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COMPETENCES OF MANAGERS AND EXECUTIVES ACROSS ECONOMIC SECTORS

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Abstract: *This paper deals with the comparison of differences in the levels of the application of executives and managers' competences in companies divided by the number of employees and the line of business and identifies the differences based on this classification. Research data were collected via a questionnaire survey administered to 610 small and medium-sized enterprises in the Czech Republic. The subsequent analysis of the responses showed that it is possible to work with complete data from 581 companies. The data were then subjected to statistical calculations according to statistical methods, specifically, the general linear model (GLM), two-way ANOVA, and regression analysis. These methods were used for calculating the results and compiling auxiliary tables and graphs. The results show that in terms of the classification of the companies by their size (the number of employees), it is statistically clear that with the growing number of employees and thus the size of companies, the level of application of the competencies of managers and executives increases as well. The highest level was identified in companies with 150 or more employees, while the lowest was identified in small companies with no more than 9 employees. In terms of the classification of companies by line of business, there were no significant differences in the application of competences; therefore, it cannot be confirmed that any specific line of business shows a higher level of applying managers' and executives' competences. The results obtained can help small companies realize that although the application of competences is more typical for large enterprises, small companies must also pay attention to this topic if they want to grow in the future and increase their turnover. The results are limited by the methods chosen for the achievement of the objectives and data collection. Finally, the results were compared with the findings of other authors.*

Keywords: company size; competence management; human resource management; leadership; SME.

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1. Introduction. However, competence management has come a long way. Since the beginning of competency research in the 1970s, technological advances and the changing requirements for employee competences have dramatically reshaped the area of employment. Managing complex and large volumes of information has become essential for maintaining the development of today's world. Globalized competition is fuelling more intensive "war for talent" under unstable conditions (Karwehl & Kauffeld, 2021). Small and medium-sized enterprises (SMEs) have always contributed to the economic prosperity of countries. In the era of globalization, there is pressure on companies to push boundaries to be able to maintain their competitive edge and succeed (Ibrahim et al., 2016). In today's knowledge-based, technology-based, and highly competitive business environment, the survival and growth of companies depend largely on the competences of their human resources. Human resource competences are considered one of the most important resources and are key to the success of a company (Showkat, 2019). Rapid and unforeseen changes in the business environment lead to considerable changes in the future labour market. The future will offer many new opportunities to current business students, but there are also many threats associated with disappearing jobs. Entrepreneurial education focused primarily on knowledge transfer aims to shift to a competence-based approach, which includes attitudes and skills (Bratianu et al., 2020). Proper management of employees and distribution of competences among employees can improve their performance, thereby improving the organizational performance of financial institutions (Siregar & Suma, 2023). The objective of the paper is to determine whether companies differ in the level of application of managers' and executives' competences depending on the line of business and the size measured by the number of employees.

1) Do large companies apply the competences of managers and executives to a greater extent than smaller companies?

2) Do companies from the logistics transport sector apply the competences of managers and executives to a greater extent than do companies in the manufacturing or services sectors?

