

**PERSONNEL RISKS AND THEIR IMPACT ON BUSINESS IN THE  
V4 COUNTRIES****Hudáková M., Masár M., Vodák J., Lahuta P., Ciechomski W.,  
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**Abstract:** The human factor is evidently known to be an integral part of every process in any enterprise and plays an important role in managerial activities. Research to date confirms that the main cause of problems in enterprises is often just the human factor. Currently, there is a growing interest of managers to assess and reduce personnel risks. This article examines the results of a research that focuses on the variability of personnel risks as perceived by owners and managers of enterprises in Slovakia and compares them with the results in the V4 countries. The article also provides an assessment of personnel risks and their sources in relation to how long the investigated V4 enterprises have been in business. The results of the article are based on a survey realized by the authors among 422 enterprises in Slovakia in the years 2019-2020 and a survey conducted by a broader research group including the authors among 1,781 enterprises across the V4 countries in the years 2017-2018. The following statistical methods were used to assess the data: Descriptive statistics, Sphericity, Normality, and Hypothesis testing. The research findings suggest that there exists a variability of intensity of how the managers perceive the personnel risks. Specifically, the managers in Slovakia as well as in the V4 countries perceive the impact of personnel risks more intensively after their enterprise has been active on the market for a longer time period. The results of this empirical research confirm the need to assess personnel risks and their importance in order to allow for effective management of a successful enterprise in the V4 countries. The results of the research are beneficial for enterprise owners, managers, as well as for the institutions that provide comprehensive entrepreneurship support. The results also contribute to the strengthening of coordination and mutual cooperation between the V4 countries. The outcomes of the article can be used at the national as well as international V4 level and the aim of the article is to increase competitiveness, economic development, and resilience of the V4 enterprises in light of global challenges.

**Key words:** personnel risks, impact, assessment, enterprise, V4 countries

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## Introduction

There is no enterprise that is immune to problems, mistakes, or risks that can damage its brand, company reputation, and its financial performance, and the external challenges like cyber threats or natural disasters relate to all enterprises (Fraser and Simkins, 2016; Lendel and Varmus, 2014). The consequences of the current global crisis caused by the COVID-19 pandemic have further highlighted the importance and benefits of enterprise risk management. It is important to be prepared for the pitfalls of the enterprise's external and internal environment and to be able to respond immediately (Brachert et al., 2017; Kozubíková et al., 2015). In today's complex and competitive business environment, a suitable adaptation strategy is particularly important in the effort to further develop the enterprises. In case of certain important business activities, if they are not well prepared and are potentially influenced by a number of risks, this may result in catastrophic consequences including financial losses and potentially a bankruptcy (Cera et al., 2019). For this reason, the risk management is a prerequisite for minimizing negative impacts of unexpected situations. According to the results of worldwide surveys and studies of various organizations such as The Penomon Institute, Corporate Risk Management Initiative, AMRAE, AICP, Deloitte Institute (Institute Penomon, 2017; The American Institute of CPAs, 2019; Global risk management survey, 2018; Global trends 2025, 2017), there is a confirmed positive contribution of the enterprise risk management (ERM) on increasing enterprise's performance, its value, and competitiveness. The Grabara et al. (2019) study states that the risk assessment, reporting, and control help to improve top management performance and internal control. Risk management reduces the probability that the enterprise deviates from the set goals and thus fails to meet the expectations of the stakeholders (Dvorský et al., 2020). It is prudent to have discussions about risks with the senior management at the strategic level and not only at the operational management level which consists mainly of risk registers. According to the survey Hudakova and Masar (2018a), the most noteworthy issues related to implementing and using risk management in enterprises in the V4 countries are underestimations of risks, incorrect attitude of managers towards risks, missing system of preventive measures, inability to assess the risks associated with the key business processes, limited knowledge on the risk management methods and tools, etc.

