

14th International scientific conference on sustainable, modern and safe transport

Effect of Business Risks on the Business Future by Czech and Slovak SMEs in the Segment Transport and Services.

Ján Dvorský^{a*}, Zora Petráková^b

^aTomas Bata University in Zlín, Department of Business Administration, Mostní 5139, 760 01 Zlín, Czech Republic

^bSlovak University of Technology in Bratislava, Institute of civil engineering, Radlinského 11, 810 05 Bratislava, Slovak Republic

Abstract

The aim of the article was to identify important sources of business risks on the business future in the service and transport sector separately in Czech and Slovak entrepreneurs. The case study was carried out on a sample of 240 small and medium-sized enterprises (SMEs). Linear regression models was applied to verify causal relationships. The business risk are define as market, financial, personal, legal and operational risk. The business future is define as a risk of bankruptcy for company within 5 years. The results show disparities according to the nationality of the respondent. The nationality of the entrepreneur is a significant factor in the perception of the impact of business risk on the future of business. Management of both business risks have a positive impact on the business future of the company according to the Slovak entrepreneurs in the service and transport sector. Management of the operational risk are the most important indicator with a positive impact on the business future of the company according to the Czech entrepreneurs in the service and transport sector.

© 2021 The Authors. Published by ELSEVIER B.V.

This is an open access article under the CC BY-NC-ND license (<https://creativecommons.org/licenses/by-nc-nd/4.0>)

Peer-review under responsibility of the scientific committee of the TRANSCOM 2021: 14th International scientific conference on sustainable, modern and safe transport

Keywords: Business future; SMEs; business risk; business environment; service; transport.

1. Introduction

The topic of small and medium-sized enterprises (SMEs) is currently one of the main areas of interest in both theory and practice Kljucnikov et al. (2020); Cicea et al., (2019); Sila and Širok, (2018). A stable, prosperous and competitive

* Corresponding author. Tel.: +421917451596

E-mail address: j1dvorsky@utb.cz

economic environment in every developed country requires a high-quality business environment in the SME sector Stichhauerova, (2020); Dvorský et al. (2020a).

Small and medium-sized enterprises have specific characteristics which are determined by their nature and which at the same time allow them to take a special position in the economic system Hudáková et al. (2019); Havierníková and Kordoš, (2019). On the one hand, these companies usually have limited financial resources, which negatively affects corporate governance, and on the other hand, their “smallness” gives them a considerable opportunity to flexibly respond to the changes occurring in the economic system, in other words, to engage in the free market space that is uninteresting for the large firms Chhetri et al., (2018).

SMEs are confronted with various types of risks which can be unknown for big companies or perceived as unimportant. In addition to financial risks, there are a large number of non-financial risks such as reputation risk, legal risk, innovation risk, safety risk, personnel risk, and many others Virglerova et al. (2020).

The article presents an assessment of selected business risk (market, financial, personal, legal and operational risk) and their impact on the future of business. The case study presents the attitudes of 240 small and medium-sized enterprises operating in the transport and services sectors operating in the Czech Republic and Slovak Republic.

2. Short theoretical review

A high-quality business environment creating conditions for a long-term sustainable economic growth is a prerequisite for the business development and increasing the competitiveness of the country's economy on an international scale Bugarová and Šimíčková (2019).

The business environment quality can be defined as the status, or overall level of conditions, under which the business activities are carried out Kljucnikov et al. (2019). To do business, the business environment is formed through a variety of conditions and assumptions Kolkova,(2020); Bugarová and Hudáková (2015). The resulting effect of a large number of factors may be positive (interest in business, the influx of new entrepreneurs into the economy) Stichhauerova et al. (2020) or negative (decrease in the number of entrepreneurs, lack of interest in entrepreneurship, etc.) Varankhah et al. (2019).

A burgeoning literature is growing on the determinants, consequences, context and environment of business failure. In general, business failure research can be grouped into three major streams: (i) prediction models, (ii) finance and law, and (iii) organizational failure Belas et al. (2020); Çera et al.(2019). However, another research subfield is recently burgeoning covering perceptions, consequences and cost of business failure Cepel et al. (2020); Games and Roliza, (2019). The current research is under the third theme since its aim is to explore factors which determine business failure Dvorský et al. (2020b).

