"Employee training as a tool to achieve goals depending on SME's type"

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EMPLOYEE TRAINING AS A TOOL TO ACHIEVE GOALS DEPENDING ON SME'S TYPE

Abstract

Employee training is one of the most important areas of human resources management and is key to the career development of employees. The aim is to determine how the sector and size of small and medium enterprises (SMEs) influence the corporate education of employees. Data were collected using a questionnaire distributed among 610 SMEs in the Czech Republic; valid answers were obtained from 581 enterprises. The respondents mainly include managers responsible for employee education or other representatives with relevant experience. This database was tested using statistical methods, including Pearson's chi-squared test of independence, Kolmogorov-Smirnov normality test, and Kruskal-Wallis test. The results indicate that enterprises with 150-250 employees try to provide them with training that would correspond to the so-called work-life balance. Enterprises with 50-149 employees often have a larger budget and resources to invest in corporate training. The results show that in terms of $\overline{\text{SME}}$ size, employee training is most commonly applied by medium-sized enterprises. It is confirmed that the bigger the enterprise, the more frequently its employees are trained. On the other hand, the sector does not significantly influence employee training. Slightly above-average use of employee training is observed in the transport and logistics sectors, but the difference is not substantial.

Keywords SMEs, sector, employee training, benefits of employee

training, work-life balance

JEL Classification O15, L25, J21

INTRODUCTION

Employee training and development is an integral part of human resources development, and the issue of education and training is important and frequently discussed. Employee training is a formal educational opportunity sponsored by the organization to improve employee capabilities that can support the organization's competitive advantage. This shows how training and learning go hand in hand. Through multiple processes, employees can understand the enterprise's strategy, which can help them achieve these goals through the implementation of the proposed strategy. Training can help build the competencies needed to implement the strategy. Because skills development improves organizational performance, significant resources are allocated to training and development. This creates a climate for continuous learning that would encourage knowledge and ideas sharing among employees. Moreover, it further promotes new knowledge and innovation, reduces absenteeism, and increases the organization's absorptive capacity and innovative performance (Li et al., 2018).

Unfortunately, for SMEs, this area is often underestimated and not given due attention. However, SMEs represent one of the most significant parts of the national economy and determine the economic growth rate of a country/region, as well as the structure of gross domestic product (Glonti et al., 2021). SME success is also conditioned

by work satisfaction because satisfied employees will probably be more productive and will increase business performance. SMEs are a core part of the economy, and employees are their main and valuable assets. If business managers of SMEs are able to increase employee satisfaction, they will be able to increase the performance of such enterprises (Rahaman & Uddin, 2022).

It is necessary to provide insights into how SME size and sector influence the effectiveness and approaches to enterprise learning. Different types of enterprises have specific needs and resources, which can translate into different approaches to employee training. Understanding these differences is essential to optimizing training programs to be most effective and bring maximum benefit to both employees and enterprises.

1. LITERATURE REVIEW

Given that corporate processes are becoming increasingly specialized, enterprises must be able to adapt to market requirements and changes in the business environment. Targeted and continuous training helps employees acquire the skills and knowledge necessary for them to be able to respond to the challenges occurring in the workplace (Milic et al., 2020). Although in Europe, one of the most highly qualified generations of young graduates is currently entering the labor market, approximately 25% of employees in the EU show considerable deficits in professional skills, which are much worse in comparison with those required by an average employee to be fully proficient and efficient in their job. For enterprises, it is essential to have employees capable of adapting quickly to the ever-changing world market. Therefore, they must invest in continuous employee training and development to be able to retain their employees and succeed (Kuna et al., 2022; Kovaříkova et al., 2021).

For enterprises, graduates represent a source of knowledge. Teams that hire human resources appreciate their youth and preparedness to use the acquired skills, as well as their high level of motivation to «change the world." The task of such teams is to identify talents that can improve individual sectors by achieving relevant goals. However, "competences" do not always come with the "full package" of a new graduate (Mota & Mesquita, 2022).

Employee training is one of the most studied processes in human resources because it is considered key to the success of an organization. Human capital is one of the most valuable corporate resources because employee knowledge, skills, and competencies are among enterprises' most significant assets. Qualified employees contribute to increasing the competitiveness and performance of enterprises. This is a reason for enterprises to effectively spend their funds in the areas of employee training and development through various forms of corporate education. It should thus be a priority concern of enterprises to promote the development, motivation for training, and improvement of employee qualifications, knowledge, and skills. Ensuring business survival in a dynamic environment makes qualification and retraining necessary for organizations and employees, and this is achieved precisely through employee training and learning. Training significantly improves the effectiveness of sustainable management practices by positively influencing work productivity (Malík & Garg, 2020). Training contributes to sustainable human resource management practices and has been found to positively influence the employability skills of employees working for enterprises that have adopted Industry 4.0 practices. Training is also positively correlated with enterprise performance indicators such as profit per employee, thereby creating organizational sustainability. Continuous learning helps improve employee performance and equips them for the future (Lin & Huang, 2021).

Employee training and its impact on the performance of an organization are usually analyzed from the economic and rational aspects, not from the perspective of economic and competitive advantages that may be achieved by employee training (Esteban-Lloret et al., 2018). Understanding how employee training can contribute to employee awareness, competency development, and the development of knowledge and skills within the

implementation of sustainable development goals (SDG) in supplier chains remains unaddressed (Teixeira et al., 2022). In organizations, training is a guarantee of the quality of work performed by the people who are part of them. Evaluation of training processes thus enables the establishment of relevant improvements in order to achieve results adapted to the needs of both employees and the organization (Virgós-Sánchez & Burguera-Condon, 2020). Engagement in training programs is essential for the success of enterprises. Enterprises face this challenge in different ways: some enterprises promote compulsory courses or training programs for their employees, which, however, might not be sufficiently efficient due to the low level of motivation, which may compromise the processes of learning and retention. Some enterprises prefer optional courses or training programs; however, enrolment and completion of such courses are conditioned by many factors, such as the time spent by employees on training without any impact on their main tasks, managers' directives, or the motivation of individual employees. Another way to approach the issue of corporate training programs is the application of gamification to increase engagement (Iacono et al., 2020).