In recent years, in the enterprises that are implementing Enterprise Risk Management (ERM) there has been an increase of interest among the owners and managers also in preventing personnel risks (Agarwal and Ansell, 2016). Personnel risks are caused by a failure or an error of the human factor, e.g. an employee executing a certain activity incorrectly or an incorrect decision of a responsible manager. Personnel risks also include long-term insufficient qualification of employees, fraud, loss of a key employee, high employee turnover, decline in work ethics and discipline, etc. (Shpilina et al., 2019). The acute lack of labour is forcing the V4 governments to reconsider their so far cautious view of migration. They try to reduce an administrative burden associated with employing foreigners and also

to attract back citizens who went to study or work in the Western Europe (Somjai et al., 2019; Popp et al., 2018). According to the author Strielkowski et al. (2019), the number of frauds has been on the rise in recent years and the enterprises are lacking preventive measures to appropriately manage people to address this issue. As a consequence, employee reliability became the number one requirement for employee hiring and management processes (Kotaskova et al., 2020). The outlined trends overall suggest that there is a need to further develop the risk management in the area of human resources (HR Risk management).

The main aim of the article is to evaluate the results relating to the variability of intensity of personnel risks as perceived by owners and managers of enterprises in Slovakia in the period 2019-2020 and to compare the results with the previous research conducted in the V4 countries in the years 2017-2018 (Slovakia, the Czech Republic, Poland, Hungary). The article aims to assess personnel risks in relation to the length of business operation of the enterprises in Slovakia and the other V4 countries. In the years 2019-2020 the authors carried out an empirical research focused on identification and evaluation of entrepreneurship risks in Slovakia. In the years 2017-2018 the authors participated in a similar empirical research across the V4 countries. The presented results of the article are based on the datasets from both of these researches.

The originality of the article is due to its focus on the assessment of the intensity of personnel risks as perceived by the owners and managers in relation to the length of their enterprise business operation in Slovakia and the V4 countries. In addition, the article also identifies and assesses business risks and their sources in the V4 countries. Authors are at present not aware of any other study that provides such a comprehensive view of the assessment of personnel risks in the V4 countries as are the results presented in this article.

The introductory part of the article provides an overview of the relevant literature and definitions of the basic concepts related to the studied topic. It is followed by the methodology section which describes the applied methods and overview of the analyzed data and the hypotheses of the research. The main part of the article is the presentation of the research results relating to the personnel risk assessment in the enterprises, followed by the discussion section. The conclusion section then summarizes the results that are potentially relevant and beneficial for managers of enterprises in the V4 countries as well as elsewhere in the world.

### **Literature review**

Business risks are an inseparable part of the entrepreneurship activity. Risk assessment is one of the most important parts of the risk management discipline (Avilova et al., 2017). If an enterprise aims to prevent crises, it has to comprehensively assess and manage the risks that could potentially be the sources of future crises. The term “risk” is used in professional terminology and in practice in four different meanings (Bogodistov and Wohlgemuth, 2017). Most frequently the term is used to refer to dangers, threats, possibility of damage, loss, failure, i.e.

it is focused on the negative side of the potential outcome (De Oliveira et al., 2017). From this point of view, the risk is understood as a possibility or probability of occurrence of losses, occurrence of an event that may threaten the achievement of the enterprise's goals, or occurrence of negative deviations from the set level of company's business goals. The term is also used for conditions, circumstances, or phenomena that may lead to occurrence of a dangerous, threatening, or unfavourable situation, failure, disagreement, accident, etc. (Holla et al., 2017). The risk is then perceived as a potential cause or source of the unfavourable situation (Hopkin, 2013). It is possible to use the term risk also when there are two options and at least one of the outcomes is unfavourable. Such understanding can be considered justified for risks that have only negative outcomes (pure risks) (Bukanová and Šimíčková, 2019). In practice we more often encounter risks that are referred to as business risks and that have a negative outcome and a positive outcome (Green, 2016). Thus the meaning of risk is that it's a variability of possible outcomes of certain processes or activities, an uncertainty, a possibility of deviations (negative and positive) from the expected outcomes, a probability of different values of the actual vs the expected results.