Organisational failure is explained mainly through two dominant perspectives: determinist and voluntarist. According to the determinist perspective, organisational failure is caused by factors originated from outside of the firm over which managers do not have the power to influence or manipulate Çera et al. (2019). This perspective implicates numerous theories, including institutional theory and industry life cycle theory Dvorský et al. (2020b). The institutional theory assumes that institutional environment may constrain business activity, or cause even organisational failure. The industry life cycle theory claims that business failure can be a result of shortage in supply, demand saturation or innovation (a new technology) that has the capacity to offer more value Mezulánik (2020).

Market risk is determined by a number of causes focused on the overall level of market competitiveness Dvorský et al. (2019). Market risk can be defined as the strategic risk of SMEs which consists in the long-term retention of the existing customers and in the acquisition and retention of new customers and in the production of new products or delivery of new services Hudáková et al. (2018).

The level of financial risk must be assessed in terms of the risk performance in a company towards successful financial risk management decisions because risk is considered an integral part of a company's business Bahta et al. (2020). Financial risk is one of the main threats to SME business Dvorský et al. (2020c); Dvorský et al. (2019).

The quality of human capital in a company provides the basis for increasing the company's performance. Empirical studies show that voluntary efforts by employees will increase productivity and ultimately performance ędrzejczak-Gas and Wyrwa (2020). They also create a competitive advantage for the company. It is important to develop a positive interpersonal relationship between individuals working at different levels of the organisation Vrbka (2020); Yuen et al. (2018).

Business environment consists of rules and standards, laws and supervisory outlines, governance, and the overall policy about trade and investment, together with establish rules and regulation for business operations that may affect the business, market, flow of investment, cost of doing business and productivity positively or negatively Palazuelos (2018).

The impact of SME internal capabilities on a competitive advantage was studied by Games and Roliza (2019) while they also considered the age of the company. In the case of Indonesia, the SME internal capability had a strong and positive correlation with a competitive advantage. For SMEs with less than five years of operation, this connection is weak in comparison to older companies.

3. Aim, methodology and methods

The aim of the article is to identify important sources of business risks on the business future in the service and transport sector separately in Czech and Slovak entrepreneurs. Also, the study focuses on a different perception of business risks, which have an effect on the business future of the company according to the nationality of the entrepreneurs.

The data were collected in the period from 09/2019 to 04/2020. The statistical unit is characterized as an entrepreneur (owner or senior manager) of a small or medium-sized enterprise (SME) in the service and transport sector, which operates in the business environment of the Czech Republic (CR) and Slovak Republic (SR; hereinafter referred to as the “respondent”). Random selection was used to address 18 350 SMEs (8.250 SMEs in CR; 10.100 SMEs in SR). Information about SMEs was obtained from the CRIBIS database (CR, SR).

In the first phase, respondents were contacted via an email with a structured request to complete the online questionnaire “*Management, business risks and bankruptcies in the segment of small and medium-sized enterprises in the Czech and Slovak Republic*”. In the second phase, the companies were contacted by telephone with a request to complete the questionnaire. The questionnaire is still available on the Internet at: The Czech version of the questionnaire is available at: <https://forms.gle/okjZypAru4BpSHFb8>. The Slovak version of the questionnaire is available at: <https://forms.gle/rzX3qYeqrqRFeAF6>.

3.1. Questionnaire

An online survey was created separately for each country (CR, SR). The questionnaire consisted of 77 questions divided into several parts. The general characteristics of a respondent and SME were identified at the beginning of a questionnaire, (questions: 1 - 10). The second part (questions: 1 - 34) included statements concerning management, corporate social responsibility (CRS), marketing, social media and the internationalization of SMEs. The third part (questions: 35-61) contained statements concerning the perception of business risks. The fourth part (questions: 62 - 67) examined the respondent's approach to the statements concerning bankruptcy and perception of future business of the company. The last part (questions: 68 - 77) looked at the causes of bankruptcy / business failure and risk management.