Investment in training and development may not have an immediate positive impact on financial performance but can create effects that play out over time. Most existing cross-sectional research deals with the effect of investing in training and development on employee and business performance, but the long-term effects are neglected (Kwon, 2019; Hitka et al., 2021). Employee education and basic skills help increase innovation in an enterprise, which is reflected positively in employee performance. Employee training thus plays an important mediating role between employee education, basic skills, and performance (Sinaga et al., 2019). A positive correlation was identified between higher investment in employee training and product innovation capabilities in the context of SMEs. Demirkan et al. (2022) found that the relationship between employee education and innovation capabilities is weaker in sectors employing a higher number of university-educated employees, investment in employee education is less effective in larger SMEs, and continuous research and development weakens the relationship between training expenditures and innovation capabilities of an enterprise.

In general, employee training can be divided into two types, on-job and off-job training, i.e., compulsory and non-compulsory training. Compulsory training, such as safety programs and training on compliance with regulations, is essential for maintaining accident-free daily production (Yamashita et al., 2021). Trainers and training managers engaged in international cooperation innovatively manage various systems of training. Training activities are designed to convey the values of safety culture in various countries, including responsibility, accuracy, transparent communication, and reporting. Training also enables meeting the requirements of the safety management system (Li & Pilz, 2023). Nguyen and Shao (2019) suggest that GNS (Growth, Need, Strength) considerably reduces the impact of off-job training on staff turnover. With a higher level of GNS, the participation of women in off-job training and development activities offered by the enterprise increases as well; as a result, women are less likely to think about leaving the enterprise. However, this effect does not significantly affect the correlation between on-the-job training and the intention to leave the enterprise (Nguyen & Shao, 2019).

Training processes in SMEs, in general, are insufficiently developed; only in some enterprises it is implemented following the models and practices described in the literature. However, enterprises implementing training activities in accordance with theoretical models show better outputs and improvement in nearly all performance indicators (Pauli, 2020). Moreover, the way in which SMEs assess the effectiveness of outsourced training has not been sufficiently researched. However, as pointed out in the European Continual Vocational Training Survey, managers of SMEs pay close attention to the effects of training and claim to be involved in measures to assess its impact (Abonneau, 2021).

Employers often strive to maximize short-term gains at the expense of long-term rewards, thus reducing the implementation of employee training. Moreover, during a recession, such employers are seen as the most willing ones to make other cutbacks (Felstead, 2018). According to Wotschack and Samtleben (2023), in Germany, a significant share of low-qualified workers perform specialized activities that require certain types of formal proficiency these workers do not have. Since work changes constantly, training provided by enter-

prises can be of particular importance. However, there is little causal evidence on the effect of training on enterprises (Martins, 2021).

Regardless of the size of an enterprise, all employees can be considered the backbone of the economy. The successes or problems faced by organizations depend on their performance. Therefore, it is vital that organization leaders recognize the importance of training and development in employee performance and appraisal. Enhanced capabilities, knowledge, and skills are the foundation of an organization's competitive advantage in today's global marketplace. Although a large amount of research has been conducted in training and development of employee performance, organization leaders seem to continue to experience gaps and challenges in this regard.

The aim of the paper is to determine how the sector and size category of SMEs influence the corporate education of employees. Therefore, the following hypotheses are formulated:

- H1: SMEs use employee training to a different extent depending on the sector they operate in (manufacturing, transport and logistics, services, and others).
- H1_o: SMEs do not use employee training to a different extent depending on the sector they operate in (manufacturing, transport and logistics, services, and others).
- H2: There is a difference in the perception of the importance of employee training by employees depending on the sector SMEs operate in (manufacturing, transport, logistics, services, and others).
- H2₀: There is no difference in the perception of the importance of employee training by employees depending on the sector SMEs operate in (manufacturing, transport and logistics, services, and others).

2. METHODS

The data were collected from a total of 610 SMEs in the Czech Republic in 2020 through a questionnaire survey (Appendix A), one of the most com-

monly used data collection methods in research. The questions were divided into two parts: information about the actual application of specific educational tools in the enterprise and an evaluation of the degree of importance of these tools for the enterprise. The enterprises that were approached included SMEs of different sizes across different sectors. As for the respondents who filled out the questionnaires, they were mainly managers responsible for employee education or other representatives with relevant experience. Questionnaires were distributed to these respondents online using Google Forms. Out of the 610 enterprises addressed, 29 did not provide complete information and were thus excluded from the analysis. The relevant data obtained from the remaining questionnaires were analyzed using statistical induction. The following specific areas were monitored:

- Employee training is key to corporate culture performance and is perceived as a shared responsibility.
- Enterprises evaluate training as beneficial both for employees and the enterprise itself.
- Enterprises consider the freedom and personal responsibility of employees in selecting a type of training.
- The work system contains elements of work-life balance.

For the purposes of testing the specified hypotheses, Pearson's chi-square test of independence, Kolmogorov-Smirnov normality test, and Kruskal-Wallis test are used (Budíková et al., 2010). To verify the dependence between SME size and individual items in the dictionary, Pearson's chi-square test of independence was applied, since the pairs of variables whose relationship is being verified are categorical and meet the conditions for performing the tests. The formula used is

$$\chi^{2} = \sum_{i=1}^{r} \sum_{j=1}^{c} \frac{\left(O_{ij} - E_{ij}\right)^{2}}{E_{ij}} \approx \chi^{2} \left((r-1)(c-1) \right), \quad (1)$$

where O_{ij} = observed frequencies in the contingency table; $E_{ij} = (n_i n_j) / n$ = expected frequencies; n_i = sum of frequencies of the i-th row of the contingency table; n_i = sum of frequencies of the j-th

column of the contingency table; r = the number of rows in the contingency table; c = the number of columns in the contingency table.

The expected frequencies are higher than 5 in 80% and not lower than 1 in 20%. The same method is used to verify the relationship between the above items in the questionnaire and the sector. When the value of the test criterion is higher than the critical value $\chi^2((r-1)(c-1))$, there is a dependence between the two monitored variables.

To verify the overall relationship between employee training and sector, non-parametrical Kruskal-Wallis test is used. This test compares the mean values of more than two samples of the cardinal variable (the sum of items 15 and 16), which do not meet the requirement for normal distribution. Normal distribution was verified using Kolmogorov-Smirnov test (Budíková et al., 2010):

$$D = \max_{x \in \mathcal{X}(x)} |F_1(x) - F_2(x)|.$$
 (2)

where $D_{n,m}(a)$. $F_1(x)$ = the distribution function of one sample; $F_2(x)$ = the two-sample distribution function.

When the value of the test criterion is higher than the critical value from the tables, the distribution of the data differs significantly from the tested normal distribution.