Individual authors define personnel risks differently. The definition of personal risks is presented by individual authors in a different way. Author Strielkowski et al. (2019) defines personnel risk as one of several categories of loss exposures that organizations face that may be treated with the risk management process. These exposures encompass losses arising from death, injury, disability, or departure of employees. Examples include costs to replace a key employee who has died or became disabled and the associated benefits mandated under the workers compensation laws. Other categories of loss exposures include direct and indirect property risks and liability risks (IRMI). Author Shpilina et al. (2019) gives examples of personnel risks such as fatigue and exhaustion, accidents and illnesses, obsolete professional skills, personal or job-related disputes, unintentional human error, information leaks, or theft. According to authors Kotaskova et al. (2020) there are personnel risks as follow: employment, expertise, work community, workability and well-being, occupational safety and health, special risk of entrepreneurship, acts of damage, travel, traffic, and violence at work.

In our research personnel risks are defined as those associated with the human factor. The human factor is a set of personality traits and abilities of a person that in a given situation affects the performance, efficiency, and reliability of the work system. The human factor can be assessed from a psychological, physiological, and physical point of the view of Holla and Moricova (2011). The personnel risks then depend on the actual level of experience and skills of the managers and employees in the enterprise. Among the most serious personnel risks can be differentiated human errors of employees and managers, insufficient employee qualification, non-compliance with the health and safety rules, fraud, loss of key employees, high fluctuation rate, decline of working morale and discipline, risks associated with managers' wrong decisions that affect success of the enterprise. There is a wide

variety of specific personnel risks. By their nature, they are often less visible than the other risks (e.g. market, financial, economic ones) and are often difficult to pin down precisely. Personnel risks range from very small (e.g. the risk of loss due to a minor human error) to very large (e.g. the risk of bankruptcy due to a serious fraud). Personnel risks can occur at every level of the enterprise. These risks are generally within the control of the enterprise which may address them through the risk assessment and risk management practices including internal control and insurance (Gates et al., 2012).

Based on the above the following hypotheses were established:

H1a: There is a statistically significant difference in the intensity of perception of owners and managers of personnel risk due to the length of doing business in Slovakia.

H1b: There is a statistically significant difference in the intensity of perception of owners and managers of personnel risks due to the length of doing business in the V4 countries.

H2: No significant differences were observed in the comparison of the individual perceived personnel risks.

The established hypotheses were verified based on the processed results of the research.

### **Research Methodology**

The authors performed empirical research in Slovakia in the years 2019-2020. The main goal of the research was to identify the key business risks in Slovakia and to understand the current state of implementation and application of the risk management process in enterprises. The additional goal was to assess sources of the identified risks and the level of abilities and skills of managers to apply the enterprise risk management. In the years 2017-2018 the authors were part of the team who carried out a similar research in enterprises in the V4 countries which was aimed at identifying the key business risks and assessing the state of application of the risk management process in those enterprises (Hudakova and Masar, 2018a).

For performing the research, the research questions relating to the field of enterprise risk management were added into a questionnaire that was used for the data collection. The responses were gathered using online questionnaires from the enterprise owners and managers in Slovakia, the Czech Republic, Poland, and Hungary. Additional information was obtained in the form of personal interviews with the managers of the participating enterprises. In the 2019-2020 research a total of 422 enterprise owners and managers in Slovakia participated in the research. The structure of the research participants was as follows with respect to the industry in which the participants' enterprises operate: 21.4% trade, 17.6% heavy/light industry, 15.7% construction, 11.1% transport and information, 10% other services, 6.2% agriculture, 5.7% accommodation and boarding, 3.2% trade services, 10% remaining services. In the 2017-2018 research there were in total

1,781 enterprises included in the research, with 487 enterprises participating from Slovakia, 408 enterprises from the Czech Republic, 498 enterprises from Poland, and 388 enterprises from Hungary. The following partner organizations collaborated on the V4 research: Faculty of Management and Economics, Thomas Bata University, the Czech Republic; Warsaw School of Economics, Poland; Faculty of Economics and Business, University of Debrecen, Hungary; Faculty of Security Engineering, University of Zilina, Slovakia.

Various scientific methods were applied to achieve the stated objective of the article such as querying, comparison, and statistical methods for data evaluation.