Respondents were able to answer specific questions (statements) by one of the following options (according to the 5-degree Likert scale): (A5) strongly agree – 5, (A4) agree – 4, (A3) neither agree nor disagree – 3, (A2) disagree – 2, (A1) completely disagree – 1. The following statements dealing with business risks (BRs) and the business future were constructed (see table 1). Table 1 contain also descriptive characteristics of statements.

Table 1. Descriptive characteristics of respondent on the selected statements according to the nationality

Business risks	Independent variables – Business risk sources	N	M	SD	S	K
Market risk (MR)	I rate the market risk (lack of sales for my company) as adequate.	SR	2.607	0.888	-0.154	0.369
		CR	2.470	1.059	0.405	0.766
Financial risk (FR)	I consider financial risk as part of everyday business.	SR	2.355	0.964	0.181	0.582
		CR	1.970	0.972	0.402	0.921
Personal risk (PER)	Personnel risk in the company is considered adequate and does not harm my business.	SR	2.785	1.046	-0,486	0.192

		CR	2.447	1.093	0.043	0.707
Legal risk (LEG)	I consider the legal risk appropriate and does not harm our (my) business.	SR	2.879	1.155	-0.834	0.092
		CR	2.720	1.128	-0.592	0.443
Operational risk (OPE)	We use company capacities at a sufficient level.	SR	1.794	0.723	2.935	1.096
		CR	2.045	0.855	0.687	0.806
Dependent variables – Future of business			M	SD	S	K
Future of business (FB)	There is no risk of bankruptcy for our (my) company within 5 years.	SR	2.364	1.111	-0.140	0.623
		CR	2.144	1.106	0.517	0.947

Note: N – Nationality; M – Mean, SD – Standard deviation, S – Skewness, K – Kurtosis. Source: Own data collection.

The null statistical hypotheses (Hs) were formulated:

H1: Business risk as is the market risk (H1_MR); financial risk (H1_FR); personal risk (H1_PER); legal risk (H1_LEG) and operational risk (H1_OPE) is a no statistically significant factor that determines the future of business in the business environment according to the Slovak SMEs in the transport and services sectors.

H2: Business risk as is the market risk (H2_MR); financial risk (H2_FR); personal risk (H2_PER); legal risk (H2_LEG) and operational risk (H2_OPE) is a no statistically significant factor that determines the future of business in the business environment according to the Czech SMEs in the transport and services sectors.

3.2. Methods

Linear regression models (LRM) was used to identify and quantify the causal relationship between independent variables (BRs) and dependent variable (FB). The assumption of linearity was confirmed by graphical analysis of the data using a scatter plot de Waal (1977). A correlation matrix (all pairwise dependences) with pairwise correlation coefficients was used to determine the relationship between the FB and the BRs. The correlation coefficient (r) can take values in the range from -1 to 1 Hair et al. (2010). Student’s t-test is applied to verify the significance of regression coefficients of independent variables. The regression coefficient in the regression model is statistically significant if the p-value of the t-test is lower than the level of significance (Qin and Lawless, 1995). The linear regression model (LRM) has a following form:

$$FB = \beta_0 + \beta_1 \times MR + \beta_2 \times FR + \beta_3 \times PER + \beta_4 \times LEG + \beta_5 \times OPE + \varepsilon_t \quad (1)$$

where: FB – dependent variable (perception of the future of business); MR, FR, PER, LEG, OPE – independent variables (business risk sources); ε_t – random error.

We verify the quality of the LRM by calculating and interpreting regression characteristics such as multiple correlation coefficient (MCC), determination coefficient (R^2), adjusted determination coefficient ($Adj.R^2$), F-ratio, multicollinearity, normality of errors Breslow (1990). The coefficient of determination indicates the percentage of explanation of variability of the perception of the future of the business, which can be explained by the selected business risk’ sources (market risk, financial risk, personal risk, legal risk, operational risk). The F-test was used to verify the statistical significance of the regression model de Waal (1977). The required p-value of the F-test must be lower than 0.05, then the regression model is statistically significant. The assumption of multicollinearity is verified in the regression model by using the variation factor of inflation (VIF - test). If the value of the VIF test for the independent variable is lower than 5, then this coefficient is not affected by multicollinearity. The Shapiro-Wilk test (S-W test) was applied to verify the normal distribution of errors de Waal (1977). The Bartlett test was used to verify the assumption of homoscedasticity. These assumptions are accepted if the p-value of the Bartlett test/S-W test is greater than 0.05 Snedecor and Cochran (1989). The assumption of the autocorrelation was not verified because data are not time series.