The Kruskal-Wallis test detects the dependence of a categorical variable with more than two permutations and a cardinal variable not meeting a normal distribution:

$$Q = \frac{12}{n(n+1)} \sum_{i=1}^{k} \frac{R_i^2}{n_i} - 3(n+1) \approx \chi^2(k-1), \quad (3)$$

where R_i = sum of the order of values of the i-th sample from the overall pooled sample; n_i = range of i-th sample; n = range of all samples; k = number of samples.

When the value of the test criterion is higher than the critical value $\chi^2(k-1)$, there is a dependence between the two monitored variables.

All tests were performed at the 5% significance level α . The data were evaluated using the SPSS Statistics 26 software. The software uses p-value, which is calculated using the value of the test criterion, to decide on the hypothesis. When the p-value is lower than the chosen significance level, the null hypothesis is refuted.

3. RESULTS AND DISCUSSION

For the performance of the test, good approximation conditions must be met. The compliance with these conditions was verified using the crosstab of expected frequencies.

Table 1 shows that the statement "Employee training is key to corporate culture performance and is perceived as a shared responsibility" was mostly

Table 1. Comparison of rates of actual application of employee training in SMEs by size

	Crosstab								
Employee training is key to corporate culture performance and is perceived as a shared responsibility (rates of actual application)		E (ı	Total						
		1-9	10-49	50-149	150-250				
lana la cara	Count	19	23	20	9	71			
Irrelevant	% of column	17.3	15.9	12.6	4.6	11.7			
Dether wains a set of	Count	19	21	26	27	93			
Rather unimportant	% of column	17.3	14.5	16.4	13.8	15.3			
	Count	22	32	30	33	117			
I cannot evaluate the importance	% of column	20.0	22.1	18.9	16.9	19.2			
D. I	Count	30	38	54	69	191			
Rather important	% of column	27.3	26.2	34.0	35.4	31.4			
	Count	20	31	29	57	137			
Important	% of column	18.2	21.4	18.2	29.2	22.5			
T-+-I	Count	110	145	159	195	609			
Total	% of column	100.0	100.0	100.0	100.0	100.0			

Table 2. Comparison of perceiving benefits of training

Crosstab								
he enterprise evaluates training as beneficial both for employees and the enterprise itself (rates of actual application)			Total					
and the enterprise itself (rate	es of actual application)	1-9	10-49	50-149	150-250			
Irrelevant	Count	22	22	27	14	85		
meievant	% of column	20.0	15.2	17.0	7.1	13.9		
D-+h	Count	24	23	28	17	92		
Rather unimportant	% of column	21.8	15.9	17.6	8.7	15.1		
	Count	21	29	26	36	112		
I cannot evaluate the importance	% of column	19.1	20.0	16.4	18.4	18.4		
D.I	Count	24	39	48	73	184		
Rather important	% of column	21.8	26.9	30.2	37.2	30.2		
	Count	19	32	30	56	137		
Important	% of column	17.3	22.1	18.9	28.6	22.5		
	Count	110	145	159	196	610		
Total	% of column	100.0	100.0	100.0	100.0	100.0		

confirmed in enterprises with more than 150-250 employees (medium-sized enterprises). Rating 5 was selected by 29.2% of these enterprises, whereas 35.4% of the enterprises rated this item with a value of 4. Enterprises with up to nine employees (micro-enterprises) rated the application of this item most often with a value of 4 (27.3%). This also applies to larger enterprises. Enterprises with 10 to 49 employees (small enterprises) rated the application of this item with a value of 4 in 26.2% of the cases, while enterprises with 50-149 employees (medium enterprises) selected rating 4 in 34% of the cases.

Table 2 shows that the statement "Enterprises evaluate training as beneficial both for employees and the enterprise itself" was most common in en-

terprises with 150-250 employees (medium-sized enterprises), as 28.6% of these enterprises rated this item with the value of 5, and 37.2% selected 4. Enterprises with up to nine employees (microenterprises) evaluated the application of this item mostly with the values of 2 and 4 (21.8% of the enterprises). Enterprises with 10 to 49 employees (small enterprises) evaluated the application of this item with a value of 4 in 26.9% of the cases; enterprises with 50 to 149 employees (medium enterprises) most often selected rating 4 (in 30.2% of the cases).

In relation to "Enterprises consider freedom and personal responsibility of employees in selecting a type of training," it is most often applied in enterprises with 10 to 49 employees (small enterprises),

Table 3. Comparison of employees' perception of freedom and personal responsibility

	Crosstab					
he enterprise considers the freedom and personal responsibility of mployees in selecting a type of training (rates of actual application)		En (n	Total			
mployees in selecting a type of trail	ning (rates of actual application)	1-9	10-49	50-149	150-250	
Irrelevant	Count	23	16	28	28	95
irrelevant	% of column	20.9	11.1	17.7	14.3	15.6
D.I	Count	13	15	16	38	82
Rather unimportant	% of column	11.8	10.4	10.1	19.4	13.5
	Count	27	31	39	36	133
I cannot evaluate the importance	% of column	24.5	21.5	24.7	18.4	21.9
	Count	33	53	51	65	202
Rather important	% of column	30.0	36.8	32.3	33.2	33.2
	Count	14	29	24	29	96
Important	% of column	12.7	20.1	15.2	14.8	15.8
	Count	110	144	158	196	608
Total	% of column	100.0	100.0	100.0	100.0	100.0

Table 4. Comparison of work-life balance by SME size

Crosstab								
Work system contains elements of work-life balance			Total					
(rates of actual a	pplication)	1-9	10-49	50-149	150-250			
Irrelevant	Count	10	15	13	12	50		
irrelevant	% of column	9.2	10.5	8.3	6.1	8.3		
5.1	Count	15	24	21	42	102		
Rather unimportant	% of column	13.8	16.8	13.4	21.4	16.9		
Language and the state of the s	Count	45	41	61	57	204		
I cannot evaluate the importance	% of column	41.3	28.7	38.9	29.1	33.7		
Deth	Count	25	50	47	61	183		
Rather important	% of column	22.9	35.0	29.9	31.1	30.2		
	Count	14	13	15	24	66		
Important	% of column	12.8	9.1	9.6	12.2	10.9		
l	Count	109	143	157	196	605		
Total	% of column	100.0	100.0	100.0	100.0	100.0		

which selected rating 5 in 20.1% of cases and rating 4 in 36.8% (Table 3). Enterprises with up to nine employees (micro-enterprises) rated the application of this item most often with a value of 4 (in 30% of the cases). The same applies to larger enterprises. Enterprises with 50 to 149 employees (medium enterprises) rated the application of this item with a value of 4 in 32.3% of the cases; enterprises with 150-250 employees (medium-sized enterprises) selected rating 4 in 33.2% of the cases. The second most common rating was 3 in enterprises of all sizes except medium-sized ones, where the most common rating was 2.