2. Literature Review. Leadership is a never-ending journey that has the power to motivate people in an institution. The outbreak of COVID-19 left both individuals and organizations shattered due to the unprecedented changes it had brought about. Transformational leadership motivates employees to perform better tasks (Wadhawan et al., 2022). Zhao et al. (2021) examined the underlying mechanisms of the effect that charismatic leadership may have on employee performance in China in terms of innovation. The results show that a charismatic leader may have a considerable positive effect on the innovation performance of employees (Zhao et al., 2021). Plural leadership is attracting considerable attention because of the challenge of traditional models of individualistic leadership and the shift in focus to the collective and dynamic nature of leadership. This leadership paradigm appears to be relevant, especially in situations in which plurality is involved in order to solve complexity and uncertainty (Flocco et al., 2021). Wang et al. (2020) found that superiors generally trust subordinates who perform well and who they have a good relationship with. These employees are rather unsupervised by managers, who believe that they are capable of performing well. In contrast, leadership is often focused on supervising employees whom supervisors are not satisfied with and whose performance is considered insufficient. Transformational leadership and transactional leadership are significant predictors of employee creativity and organizational innovations. In particular, transformational leadership is key for employee creativity and organizational innovation, while it has a negative impact on these two variables. Moreover, employee creativity is seen as a partial mediator between two leadership styles and organizational innovations (Nguyen et al., 2021). Spiritual leadership is able to enhance the engagement of employees in the organization and improve their performance. Employee engagement can improve employee performance (Maryati & Astuti, 2022). A study conducted by Nur et al. (2021) revealed the considerable positive influence of friendly leadership on employee engagement and job satisfaction, while forced leadership has the opposite effect. Friendly leadership has an insignificant impact on employee performance, while forced leadership has an adverse effect. The innovative behavior of employees can be improved by introducing spiritual leadership practices that help create a spiritual workplace to enable organizations to cope with competitive market pressure on continuous innovations more effectively (Hunsaker, 2020). A significant moderate and positive correlation ($\rho = 0.73$, $p = 0.000$) can be seen between employees' ratings of the leadership skills of their managers and their job satisfaction. Another strong relationship ($\rho = 0.39$, $p = 0.030$) can be seen between the evaluation of the importance of leadership strategies in civilian personnel counselling centres and employee job satisfaction with the overall schedule. Employee job satisfaction significantly positively correlates with employee management ratings (Hillard, 2021). Servant leadership is a holistic approach in which leaders act with morality, show interest in stakeholders, and engage followers from multiple perspectives, such as emotional, relational, and ethical perspectives, to develop their full potential and enable them to become able to do so. The findings of Canavesi

& Minelli (2021) indicate that superior leadership has a positive impact on employee engagement through various mediators targeted at leaders (empowerment), teams (team cohesion), organizations (positive organizational climate), work (challenging tasks), or employees (e.g., proactive personality) (Canavesi & Minelli, 2021). Diversity-oriented leadership improves the symmetrical internal communication and organizational fairness perceived by ethnic minority employees, which increases advocative behaviours and employee engagement. The theoretical implications for internal communication and PR are discussed (Lee et al., 2021). Ethical leadership, as well as employee engagement, significantly influence employee work passion (Ahadiat & Dacko-Pikiewicz, 2020; Mishchuk et al., 2020), leading to the creation of a positive image of organizations (Kristinsson et al., 2022).

The process of decision-making takes place unwittingly a hundred times a day. While in the case of important decisions, this process is more time-consuming, it can also be immediate and spontaneous in situations that are already occurring or in which the outcome is not important. Given that decision-making is important in human life and that making better decisions is a way of thinking better, individuals can benefit significantly from critical thinking skills (Turan et al., 2019). Developing critical thinking is an important goal in tertiary education and is even more important in business education and in business workplaces (Calma & Cotronei-Baird, 2021). Critical thinking is a skill that potential employees expect all graduates to have (Bandyopadhyay & Szostek, 2019; Nakatani & Wynekoop, 2020). Compared with passive learning, simulations foster recursive learning and can generate better critical thinking results, which is characteristic of case studies. Recursive learning takes place by evaluating achievements and failures and modifications of strategies typical of a competitive business simulation (Samaras et al., 2022). Critical thinking and associated skills should be core elements of higher education, especially in administration and business, because they occur mainly when managers in companies make a correct decision, with minimum information, under time pressure, and are the alpha and omega of successful employee leadership (Medronero et al., 2019). Globalization has significantly influenced the pace and nature of business around the world. Workplace settings are now extremely complicated, with work roles becoming complex. Employees are experiencing tough times because communication patterns are no longer simple. We no longer rely on the decisions of others, and problems have become more challenging than ever. Judgments must be made faster, and communication needs to be made more complex. In this rapidly changing business environment, the space and opportunities for employee personal growth and development are limited (Tripathy, 2020). Organizations require, create, and present knowledge; exchange it; and use it again for various processes and applications, virtually creating a suitable environment that enhances the transfer and use of knowledge (Suryantini et al., 2020). Although critical thinking is important for higher education institutions and labor market experts, few studies have addressed the perceived importance of critical thinking and creativity by employers. This should change because critical thinking is very important for running a business, especially for leaders responsible for the results of their subordinates. Companies need to be able to make decisions quickly and under pressure (Cruz et al., 2020). Creativity and innovation are important variables for improving business performance (Dias et al., 2023; Munizu & Hamid, 2018). The creativity of founders positively influences the growth of companies. Furthermore, innovations in the business model mediate the relationship between founders' creativity and business growth. Finally, work experience moderates the relationship between founders' creativity and BMI (Li et al., 2022). Innovation has become a crucial element in improving the creativity and performance of companies and has been the focus of many recent studies and regulators (Bhatti & Tajuddin, 2022). Exploratory orientation is strongly related to the innovation of a business model, while empowering leadership is associated with BMI by means of creativity and a focus on research. Surprisingly, empowering leadership and team creativity do not correlate with BMI (Amoroso et al., 2021). The process of business innovation requires creativity, which builds on extensive collaboration, especially in leadership positions (De Nicola et al., 2018). Creativity contributes to generating new ideas and making investments in research and development; however, the ability to meet customer requirements draws on other skills, e.g., marketing or organizational innovations (Stojcic et al., 2018a). Creative employees and the application of methods enhancing creativity are important factors for implementing innovations and improving the performance of companies (Stojcic et al., 2018b). There are studies indicating that the rapid development of technologies, increasing complexity of products, and growing volume of information in the market are changing sales roles, which requires a review of the current sales skills necessary for success (Peesker et al., 2022). The most relevant skills for leadership are analytical and intuitive thinking (Wimmer et al., 2022). It is necessary to know the expectations of line managers from HR managers with specific reference to analytical skills, the future workplace, and work relations because the goal of HR management is to improve organizational performance in general, as well as the financial performance of companies (Schultz, 2020).