3.3. Structure of small and medium-sized enterprises

The structure of respondents within the Czech Republic/Slovak Republic (133/107) was the following:

- size of an enterprise: 24/20 (18.0%/18.7%) small enterprise (10 - 49 employees), 103/76 (77.4%/71.0%) micro enterprise (less than or equal to 10 employees), 6/11 (4.5%/10.3%) medium enterprise (between 50 to 249 employees);
- type of an entity: 49/20 sole trader (36.8%/18.7%), 68/70 (51.1%/65.5%) limited liability company, 9/7 (6.8%/6.5%) joint-stock company, 7/10 (5.3%/9.3%) another form of business;
- how long have you been doing business: 14/8 (8.3%/7.5%) less than or equal to 3 years, 11/6 (8.3%/5.6%) more than 3 and less than or equal to 5 years, 20/18 (15.0%/16.8%) more than 5 and less than or equal to 10 years, 88/75 (66.2%/70.1%) more than 10 years;
- the highest level of education: 68/20 (51.1%/18.7%) High school graduate, 13/6 (9.8%/5.6%) Bachelor's degree, 44/71 (33.1%/66.4%) Master's degree, 8/10 (6.0%/9.3%) Doctoral degree;
- gender of a respondent: 78/72 men (58.6%/67.3%), 55/35 (41.4%/32.7%) women;
- age of a respondent: 22/19 (16.5%/17.8%) less than 35 years old, 42/26 (31.6%/24.3%) from 36 to 45, 31/29 (23.3%/27.1%) from 46 to 55, 38/33 (28.6%/30.8%) more than 56.

4. Results

The following Table 2 summarizes the pairwise correlation coefficients in the correlation matrices between the independent variables and perception of the future of business (FB) according to the nationality of respondent.

Table 2. Dependences between business future and selected business risk sources according to the nationality

Correlation matrix	Slovak respondents / Czech Respondent					
	FB	TR	FR	PER	LEG	OPE
FB	1					
MR	0.013/0.163	1				
FR	0.354/0.004	0.220/0.162	1			
PER	0.295/0.184	0.243/0.180	0.170/0.066	1		
LEG	0.072/0.100	0.091/0.226	0.192/0.027	0.048/0.232	1	
OPE	0.129/0.292	0.123/0.246	0.187/0.057	0.078/0.158	0.049/0.148	1

Note: FB – Future of business, MR – Market risk, FR – Financial risk, PER – Personal risk, LEG – Legal risk, OPE – Operational risk. Source: own data collection.

The results (see Table 2) show that all pairwise correlations between FB (dependent variable) and BRs (independent variables) are statistically significant (p-values of t-tests are less than level of significance) in both groups of respondents according to the nationality. The most positive strong dependence is between FB and FR ($r = 0.354$) according to the Slovak respondents. The most positive strong dependence is between FB and OPE ($r = 0.292$) according to the Czech respondents.

The following Table 3 summarize the results of verification of the statistical significance of the proposed linear regression model (LRM1).

Table 3. Linear regression model according to the Slovak respondents' attitudes

LRM1 – Impact of Business risk sources on the future of business				
MCC		0.448	Adj. R ²	0.161
R ²		0.201	SE	1.017
Verification of the significance of LRM1				
ANOVA	Df	SS	MS	F- ratio
Regression	5	26.238	5.248	5.069

Residual	101	104.547	1.035	P – value	
Total	106	130.785		0.000	
Statistical significance testing					
Variables	RC	SE	t-Stat	Sign. (p-val.)	VIF
Intercept	0.935	0.475	1.966	0.052	-
MR	0.165	0.117	-1.409	0.162	1.110
FR	0.374	0.109	3.433	0.001	1.128
PER	0.284	0.098	2.889	0.005	1.080
LEG	0.005	0.087	0.060	0.953	1.041
OPE	0.098	0.140	0.702	0.484	1.045

Note: Df. – Degree of freedom; SS – Sum of Squares; MS – Mean square; SE – Standard Error; RC – Regression Coefficient; VIF – Variance Influence Factor. Source: own data collection.

