographers' mission in providing spatial equality. He considers the issue of geography for implementing social equality as access to a kind of spatial organization. He also believes that having equally social criterion is primary and necessary condition of such work; firstly to determine the boundaries of regions and secondly for resource allocation to these regions. The first condition is related to traditional studies of geography i.e. zoning. Following Rawls's argument, Harvey says that the most resources should be allocated to the most deprived areas regarding resource allocation (Hataminejad et al., 2008).

In the school of liberal geography, David Smith (1977) published a book entitled "human geography: welfare approach" and studied indices of welfare and analysis of social justice. Committee for social and cultural geography of institute of British geographers published a report about social equality and geography in 1991. This book analyzes the winners and losers in society.

Valuable work of David M. Smith (1994) entitled "geography and social equality" opened a new chapter in geography. Geography should be linked with social equality in theory and practice. Geography without social equality would not be able to achieve desirability to human life. Real democracy is possible when it is accompanied by social justice (Hataminejad and Rasti, 2006). Profound inequalities appeared between income groups during the presidency of Reagan and Bush in the U.S. and Margaret Thatcher in Britain from 1980s. From this time onward, American and English geographers studied geographical space with moral, social justice and human instead of neutral and indifferent attitude to the human condition. Thinkers in our era state that we may face huge inequalities in political power, social status, and economic resources in our society. Social equality is a clear quality in reducing these inequalities resulting in inequalities in a process. Exploitation, marginalization, lack of power in a group of people, cultural imperialism, and use of violence are five characteristics of inequality that are against social justice (Hataminejad and Rasti, 2006).

Geographically, social structure cannot be separated from the spatial one. Space production and distribution have been emphasized in geographical issues since theory of space and society has created new horizons in debates that it was not seen before 1980 in the history of geography. This kind of look to social inequality in city has led to development of approaches in cities such as "school of structural geography" emphasizing mainly

on profound understanding of socio-economic inequalities in cities. As a result, there is space allocation of limited resources in cities (Rahnama and Zabihi, 2011).

What is emphasized more in this paper is the expression of justice from spatial aspect so that it examines the presence or lack of relationship between social inequality and economic inequality. In this context, it is assumed that there is a significant relationship between social inequality and economic inequality of different areas and districts of Yazd city.

4- Research Method

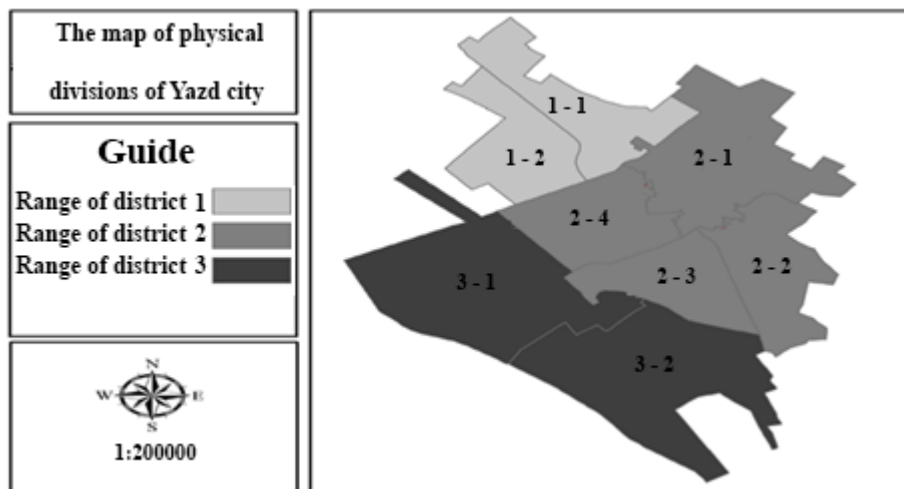
This research has applied purpose and the method is descriptive-analytical

in terms of entity. Case study has been used. Library method has been used for data collection by referring to libraries, statistical reports, and organizational studies. The study of social inequalities of three areas and eight districts of Yazd city has been done by using indices in table 1 and TOPSIS and numerical taxonomy methods. Economic equality or inequality was assessed by using the average of land price in different areas and districts of the city and ANOVA test. Pearson correlation test was used in order to measure the relationship between social development and land price. Map1 shows physical divisions of Yazd city in 2009.