The work environment has changed dramatically in the last ten years, which requires a fresh look at which soft skills are most relevant in today's workplace. Due to COVID-19, organizations have had to quickly adapt to where and how they work. 71% of adults who can fulfil their work responsibilities remotely are now working from home. Another shift was recorded during the "Great Resignation" period, when 24 million employees left their jobs between April and September 2021. This shift is increasingly important, as research over the last decade shows that soft skills are more valued in the recruitment process than hard skills are (Fletcher, 2023). There is growing interest in approaches to business training that include insights from psychology concerning the development of soft skills as well as successful business and especially employee management (Ubfal et al., 2022). In recent years, there has been a higher demand for soft skills, especially when solving problems resulting from digitization in economic enterprises (Golowko, 2018). Everyday use of new information and communication technologies and recent changes in economics have increased the importance of qualified IT employees with a proper combination of technical and business skills (Tokarcikova et al., 2020). Small companies account for a large share of employment in developing countries. A standard approach aimed at improving startups, survival, and growth involves training entrepreneurs in basic managerial and technical skills (Dammert & Nansamba, 2023). Motivating the working population to master digital skills is an important prerequisite for the digital transformation of the Russian economy and society (Kabalina et al., 2020). Companies face digital challenges and need qualified employees who can work effectively in the digital workplace (Weritz, 2022). Information and communication technologies (ICTs) are increasingly used in all areas of social and economic life. This is evidenced by the introduction of innovative technologies into various production processes; effective digital services offered to companies and citizens; management-needed cloud computing, big data and artificial intelligence; and the introduction of distance education and the networking of people (Angelova et al., 2020). The ever-increasing importance of emerging technologies, including mobile and cognitive technologies, big data, artificial intelligence (AI), and cloud computing, is crucial for the sustainable development of the profession of business process managers (Pilipczuk, 2021).

3. Methodology and research methods. The data processed in the paper were obtained using a questionnaire survey conducted in small and medium-sized companies in the Czech Republic; a secondary data source was the research activities of Industry 4.0 implemented in cooperation with the Slovak Academic Association for Personnel Management (SAAMP). The data were collected from a total of 610 small and medium-sized enterprises in 2020. All the questions were divided into two categories, namely, information about the actual application of a specific training tool in a company and the evaluation of the importance of this training tool for the company. Of all 610 companies, 29 did not provide complete information and were thus excluded from the analysis. The final data thus came from 581 companies.

To answer the above research questions, the evaluation of the actual application of competences for each group (managers and executives) was combined into one score. There were 15 items evaluating the application of managers' competences and 9 items evaluating the application of executives' competences. This score was calculated using an arithmetic mean. The accuracy of this step in the analysis was verified using the Cronbach's alpha coefficient, which measures the reliability of the combined items. To meet the criterion of sufficient reliability, the value should be at least 0.7. In the case of managers' competences, the value was 0.879; in the case of executives, it was 0.835. The reliability was thus more than sufficient for both groups of workers.