The results (see Table 3) show that the proposed RM of the linear relationships between the perception of the FB and the BR' sources is statistically significant (LRM1: F-ratio: p-value = 0.000) according to the Slovak respondents. The business risk sources (MR, LEG and OPE) do not have a statistically significant effect on the FB (t-Stat: p-value is greater than the level of significance) according to the Slovak respondents. The financial a personal risk (FR and PER) do have a statistically significant effect on the FB (FR: t-Stat: p-value = 0.001; PER: t-Stat: p-value = 0.005) according to the Slovak respondents. The form of the linear regression functions is:

$$SR: FB = 0.935 + 0.165 \times MR + 0.374 \times FR + 0.284 \times PER + 0.005 \times LEG + 0.098 \times OPE + \varepsilon_t \tag{2}$$

where: FB – dependent variable (perception of the future of business); MR, FR, PER, LEG, OPE – independent variables (business risk sources); ε_t – random error.

The VIF test values did not show the presence of multicollinearity in the LRM1 (see Table 3). Homoscedasticity was confirmed for the regression model (LRM1: Bartlett's test: p-value = 0.134). The normal distribution of errors was confirmed for both regression models by S-W test (LRM1: S-W test: p – value = 0.342). The evaluation of statistical hypothesis: H1_FR, H1_PER were rejected; H1_MR, H1_LEG and H1_OPE were confirmed.

The following Table 4 summarize the results of verification of the statistical significance of the proposed linear regression model (LRM2).

Table 4. Linear regression model according to the Czech respondents' attitudes

LRM2 – Impact of Business risk sources on the future of business					
MCC	0.396		Adj. R ²	0.149	
R ²	0.157		SE	1.030	
Verification of the significance of LRM2					
ANOVA	Df	SS	MS	F- ratio	
Regression	5	17.830	3.566	3.155	
Residual	126	142.435	1.130	P – value	
Total	131	160.265		0.002	
Statistical significance testing					
Variables	RC	SE	t-Stat	Sign. (p-val.)	VIF
Intercept	0.953	0.395	2.416	0.017	
MR	0.081	0.094	0.859	0.392	1.152

FR	0.017	0.097	0.172	0.864	1.038
PER	0.130	0.089	1.454	0.148	1.099
LEG	0.016	0.087	0.180	0.857	1.104
OPE	0.325	0.113	2.866	0.005	1.087

Note: Df. – Degree of freedom; SS – Sum of Squares; MS – Mean square; SE – Standard Error; RC – Regression Coefficient; VIF – Variance Influence Factor. Source: own data collection.

The results (see Table 4) show that the proposed RM of the linear relationships between the perception of the FB and the BR' sources is statistically significant (LRM2: F-ratio: p-value = 0.002) according to the Czech respondents. The operational risk (OPE) do has a statistically significant effect on the FB (OPE: t-Stat: p-value = 0.005) according to the Czech respondents. Other business risks (MR, FR, PER, LEG) do have not a statistically significant effect on the FB (t-Stat: p-value is greater than the level of significance) according to the Czech respondents. The form of the linear regression functions is:

$$CR: FB = 0.953 + 0.081 \times MR + 0.017 \times FR + 0.130 \times PER + 0.016 \times LEG + 0.325 \times OPE + \varepsilon_t \quad (3)$$

where: FB – dependent variable (perception of the future of business); MR, FR, PER, LEG, OPE – independent variables (business risk sources); ε_t – random error.

The VIF test values did not show the presence of multicollinearity in the LRM2 (see Table 4). Homoscedasticity was confirmed for the regression model (LRM2: Bartlett's test: p-value = 0.271). The normal distribution of errors was confirmed for both regression models by S-W test (LRM2: S-W test: p – value = 0.105). The evaluation of statistical hypothesis: H2_OPE was rejected; H2_MR, H2_FR, H2_PER, H2_LEG were confirmed.