Table1. Indexes of social status measurement in this research

Row	Index	Row	Index	Row	Index
1	Household dimension	6	Undertaking burden	11	Percent of restoration of residential buildings
2	rate of household to residential unit	7	Reversal rate of employment	12	Percent of less durable buildings
3	percent of total illiteracy	8	Population density in residential unit	13	Percent of less durable housing
4	The percent of women's illiteracy	9	percent of lack of housing	14	Percent of demolition buildings
5	percent of men's illiteracy	10	Percent of demolition of residential buildings	15	Percent of restoration of buildings

Source: (Roostayi et al., 2012)



Map1. Physical divisions of Yazd city

Source: (Researchers' findings)

5- Research Findings

The purpose of this research is studying the relationship between social inequality and spatial inequality in areas and districts of Yazd city. Three urban areas were classified in terms of having

social development for this purpose. Tables 2 and 3 were prepared at first, and then the ranking of areas and districts was determined by using TOPSIS and numeral Taxonomy methods.

Table2. Used indexes in explaining social situation of districts in Yazd city

Index District	1	2	3
Household dimension	3.8	3.6	3.7
Rate of household to residential unit	1.03	1.03	1.01
Rate of total illiteracy	8.1	10.2	5.1
Rate of women's illiteracy	10.5	13.5	6.24
Rate of men's illiteracy	6	7	4
Percent of demolition buildings	2.8	5.3	1
Percent of restoration buildings	24.1	11.6	11.1
Percent of demolition of residential buildings	1.8	4.8	0.7
Percent of restoration of residential buildings	26.9	12.1	12.7
Undertaking burden	0.37	0.42	0.38
Population density in residential unit	3.95	3.77	3.8
Percent of less durable building	6.9	22.2	2.3
Percent of less durable housing	6.2	22.4	2
Reversal rate of employment	1.26	3.41	1.86
Lack of housing percentage	1.42	3.23	3.36

Source: (Armanshahr Consulting Engineers, 2009)

Table3. Used indexes in explaining social situation of areas in Yazd city

Index Areas	1-1	2-1	1-2	2-2	3-2	4-2	1-3	2-3
Household dimension	3.7	3.9	3.6	3.7	3.8	3.6	3.9	3.6
Rate of household to residential unit	1.04	1.03	1.06	1.02	1.02	1.01	1	1
Rate of total illiteracy	11.3	6.1	13.6	6.9	8.8	8.2	6.4	2.3
Rate of women's illiteracy	14.1	8.2	17.5	9.2	12.3	11.1	8	4.5
Rate of men's illiteracy	9	4	10	5	6	5	5	1
Percent of demolition buildings	5	0.2	7.1	2.3	4.2	5	0.5	0.1
Percent of restoration buildings	12.8	37.2	2.8	29.8	20	8.9	14	7
Percent of demolition of residential buildings	3.7	1.	6.3	2.4	4.8	4	0.4	0.1
Percent of restoration of residential buildings	11.6	39.9	3.4	31.1	18.4	9.9	16.1	7.7
Undertaking burden	0.44	0.33	0.46	0.39	0.37	0.4	0.45	0.33
Population density in residential unit	3.84	4.03	3.87	3.76	3.86	3.61	3.95	3.6
Percent of less durable building	12.7	0.1	35	7.7	11.2	16.4	1.2	0.1
Percent of less durable housing	13.3	0.1	33.8	8.4	13.7	16.4	1	0.1
Reversal rate of employment	1.86	2.28	1.92	2.23	2.12	2.15	2.19	2.37
percent of lack of housing	3.58	3.01	5.73	2.21	1.54	1.34	2.31	0.37

Source: (Armanshahr Consulting Engineers, 2009)

