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Perception of non-financial risk determinants in SMEs in Visegrad countries

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Keywords: non-financial risks; legal risk; safety risk; SMEs; Visegrad Group

Abstract

Research background: The identification of risks and their management is a key task of strategic management. The right and early identification of risk sources can help companies to survive not only during a crisis period. However, small and medium enterprises (SMEs) underestimate the necessity to analyze risks and implement the enterprise risk management (ERM).

Purpose of the article: The primary aim of the contribution is to identify the most important non-financial risks and their causes in the V4 countries and to analyze the perception of these risks by SME owners.

Methods: The results are based on the survey conducted in 2018. The valid questionnaire of 1781 owners of SMEs from four countries was evaluated and analyzed to fulfil the main objective. The statistical hypotheses were con-firmed through statistical methods such as Z-score and Chi-square test. The SPSS Statistics was used for data evaluation.

Findings & Value added: The results can be interesting not only for research organizations investigating the development of SMEs, but also for state institutions or private agencies seeking to adapt national support for SMEs. It was discovered that the entrepreneur's country is the most important factor for the perception of the sources of safety risk, legal risk, and other business risks. There are differences in managers' perception in case of other risk sources (corruption and clientelism) between entrepreneurs from the Czech Republic and other countries of the Visegrad Group. The SMEs' country of origin is an important factor for the evaluation of the source of non-financial risks (safety risk, legal risk and other business risks). Differences in the perception of safe-ty risk sources between entrepreneurs from the Czech Republic and Poland were con-firmed. More than 25% of SMEs in the Visegrad Group perceive frequent changes of the legal regulation as a legal risk.

Introduction

SMEs' performance is an important tool for the sustainability of market activity. Therefore, it is necessary to support their growth (Hanggraeni *et al.*, 2019). Many studies found that SMEs grow faster than larger companies (e.g. Fiala & Hedija, 2015, Hashi & Krasniqi, 2011). Smaller size of SMEs allows for a faster development of their strategies (Anderson & Eshima, 2013). SMEs are more pliable and when they see space for a new opportunity, they employ new workers to penetrate the market (Blackburn *et al.*, 2013).

The Visegrad Group (V4) can be defined as a group of four European countries from Central Europe: the Czech Republic, Poland, Hungary and Slovakia. The similarity of these countries is anticipated because of many common characteristics such as history, economic development, and geographical and political ideas (Kowalska *et al.*, 2018). The Visegrad countries create an important part of the European economic framework and SMEs are the most important business units for the performance of their economies (Siničáková *et al.*, 2017). Despite the fact that the V4 countries have similar economic development and conditions, the business risks can be perceived differently.

SMEs are confronted with various types of risks which can be unknown for big companies or perceived as unimportant. In addition to financial risks (Kljucnikov & Sobekova Majkova, 2018; Kozubíková *et al.*, 2015), there are a large number of non-financial risks such as reputation risk (Kayes *et al.*, 2007), legal risk (Dvorský *et al.*, 2019; Petkovic *et al.*, 2016), innovation risk (Ballinger *et al.*, 2011), safety risk (Schulte *et al.*, 2018), personnel risk (Battisti & Vallanti, 2013), and many others. These non-

financial risks are not analyzed as often as financial risks because entrepreneurs generally do not perceive their direct impact.

Through Enterprise Risk Management (ERM), entrepreneurs manage their risks and reduce potential losses. However, the implementation of the ERM is difficult, mainly due to the impossibility of generalizing specific procedures. There are different procedures for ERM implementation in different companies (Hanggraeni *et al.*, 2019). Because of new trends such as globalization, dynamic and turbulent environment firms have to deal with new forms of business risks. The factors that need to be implemented for the proper functioning of the ERM are risk identification and risk assessment. General approaches to ERM, underestimation of low knowledge, and experience in ERM can threaten SMEs' health (Hudakova *et al.*, 2018).

The main objective of the paper is to identify the most serious sources of non-financial business risks in the V4 countries and to analyze the perception of these risks by SMEs.

The paper is designed as follows: The theoretical background is devoted to the description of the main sources of safety, legal and other business risks (especially clientelism, corruption, bad quality of public sector, and administrative burden for entrepreneurs). The next section is aimed at the description of the data and methodology. Z-score and Chi-square test were used to evaluate the hypotheses. Further, the results of the evaluation of the most important sources of safety, legal and other risks are presented. The last part of the paper discusses the results, presents opinions of other international authors, and describes the limits of the research.

Literature review

Implementing enterprise risk management is a very important strategic goal for entrepreneurs (Buganová & Moricová, 2017; Mura & Kljucnikov, 2018). The perception of ERM has significantly changed due to dynamic changes in the business environment. Many firms realize the necessity of systematic risk management (Hudakova & Dvorsky, 2018). Appropriate ERM can help to extend SMEs' internationalization (Karami & Tang, 2019).