With regards to the "Work system contains elements of work-life balance," it was most often used in enterprises with 150-250 employees (medium-sized enterprises) and enterprises with 10-49 employees (small enterprises) (Table 4). Rating 5 was selected by 12.2% of enterprises with 150-250 employees (medium-sized enterprises); 31.1% of these enterprises selected rating 4. As for enterprises with 10-49 employees (small enterprises), rating 5 was selected by 9.1% and rating 4 by 35% of them.

Enterprises with up to 9 employees (micro-enterprises) rated the application of this item with a value of 3 in 41.3%, the same as enterprises with 50-149 employees (medium enterprises), where rating 3 was selected in 38.9%.

As regards "Employee training is of key importance for the corporate structure and is perceived as a shared responsibility," a statistically significant influence was confirmed (Table 5). The item "Enterprises evaluate training as beneficial both for employees and the enterprise itself" shows very similar results, and a statistically significant influence was confirmed as well. This means that the perception and application of the two above items depend on SME size. For the items "Enterprises consider freedom and personal responsibility of employees in selecting a type of training" and "Work system contains elements of work-life balance," no statistically significant dependence was confirmed for different size categories.

Regarding "Employee training is key to corporate culture performance and is perceived as a shared

Table 5. The importance of employee education considering the size of SMEs

ltem	Test criterion	Degrees of freedom	p-value	Cramer's V
Employee training is of key importance for corporate structure and is perceived as a shared responsibility	24.873	12	0.015	0.117
The enterprise evaluates training as beneficial both for employees and the enterprise itself	32.395	12	0.001	0.133
The enterprise considers the freedom and personal responsibility of employees in selecting a type of training	16.066	12	0.188	0.000
Work system contains elements of work-life balance	13.199ª	12	0.355	0.000

Table 6. Comparison of the importance of employee training by sector

	Crosstab								
Employee training is key to corporate culture Sector									
performance and is perceived as a shared responsibility (rates of actual application)		Manufacturing	Services	Transport and logistics	Others	Total			
Irrelevant	Count	27	27	6	9	69			
irreievant	% of column	12.9	11.3	9.5	10.3	11.5			
	Count	41	27	8	15	91			
Rather unimportant	% of column	19.5	11.3	12.7	17.2	15.2			
I cannot evaluate the	Count	32	52	13	17	114			
importance	% of column	15.2	21.8	20.6	19.5	19.1			
D.I	Count	64	74	20	32	190			
Rather important	% of column	30.5	31.1	31.7	36.8	31.8			
	Count	46	58	16	14	134			
Important	% of column	21.9	24.4	25.4	16.1	22.4			
T !	Count	210	238	63	87	598			
Total	% of column	100.0	100.0	100.0	100.0	100.0			

responsibility," it is very similar for all enterprises in all sectors (Table 6). Rating 5 was most often selected by enterprises operating in transport and logistics and the services sector. The percentage is approximately the same for all these sectors (about 25%). Rating 4 was selected in about 30% of all sectors. No significant difference was recorded in relation to the different types of sectors.

In relation to "Enterprises evaluate training as beneficial both for employees and the enterprise itself," it is most common in enterprises operating in transport and logistics, where 31.7% of these enterprises selected rating 5 and 33.3% rating 4 (Table 7). Enterprises operating in manufacturing or services mostly selected ratings 4 and 5; in total, it was about more than half of the cases.

As regards "Enterprises consider the freedom and personal responsibility of employees in selecting a type of training," it is at nearly the same level in all enterprises regardless of the sector they operate in (Table 8). Rating 5 was most often selected by enterprises operating in transport and logistics (20.6%) and manufacturing (17.7%), while almost 50% of enterprises in all sectors rated this item with the value of 4. No significant difference was recorded across various sectors.

Regarding "Work system contains elements of work-life balance," it is most commonly applied in enterprises operating in transport and logistics, which rated this item with a value of 5 in 21%, whereas 30.6% of these enterprises selected rating 4 (Table 9). Enterprises operating in manufactur-

Table 7. Comparison of benefits of training by sector

Crosstab								
The enterprise evaluates trair	ning as beneficial		Secto	or				
both for employees and the enterprise itself (rates of actual application)		Manufacturing	Services	Transport and logistics	Others	Total		
	Count	35	33	6	8	82		
Irrelevant	% of column	16.7	13.9	9.5	9.1	13.7		
Rather unimportant	Count	32	34	8	16	90		
	% of column	15.2	14.3	12.7	18.2	15.0		
	Count	40	41	8	22	111		
I cannot evaluate the importance	% of column	19.0	17.2	12.7	25.0	18.5		
	Count	62	75	21	24	182		
Rather important	% of column	29.5	31.5	33.3	27.3	30.4		
	Count	41	55	20	18	134		
Important	% of column	19.5	23.1	31.7	20.5	22.4		
-	Count	210	238	63	88	599		
Total	% of column	100.0	100.0	100.0	100.0	100.0		

Table 8. Comparison of employees' perception of freedom and personal responsibility by sector

Crosstab								
The enterprise considers the fr	eedom and personal		Sect	or				
responsibility of employees in selecting a type of training (rates of actual application)		Manufacturing	Services	Transport and logistics	Others	Total		
Irrelevant	Count	27	39	7	18	91		
irrelevant	% of column	12.9	16.4	11.1	20.5	15.2		
	Count	31	26	8	16	81		
Rather unimportant	% of column	14.8	10.9	12.7	18.2	13.5		
	Count	49	49	15	19	132		
I cannot evaluate the importance	% of column	23.4	20.6	23.8	21.6	22.1		
D.I	Count	65	84	20	29	198		
Rather important	% of column	31.1	35.3	31.7	33.0	33.1		
	Count	37	40	13	6	96		
Important	% of column	17.7	16.8	20.6	6.8	16.1		
T	Count	209	238	63	88	598		
Total	% of column	100.0	100.0	100.0	100.0	100.0		

Table 9. Comparison of work-life balance by sector

Crosstab								
Work system contains elem	Work system contains elements of work-life Sector							
balance (rates of actual application)		Manufacturing	Services	Transport and logistics	Others	Total		
land a cont	Count	17	20	5	6	48		
Irrelevant	% of column	8.2	8.4	8.1	6.9	8.1		
D-th	Count	27	39	15	21	102		
Rather unimportant	% of column	13.0	16.4	24.2	24.1	17.1		
	Count	73	83	10	35	201		
I cannot evaluate the importance	% of column	35.1	34.9	16.1	40.2	33.8		
6.1	Count	62	77	19	20	178		
Rather important	% of column	29.8	32.4	30.6	23.0	29.9		
	Count	29	19	13	5	66		
Important	% of column	13.9	8.0	21.0	5.7	11.1		
T !	Count	208	238	62	87	595		
Total	% of column	100.0	100.0	100.0	100.0	100.0		

ing and services rated this item most often with a value of 3. Specifically, 35.1% of enterprises were operating in manufacturing, and 34.5% were operating in the services sector. The second most common rating for enterprises operating in services and manufacturing was 4 (about 30% each); in the case of enterprises operating in transport and logistics, it was rated 2 (24.2%).