The query method was applied using an online questionnaire tool. The online questionnaire allowed efficient collection, sorting, and evaluation of the data. The advantage of the online questionnaire is more efficient collection in terms of time, location, and response speed. The online questionnaire was created using the Google Form platform, which provides a suitable environment for data collection, sorting and export to MS Excel. Formulation of the questions was based on the authors' experience with the above-mentioned topics, their prior experience with conducting various research projects at University in Žilina, and an analysis of the economic situation and current challenges in the world economy. The research participants were asked to select a maximum of three risks which they considered to be key ones for their business from a list of seven business risks. With respect to the application of statistical methods, the following tests were used to assess data normality: Anders-Darling test, Ryan Joiner test, Kolmogorov-Smirnov test, homoskedasticity (Bartlett test) and hypothesis testing by the analysis of variance. When using the calculation of parametric tests, two basic conditions had to followed: the resulting p-value of the intensity of the selected risks of the sphericity test (the identity of variances) and normality test.

## Results

Identification of the key business risks perceived by owners and managers in Slovakia based on the 2019-2020 research

From the research carried out in 2019-2020, it is possible to summarize the following results. The addressed owners and managers of enterprises in Slovakia identified business risks that they regard as the key ones in their respective businesses. Participating owners and managers of the 422 enterprises that were included in the research and that are active on the Slovak market identified the following key business risks: market risks 28%, economic risks 18%, financial risks 18%, personnel risks 15%, operational risks 9%, security risks 7%, and legal risks 5%. Personnel risks were identified as the fourth most serious ones as perceived by the owners and managers of the enterprises in Slovakia. Research shows that personnel risks are frequently underestimated in the current business environment. This was supported by the identified most important sources of personnel risks: an insufficient employee qualification, high fluctuation rate, human errors and decline of the working morale and discipline.



Assessment of intensity of the perceived level of personnel risks by owners and managers of enterprises in Slovakia based on the 2019-2020 research

**Analysis of the established hypotheses – H1a**

Based on the Barlett test of sphericity (p-value = .0724), the main assumption of sphericity can be considered as fulfilled. Normality tests for statistical analysis (Anders Darling test, Ryan Joiner test, Kolmogorov - Smirnov test) were used and confirmed normal distribution of the dataset (Table 1). Specifically, based on the p-value results we can consider the dataset to have normal distribution at the considered level of significance (0.05).

**Table 1. Results of the personnel risk assessment in Slovakia dataset normality tests**

Length of entrepreneurship	Test result (p-value)		
	Anderson –Darling test	Ryan Joiner test	Kolmogorov-Smirnov test
up to 5 years	.059	.053	.086
5 to 10 years	.166	.195	.109
10 to 20 years	.126	.072	.178
more than 20 years	.114	.130	.067

Authors (Kotaskova et al., 2020; Shpilina et al. 2019) suggest that if an enterprise operates on the market for a longer time period, it starts to perceive the personnel risks more intensely. A base on this concept of the research hypothesis was established, i.e. there is a statistically significant difference between the intensity of perception of owners and managers of personnel risks due to the length of being active on the market in Slovakia. The hypothesis was assessed on the basis of the analysis of variance (ANOVA). The critical value of the test ( $F_{0,95;419;3} = 2.626$ ) was compared with calculation test criterion for assessed dataset  $F = 3.921$  (Table 2). Based on the results the research hypothesis can be considered as accepted at the selected confidence level (.050), i.e. there is a statistically significant difference between the intensity of perception of personnel risks due to the length of being active on the market in Slovakia.

**Table 2. Analysis of personnel risk variance in Slovakia**

Source of variability	Sum Sq	Df	Mean Sq	F	Sig.
Regresion	.589	3	.196	3.921	.039
Residual	20.986	419	.050		
Total	21.575	421			

Table 3 examines selected individual basic statistical characteristics (BSC), as well as the variability of individual group selections of the dataset. The individual results point to an increased variability in the individual group selections. Based on this it can be concluded that the longer the enterprise operates on the market, the

stronger it distinguishes personnel risks. In other words, enterprise owners and managers perceive the impact of personnel risks on the enterprises more if the enterprise operates on the market for a longer period of time.