The first step for the implementation of ERM is risk identification. Entrepreneurs must be aware of various types of risks. Some risks directly affect their existence (Havierniková & Kordoš, 2019; Kljucnikov & Sobekova Majkova, 2018; Kozubíková *et al.*, 2015). Therefore, companies try to manage financial risks (Ferreira de Araújo *et al.*, 2020, Mutezo, 2013). However, it is not only the risks that can be immediately translated into

financial losses that need to be managed. For example, management of health and safety risks is a key part of every business. Many investigations have shown that work accidents and deaths are excessively high in SMEs, which is obviously caused by a lack of ERM (Kaassis & Badri, 2018). Enterprises with fewer than 250 employees have a disproportionate risk of injury and mortality. Attention should be drawn to increased efforts to involve entrepreneurs in preventive health protection programs at work. Companies of different sizes require different communication approaches regarding security risks. Furthermore, SME owners and workers lack resources in terms of attention and time to address health and safety issues and tend to respond to prompt needs (Schulte *et al.*, 2018).

Risk management Guide for Small Businesses processed by the organization of Global Risk Alliance (2005) defines and specifies risks that are typical for SMEs, e.g. organizational risks, financial risks, legal risks, operational risks, market risks, safety risks, technical risks, criminal risks, strategic risks, reputation risks, service risks, project risks, risks of the management of interested parties, technological risks. It is apparent that most of them are non-financial risks.

The risk associated with the safety may appear due to human resources errors, insufficient job descriptions, unsafe equipment, or inappropriate social relationships among employees. SME employees perceive these risks differently due to the diversity of work complexity, level of experience, knowledge, and understanding of the dynamics of negative events related to work conditions. Safety risk is especially concerned with occupational health and safety on the workplace. In most SMEs, safety management procedures are inadequate. This is due to a lack of awareness, resilience to change, insufficient staff training and a lack of financial resources (Unnikrishnan *et al.*, 2015). In many countries, law requires to provide information, training, and instructions to workers. However, the law is obviously underestimated by SMEs (Bluff, 2019). The companies should keep an efficient system of occupational health and safety risks management (Kaassis & Badri, 2018). Hasle and Refslund (2018) state that SMEs have weak occupational health and safety management and higher occupational risks due to limited managerial and financial resources. Furthermore, SMEs typically have a reactive attitude to occupational health and safety and do not look for assistance with occupational health and safety on their own.

Legal risk as one of the operational risks pertains to compliance with applicable legal standards both individually in each country and in EU as a whole (Dvorský *et al.*, 2019). Petkovic *et al.* (2016) discovered that complicated legal procedure is one of the main obstacles to successful development of enterprises.

Infopro Digital Risk (2019) ranked the 10 largest risks indicating the increasing importance of legal risks, additionally combined with the security risk. The TOP 10 risks are as follows: Data compromise, IT disruption, IT failure, Organizational change, Theft and fraud, Third-party risk, Regulatory risk, Data management, Brexit, Mis-selling. “Data compromise” is also dealt with in the EU General Data Protection Regulation (GDPR) which aims to reduce the risk of stealing and misuse of personal data (Infopro Digital Risk, 2018).

Ušiak (2018) states that policymaking is influenced by external and internal variables and influences on the security environment, as well as responses to all these factors. In his findings, he marked the growing nationalism and extremism as factors currently affecting the security policy of the Visegrad Group. The security risks were analyzed by the Report of Federation of European Risk Management Associations (FERMA). The study showed that 37% of respondents identify cyber threats as the main risk to growth prospects for their organizations in 2018 (it ranked seventh in 2016, while economic conditions ranked first), followed by uncertain economic growth, then geopolitical uncertainty. The top 5 non-financial risks in Central and Eastern Europe were defined as: over-regulation (38%), environmental risks (36%), changes in client behavior (36%), cyber-attacks (30%), and unsure economic conditions (27%) (FERMA, 2019).

Corruption can be perceived as a business risk as well. If entrepreneurs perceive the business environment as highly corrupt, it affects their business decisions. Su *et al.* (2018) warn that the level of corruption perceived by company owners affects foreign direct investment inflows in the V4 countries. The research of Belás *et al.* (2015) implies that corruption is perceived differently in the Czech Republic and Slovakia. The perceived corruption is lower in the Czech Republic than in Slovakia. Corruption cannot be managed by entrepreneurs; nevertheless, it cannot be overlooked by state authorities who control the transparency of the business environment.

This paper is focused on the management of three groups of non-financial risks: safety risks, legal risks and other business risks (corruption, clientelism, poor quality of public institution services, and administrative complexity for entrepreneurs).

Research methodology

The main aim of the paper is to identify the most important sources of non-financial risks in the V4 countries (Slovakia — SK, Poland — PL, the

Czech Republic — CZ, Hungary — HU) and to analyze the perception of these risks by SMEs. The partial objective is focused on statistically significant differences in the evaluation of safety, legal and other business risk sources among entrepreneurs in selected countries, using selected mathematical methods.