The results of this ranking shown in table 4 indicate that municipality district 3 has a better situation than other urban areas and district two has the worst situation based on each of two methods. Coefficient of variation of urban areas' score was calculated. Coefficient in TOPSIS is much larger than taxonomy method. The study of these two methods shows that the score of districts 2 and 3 is very close together in Taxonomy method while the difference of these two scores is very significant in TOPSIS method. Therefore, there is a considerable difference among urban areas of Yazd in terms of

having social indexes based on TOPSIS method. According to the indices of these three districts, district 3 has a better status regarding indexes such as percent of women's illiteracy, percent of demolishing buildings, and percent of less-durable buildings. On the other hand, district 2 is placed in the lowest category. This district does not have so appropriate condition regarding indices such as the percent of demolishing residential buildings, percent of less durable buildings, percent of less-durable housing, and reversal rate of employment than two other districts.

Table4. Score and final ranking of social situation in Yazd urban areas

District	TOPSIS		Taxonomy	
	Score	Rank	Score	Rank
1	0.74	2	0.53	2
2	0.08	3	0.6	3
3	0.95	1	0.34	1
Coefficient of variation (R)	0.87		0.26	

Source: (Researchers' calculations)

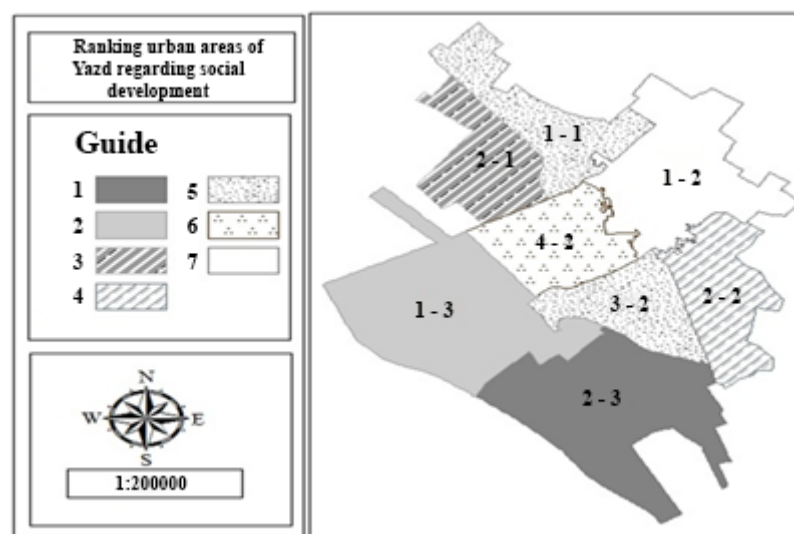
Rate of having social indexes of eight areas of Yazd city by using TOPSIS and Taxonomy methods has been shown in table 5 and map 2. In this regard, area 2-3 and area 1-2 have been specified as the most prosperous and least prosperous areas respectively in both methods. The comparison of obtained results of these two methods indicate high variation rating of areas 4-2 and 2-1 in these methods so that area 2-1 is in the third rank based on TOPSIS method while it is

in the seventh rank in the Taxonomy method. This is true in area 4-2. This means while the area is considered as prosperous in Taxonomy method, it is one before the last in TOPSIS method. The study of coefficient of variation also shows that eight areas have more difference to each other regarding social development based on TOPSIS method. Studying the value of indexes in these areas shows that obtained results of TOPSIS method is closer to reality.

Table5. Score and final ranking of social situation in Yazd urban areas

District	TOPSIS		Taxonomy	
	Score	Rank	Score	Rank
1-1	0.56	5	0.66	6
2-1	0.78	3	0.69	7
1-2	0.21	7	0.73	8
2-2	0.69	4	0.63	4.5
3-2	0.56	5	0.63	4.5
4-2	0.51	6	0.59	2
1-3	0.89	2	0.62	3
2-3	0.97	1	0.51	1
Coefficient of variation (R)	0.76		0.22	

Source: (Researchers' calculations)

**Map2. Ranking of Yazd areas regarding social development based on TOPSIS method**

Source: (Researchers' findings)

In order to study spatial inequality, land prices of 24 different locations in Yazd city were randomly collected so that three locations were selected for each area and land prices of these locations were specified by using manual booklet of real estate transactions in Yazd city and suburbs in 2012. ANOVA test was used to examine whether is there any

significance difference between land price in the districts and areas or not by using data from sample. Table 6 shows the results of this test. According to the p-value, there is not any significant difference in three districts of Yazd city, but it is vice versa in different areas of the city.