In relation to the statement "Work system contains elements of work-life balance," the statistically significant influence of the sector enterprises operate in was confirmed (Table 10). This means that the application of the given item is dependent on the specific sector. However, according to the Cramer's V, the effect is relatively weak (V < 0.3). For the other three items, the effect of the sector

Table 10. The importance of employee education depending on the sector

Item	Test criterion	Degrees of freedom	p-value
Employee training is key to corporate culture performance and is perceived as a shared responsibility	11.793	12	0.462
The enterprise evaluates training as beneficial both for employees and the enterprise itself	11.869	12	0.456
The enterprise considers the freedom and personal responsibility of employees in selecting a type of training	10.432	12	0.578
Work system contains elements of work-life balance	26.796	12	0.008

was not confirmed. For the items "Employee training is key to corporate culture performance and is perceived as a shared responsibility," "Enterprises evaluate training as beneficial both for employees and the enterprise itself," and "Enterprises consider freedom and personal responsibility of employees in selecting a type of training," no significant difference was confirmed depending on various sectors.

Furthermore, the effect of SME size and sector on the overall perception of employee training was analyzed (items 15 and 16).

The rating for training was calculated as a sum of items 15 and 16. It is thus a cardinal variable whose values range between 2 to 10. First, the Kolmogorov-Smirnov test was used to verify whether the data met the criterion of normal distribution in the samples by training and sector.

Table 11. Test of normal distribution in groups by SME size category (normality test)

CDAF- sine astronom.	Kolmogorov-Smirnov ^a			
SMEs size category (number of employees)	Test criterion	df	p-value	
1-9 (micro-enterprise)	0.123	109	0.000	
10-49 (small enterprise)	0.149	141	0.000	
50-149 (medium enterprise)	0.152	157	0.000	
150-250 (medium-sized enterprise)	0.204	191	0.000	

Note: aLilliefors Significance Correction.

Based on the results of the normality test (p < 0.05), no data concerning training meet the requirement of normal distribution (see Table 11).

Table 12. Test of normal distribution in groups by sector

	Kolmogorov-Smirnov ^a					
Sector	Test criterion	Degree of Freedom	p-value			
Manufacturing	0.180	210	0.000			
Services	0.153	238	0.000			
Transport and logistics	0.187	63	0.000			
Others	0.164	87	0.000			

Note: aLilliefors Significance Correction.

Based on the results of the normality test (p < 0.05), the data for training do not meet the criterion of normal distribution in any group by sector (see Table 12).

Table 13. Significance of effect of SME size on training

Total N	609
Test criterion	26.173
Degree of Freedom	3
p-value	0.000

The value of the test criterion is 26.173, with its *p*-value being lower than 0.05. The assumption of a statistically significant difference in the evaluation of training by SME size was thus confirmed. Multiple comparison test was used to determine which enterprises statistically significantly differ in the evaluation of training.

Table 14. Pairwise comparisons of SME size

Sample 1– Sample 2	Test Criterion	Std. Error	Std. zest Statistic	p-value
1–3	-25.677	21.618	-1.188	0.235
1–2	-28.100	22.041	-1.275	0.202
1-4	-94.250	20.786	-4.534	0.000
3–2	2.424	20.017	0.121	0.904
3–4	-68.573	18.626	-3.682	0.000
2–4	-66.149	19.115	-3.461	0.001

Statistically significant differences were identified between enterprises 1 and 4, 2 and 4, and 3 and 4. This means that enterprises with 150-250 employees rated training higher than small enterprises.

Table 15. Significance of the effect of the sector on corporate training

Total N	598
Test Statistic	4.036
Degree of Freedom	3
p-value	0.258

The value of the test criterion is 4.036, and its *p*-value is greater than 0.05. No statistically significant difference in terms of evaluating the importance of training by sector was thus confirmed.

The study suggests that mainly in medium-sized enterprises with more than 150 employees, employee training has a crucial impact on corporate culture and employers in these enterprises consider employee training a social responsibility. Smaller enterprises pay less attention to the effect of employee training on corporate culture; however, there are a few exceptions to this rule. Another important finding was that mainly medium-sized

enterprises apply a specific rule in employee training, claiming that it must be beneficial both for employers and employees. The application of this rule can prevent burnout of employees in the future, as they will have the possibility to further grow and thus avoid routine in the workplace. In smaller enterprises, this rule is applied as well, but to a smaller extent than in medium-sized enterprises and not with such critical priority. Mainly, medium-sized enterprises and enterprises with more employees also strive to make employee training as effective as possible while maintaining the freedom of employees and their personal responsibility. This is addressed in the last part of the results concerning the statement that medium-sized enterprises with more than 150 employees strive to ensure employee training that would correspond with the so-called work-life balance, i.e., the balance between private and work life.

Further, it was found that in the case of the item "Employee training is key to corporate culture performance and is perceived as a shared responsibility," the division of enterprises by sector does not play a significant role, and the application of this item was at a very similar level and stable. The item "The enterprise evaluates training as beneficial both for employees and the enterprise itself" is mostly used by enterprises operating in transport and logistics. As in the first case, no effect of the division by sector was confirmed for the item "The enterprise considers the freedom and personal responsibility of employees in selecting a type of training." The item "Work system contains elements of worklife balance" was rated highest by enterprises operating in the transport and logistics sector.

The results show different approaches to employee training according to the size of the company (medium-sized and smaller companies) rather than according to the sector. The division of enterprises according to the sectors in which they operate does not play a significant role, and the application of this item was stable and at a very similar level. This statement suggests that there are no significant differences in employee education across sectors. Since the main difference is firm size, not sector, the first hypothesis (H1) has been rejected.