4. Conclusion

The aim of the article was to identify important sources of business risks on the business future in the service and transport sector separately in Czech and Slovak entrepreneurs.

The results showed interesting findings. The nationality of the entrepreneur is a significant factor in the perception of the impact of business risk on the future of business. Management of the market, legal and operational risk sources are not significant indicators with a positive effect on the future of business according to the Slovak entrepreneurs. On other hand, financial and personal risk are important indicators. Management of financial risk is more important than the personal risk in the Slovak business environment in the service and transport Slovak of small and medium-sized enterprises. Management of the operational risk is the most important indicator with a positive impact on the business future of the company according to the Czech entrepreneurs in the service and transport sector.

The authors are aware of the limitations of the case study (e.g. the local study – only 2 countries in the middle Europe; the number of SMEs in the service and transport sector - only 240; verification of results using linear regression models). The authors think that the article may bring some interesting findings and new incentives for discussion on the cross-sectoral assessment of the business risks and their impact on the future of business in the business environment of SMEs.

The authors think that the business sector is not only one significant factor in the perception of the future of business. These are mainly the characteristics of the enterprise (locality of business, age or type of an enterprise) and entrepreneur (the gender, age, nationality, or high education of entrepreneur). Authors assume that the perceptions of SMEs towards the above characteristics will bring different perceptions.

References

- Bahta, D., Yun, J., Islam, M. R., Bikanyi, K. J., 2020. How does CSR enhance the financial performance of SMEs? the mediating role of firm reputation. *Economic Research-Ekonomska Istrazivanja*.
- Belas, J., Amoah, J., Petraková, Z., Ključnikava, Y., Bilan, Y., 2020. Selected Factors of SMEs Management in the service sector. *Journal of Tourism and Services* 21.11, 129–146.
- Breslow, N., 1990. Tests of hypotheses in over dispersed poisson regression and other quasi-likelihood models. *Journal of the American Statistical Association*, 85(410), 565-571.