**Table 3. Basic statistical characteristics of personnel risks in Slovakia**

Risks	BSC	Up to 5 years	5 to 10 years	10 to 20 years	20 and more years
<b>Personal risk</b>	$\mu$	.379	.348	.367	.305
	$\sigma$	.200	.167	.207	.158
	$\kappa$	2.019	2.246	.694	.694
	Variability	0.338*	.388**	.472*	.560**

Explanations:  $\mu$  - average risk intensity,  $\sigma$  - standard deviation risk intensity,  $\kappa$  - kurtosis risk intensity (\* p-value <.05; \*\* p-value <.001)

Identification of the key business risks perceived by enterprises owners and managers in the V4 countries based on the 2017-2018 research

Based on the research carried out in the years 2017-2018, the following results can be concluded. In cooperation with the partners from the Czech Republic, Poland and Hungary and the authors from Slovakia, in the performed research participated a total of 1,781 owners and managers of enterprises across the V4 countries. The participants in Slovakia identified the following key risks for their businesses: market risks 26%, financial risks 21%, economic risks 19%, personnel risks 11%, operational risks 9%, legal risks 7% security risks 6% and other risks 1%. In the Czech Republic the participants consider the most serious risks for their businesses to be the following: market risks (24 %), financial risks (19 %), personnel risks (19 %), economic risks (16 %), operational risks (10 %), legal risks (6 %) and security risks (5 %). In Poland the following key risks were identified: market risks (20%), financial risks (16%), personnel risks (15%), economic risks (14%), operational risks (12%), security risks (12%) and legal risks (11%). In Hungary the participants pointed out the following key risks: market risks (19%), personnel risks (18%), financial risks (16%), economic risks (13%), operational risks (14%), security risks (11%) and legal risks (9%). The key risks perceived jointly by the owners and managers from Slovakia, the Czech Republic, Poland, and Hungary, in total 1,781 participants, are: market risks 22.34%, financial risks 18.05%, economic risks 15.61%, personnel risks 15.48%, operational risks 10.88%, security risks 8.81%, legal risks 7.83% and other risks 1.00%.

The processed research results summarize the key risks associated with each of the markets and overall with the V4 region. Taken together, enterprises in these countries prioritized market risks related to placing goods and services on the domestic and foreign markets as the most significant risk. The other key risks that followed were financial, personnel, and economic risks as the second, third, and fourth most serious risks. The order of the identified risks was only slightly different between the individual countries.



Assessment of the intensity of perception of the level of personnel risks by owners and managers of enterprises in the V4 countries based on the 2017-2018 research

#### Analysis of the established hypothesis – H1b

Based on the established hypothesis H1b, it was necessary to perform the Barlett test of sphericity which showed that the result fulfilled the sphericity of the dataset ( $p$ -value = .090). Normality tests (Anderson Darling test, Ryan Joiner test, and Kolmogorov - Smirnov test) confirmed the requirement of normal distribution of the dataset at the considered level of significance 0.05 (Table 4).

The set hypothesis was based on the assumption that it can be expected that the longer an enterprise is active on a market, the higher its perception of personnel risks is. Here the hypothesis was that there is a statistically significant difference between the intensity of perception of owners and managers of personnel risks due to the length of being active on the market in the V4 countries. The hypothesis was assessed on the basis of Analysis of Variance (ANOVA).

**Table 4. Results of personnel risk assessment normality tests in the V4 countries**

Length of entrepreneurship	Test result (p-value)		
	Anderson –Darling test	Ryan Joiner	Kolmogorov-Smirnov test
Up to 5 years	.083	.068	.086
5 to 10 years	.074	.074	.080
10 and more years	.099	.082	.071

Based on a comparison of test criterion  $F = 11.815$  (Table 5) and critical test value ( $F_{0,95;1778;2} = 3.001$ ), it is possible to accept the research hypothesis at the selected level of reliability (0.05), i.e. there is a statistically significant difference between the intensity of perception of personnel risks due to the length of being active on the market in the V4 countries.