The entrepreneurs were selected using the "random selection method" from specialized databases of entrepreneurs in each country. The online questionnaire consisted of the following statements about: the market, economic, financial, operational, HR, safety, legal and other risk sources, and was translated into managers' native languages. Out of 1,781 small and medium-sized enterprises analyzed, 487 were Slovak, 498 Polish, 408 Czech, and 388 Hungarian. The return rate was approximately 32%.

The entrepreneurs answered which risk sources affect the company more intensively on the Likert scale, using the following ranking: very low intensity of the risk source (I1); low intensity of the risk source (I2); medium intensity of the risk source (I3); high intensity of the risk source (I4), and very high intensity of the risk source (I5). The sources (causes) of the selected group of risks were defined as follows:

- *Safety risks (S1)*: accidents and external threats (floods, fire, etc.) (S11); misusing information (S12); low protection (occupational health and safety at work) (S13); criminal offences against property laws (S14).
- *Legal risks (S2)*: low enforcement of law (S21); frequent changes of the legal regulations (S22); low independence of the courts (S23); long time until the lawsuit is solved (S24).
- *Other risks (S3)*: corruption (S31), clientelism (S32), poor quality of public institution services (S33), administrative complexity for entrepreneurs (S34).

The following hypotheses were formulated to fulfil the main aim:

H1: The entrepreneur's country of origin is the statistically significant factor in the evaluation of the sources of safety risks (H1a), legal risks (H1b), and other business risks (H1c).

H2: There are statistically significant differences in the evaluation (I4+I5) of safety risks (H2a), legal risks (H2b), and other business risk (H2c) sources between entrepreneurs from the Czech Republic and other countries of the Visegrad Group.

Descriptive statistics tools were used for the evaluation of these hypotheses. To determine the frequency of entrepreneurs' answers, simple sorting of the statistical sign (S11–S34) and sorting according to two statistical

signs (I1–I5) were used. Descriptive characteristics were needed to calculate the Z-score (Cepel *et al.*, 2018; Treviño, 2015). The p-value on the level 0.05 of significance was determined. The statistically significant difference in evaluation of selected risk sources was confirmed through the Goodness of fit (Chi-square test) (Hudakova & Dvorsky, 2019). The conditions for carrying out the Z-test were fulfilled. SPSS Statistics was used for data evaluation.

The entrepreneurs' characteristics are in Table 1.

Results

Safety risks

Tables 2, 3, 4, and 5 sum up the results of SMEs' perception of the safety risk sources (S11, S12, S13, and S14) based on the selected countries.

The structure of the entrepreneurs' answers (source S11) was (number of entrepreneurs: SK/PL/CZ/HU): I1 — 176/128/129/80; I2 — 131/125/122/57; I3 — 119/109/80/41; I4 — 30/70/51/29; and I5 — 31/42/29/9. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S11: accidents and external threats (floods, fire, etc.)" (Chi-square = 35.716; p-value = 0.0004).

There are statistically significant differences in the evaluation (I4+I5) of the safety risk source "S11" between: entrepreneurs from Slovakia and the Czech Republic (see Table 2; Z-Score is - 2.619, p-value 0.009), and entrepreneurs from Slovakia and Poland (see Table 2; Z-Score - 4.479 and p-value is 0.000).

The structure of the entrepreneurs' answers (source S12) was (SK/PL/CZ/HU): I1 — 169/123/118/43; I2 — 151/169/117/62; I3 — 97/119/89/50; I4 — 51/46/60/43; and I5 — 19/17/24/18. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S12: misusing information" (Chi-square = 44.538; p-value = 0.00001).

There are statistically significant differences in the evaluation (see Table 3; I4+I5) of the safety risk source "S12" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is -2.453, p-value is 0.014); entrepreneurs from the Czech Republic and Poland (Z-score is -2.899, p-value is 0.004), and entrepreneurs from the Czech Republic and Hungary (Z-score is 2.153 and p-value is 0.032).

The structure of the entrepreneurs' answers (source S13) was (SK/PL/CZ/HU): I1 — 200/128/138/82; I2 — 154/127/151/51; I3 —

83/145/86/46; I4 — 38/63/27/26; and I5 — 12/11/6/11. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S13: criminal offences against property laws" (Chi-square = 67.295; p-value < 0.0001).

There are statistically significant differences in the evaluation (see Table 4; I4+I5) of the safety risk source "S13" between: entrepreneurs from the Czech Republic and Poland (Z-score is 3.412, p-value is 0.0006); entrepreneurs from the Czech Republic and Hungary (Z-score is 3.404, p-value is 0.0007), and entrepreneurs from Slovakia and Poland (Z-score is -2.471, p-value is 0.013).

The structure of the entrepreneurs' answers (source S14) was (SK/PL/CZ/HU): I1 — 201/124/147/66; I2 — 122/132/112/59; I3 — 96/126/98/43; I4 — 48/61/40/31; and I5 — 20/31/11/17. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S14: criminal offences against property laws" (Chi-square = 39.733; p-value < 0.00001).

There are statistically significant differences in the evaluation of the safety risk source (see Table 5; I4+I5) "S14" between: entrepreneurs from the Czech Republic and Poland (Z-score is 2.776, p-value is 0.005); entrepreneurs from the Czech Republic and Hungary (Z-score is 3.162, p-value is 0.002), and entrepreneurs from Slovakia and Poland (Z-score is -2.266, p-value is 0.023).