Table6. The results of ANOVA test (equality of land price in districts and areas of Yazd city)

	p-value
District	0.266
Area	0.016

Source: (Researchers' calculations)

The study of land price average in different areas of the city in tables 7 and 8 and map 3 shows that the highest land price is owned by area 2-3 and the least

one is owned by area 1-1. Variation range of land price average is 17, which is a significant amount.

Table7. The average of land price in the areas of Yazd city (thousand Rials)

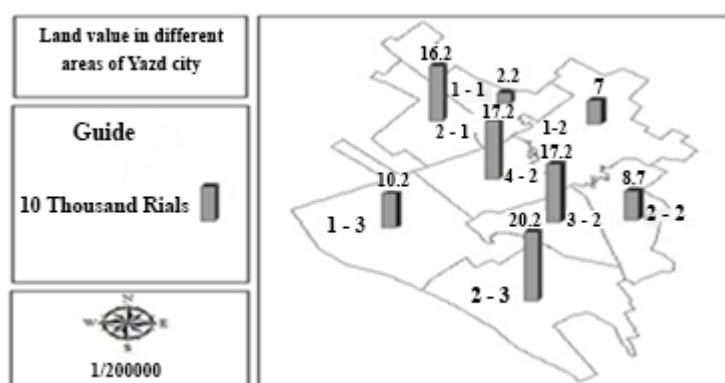
area	Average of land price
1-1	3.33
2-1	16.17
1-2	7
2-2	8.67
3-2	17.17
4-2	17.17
1-3	10.17
2-3	20.33
Variation range	17

Source: (Iranian National Tax Administration (INTA) 2012, and researchers' calculations)

Table8. The average of land price in the districts of Yazd city (thousand Rials)

District	Average of land price
1	9.75
2	12.50
3	15.25
Variation range	5.5

Source: (INTA 2012, and researchers' calculations)

**Map3. The value of land price in different areas of Yazd city**

Source: (Researchers' findings)

Finally, to answer research question, this issue was addressed whether is there any relationship between areas' social

development and districts with land price in them or not. Thus, table8 was obtained according to the collected data.

Table8. Land price and ranking of districts and areas of Yazd city regarding social development

District	Area	Sample	Rank of district (TOPSIS)	Rank of district	Rank of area (TOPSIS)	Rank of area	Land price
1	1-1	1	0.74	2	0.56	5.5	1350
		2	0.74	2	0.56	5.5	1350
		3	0.74	2	0.56	5.5	825
	2-1	1	0.74	2	0.78	3	2200
		2	0.74	2	0.78	3	3600
		3	0.74	2	0.78	3	7600
2	1-2	1	0.08	3	0.21	8	1650
		2	0.08	3	0.21	8	1450
		3	0.08	3	0.21	8	1550
	2-2	1	0.08	3	0.69	4	1100
		2	0.08	3	0.69	4	5500
		3	0.08	3	0.69	4	1100
	3-2	1	0.08	3	0.56	5.5	3850
		2	0.08	3	0.56	5.5	4150
		3	0.08	3	0.56	5.5	4000
	4-2	1	0.08	3	0.51	7	2750
		2	0.08	3	0.51	7	4150
		3	0.08	3	0.51	7	4700
3	1-3	1	0.95	1	0.89	2	2000
		2	0.95	1	0.89	2	1800
		3	0.95	1	0.89	2	2200
	2-3	1	0.95	1	0.97	1	3300
		2	0.95	1	0.97	1	11000
		3	0.95	1	0.97	1	10000

Source: (Researchers' findings)

Using data from the table, the rank of social development of three areas of Yazd and the average of land price in these districts were obtained by using sample of correlation test. In addition, this test was

used for calculating the average of land price in eight urban areas and social development of these areas. The results of these tests have been summarized in table9.