The study also checks how employee training is perceived and states that when broken down by sector,

no significant difference was confirmed for some items, such as the importance of training for employees and businesses. For example, for the item "When choosing the type of training, the company takes into account the freedom and personal responsibility of employees," the influence of the sector was not confirmed, which indicates that training is perceived similarly across different sectors. On the other hand, for some aspects, such as the balance between work and private life (work-life balance), higher ratings were recorded for companies in the transport and logistics sector. This detail shows that there may be a difference in perception for certain items, but for the main theme of the hypothesis, the size of the business seems to play a bigger role than the sector. Overall, the second hypothesis (H2) is partially rejected, as most of the data indicate that the sector is not the main factor affecting the perception of the importance of training. However, certain differences may appear in some specific areas, such as work-life balance.

It can be stated that nowadays, it is an absolute necessity for SMEs to provide their employees with various forms of training. For enterprises, it is mainly about better employee performance and better competitiveness. The goal is to promote the idea of employee qualification and education.

According to Mota and Mesquita (2022), graduates who have recently completed their university education and seek their first employment represent a very profitable investment for enterprises since they can shape their employees as they need. However, these new workers often look for employment with a large, experienced enterprise that can enable them to grow professionally, provide attractive remuneration, and offer pleasing information in their CVs. Large enterprises are well aware of that and thus try to offer these employees attractive systems of employee training. This implies that large enterprises better understand the importance of employee training, which is confirmed also by the results achieved in this study.

The results also are in line with Virgós-Sánchez and Burguera-Condon (2020) and Barnová et al. (2022), who also state that employee training guarantees the quality of work performed and that large enterprises are better capable of adapting to the requirements for training and digitization, ei-

ther in the form of investment in digital equipment or qualified trainers or external courses. The question thus is why most large enterprises invest in employee training. In this context, Sinaga et al. (2019) state that employee training increases the level of innovation in the enterprise in the long run as well as the financial literacy of the enterprise, which can be reflected in all types of job positions (Jafar et al., 2022). In addition to the direct or indirect financial advantages, employee training also helps to better meet the requirements of safety management systems (Li & Pilz, 2023). Tang and Zainal (2022) argue that in today's highly competitive educational environment, educational institutions must strengthen their workforce with tailored training.

Future research could focus on a detailed examination of the factors that motivate SMEs to invest in employee training and how organizational culture and structure influence these factors. It would also be beneficial to investigate what types of training are most effective in different industries and SME size categories and whether specific approaches to training differ by industry. Further, research could focus on the long-term effects of training on employee performance and satisfaction, particularly in smaller enterprises where training may not be a priority. In the context of new trends, it would be useful to examine how digital and hybrid forms of training affect different size categories of SMEs and how training can contribute to a better integration of employees' work and personal lives.

CONCLUSION

The aim of the paper is to determine how the SME sector influences the corporate education of employees. The results were divided into two parts. The first part focused on the effect of the size of SMEs on the degree of application of individual items of employee education; the second part dealt with the same issue, but the enterprises were divided into groups according to the sector in which they operate. The results show that, from the point of view of SME size, the application of employee training was the most common. Medium-sized enterprises showed a higher frequency of employee training. This finding is generally consistent with the fact that medium-sized enterprises often have more resources and opportunities to implement more extensive employee training.

The second part of the results shows that the influence of the sector in which the enterprises operated did not play a significant role in the application of employee education. A slightly above-standard application of employee training was recorded at enterprises operating in transport and logistics; however, the difference was not too great. This study confirmed that the sector in which the enterprise operates is not a decisive factor in enterprise education.

The results obtained can help SMEs realize that the education and development of employees are important areas of human resource management. Training carried out by enterprises helps to attract a more qualified workforce, and its results can provide enterprises with information not only for better decision-making processes but also for increasing work performance and employee satisfaction, which leads to greater financial stability and profitability of enterprises. It is vital that enterprises realize this fact and the need for training and development of their employees.

AUTHOR CONTRIBUTIONS

Conceptualization: Iveta Kmecova, Stefan Gavura. Data curation: Iveta Kmecova, Stefan Gavura. Formal analysis: Iveta Kmecova, Stefan Gavura. Investigation: Iveta Kmecova, Stefan Gavura. Methodology: Iveta Kmecova, Stefan Gavura.

Project administration: Iveta Kmecova, Stefan Gavura.

Resources: Iveta Kmecova, Stefan Gavura. Supervision: Iveta Kmecova, Stefan Gavura. Validation: Iveta Kmecova, Stefan Gavura. Visualization: Iveta Kmecova, Stefan Gavura.

Writing – original draft: Iveta Kmecova, Stefan Gavura. Writing – review & editing: Iveta Kmecova, Stefan Gavura.

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REFERENCES

- 1. Abonneau, D. (2021). Should we forget training evaluation models? The economic impact of external training in the construction SMEs. *Revue Internationale PME*, 34(1), 34-50. https://doi.org/10.7202/1076459ar
- Barnová, S., Duda, M., Matulčíková, M., Gabrhelová, G., & Hrivíková, T. (2022). Further professional on-the-job training of employees in the digital era. *International Journal of Engineering Pedagogy*, 12(5), 54-67. https://doi. org/10.3991/ijep.v12i5.32523
- Budíková, M., Kralova, M., & Maroš, B. (2010). Průvodce základními statistickými metodami [A Guide to Basic Statistical Methods]. Grada Publishing. (In Czech).
- 4. Demirkan, I., Srinivasan, R., & Nand, A. (2022). Innovation in SMEs: The role of employee training in German SMEs. *Journal of Small Business and Enterprise Development*, 29(3), 421-440. https://doi.org/10.1108/JS-BED-07-2020-0246
- Esteban-Lloret, N. N., Aragón-Sánchez, A., & Carrasco-Hernández, A. (2018). Determinants of employee training: Impact on organizational legitimacy and organizational performance. The International Journal of Human Resource Management, 29(6), 1208-1229. https://doi.org/10.1080 /09585192.2016.1256337
- 6. Felstead, A. (2018). Tracing the connections: Short-termism, training and recession. *The*