**Table 5. Analysis of personnel risk variance in the V4 countries**

Source of variability	Sum Sq	Df	Mean Sq	F	Sig.
Regression	.070	2	.035	11.815	.045
Residual	5.244	1778	.003		
Total	5.314	1780			

Table 6 summarizes the selected individual basic statistical characteristics as well as the variability of the individual group selections of the statistical dataset. The individual results indicate increasing variability in the selections and based on that we can conclude that if the enterprises operate on the market for a longer period they perceive personnel risks more i.e. the perception of the impact of personnel risks by owners and managers on the enterprise is more significant if the enterprise operates on the market for a longer time period.

**Table 6 Basic statistical characteristics of personnel risks in the V4 countries**

Risks	BSC	Up to 5 years	5 to 10 years	10 and more years
<b>Personal risk</b>	$\mu$	.326	.300	.300
	$\sigma$	.170	.204	.330
	$\kappa$	.267	1.567	.997
	Variability	.259**	.303*	.406**

Explanations:  $\mu$  - average risk intensity,  $\sigma$  - standard deviation of risk intensity,  $\kappa$  - kurtosis intensity of risk (\* p-value <.050; \*\* p-value <.001)

**Comparison of the processed results from the surveys**

It is possible to compare the individual established statistical hypotheses H1a and H1b as well as the individual processed tests of selected statistical datasets. By doing that we aimed to achieve a better understanding of the perception of personnel risks by the enterprises in Slovakia and the V4 region.

**Table 7. Comparison of research results 2019-2020 and 2017-2018**

	Length of entrepreneurship	Test result (p-value)			Variability
		Anders – Darling test	Ryan Joiner test	Kolmogor-Smirnov test	
Slovakia	Up to 5 years	.059	.053	.086	.338*
	5 to 10 years	.166	.195	.109	.388**
	10 to 20 years	.126	.072	.178	.472*
	20 and more years	.114	.130	.067	.560**
	F				
	3.921				
	Sig.				
	0.039				
	Length of entrepreneurship	Test result (p-value)			Variability
		Anders – Darling test	Ryan Joiner test	Kolmogor-Smirnov test	
V4	Up to 5 years	.083	.068	.086	.259**
	5 to 10 years	.074	.074	.081	.303*
	10 and more years	.099	.082	.072	.406**
	F				
	11.815				
	Sig.				
0.045					

The above comparison can be interpreted as an assessment of the intensity of perception of the level of personnel risks by the owners and managers of enterprises in terms of the length of being active on the market in Slovakia (2019-2020) and V4 countries (2017-2018). The individual results are shown in Table 7. The results in the comparison table show only minor dissimilarities between the two datasets. The results of the tests do not suggest significant differences between the two datasets. In the future researches with similar focus it is possible to expect similar behaviour of the data. Based on the datasets analysed and studied in this article, we conclude that there is a statistically significant difference between the intensity of perception of the owners and managers of personnel risk in enterprises due to the length of being active on the market, either in Slovakia or in the V4 countries.

### Discussion

Based on the results of the research realized in 2019-2020, personnel risks were identified as the fourth most significant risks in Slovakia. A very similar outcome was observed also in the risk assessment in the V4 countries in 2017-2018 research. It was found that there is variability in the intensity of perception of personnel risks by the owners and managers of enterprises that is related to the length of those enterprises being active on a market, either in Slovakia or in the V4 countries (Hudakova and Masar, 2018b). Managers perceive the impact of personnel risks more intensively if the enterprises operate on the market for a longer period. Personnel risks are very specific to the individual areas of the enterprise management and this may be caused by the sources of personnel risks. From the perspective of the perceived sources of personnel risks by the owners and managers of enterprises in Slovakia in 2019-2020, the most frequently mentioned risk sources are high fluctuation rate, human errors, and decline of working morale and discipline. When we compare this with the data set of the V4 countries from 2017-2018, there were the most prominent sources: decline of working morale and discipline, high fluctuation rate, and insufficient employee qualification. These findings are supported and confirmed by other authors who carried out similar investigations. According to Kozubíková et al. (2015), the human capital has a key position in an enterprise. The most challenging part of evaluating the human factor is identification of an error and then finding its cause. According to Kotaskova et al. (2020), human errors most often arise from omission (inattention, forgetfulness, non-recognition of a signal, etc.) and execution (incorrectly performed activities, performed late, on a small scale, etc.). According to the study by Shpilina et al. (2019), the most common causes of human errors are inattention, insufficient training, lack of physical or mental abilities, lack of motivation, non-compliance with work procedures and regulations, mismanagement by managers, failure to use plans, poor managerial decisions, lack of managerial experience, etc. Human factor introduces into management a considerable amount of uncertainty and is the key