Table9. Correlation coefficient test between social development of districts and areas of Yazd city and the average of land price

	Variables	Pearson's correlation coefficient	P-Value
District	Social development and land price	0.229	0.281
Area	Social development and land price	0.451	0.027

Source: (Researchers' findings)

According to the data in table9, there is no significant relationship between district's social development and land price, but regarding area, the situation is vice versa. This means that there is a significant relationship between social development and land price. According to the correlation coefficient between these two, we conclude that there is a positive correlation relationship between social development and land price in Yazd city so that when social development rate in the areas rises, land price increases as well.

This means that there is a significant relationship between social inequalities and spatial inequalities so that those areas with higher social development have higher land price value. In other words, land price in areas with lower social development is less than areas with higher social development.

6- Conclusion and Suggestion

The process of world urbanization in developing countries has been confronted with servicing imbalances, population distribution, and urban dysplasia growth so that instability caused by the unbalanced development has been appeared in the form of spatial-social imbalances with urban poverty, informal housing and

employment and environmental pollution (Zarrabi and Mousavi, 2010). Yazd is not an exception. Rapid urban population growth and an inability to meet the needs of this population that it was because of being unprepared to deal with the situation, has been the starting point for the emergence of various inequalities. Social inequalities have been reflected in life criteria before anything which it has a relationship with the concept of opportunities and quality of life in return. The results indicated that Yazd areas and districts were unequal regarding social development because of unbalanced development and irregular growth of Yazd city in the last few decades. We also consider different value of land in these areas and spatial imbalances in the city as a result. The study of relationship between areas' social development and land price in these regions revealed that land price increases with rise in the rank of areas regarding social development, which shows significant relationship and positive correlation between these two issues. In addition, we consider social segregation in Yazd city because of high amount of change interval in the field of social development and land price in different districts and areas of the city that it advances the city to be bipolarized. This

can be due to factors such as weakness in planning. Governmental investment in particular districts affect increase in urban poverty in other areas that results in the creation of poverty and class conflict (Roustayi et al., 2012). It is necessary to pay more attention to equal distribution of resources, facilities, and municipal services in eight districts of the city. Thus, spatial organizing and the model of investments in the city should be in such a way that not disturbs human and natural ecological structure of the city. This requires finding a fair method for determining and assessing the need. In this regard, the following suggestions are offered:

- paying attention to lack of distribution and need to allocate resources to citizens
- controlling and monitoring the transfer of land among citizens in such a way to stop land speculation
- planning to remove physical limitations
- Not paying attention to temporary measurements and rash decisions and adopting favorable fiscal and administrative measures
- strengthening different areas of the city in order to meet today's needs and economic, social, and environmental development goals.

7- References

- Alvaredo, F., Gasparini, L. (2013). Recent trends in inequality and poverty in developing countries. *Documentos de Trabajo del CEDLAS*.
- Amanpoor, S; Razmgir, F., Damanbagh, S., Hosseini Siyahgoli, M. (2014). Comparative analysis of urban services in the city of Ahwaz by using *Zagros landscape, FAHP*, 6(20), 137-159.
- Binelli, C., Loveless, M., Whitefield, S. (2015). What is social inequality and why does it matter? Evidence from central and eastern Europe. *World Development*, 70, 239-248.
- Burton, E. (2001). *The compact city and social justice*. In A paper presented to the Housing Studies Association Spring Conference, Housing, Environment and Sustainability, University of York.
- Consulting Engineers of Armanshahr. (2009). *Detailed plan of Yazd city*.
- Daneshpoor, Z. (2006). An analysis of spatial inequality around the cities (an attempt in using strategic planning and management approach in Tehran), *Beautiful Arts*, issue 28, 5-14.
- Dasta, F. (2011). *An analysis of spatial form of physical development in the city of Yazd*, M.Sc. Thesis of urban geography and planning, Payam Noor University of Rezvanshahr Sadoogh
- DeVerteuil, G. (2009). Inequality, *International Encyclopedia of Human Geography*, 433-445.
- Hataminejad, H., Farhoodi, R., Mohammadpoor Jaberi, M. (2008). An analysis of social inequality in having urban services land uses (case study: Esfarayen city). *Human Geography researches*, 65 issue, 71-85.
- Hataminejad, H., Manoochehri, A., Baharloo, I., Ebrahimpour, A; Hataminejad, H. (2012). City and social equality: an analysis on neighborhood inequalities (case study: old neighborhoods of Miyandoab city). *Human Geography researches*, issue 80, 41-63.
- Hataminejad, H., Rasti, O. (2006). Social justice and spatial justice (regional) the study and comparison of John Rawls and David Harvey's theories, *the Quarterly Journal of Territory Geography*, 3(1) (consecutive 9), 82-95.
- Lashkari, A. (2009). Right, justice, and society, *Economic glances*, 6 (12), 31-57.