Hypothesis H1a is accepted because p-values of chi-square tests are less than the level of significance. Hypothesis H2a cannot be accepted because p-value is higher than 0.05.

Legal risks

Tables 6, 7, 8, and 9 summarize the results of the assessment of safety risk sources (S21, S22, S23, and S24) of entrepreneurs based on the selected countries.

The structure of the entrepreneurs' answers (source S21) was (SK/PL/CZ/HU): I1 — 97/104/68/51; I2 — 129/135/100/68; I3 — 120/162/143/49; I4 — 79/45/59/38; and I5 — 62/28/38/10. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S21: low enforcement of law" (Chi-square = 50.497; p-value < 0.00001).

There are statistically significant differences in the evaluation (see Table 6; I4+I5) of the legal risk source "S21" between: entrepreneurs from the Czech Republic and Poland (Z-score is -3.143, p-value is 0.002) and entrepreneurs from Slovakia and Poland (Z-score is 5.048, p-value is 0.000).

The structure of the entrepreneurs' answers (source S22) was (SK/PL/CZ/HU): I1 — 78/67/63/35; I2 — 114/140/117/55; I3 — 142/152/131/60; I4 — 85/66/65/48; and I5 — 68/49/32/18. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S22: frequent changes of the legal regulations" (Chi-square = 22.016; p-value = 0.0373).

There are statistically significant differences in the evaluation (see Table 7; I4+I5) of the legal risk source "S22" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is 02.538, p-value is 0.011) and entrepreneurs from Slovakia and Poland (Z-score is 2.473, p-value is 0.014).

The structure of the entrepreneurs' answers (source S23) was (SK/PL/CZ/HU): I1 — 115/107/103/66; I2 — 118/151/135/62; I3 — 125/125/107/45; I4 — 81/66/47/29; and I5 — 48/25/16/14. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S23: low independence of the courts" (Chi-square = 31.492; p-value = 0.0016).

There are statistically significant differences in the evaluation (see Table 8; I4+I5) of the legal risk source "S23" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is 4.010, p-value is 0.000) and entrepreneurs from Slovakia and Poland (Z-score is 2.689, p-value is 0.007).

The structure of the entrepreneurs' answers (source S24) was (SK/PL/CZ/HU): I1 — 116/100/88/50; I2 — 82/153/89/48; I3 — 98/115/96/51; I4 — 106/63/69/46; and I5 — 85/43/66/21. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S24: long time until the lawsuit is solved" (Chi-square = 56.170; p-value <0.00001).

There are statistically significant differences in the evaluation (see Table 9; I4+I5) of the legal risk source "S24" between: entrepreneurs from the Czech Republic and Poland (p-value of Z-score is 0.0004) and entrepreneurs from Slovakia and Poland (p-value of Z-score is 0.000).

Hypothesis H1b is accepted because p-values of chi-square tests are less than the level of significance. Hypothesis H2b cannot be accepted because p-value of Z- score is higher than 0.05.

Other risks

Tables 10, 11, 12, and 13 summarize the results of the evaluation of the safety risk sources (S31, S32, S33, and S34) of entrepreneurs based on the selected countries.

The structure of the entrepreneurs' answers (source S31) was (SK/PL/CZ/HU): I1 — 130/197/120/53; I2 — 78/118/123/38; I3 — 104/101/89/36; I4 — 94/36/44/53; and I5 — 81/22/32/36. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S31: corruption" (Chi-square = 132.890; p-value < 0.00001).

There are statistically significant differences in the evaluation (see Table 10; I4+I5) of other risk source "S31" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is 5.740, p-value is 0.000); entrepreneurs from the Czech Republic and Poland (Z-score is -2.636, p-value is 0.008); entrepreneurs from the Czech Republic and Hungary (Z-score is 6.083, p-value is 0.000), and entrepreneurs from Slovakia and Poland (Z-score is 8.570, p-value is 0.000).

The structure of the entrepreneurs' answers (source S32) was (SK/PL/CZ/HU): I1 — 92/201/92/35; I2 — 88/144/99/45; I3 — 121/82/134/68; I4 — 114/39/62/43; and I5 — 72/8/21/25. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S32: clientelism" (Chi-square = 203.074; p-value < 0.00001).

There are statistically significant differences in the evaluation (see Table 11; I4+I5) of other risk source "S32" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is 5.800, p-value is 0.000); entrepreneurs from the Czech Republic and Poland (Z-score is -4.356, p-value is 0.000); entrepreneurs from the Czech Republic and Hungary (Z-score is 3.091, p-value is 0.002), and entrepreneurs from Slovakia and Poland (Z-score is 10.226, p-value is 0.000).