The resulting score formed by the arithmetic mean constitutes the cardinal variable, which acted as a dependent variable in the analysis. The independent variables or factors were company size and economic sector. The analysis of the relationship between company size or economic sector and the application of competences was carried out using GLMs. The two GLMs are a two-factor ANOVA with interactions, where the factors considered are company size and economic sector, and the dependent variable is the average score of the application of competences. The size of the effect of company size or economic sector is expressed using the coefficient η^2 , whose values are interpreted as follows: 0.01–0.06 for small effects, 0.06–0.14 for medium effects, and >0.14 for large effects (Kirk, 1996).

4. Results.

Table 1 indicates that the highest level of application of managers' competences was identified in companies with more than 150 employees operating in the transport and logistics sector ($M=4.18$, $SD=0.55$). The lowest level was recorded for companies with up to 9 employees operating in the manufacturing sector ($M=3.28$, $SD=0.68$). The average value of applying competences of managers does not differ significantly within companies according to size. The difference in the average values of the actual application of managers' competences between the service, transport and logistics, and manufacturing sectors for companies with up

to 9 employees was a maximum of 0.39. For companies with 10–49 employees, the maximum difference was 0.05 points; for companies with 50–149 employees, the maximum difference was 0.17 and 0.36 for companies with 150 and more employees, respectively. The maximum difference between companies of different sizes was 0.30.

Table 1. Average score with standard deviations for the application of managers' competences

Dependent Variable:		Average score of the application of managers' competences		
Company size	Economic sector	Mean	Std. Deviation	N
1 – 9	Production	3.28	0.68	13
	Services	3.61	0.62	72
	Transport and logistics	3.54	0.78	8
	Others	3.68	0.66	16
	Total	3.58	0.65	109
10 – 49	Production	3.56	0.59	30
	Services	3.61	0.60	74
	Transport and logistics	3.59	0.58	18
	Others	3.50	0.51	25
	Total	3.58	0.58	147
50 – 149	Production	3.63	0.74	77
	Services	3.66	0.54	45
	Transport and logistics	3.80	0.49	17
	Total	3.84	0.62	22
	Total	3.68	0.65	161
150 and more	Production	3.82	0.68	94
	Services	3.86	0.63	53
	Transport and logistics	4.18	0.55	23
	Total	3.84	0.63	30
	Total	3.88	0.65	200
Total	Production	3.68	0.70	214
	Services	3.67	0.61	244
	Transport and logistics	3.84	0.62	66
	Total	3.72	0.61	93
	Total	3.70	0.64	617

Sources: developed by the authors.

Table 2 shows that, as in the case of managers' competences, the highest level in the application of executives' competences is in companies with more than 150 employees operating in the logistics and transport sector ($M=3.90$, $SD=0.62$). The lowest level was in companies with up to 9 employees operating in the manufacturing sector ($M=3.23$, $SD=0.60$). The average value of the application of executives' competences in terms of the classification of companies by size did not differ significantly. The difference in the average value of the actual application of executives' competences between companies operating in the manufacturing, service, and transport and logistic sectors was 0.35 points. For companies with 10–49 employees, the maximum difference was 0.10 points; for companies with 50–149 employees, the maximum difference was 0.06; and for companies with 150 or more employees, the maximum difference was 0.37.

Table 2. Average values and standard deviations for the application of executives' competences

Dependent Variable:		Average score of the application of executives' competences		
Company size	Economic sector	Mean	Std. Deviation	N
1 – 9	Production	3.23	0.60	13
	Services	3.57	0.67	72
	Transport and logistics	3.22	0.80	8
	Others	3.70	0.46	16
	Total	3.53	0.65	109
10 – 49	Production	3.49	0.72	30
	Services	3.56	0.66	74
	Transport and logistics	3.46	0.56	18
	Others	3.23	0.63	25
	Total	3.48	0.66	147

Table 2 Continued

50 – 149	Production	3.53	0.76	77
	Services	3.50	0.65	45
	Transport and logistics	3.56	0.84	17
	Others	3.86	0.59	22
	Total	3.57	0.72	161
150 and more	Production	3.53	0.76	94
	Services	3.74	0.72	53
	Transport and logistics	3.90	0.62	23
	Others	3.76	0.71	30
	Total	3.66	0.74	200
Total	Production	3.50	0.74	214
	Services	3.59	0.67	244
	Transport and logistics	3.61	0.71	66
	Others	3.63	0.66	93
	Total	3.57	0.70	617

Sources: developed by the authors.