- International Journal of Human Resource Management, 29(4), 664-682. https://doi.org/10.1080/09585 192.2016.1184176
- Glonti, V., Manvelidze, R., & Surmanidze, I. (2021). The contribution of SME to regional economic development: On example of Adjara Autonomous Republic.
 European Journal of Sustainable Development, 10(1), 513-526.
 https://doi.org/10.14207/ejsd.2021.
 v10n1p513
- 8. Hitka, M., Štarchoň, P., Lorincová, S., & Caha, Z. (2021). Education as a key in career building. *Journal of Business Economics and Management*, 22(4), 1065-1083. https://doi.org/10.3846/jbem.2021.15399
- Iacono, S., Vallarino, M., & Vercelli, G. (2020). Gamification in corporate training to enhance engagement: An approach. *International Journal of Emerging Technologies in Learning*, 15(17), 69-84. https://doi.org/10.3991/ijet. v15i17.14207
- Jafar, S., Zubair, S. S., & Khan, M.
 A. (2022). Employee training and financial performance: Mediating effects of perceived service quality and customer satisfaction. *Pacific Business Review International*, 14(5), 68-81. Retrieved from https://www.researchgate.net/publication/358799342
- Kuna, P., Hašková, A., & Hodál, P. (2022). Tailor-made training for industrial sector employees. Sustainability, 14(4), Article 2104. https://doi.org/10.3390/

su14042104

- 12. Kwon, K. (2019). The long-term effect of training and development investment on financial performance in Korean companies. *International Journal of Manpower*, 40(6), 1092-1109. https://doi.org/10.1108/IJM-10-2017-0286
- 13. Li, C., Sun, L. Y., & Dong, Y. (2018). Innovating via building absorptive capacity: Interactive effects of top management support of learning, employee learning orientation and decentralization structure. *Creativity and Innovation Management*, 27(4), 431-443. https://doi.org/10.1111/caim.12261
- Li, J. M., & Pilz, M. (2023). Incompany training in a safety-critical industry: Lessons from the aircraft industry. *Journal of Workplace Learning*, 35(2), 210-227. https://doi.org/10.1108/JWL-06-2022-0067
- Lin, C. Y., & Huang, C. K. (2021). Employee turnover intentions and job performance from a planned change: The effects of an organizational learning culture and job satisfaction. *International Journal* of Manpower, 42(3), 409-423. https://doi.org/10.1108/IJM-08-2018-0281
- Martins, P. S. (2021). Employee training and firm performance: Evidence from ESF grant applications. *Labour Economics*, 72, Article 102056. https://doi.org/10.1016/j.labeco.2021.102056
- 17. Milic, C., Pavic, D., & Mandic,

- B. (2020). Training methods in municipal enterprises. *Ekonomski Vjesnik*, 33(1), 71-82. Retrieved from https://hrcak.srce.hr/file/348361
- Mota, R., & Mesquita, C. (2022). Training graduated students in an industrial context of a retail company. In A. Alves & N. van Hattum-Janssen (Eds.), Training Engineering Students for Modern Technological Advancement (pp. 165-182). IGI Global. https://doi. org/10.4018/978-1-7998-8816-1. ch008
- Nguyen, L. T., & Shao, Y. (2019).
 The impact of training on turnover intention: The role of growth need strength among Vietnamese female employees. The South East Asian Journal of Management, 13(1). https://doi.org/10.21002/seam.v13i1.9996
- Pauli, U. (2020). Training professionalisation and SME performance. Human Resource Development International, 23(2), 168-187. https://doi.org/10.1080/13678868. 2019.1696079
- Rahaman, A., M., & Uddin, S. M. (2022). The effect of promotion and job training on job satisfaction of employees: An empirical

- study of the SME sector in Bangladesh. *The Journal of Asian Finance, Economics and Business,* 9(2), 255-260. https://doi.org/10.13106/ jafeb.2022.vol9.no2.0255
- Sinaga, O., Lis, M., & Razimi, M. S. A. (2019). Education and core skills in the performance with mediating role of employee innovation. Polish *Journal of Management Studies*, 19(2), 363-373. https://doi.org/10.17512/ pjms.2019.19.2.31
- 23. Tang, X., & Zainal, S. R. B. M. (2022). Organizational impact analysis: Relationship between employee training and performance in the early education institution. *International Journal of Early Childhood Special Education*, 14(3), 5136-5142. Retrieved from https://www.int-jecse.net/article/Organizational+Impact+A nalysis%253A+Relationship+Between+Employee+Training+and+Performance+in+the+Early+Education+Institution_2918/?download=true&format=pdf
- 24. Teixeira, T. B., Battistelle, R. A. G., Teixeira, A. A., Bonacina, C. Z., & Vitoreli, M. C. (2022). Sustainability in the supply chain: analyzing the role of the focal company and

- training in the implementation of SDGs. *Sustainability*, *14*(19), Article 12882. https://doi.org/10.3390/su141912882
- Virgós-Sánchez, M., & Burguera-Condón, J. L. (2020). Evaluation of the training process of company tutors in dual vocational training. *Education in the Knowledge Society*, 21. https://doi.org/10.14201/ EKS.22992
- Wotschack, P., & Samtleben, C. (2023). From unskilled workers to professionals through company-provided training? Upward occupational mobility and wage changes of low-skilled workers in regulated and unregulated internal labor markets. Soziale Welt-Zeitschrift fur Sozialwissenschaftliche Forschung und Praxis, 73(2), 309-352. https://doi.org/10.5771/0038-6073-2022-2-309
- Yamashita, S., Ito, K., Kawakami, S., & Khoa, T. D. A. (2021).
 Optimal education plan of employees using maintenance model. *International Journal of Mathematical, Engineering and Management Sciences*, 6(4), 1009-1024. https://doi.org/10.33889/IJMEMS.2021.6.4.059

APPENDIX A

QUESTIONNAIRE

Dear respondents,

We would like you to fill out a questionnaire to determine companies' readiness for the challenges of human resource management during Industry 4.0. This questionnaire targets HR professionals and businesses operating in Czechia. It is anonymous and takes 10-15 minutes to complete. Thank you in advance for your time and willingness.