The structure of the entrepreneurs' answers (source S33) was (SK/PL/CZ/HU): I1 — 85/125/80/42; I2 — 107/146/116/58; I3 — 151/125/141/57; I4 — 96/56/48/42; and I5 — 48/22/23/17. The entrepreneurs' country of origin is the statistically significant factor in the evaluation of the source "S33: poor quality of public institution services" (Chi-square = 50.121; p-value < 0.00001).

There are statistically significant differences in the evaluation (see Table 12; I4+I5) of other risk source "S33" between: entrepreneurs from Slovakia and the Czech Republic (Z-score is 4.243, p-value is 0.000); entrepreneurs from the Czech Republic and Hungary (Z-score is 2.901, p-value is 0.004) and entrepreneurs from Slovakia and Poland (Z-score is 4.822, p-value is 0.000).

The structure of the entrepreneurs' answers (source S34) was (SK/PL/CZ/HU): I1 — 51/102/25/20; I2 — 75/101/60/35; I3 — 125/132/116/58; I4 — 98/86/111/63; and I5 — 138/53/96/40. The entre-

preneurs' country of origin is the statistically significant factor in the evaluation of the source "S34: administrative complexity for entrepreneurs" (Chi-square = 105.585; p-value < 0.00001).

There are statistically significant differences in the evaluation (see Table 13; I4+I5) of other risk source "S34" between: entrepreneurs from the Czech Republic and Poland (Z-score is -6.493, p-value is 0.000) and entrepreneurs from Slovakia and Poland (Z-score is 6.080, p-value is 0.000).

Hypothesis H1c is accepted because p-values of chi-square tests are less than the level of significance. H2c is not accepted because p-value of Z-score is higher than 0.05.

Discussion

The implementation of the ERM represents an increase in the enterprise performance efficiency and cost saving. It is important for managers to be certain that the relied ERM ensures financial stability and company performance efficiency, provides opportunities to achieve gain, and maintains good company reputation against competitors and relevant interested parties. The implementation of the ERM requires the identification of various risks. 2 hypotheses were developed to evaluate how SMEs from the V4 countries perceive risks.

The first hypothesis analyzed if the entrepreneurs' country of origin is a significant factor for the perception of various risk sources. It was discovered that the SMEs' country of origin is the statistically significant factor for perception and evaluation of the sources of all risks analyzed in the research (safety, legal and other business risks). H1a, H2a, and H3a were confirmed. There are differences in managers' perception in case of other business risk sources (corruption and clientelism) between entrepreneurs from the Czech Republic and other countries of the Visegrad Group. These findings agree with Djankov *et al.* (2007) who state that SMEs are affected by the institutional and legal environment in the country.

The second hypothesis analyzed if there are statistically significant differences between entrepreneurs from the Czech Republic and other countries of the Visegrad Group. Based on the research, hypotheses H2a, H2b, and H2c cannot be confirmed. Statistically significant differences in perception of safety, legal, and other business risks between the Czech Republic and other countries of the V4 Group have not been identified. Dobeš *et al.* (2017) came to another conclusion. They state that some industries in the Czech Republic are preferred or not by the government (according to

the perception of SMEs). This finding confirms the higher perception of legal risk in the Czech Republic.

In case of legal risks, it was discovered that more than 25% of SMEs in the Visegrad countries perceive frequent changes of the legal regulation as a legal risk. Similar results were obtained by Belas *et al.* (2019) and Belas *et al.* (2019a) whose findings confirm that entrepreneurs in the Czech Republic and Slovakia negatively evaluate the political factors of the business environment. This fact can discourage new entrepreneurs from doing business. This tendency was also confirmed in Serbia (Oláh *et al.*, 2019).

Administrative complexity for entrepreneurs was analyzed as part of the business risk analysis. It was discovered that there are statistically significant differences in the perception of this risk between entrepreneurs from Poland and Slovakia and entrepreneurs from the Czech Republic and Poland. This result agrees with the research by Gaganis *et al.* (2019) who confirm that governments in the European countries should pay attention to the bureaucracy, which has a huge impact on the business environment.

Conclusions

The main objective of the paper was to identify the most serious sources of non-financial business risks in the V4 countries and to analyze the perception of these risks by SMEs.

It was discovered that the country of origin is an important factor in the perception of non-financial risks (safety, legal and other business risks). Differences in the perception of other business risk sources (corruption and clientelism) between entrepreneurs of the Czech Republic and other countries of the Visegrad Group were identified. There are differences in the managerial perception of safety risk sources between entrepreneurs from the Czech Republic and Poland. There are no differences in the perception in case of legal risk sources between entrepreneurs of the Czech Republic and Hungary.

This study has some limitations. First, the research analyzes SMEs in the Visegrad Group. Therefore, the results cannot be generalized. Second, there may be some misunderstandings in the questionnaire due to the translation from English into the home language of the selected countries. Finally, it is not absolutely certain whether the questionnaire was filled out by the risk manager or by the business owner directly.

The goal is to focus any future research on the examination of the risks influencing the quality of the business environment and on their indicators in the SME segment in order to improve the business environment and its

perception. The research can be extended to other countries in Europe or the world to have better basis for result comparison.