The maximum difference between companies of different sizes was 0.18. The average values for the application of competences did not differ significantly. The potential influence of company size, economic sector, or both of these variables will be determined using a generalized linear model (GLM).

Table 3. Importance of factors in the application of managers' competences

Tests of Between-Subjects Effects			
Dependent Variable:	Average score of application of managers' competences		
Source	F	Sig.	Partial Eta Squared (η^2)
Corrected Model	2.550	0.001	0,060
Intercept	13067.821	0.000	0,956
Company size	9.424	0.000	0,045
Economic sector	1,720	0.162	0.009
Company size * Economic sector	0,783	0.632	0.012

Sources: developed by the authors.

Based on Tables 3 and 4 showing the significance test of the importance of individual factors and their interaction, it can be said that the statistically significant impact for both groups of workers was recorded only in the case of company size (Sig._{RP}<0.001; $\eta^2=0.045$; Sig._{VP}=0.002; $\eta^2=0.024$). The size of the effect measured by the coefficient η^2 of this factor was small for both groups of workers, specifically ($\eta^2 > 0.01$).

Table 4. Importance of factors in the application of executives' competences

Tests of Between-Subjects Effects			
Dependent Variable:	Average score of the application of executives' competences		
Source	F	Sig.	Partial Eta Squared (η^2)
Corrected Model	1.876	0.023	0,045
Intercept	10033.912	0.000	0,943
Company size	4.985	0.002	0,024
Economic sector	1.735	0.159	0.009
Company size * Economic sector	1.698	0.086	0.025

Sources: developed by the authors.

Multiple comparison tests will be used to determine which pairs of companies by size show statistically significant differences in the average score of competence application. Specifically, the LSD test will be used. Through Table 5, authors compared the average scores for the application of managers' competencies.

As can be observed from Table 5, the application of managers' competences showed significant differences in the case of companies with up to 49 employees and companies with 50 or more employees, with smaller companies showing a significantly lower score in the application of managers' competences compared to larger companies. This can also be seen in Figure 1.

Table 5. Comparison of average scores for the application of managers' competences

Multiple Comparisons			
Dependent Variable:	Average score of the application of managers' competences		
LSD			
(I) Company size		Mean Difference (I-J)	Sig.
1 - 9	10-49	-0.034	0.739
	50-149	-0.204*	0.046
	150 and more	-0.398*	0.000
10 - 49	1-9	0.034	0.739
	50-149	-0.170*	0.043
	150 and more	-0.364*	0.000
50 - 149	1-9	0.204*	0.046
	10-49	0.170*	0.043
	150 and more	-0.194*	0.014
150 and more	1-9	0.398*	0.000
	10-49	0.364*	0.000
	50-149	0.194*	0.014

*. The mean difference is significant at the 0.05 level.

Sources: developed by the authors.

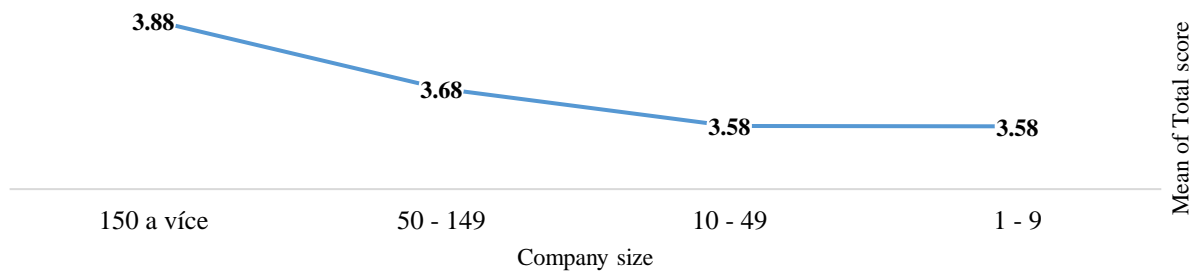


Figure 1. Average score of the application of managers' competences

Sources: developed by the authors.