element in a critical situation (Grabara et al., 2019). Author Oláh (et al., 2018) argues that in examining the degree of uncertainty, it is appropriate to consider the level of the person's education, practical skills and experience, approach to work, sense of responsibility, personal activity, motivation, discipline, and a number of other characteristics that are relevant for their work activities. The results of a research by Pietrasieński and Ślusarczyk, (2015) also confirm that the key risk in current business environment relates to having a sufficiently qualified employee. A professional and highly qualified workforce is one of the goals of every enterprise in the V4 countries (Popp et al., 2018). Modern and innovative solutions constantly appear in the labour market and support recruitment process by optimization of costs and time of the conducted recruitment activities (Grabara et al., 2016). Based on the processed results in this article it can be concluded that the enterprise managers have lower concerns about the personnel risks than about the market or financial risks. These results are also confirmed by worldwide studies such as The Global Risks Report 2020 - Key Global Risks for Businesses, that all show that enterprises consider personnel risks to be serious, but not the most serious (World Economic Forum, 2020, International Risk Management Institute, 2020).

### **Conclusions**

There is not a possibility of preventing all crises from their occurrences, but it is possible to prepare for crisis that may happen. An effective application of corporate risk management will help to identify risks in a timely manner, propose preventive measures to reduce or mitigate them and thus to prevent corporate crises. This especially relates to controllable risks that managers can influence and thus affect their development. In case of uncontrollable risks, managers may involve measures to reduce their adverse impact. The processed results from the researches conducted in the years 2017-2020 show that the owners and managers perceive the intensity of exposure to personnel risks during their operation on the market both in Slovakia and in the V4 countries. The results for all V4 countries are very similar. The main benefit of the article is that it presents a comprehensive evaluation of the development of personnel risks as perceived by the owners and managers in Slovakia in the years 2017-2020 and that it also provides a comparison of the outcomes to the whole V4 region. The article also presents an assessment of the intensity of personal risks in relation to the length of being active on a particular market and it also lists the sources of personnel risks in enterprises in Slovakia, the Czech Republic, Poland, and Hungary. The results contribute to improving awareness about enterprise risk management, support entrepreneurship and business performance in the region and also cooperation between the V4 countries. The results help identify solutions to increase competitiveness, economic development, and resilience of enterprises to global challenges.

The limitation of the article is associated with the restriction of the research which is focused on the perception of personnel risks by the owners and managers of enterprises in the V4 countries. The research is focused on enterprises only. The

results need to be considered in relation to the time when the data were collected, i.e. 2019-2020 for Slovakia and 2017-2018 for the V4 countries. The condition of representativeness in both surveys was met and the research can be considered to be representative even though the contents of the two datasets differ. It can therefore be concluded that if a larger sample of participants had been used in the research, the results would not have significantly changed. The results as well as the research itself will serve in the future as an invaluable material that is helpful for implementation of other follow-up researches focused on the area of personnel risks in the business sector.

The presented results are relevant and potentially helpful for the professionals in the studied field as well as for any organizations that are trying to help enterprises with effective application of the enterprise risk management in the Slovak Republic, the Czech Republic, Poland, and Hungary. It is the effort and aim of the authors to contribute to making gradual steps towards implementation and use of the enterprise risk management in the V4 countries and to help to align the region with the global trends in risk management.