References

- Anderson, B. S., & Eshima, Y. (2013). The influence of firm age and intangible resources on the relationship between entrepreneurial orientation and firm growth among Japanese SMEs. *Journal of Business Venturing*, 28. doi: 10.1016/j.jbusvent.2011.10.001.
- Ballinger, G., Craig, E., Cross, R., & Gray, P. (2011). A stitch in time saves nine: Leveraging networks to reduce the costs of turnover. *California Management Review*, 53(4).
- Battisti, M., & Vallanti, G. (2013). Flexible wage contracts, temporary jobs, and firm performance: evidence from Italian firms. *Industrial Relations: A Journal of Economy and Society*, 52(3).
- Belás, J., Bilan, Y., Demjan, V., & Sipko, J. (2015). Entrepreneurship in SME segment: a case study from the Czech Republic and Slovakia. *Amfiteatru Economic*, 17(38).
- Belas, J., Belas, L., Cepel, M., & Rozsa, Z. (2019). The impact of the public sector on the quality of the business environment in the SME segment. *Administratie Si Management Public*, 32. doi: 10.24818/amp/2019.32-02.
- Belas, J., Dvorsky, J., Strnad, Z., Valaskova, K., & Cera, G. (2019a). Improvement of the Quality of Business Environment Model: Case of the SME Segment. *Inzinerine Ekonomika-Engineering Economics*, 30(5). doi: 10.5755/j01.ee.30.5.24490.
- Blackburn, R. A., Hart, M., & Wainwright, T. (2013). Small business performance: business, strategy and owner-manager characteristics. *Journal of Small Business And Enterprise Development*, 20(1). doi: 10.1108/14626001311298394.
- Bluff, L. (2019). How SMEs respond to legal requirements to provide information, training, instruction and supervision to workers about work health and safety matters. *Safety Science*, 116(1). doi: 10.1016/j.ssci.2019.02.036.
- Buganová, K., & Moricová, V. (2017). Innovation of education in risk and crisis management. *Turkish Online Journal of Educational Technology*, November Special Issue INTE.
- Cepel, M., Stasiukynas, A., Kotaskova, A., & Dvorsky, J. (2018). Business environment quality index in the SME segment. *Journal of Competitiveness*, 10(2). doi: 10.7441/joc.2018.02.02.
- Djankov, S., McLiesh, C., & Shleifer, A. (2007). Private credit in 129 countries. *Journal of Financial Economics*, 84(2).
- Dobeš, K., Kot, S., Kramoliš, J., & Sopková, G. (2017). The perception of governmental support in the context of competitiveness of SMEs in the Czech Republic. *Journal of Competitiveness*, 9(3). doi: 10.7441/joc.2017.03.03.

- Dvorský, J., Petráková, Z., Zapletalíková, E., & Rózsa, Z. (2019). Entrepreneurial propensity index of university students. The case study from the Czech Republic, Slovakia and Poland. *Oeconomia Copernicana*, 10(1). doi: 10.24136/oc.2019.009.
- FERMA (2019). European Risk Manager Report 2018. Retrieved from <https://www.ferma.eu/publication/2018-european-risk-manager-report/> (3.1.2020).
- Ferreira de Araújo Lima, P., Crema, M., & Verbano, C. (2020). Risk management in SMEs: a systematic literature review and future directions. *European Management Journal*, 38(1). doi: 10.1016/j.emj.2019.06.005.
- Fiala, R., & Hedíja, V. (2015). The relationship between firm size and firm growth: the case of the Czech Republic. *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, 63(5). doi: 10.11118/actaun201563051639.
- Gaganis, Ch., Pasiouras, F., & Voulgari, F. (2019). Culture, business environment and SMEs' profitability: evidence from European countries. *Economic Modelling*, 78(1). doi: 10.1016/j.econmod.2018.09.023.
- Global Risk Alliance (2005). Risk management guide for small businesses. NSW Department of State and Regional Development. Retrieved from: <https://www.significanceinternational.com/Portals/0/Documents/2005-sme-risk-management-guide-global-risk-alliance-nsw-dsrd.pdf> (30.11.2019).
- Hanggraeni, D., Ślusarczyk, B., Sulung, L. A. K., & Subroto, A. (2019). The impact of internal, external and enterprise risk management on the performance of micro, small and medium enterprises. *Sustainability*, 11(7). doi: 10.3390/su11072172.
- Hashi, I., & Krasniqi, B.A. (2011). Entrepreneurship and SME growth: evidence from advanced and laggard transition economies. *International Journal of Entrepreneurial Behaviour & Research*, 17(5). doi: 10.1108/13552551111158817.
- Hasle, P., & Refslund, B. (2018). Intermediaries supporting occupational health and safety improvements in small businesses: development of typology and discussion of consequences for preventive strategies. *Annals of Work Exposures and Health*, 62(1). doi: 10.1093/annweh/wxy046.
- Havierníková, K., & Kordoš, M. (2019). Selected risks perceived by SMEs related to sustainable entrepreneurship in case of engagement into cluster cooperation. *Entrepreneurship and Sustainability Issues*, 6(4). doi: 10.9770/jesi.2019.6.4(9).
- Hudakova, M., & Dvorsky, J. (2018). Assessing the risks and their sources in dependence on the rate of implementing the risk management process in the SMEs. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 13(3). doi: 10.24136/eq.2018.027.
- Hudakova, M., & Dvorsky, J. (2019). Analysis of the market risk sources in the small and medium-sized enterprises of transport. *Communications - Scientific Letters of the University of Zilina*, 21(4).
- Hudakova, M., Masar, M., Luskova, M., & Patak, M. R. (2018). The dependence of perceived business risks on the size of SMEs. *Journal of Competitiveness*, 10(4). doi: 10.7441/joc.2018.04.04.