- Lessmann, C. (2014). Spatial inequality and development—Is there an inverted-U relationship?. *Journal of Development Economics*, 106, 35-51.
- Marsoosi, N. (2007). A geographical analysis of social justice theories, *Geographical sciences*, issue 10, 107-124.
- Mendes, M. (2014). *Inequality, Democracy, and Growth in Brazil: A Country at the Crossroads of Economic Development*. Academic Press.
- Mousavi, M. (2012). Sustainable form of the city and social justice (case study: city of Miyandoab), *human geography researches*, 80th issue, 177-192.
- Osberg, L. (2007). A Quarter Century of Economic Inequality in Canada: 1981-2006. *Department of Economics, Dalhousie University*.
- Pakulski, Jan. (2008). *Social Equality and Inequality*, Encyclopedia of Violence, Peace, & Conflict (Second Edition), 1939-1954.
- Rabani, R; Kalantari, S., Hashemianfar, A. (2011). The study of relationship between social factors with social inequalities, *Social Welfare*, 11(41), 267-305.
- Rahnama, M.R., Zabihi, J. (2011). An analysis of urban public facilities in line with spatial equity with integrated access model in Mashhad, *Geography and Development*, issue 23, 5-26.
- Roostayi, Sh., Ahadnejad, M., Asghari Zamani, A., Zanganeh, A. (2012). A comparative model of poverty expansion in the city of Kermanshah during 1996-2006, *urban and regional researches and studies*, 3(12), 17-40.
- Rostami, M., Shaeli, J. (2009). An analysis of spatial distribution of urban services in the city of Kermanshah, *Geographical Landscape*, 4(9), 27-51.
- Sharifzadegan, M.H. (2007). strategies for economic development and social justice, *social welfare*, issue 24, 9-29.
- State Taxation Affairs Organization. (2012). *Transactional value of properties of Yazd city and its suburbs*.
- Tabibiyani, M., Shokuhi, M.S., Arbab, P. (2010). An assessment of social justice in urban plan of Khoob Bakht neighborhood, district 15 of Tehran Municipality, *Architecture and Urbanization of Utopia*, 3(5), 111-122.
- Tahmasbi, F., Mirzayi, Kh., Kamran, F. (2012). Effective social factors on social inequalities and its consequences in the city of Tehran, *Social researches*, 4(14), 75-100.
- Tirband, M., Azani, M. (2012). Distribution of urban facilities and services based on social justice (case study: City of Yasooj), *Applied Sociology* 23(2), (consecutive 46), 109-138.
- Varesi, H., Ghaed Rahmati, S., Bastanifar, I. (2007). Studying the effects of municipal service distribution in spatial imbalance (case study: districts of Isfahan city), *Geography and development*, 5 (consecutive 9), 91-106.
- Varesi, H; Zangiabadi, A; Yaghfour, H. (2008). A comparative study of public service distribution from perspective of social justice. Zahedan. *Geography and development*, 11th issue, 139-156.
- Zarrabi, A., Mousavi, M. (2010). Spatial analysis of population and service distribution in urban areas of Yazd, issue 97, 27-46.
- Ziyari, K., Mahdian Behnamiri, M., Mahdi, A. (2013). The study and measurement of spatial justice for having urban public services based on population distribution and access ability in the city of Babolsar, *Applied researches of geographical sciences* 13, (28), 217-241.