PART A								
Number of employees	Type of business	Ownership				Regional aspect		
□ 1-9	☐ Production	☐ Domestic owner		Prague		Ústí region		Moravian-Silesian region
□ 10-49	☐ Transport	☐ Foreign owner		Central Bohemia region		South Moravian region		Liberecký region
□ 50-249	☐ Logistics			South Bohemian region		Zlínský region		Královohradecký region
☐ 250 or more	☐ Services			Plzeň region		Vysočina Region		Karlovy Vary region
	□ Other			Pardubice region		Olomouc region		

PART B					
	1	2	3	4	5
Degree of importance forthe future of the enterprise	Irrelevant	Rather unimportant	I cannot evaluate the importance	Rather important	Important
Real application in the enterprise	We do not apply	For now, we do not apply or we are considering applying	I cannot assess the real state	We apply partly	Completely apply

PART C						
A. Values	The real state of the enterprise	What is the degree of importance for your business?				
1. Meaningfulness of work	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
2. Engagement	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
3. Enthusiasm and joy from work	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
4. Cooperation	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
5. Recognition (public, personal)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
6. Open communications	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
7. Support	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
8. Autonomy	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
9. Emphasis on health	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
10. Confidence	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
11. Responsibility	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
B. Modern tools and concepts for managing human resources in the enterprise	Real application in the enterprise	Rate importance for the future of the enterprise				
1. Working places allow maximization of employee autonomy at work	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
Employee knows the meaning of work for the creation of added values for the customer	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
3. Work system contains elements of work-life balance	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
4. Business systematic builds employer brand	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				
5. Business systematic works on own attractiveness like employer (employer branding)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5				

PART C		
B. Modern tools and concepts for managing human resources in the enterprise	Real application in the enterprise	Rate importance for the future of the enterprise
6. Selection of employees is carried out on the level of executive teams	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. Management uses gamification principles	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
8. M anagement uses virtualization approaches	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
9. Staff are rewarded for behavior in compliance with the values of the	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
enterprise	B1 B2 B3 B4 B3	01 02 03 04 03
10. Business allows employees to choose forms of rewards according to their preferences and needs	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
11. Business uses team remuneration	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
12. Staff receive ongoing informal feedback concerning their performance	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
13. When assessing, the business takes into account employee engagement	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
14. Enterprise takes into account the freedom and personal responsibility of employees in selecting education	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
15. Education of employees is of key importance and is perceived as common responsibility	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
16. Business evaluates benefits of education for employees and also for business itself	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
C. Competence of managers	Real application in the enterprise	Rate importance for the future of the enterprise
The ability to stand alone (search and manage information)		□1 □2 □3 □4 □5
2. Critical thinking	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
3. Creativity and creative thinking	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
4. Analytical thinking (capture, structure, and understand information)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
Strategic thinking (vision and establishing long-term goals)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
6. Project management skills	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. Quality management skills	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
8. Technological and IT skills	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
9. Time and task management	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
10. Customer orientation (empathy, attention, perception context)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
11. Employee orientation (motivation, knowledge, development of		
employees)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
12. Teamwork (cooperativeness)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
13. Communication skills (ability to argue and present information)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
14. Intercultural sensitivity	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
15. Self-motivation	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
D. Competence of executive workers (without managerial	Real application in the	Rate importance for the
powers)	enterprise	future of the enterprise
1. Professional qualifications	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
$2. \ Soft skills \ (interpersonal \ relationships, communications, willingness \ to cooperate, sharing information)$	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
3. Technological and IT skills	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
4. Ability to work independently (search and process information)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
5. Critical thinking	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
6. Creativity and creative thinking	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. Analytical skills (Excel, SPSS, Business Intelligence, Big Data)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
8. Ability to stand alone to solve problem	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
9. Personal engagement	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
E. Rating individual motivation factors	Real application in the enterprise	Rate importance for the future of the enterprise
Career motivation (possibility of applying own abilities, working	·	
procedure, powers, prestige, independent decision making, self-realization, education and personal growth, recognition)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
2. Work motivation (physically demanding work, safety inworkplaces,		
certainty working places filling and kind performed work, acquaintance		

PART C		
3. Social motivation (social benefits, vision companies, enterprise		
name, development of the region, relationship of the enterprise to life environment, free time)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
Financial motivation (basic pay, other financial evaluation, fairly assessment of employees)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
5. Relationship motivation (atmosphere in workplaces, good working team, communications in workplaces, access superior)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
F. The concept of human capital management Human capital (HC): knowledge, skills, talent Human capital management (HCM) is a supplementary concept to management of human resources, based on the evaluation of data on the effectiveness of use and effectiveness of investments in HC	Real application in the enterprise	Degree of importance forthe future of the enterprise
1. Employees are perceived as critical intangible asset	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
The enterprise has introduced the concept of HCM	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
Key performance indicators are introduced	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
4. In the enterprise or in its parts, size, respectively HC value, are find out	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
5. The enterprise evaluates costs on the fluctuation	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
6. To measure HC size, management uses metrics (e.g., cost factor, overall costs on working strength, equivalent fullworking hours)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. To assess the effectiveness of the exploitation of HC, management uses metrics (e.g., economic added value, market value, added value)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
8. Financial means spent on education, improvement of medical status, safety, and ergonomics workplace are considered an investment in HC	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
9. Management evaluates the efficiency of investment in HC	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
10. Management evaluates the efficiency of investment in education	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
11. Metrics (e.g., net current value, reasonable time returns, profitability investment, profitability talent)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
12. Investment to HC are also considered for formal rewards	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
13. Investment to HC are also considered as a tool to increase the interest of employment within the enterprise	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
14. Information systems are used for region human resources and allow tracking and evaluating data about HC	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
15. Regularly created corporate reports contain also part of HC	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
16. HCM application contributes to improving the financial situation of the enterprise	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
17. HCM application contributes to improving the position of the enterprise on the market	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
G. Manifestations of information digitization: Customer	Real application in the	Rate importance for the
perspective	enterprise	future of the enterprise
1. Analog data digitization (limitations for paper documentation)	□1 □2 □3 □4 □5 	
2. Biometric data digitalization	□1 □2 □3 □4 □5	
3. Platforms digital interaction, networking (contact with customer)	□1 □2 □3 □4 □5 	□1 □2 □3 □4 □5
4. Big data analytics (for marketing purposes)	□1 □2 □3 □4 □5	
5. Fast analytics (e.g., feedback)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
6. Predictive analytics (e.g., in marketing)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. GDPR (customer protection)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
H. Manifestations of information digitization: Employee perspective	Real application in the enterprise	Rate importance for the future of the enterprise
Analog data digitization (personal informative system)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
2. Biometric data digitalization (e.g., accessible rights)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
3. Platforms for digital interaction and networking (e.g., internal communications)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
4. Big data analytics (e.g., analysis of employee motivation)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
5. Fast analytics (e.g., feedback)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
6. Predictive analytics (e.g., managing work performance)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. GDPR (employee protection)	□1 □2 □3 □4 □5	□1 □2 □3 □4 □5
7. GBI II (employee protection)		