- Infopro Digital Risk (2019). Top 10 operational risks for 2019. Retrieved from <https://www.risk.net/risk-management/6470126/top-10-op-risks-2019> (5.12.2019).
- Kaassis, B., & Badri, A. (2018). Development of a preliminary model for evaluating occupational health and safety risk management maturity in small and medium-sized enterprises. *Safety*, 4(1). doi: 10.3390/safety4010005.
- Karami, M., & Tang, J. (2019). Entrepreneurial orientation and SME international performance: the mediating role of networking capability and experiential learning. *International Small Business Journal*, 37(1). doi: 10.1177/0266242618807275.
- Kayes, D. C., Stirling, D., & Nielsen, T. M. (2007). Building organizational integrity. *Business Horizons*, 50(1).
- Kljucnikov, A., & Sobekova Majkova, M. (2018). Funding risk perception by Slovak SMEs: impact of age and size of the company. *Marketing and Management of Innovations*, 4(1). doi: 10.21272/mmi.2018.4-24.
- Kowalska, A., Kovarnik, J., Hamplova, E., & Prazak, P. (2018). The selected topics for comparison in Visegrad four countries. *Economies*, 6(3). doi: 10.3390/economies6030050.
- Kozubíková, L., Belás, J., Bilan, Y., & Bartoš, P. (2015). Personal characteristics of entrepreneurs in the context of perception and management of business risk in the SME segment. *Economics and Sociology*, 8(1). doi: 10.14254/2071-789X.2015/8-1/4.
- Leaver, M., & Reader, T. W. (2016). Non-technical skills for managing risk and performance in financial trading. *Journal of Risk Research*, 19(6). doi: 10.1080/13669877.2014.1003319.
- Mura, L., & Kljucnikov, A. (2018). Small businesses in rural tourism and agrotourism: study from Slovakia. *Economics and Sociology*, 11(3). doi: 10.14254/2071-789X.2018/11-3/17.
- Mutezo, A. (2013). Credit rationing and risk management for SMEs: the way forward for South Africa. *Corporate Ownership and Control*, 10(2).
- Oláh, J., Virglerova, Z., Popp, J., Kliestikova, J., & Kovács, S. (2019). The assessment of non-financial risk sources of SMES in the V4 countries and Serbia. *Sustainability*, 11(17). doi: 10.3390/su11174806.
- Petkovic, S., Jager, C., & Sasic, B. (2016). Challenges of small and medium sized companies at early stage of development: insights from Bosnia and Herzegovina. *Management Journal of Contemporary Management Issues*, 21(2).
- Schulte, P. A., Cunningham, T. R., Guerin, R. J., Hennigan, B., & Jacklitsch, B. (2018). Components of an occupational safety and health communication research strategy for small- and medium-sized enterprises. *Annals of Work Exposures and Health*, 62(1). doi: 10.1093/annweh/wxy054.
- Siničáková, M., Sulikova, V., & Gavurova, B. (2017). Twin deficits threat in the European Union. *E&M Economics and Management*, 20(1). doi: 10.15240/tul/001/2017-1-010.

- Su, W., Zhang, D., Zhang, C., Abrahám, J., Simionescu, M., Yaroshevich, N., & Guseva, V. (2018). Determinants of foreign direct investment in the Visegrad group countries after the EU enlargement. *Technological and Economic Development of Economy*, 24(5). doi: 10.3846/tede.2018.5487.
- Treviño, S., III, Nyberg, A., Del Genio, C. I., & Bassler, K. E. (2015). Fast and accurate determination of modularity and its effect size. *Journal of Statistical Mechanics: Theory and Experiment*, 2. doi: 10.1088/1742-5468/2015/02/P02003.
- Unnikrishnan, S., Iqbal, R., Singh, A., & Nimkar, I. M. (2015). Safety management practices in small and medium enterprises in india. *Safety Health Work*, 6(1). doi: 10.1016/j.shaw.2014.10.006.
- Ušiak, J. (2018). The security environment of the V4 countries. *Politics in Central Europe*, 14(2). doi: 10.2478/pce-2018-0007.