The figure shows that the application of managers' competences increases with the size of the company. In Table 6, authors compared the average score of the application of the competencies of managers.

Table 6. Comparison of the average scores of the application of executives' competences

Multiple Comparisons			
Dependent Variable:	Average score of the application of executives' competences		
LSD			
(I) Company size		Mean Difference (I-J)	Sig.
1 - 9	10 - 49	-0.003	0.981
	50 - 149	-0.179	0.112
	150 and more	-,300*	0.005
10 - 49	1 - 9	0.003	0.981
	50 - 149	-0.176	0.057
	150 and more	-,298*	0.001
50 - 149	1 - 9	0.179	0.112
	10 - 49	0.176	0.057
	150 and more	-0.122	0.158
150 and more	1 - 9	,300*	0.005
	10 - 49	,298*	0.001
	50 - 149	0.122	0.158

*. The mean difference is significant at the 0.05 level.

Sources: developed by the authors.

As can be seen from Table 6, the application of executives' competences differed significantly for companies with up to 149 employees and for companies with 150 or more employees. This means that small and medium-sized companies achieved a significantly lower average score for the application of executives' competences than did larger companies. Figure 2 shows this situation again.

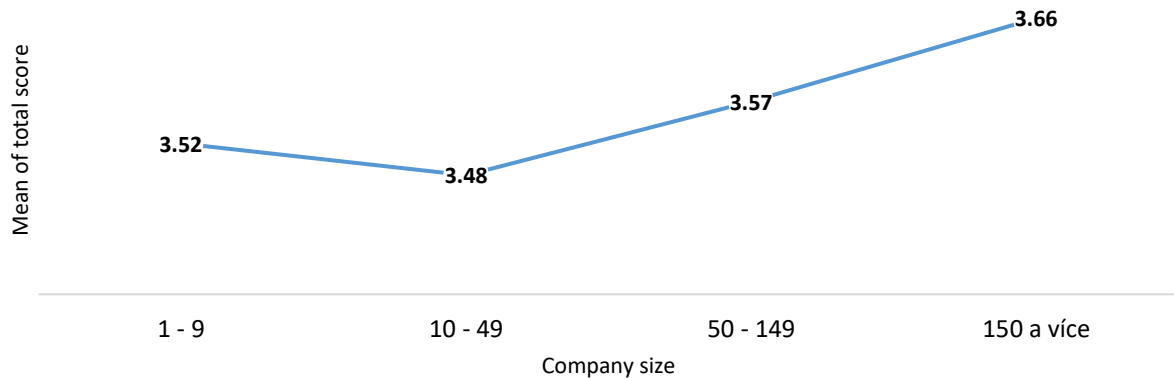


Figure 2. Average score of the application of executives' competences
 Sources: developed by the authors.

The above results show that the highest level of application of managers' and executives' competences can be observed for companies with 150 or more employees in the sector of transport and logistics. The lowest level of importance of applying competences was recorded in the case of the smallest companies, with up to 9 employees operating in the manufacturing sector. For the application of executives' competences, the highest value was recorded in the category of the largest companies, with more than 150 employees operating in the sector of transport and logistics. The lowest values were identified for companies with up to 9 employees operating in the manufacturing sector. A statistically significant impact on the application of competences was identified only in the case of classification by company size. When companies were classified by sector, the influence was nonsignificant. The greatest differences in the application of managers' competences were recorded for companies with up to 49 employees and for companies with 50 or more employees. In this situation, smaller companies achieved significantly lower scores for the application of competences than companies with 50 or more employees. For executives' competences, the difference was most pronounced between companies with 150 or more employees and companies with up to 149 employees. Additionally, in this case, companies with fewer employees showed a lower level of competence compared to larger companies. Based on the results of this research, it can be clearly concluded that in terms of the classification of companies by company size (according to the number of employees), there was a direct proportional relationship, where the level of the application of executives' and managers' competences increases with the size of the company and decreases with the decreasing number of employees. Larger companies thus show a higher level of competence, regardless of whether it is managers' or executives' competence. Decius and Schaper (2021) achieved the same results, claiming that although large companies have more capital and a more uniform competence structure, even small and medium-sized companies need to focus on the personal development of their employees to be successful in the long run in the changing world of work. In the context of the strategic development of competences, both corporate goals and current and future requirements, as well as the status of existing employee competences, should be taken into account. Given the insufficient financial and human resources in small and medium-sized enterprises, it is necessary to provide persons responsible for human resources in companies with a tool for the strategic development of competences. Alvarez-Garcia et al. (2022) add that sustainability competences positively influence social entrepreneurial orientation; specifically, the ability to take social risk and engage in proactivity has a positive impact on the economic and social performance of small and medium-sized enterprises, particularly on their performance in the area of green innovations. According to Gonzalez-Varona et al. (2021), small and medium-sized enterprises should use standardized models in the application of competences, which would enable them to identify and develop the digital skills necessary for making progress in digital transformation. This conclusion was made based on the opinions of six addressed experts. Eklund (2020) and Zhang & Edgar (2021) state that managers' and executives' competences can positively influence the development of new work team members.