- Buganová, K., Šimičková, J., 2019. Risk management in traditional and agile project management. Paper presented at the *Transportation Research Procedia*, 40, 986-993.
- Buganová, K., Hudáková, M., 2015. Increase of the competitiveness of enterprises through the implementation of risk management projects in Slovakia. Paper presented at the *WMSCI 2015 - 19th World Multi-Conference on Systemics, Cybernetics and Informatics*, Proceedings, 2, 394-398.
- Cepel, M., Gavurova, B., Dvorsky, J., Belas, J., 2020. The impact of the COVID-19 crisis on the perception of business risk in the SME segment. *Journal of International Studies*, 13(3), 248-263.
- Čera, G., Belas, J., Zapletalikova, E., 2019. Explaining business failure through determinist and voluntarist perspectives. *Serbian Journal of Management*, 14(2), 257-275.
- Cicea, C., Popa, I., Marinescu, C., Ștefan, S. C., 2019. Determinants of SMEs' performance: Evidence from European countries. *Economic Research-Ekonomiska Istrazivanja*, 32(1), 1602-1620.
- Dvorský, J., Petráková, Z., Ajaz Khan, K., Formánek, I., Mikoláš, Z., 2020a. Selected Aspects of Strategic Management in the Service Sector. *Journal of Tourism and Services* 20.11, 109–123.
- Dvorský, J., Petráková, Z., Fialová, V., 2020b. Perception of Business Risks by Entrepreneurs According to Experience with the Business Failure. *International Journal of Entrepreneurial Knowledge* 8.1, 76-88.
- Dvorský, J., Belas, J., Novotná, I., Fero, M., Petráková, Z., 2020c. Quality of business environment of the SME: A sectoral view. *Communications - Scientific Letters of the University of Zilina*, 22(4), 163-172.
- Dvorský, J., Petráková, Z., Polách, J., 2019. Assessing the Market, Financial, and Economic Risk Sources by Czech and Slovak SMEs. *International Journal of Entrepreneurial Knowledge*, 7(2), 30-40.
- Games, D., Roliza, R., 2019. SME internal capability and competitive advantage in an emerging market: Moderating effects of firm age. *AMAR Andalus Management Review*, 3(1), 103–114.
- Hair, J.F., Anderson, R.E., Babin, B.J., Black, W.C., 2010. *Multivariate data analysis: A global perspective* (7th ed.). Upper Saddle River, NJ: Pearson Prentice Hall.
- Havierníková, K., Kordoš, M., 2019. The SMEs' perception of financial risks in the context of cluster cooperation. *Quantitative Finance and Economics*, 3(3), 586-607.
- Hudáková, M., Masár, M., Šimák, L., Brezina, D., 2019. The current state of the application of risk management in the transport sector. Paper presented at the *Transportation Research Procedia*, 40, 1073-1079.
- Hudáková, M., Masár, M., Lusková, M., Patak, M.R., 2018. The dependence of perceived business risks on the size of SMEs. *Journal of Competitiveness*, 10(4), 54-69.
- Chhetri, P., Gekara, V., Manzoni, A., Montague, A., 2018. Productivity benefits of employer-sponsored training: a study of the Australia transport and logistics industry. *Education and Training*, 60(9).
- Jędrzejczak-Gas, J., Wyrwa, J., 2020. Determinants of job satisfaction in a transport company: a Polish case study. *Equilibrium. Quarterly Journal of Economics and Economic Policy*, 15(3), 565-593.
- Kljucnikov, A., Civelek, M., Cera, G., Mezulanik, J., Manak, R., 2020. Differences in entrepreneurial orientation (EO) of SMEs in the international context: Evidence from the Czech Republic and Turkey. *Engineering Economics*, 31(3), 345-357.
- Kljucnikov, A., Mura, L., Sklenar, D., 2019. Information security management in SMEs: Factors of success. *Entrepreneurship and Sustainability Issues*, 6(4), 2081-2094.
- Kolkova, A., 2020. The Application of Forecasting Sales of Services to Increase Business Competitiveness. *Journal of Competitiveness*, 12(2), 90–105.
- Mezulánik, J., Durda, L., Civelek, M., Malec, L., 2020. Ride-hailing vs. Taxi Services: a Survey-based Comparison. *Journal of Tourism and Services*, 20(11), 170-186.
- Palazuelos, E., Herrero Crespo, Á., Montoya Del Corte, J., 2018. Effect of perceived default risk and accounting information quality on the decision to grant credit to SMEs. *Risk Management*, 20(2), 121-141.
- Qin, J., Lawless, J., 1995. Estimating equations, empirical likelihood and constraints on parameters. *Canadian Journal of Statistics*, 23(2), 145-159.
- Sila, E., Širok, K., 2018. The importance of employee satisfaction: a case study of a transportation and logistics service company. *Management*, 13(2).
- Snedecor, G.W., Cochran, W.G., 1989. *Statistical Methods* (8th ed). Iowa State University Press.
- Stichhauerova, E., Zizka, M., Pelloneova, N., 2020. Comparison of the Significance of Clusters for Increasing Business Performance. *Journal of Competitiveness*, 12(3), 172–189.
- Vatankhah, S., Zarra-Nezhad, M., Amimejad, G., 2019. An empirical assessment of willingness to accept “low-cost” air transport services: Evidence from the Middle East. *Journal of Tourism and Services*, 10(18): 79-103.
- Virglerova, Z., Dvorsky, J., Kozubikova, L., Cepel, M., 2020. Perception of non-financial risk determinants in SMEs in Visegrad countries. *Oeconomia Copernicana*, 11(3), 509-529.
- Vrbka, J., 2020. The use of neural networks to determine value based drivers for SMEs operating in the rural areas of the Czech Republic. *Oeconomia Copernicana*, 11(2), 325-346.
- de Waal, D.J., 1977. Asymptotic distributions for the elementary symmetric functions of two matrices under the assumption of linearity. *Journal of Multivariate Analysis*, 7(1), 223-228.
- Yuen, K. F., Loh, H. S., Zhou, Q., Wong, Y. D., 2018. Determinants of job satisfaction and performance of seafarers. *Transportation Research Part A: Policy and Practice*, 110.