Annex

Table 1. Basic social characteristics of the respondents

	Country				Total		
	Czech Republic	Hungary	Poland	Slovakia			
Age	Less than 30	68	158	112	99	20%	437
	31 and more	340	230	386	388	78%	1344
Gender	Male	290	232	311	325	62%	1158
	Female	118	156	187	162	38%	623
Education	University	136	279	188	172	38%	775
	Other education	272	109	310	315	62%	1006
Total	408	388	498	487			1781

Table 2. The evaluation of "accidents and external threats (floods, fire, etc.)" by entrepreneurs

S11	Selected countries			
	SK	PL	CZ	HU
I4+I5	61	112	77	38
[%]	12.5	23.6	18.9	17.6
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	-2.619	1.716	-0.392	-4.479
(P- value)	0.009	0.045	0.696	0.000

Notes: I4, I5 - the evaluation of the source of safety risks.

Table 3. The evaluation of "misusing information" by entrepreneurs

S12	Selected countries			
	SK	PL	CZ	HU
I4+I5	70	63	84	61
[%]	14.4	13.3	20.6	28.2
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	-2.453	-2.899	2.153	0.486
(P- value)	0.014	0.004	0.032	0.624

Notes: I4, I5 - the evaluation of the source of safety risks.

Table 4. The evaluation of "low protection (occupational health and safety at work)" by entrepreneurs

S13	Selected countries			
	SK	PL	CZ	HU
I4+I5	50	74	33	37
[%]	10.3	15.6	8.1	17.1
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	1.119	3.412	3.404	-2.471
(P- value)	0.263	0.0006	0.0007	0.013

Notes: I4, I5 - the evaluation of the source of safety risks.

Table 5. The evaluation of "criminal offences against property laws" by entrepreneurs

S14	Selected countries			
	SK	PL	CZ	HU
I4+I5	68	92	51	48
[%]	14.0	19.4	12.5	22.2
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	0.642	2.776	3.162	-2.266
(P- value)	0.522	0.005	0.002	0.023

Notes: I4, I5 - the evaluation of the source of safety risks.

Table 6. The evaluation of "low enforcement of law" by entrepreneurs

S21	Selected countries			
	SK	PL	CZ	HU
I4+I5	141	73	97	48
[%]	29.0	15.4	23.8	22.2
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	1.746	-3.143	-0.437	5.048
(P- value)	0.080	0.002	0.660	0.000

Notes: I4, I5 - the evaluation of the source of legal risks.

Table 7. The evaluation of "frequent changes of the legal regulations" by entrepreneurs

S22	Selected countries			
	SK	PL	CZ	HU
I4+I5	153	115	97	66
[%]	31.4	24.3	23.8	30.6
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	2.538	0.169	1.834	2.473
(P- value)	0.011	0.865	0.067	0.014

Notes: I4, I5 - the evaluation of the source of legal risks.

Table 8. The evaluation of "low independence of the courts" by entrepreneurs

S23	Selected countries			
	SK	PL	CZ	HU
I4+I5	129	91	63	43
[%]	26.5	19.2	15.4	19.9
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	4.010	1.465	1.413	2.689
(P- value)	0.000	0.142	0.158	0.007

Notes: I4, I5 - the evaluation of the source of legal risks.

Table 9. The evaluation of "long time until the lawsuit is solved" by entrepreneurs

S24	Selected countries			
	SK	PL	CZ	HU
I4+I5	191	106	135	67
[%]	39.2	22.4	33.1	31.0
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	1.898	-3.564	-0.526	5.654
(P- value)	0.057	0.0004	0.596	0.000

Notes: I4, I5 - the evaluation of the source of legal risks.

Table 10. The evaluation of "corruption" by entrepreneurs

S31	Selected countries			
	SK	PL	CZ	HU
I4+I5	175	58	76	89
[%]	35.9	12.2	18.6	41.2
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	5.740	-2.636	6.083	8.570
(P- value)	0.000	0.008	0.000	0.000

Notes: I4, I5 - the evaluation of the source of other risks.

Table 11. The evaluation of "clientelism" by entrepreneurs

S32	Selected countries			
	SK	PL	CZ	HU
I4+I5	186	47	83	68
[%]	38.2	9.9	20.3	31.5
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	5.800	-4.356	3.091	10.226
(P- value)	0.000	0.000	0.002	0.000

Notes: I4, I5 - the evaluation of the source of other risks.

Table 12. The evaluation of "poor quality of public institution services" by entrepreneurs

S33	Selected countries			
	SK	PL	CZ	HU
I4+I5	144	78	71	59
[%]	29.6	16.5	17.4	27.3
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	4.243	-0.374	2.901	4.822
(P- value)	0.000	0.711	0.004	0.000

Notes: I4, I5 - the evaluation of the source of other risks.

Table 13. The evaluation of "administrative complexity for entrepreneurs" by entrepreneurs

S34	Selected countries			
	SK	PL	CZ	HU
I4+I5	236	139	207	103
[%]	48.5	29.3	50.7	47.7
Comparison	SK/CZ	PL/CZ	HU/CZ	SK/PL
Z- score	-0.678	-6.493	-0.725	6.080
(P- value)	0.496	0.000	0.471	0.000

Notes: I4, I5 - the evaluation of the source of other risks.