5. Conclusions. The goal of the paper was to determine whether company size by number of employees and line of business have any effect on the application of managers' and executives' competences in companies. First, the goals of the paper were formulated in addition to the research questions, which served as a basis for a questionnaire survey and data collection. The second step was the compilation of a comprehensible introduction to the given issue, followed by literary research on the existing knowledge in the field. The data for the final section of the paper were evaluated using a general linear model (GLM), two-way ANOVA, and regression analysis. The results confirmed that, in the case of the classification of companies by size, there can be a statistically significant relationship where the application level of managers' and executives' competences grows with the size of companies, while with the decreasing number of employees, the level of the application decreases as well. The lowest level of the application of managers' and executives' competences could be seen in the largest companies with more than 150 employees. The lowest level was recorded in the category of companies with up to 9 employees. For the classification by sector, no statistically significant differences were identified; thus, the sector in which businesses operate does not have a significant impact on the level of application of managers' and executives' competences.

The research findings can help small enterprises realize that although the application of managers' and executives' competences applies more to larger companies, they should also pay attention to this issue if they want to grow and increase their turnover in the future. The limitations of the research include the selected research method and the use of a questionnaire survey, specifically, the number of questions and respondents.

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Компетенції менеджерів та виконавців у різних секторах економіки

Ця стаття присвячена обґрунтуванню наявності статистично значущих різниць у рівнях компетенцій виконавців та менеджерів компаній, залежно від їх розміру (виміряного кількістю працівників) та видом їх операційної діяльності. Вибірку дослідження було сформовано на основі результатів опитування 610 малих і середніх підприємств в Чеській Республіці. При цьому до подальшого аналізу було відібрано відповіді від 581 компанії. Для перевірки висунутих гіпотез дослідження у статті застосовано такі інструменти та методи статистичного аналізу як: загальна лінійна модель (General Linear Model, GLM); двофакторний ANOVA-аналіз; регресійний аналіз. Отримані результати свідчать про те, що зі зростанням кількості працівників і, отже, розміром компаній, рівень компетенцій її керівників і виконавців також зростає. Найвищий рівень був виявлений в компаніях із 150 або більшою кількістю працівників, тоді як найнижчий рівень компетенцій було виявлено в невеликих компаніях, які нараховували не більше ніж 9 працівників. Авторами емпірично обґрунтовано відсутність статистично значущих різниць у рівні компетенцій виконавців та менеджерів компаній залежно від виду їх діяльності. Це свідчить про те, що не можна підтвердити, що будь-який конкретний вид діяльності компаній має вищий рівень компетенцій керівників і виконавців. Отримані результати можуть допомогти невеликим компаніям усвідомити, що вплив компетенцій характерний навіть для великих підприємств, і що невеликі компанії також повинні приділяти увагу цьому аспекту, якщо вони прагнуть до масштабування у майбутньому. Авторами зазначено, що це дослідження має певні обмеження, що обумовлені обраними методами аналізу та збору даних.

Ключові слова: розмір компанії; управління компетенціями; управління людськими ресурсами; лідерство; МСП.