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## RYZIKO PERSONELU I JEGO WPŁYW NA BIZNES W KRAJACH V4

**Streszczenie:** Wiadomo, że czynnik ludzki jest integralną częścią każdego procesu w każdym przedsiębiorstwie i odgrywa ważną rolę w działaniach zarządczych. Dotychczasowe badania potwierdzają, że główną przyczyną problemów w przedsiębiorstwach jest często sam czynnik ludzki. Obecnie rośnie zainteresowanie menedżerów oceną i ograniczeniem ryzyka kadrowego. W artykule przeanalizowano wyniki badania skupiającego się na zmienności ryzyk kadrowych postrzeganych przez właścicieli i menedżerów przedsiębiorstw na Słowacji i porównano je z wynikami w krajach V4. W artykule dokonano również oceny ryzyk kadrowych i ich źródeł w odniesieniu do tego, jak długo badane przedsiębiorstwa V4 działają. Wyniki artykułu opierają się na badaniu przeprowadzonym przez autorów wśród 422 przedsiębiorstw na Słowacji w latach 2019-2020 oraz badaniu przeprowadzonym przez szerszą grupę badawczą obejmującą autorów wśród 1781 przedsiębiorstw z krajów V4 w latach 2017-2018. Do oceny danych zastosowano następujące metody statystyczne: statystyki opisowe, sferyczność, normalność i testowanie hipotez. Wyniki badań sugerują, że istnieje zmienność intensywności postrzegania przez menedżerów ryzyk kadrowych. W szczególności menadżerowie na Słowacji, a także w krajach V4 intensywniej dostrzegają wpływ ryzyk kadrowych po dłuższej aktywności na rynku. Wyniki tych badań empirycznych potwierdzają potrzebę oceny ryzyk kadrowych i ich znaczenia dla efektywnego zarządzania odnoszącym sukcesy przedsiębiorstwem w krajach V4. Wyniki badań są korzystne dla właścicieli przedsiębiorstw, menedżerów, a także dla instytucji zapewniających kompleksowe wsparcie przedsiębiorczości. Wyniki przyczyniają się również do wzmocnienia koordynacji i wzajemnej współpracy między krajami V4. Wyniki artykułu mogą być wykorzystane zarówno na poziomie krajowym, jak i międzynarodowym V4, a celem artykułu jest zwiększenie konkurencyjności, rozwoju gospodarczego i odporności przedsiębiorstw V4 w świetle wyzwań globalnych.

**Słowa kluczowe:** ryzyka kadrowe, wpływ, ocena, przedsiębiorczość, kraje V4

## 人格风险及其对V4国家/地区业务的影响

**摘要:**人为因素显然是任何企业中每个过程的组成部分,并且在管理活动中起着重要作用。迄今为止的研究证实,企业中出现问题的主要原因通常只是人为因素。当前,管理人员越来越有兴趣评估和减少人员风险。本文考察了一项研究的结果,该研究的重点是斯洛伐克企业的所有者和管理者所感知的人员风险的可变性,并将其与V4国家的结果进行了比较。本文还提供了与被调查的V4企业营业时间有关的人员风险及其来源的评估。本文的结果基于作者在2019-2020年期间对斯洛伐克422家企业进行的调查以及更广泛的研究小组在2017-2018年间对V4国家的1,781家企业中的作者进行的调查。以下统计方法用于评估数据:描述性统计,球度,正态性和假设检验。研究发现表明,管理者如何看待人员风险的强度存在差异。特别是,斯洛伐克和V4国家的管理人员在企业长期活跃于市场之后,会更加强烈地意识到人员风险的影响。这项实证研究的结果证实,需要评估人员风险及其重要性,以便对V4国家的成功企业进行有效管理。研究结果对企业所有者,经理以及提供全面创业支持的机构都是有益的。结果还有助于加强V4国家之间的协调与相互合作。本文的结果可以在国家和国际V4级别上使用,并且本文的目的是根据全球挑战来提高V4企业的竞争力,经济发展和弹性。

**关键词:**人员风险,影响,评估,企业,V4国家