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**SELECTED ASPECTS OF FINANCIAL RISKS OF SMES
IN CZECH REPUBLIC AND SLOVAKIA**

The article examines the selected aspects of financial risk of SMEs in the Czech Republic and Slovakia. Significant attributes of financial risks are defined and attitudes of entrepreneurs to risk are compared. Czech entrepreneurs were less critical in the opinion that SMEs have difficulties in gaining access to external sources of financing. It was found that only a small part of entrepreneurs in both countries can properly manage financial risks. The biggest differences are observed between these countries during the comparison of the impacts on financial risks' growth and SMEs' approach to external financing sources. Czech entrepreneurs have more positive attitude than the Slovak ones. Some differences were also found among the attitudes of companies in terms of their age, older companies in both countries more intensively perceive the importance of financial risks during crisis.

*Keywords: small and medium-sized enterprises (SMEs); financial risk; Slovakia; Czech Republic.
JEL classification: L26; O16.*

**Людмила Козюбікова, Олександр Ключніков, Любош Сморчка
ОБРАНИ АСПЕКТИ ФІНАНСОВИХ РИЗИКІВ МАЛОГО ТА
СЕРЕДНЬОГО БІЗНЕСУ В ЧЕХІЇ ТА СЛОВАЧЧИНІ**

У статті досліджено окремі аспекти фінансових ризиків малого та середнього бізнесу в Чехії та Словаччині. Виділено специфічні риси фінансових ризиків та описано ставлення підприємців до них. Чеські підприємці в цілому менш критичні в описі проблем із зовнішнім фінансуванням, ніж їхні словацькі колеги. Також зауважено, що в обох країнах лише незначна частка підприємців стверджують, що можуть успішно керувати своїми фінансовими ризиками. Найбільша різниця між країнами спостерігається в плані оцінювання впливу фінансових ризиків на зростання та в підходах МСБ до зовнішнього фінансування. І в цьому чеські бізнесмени більш позитивні в оцінках. Деякі відмінності виділено також в аспекті віку компаній: у кризові часи старші компанії схильні підходити до питання фінансових ризиків більш ретельно.

*Ключові слова: малий та середній бізнес (МСБ); фінансовий ризик; Словаччина; Чехія.
Табл. 4. Літ. 26.*

**Людмила Козюбікова, Александр Ключников, Любош Сморчка
ИЗБРАННЫЕ АСПЕКТЫ ФИНАНСОВЫХ РИСКОВ МАЛОГО И
СРЕДНЕГО БИЗНЕСА В ЧЕХИИ И СЛОВАКИИ**

В статье исследованы отдельные аспекты финансовых рисков малого и среднего бизнеса в Чехии и Словакии. Выделены специфические черты финансовых рисков и описано отношение предпринимателей к ним. Чешские предприниматели в целом менее критичны в описании трудностей внешнего финансирования, чем их словацкие коллеги. Также отмечено, что в обеих странах только незначительная часть предпринимателей утверждают, что могут успешно управлять своими финансовыми рисками. Наибольшая разница между странами наблюдается в плане оценок влияния финансовых рисков на рост и в подходах МСБ к внешнему финансированию. И в этом чешские бизнесмены более позитивны в оценках. Некоторые отличия выделены также в аспекте возраста компании: в кризисные времена старшие компании склонны подходить к вопросу финансовых рисков более серьёзно.

Ключевые слова: малый и средний бизнес (МСБ); финансовый риск; Словакия; Чехия.

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Introduction. Small and medium-sized enterprises are companies, where the number of employees is below certain limits, specified by regulation. For example, in South Africa SMEs are limited by the number of 200 (Du Toit et al., 2011). Size standards of the United States Small Business Administration define SMEs in accordance to specific criteria in relation to the industry, ownership structure, revenue and number of employees, which is typically limited to 500, but in some cases reaches the level of 1500. The EU definition of SMEs is described in the EU recommendation # 2003/361, where the main factors determining whether an enterprise belongs to the SME sector are staff headcount (up to 250 employees) and either turnover, or balance sheet total.

SMEs play an impressive role in the economy of almost all the countries in the world, they outnumber large companies by a wide margin and employ significantly more people (Karpak and Topcu, 2010). SMEs represent 99.8% of all businesses in 28 countries of the European Union. According to the data of the Ministry of Industry and Trade of Czech Republic the share of SMEs in the total number of enterprises in this country reaches 99.8%, while SMEs employ approximately 61.8% of all employees in the country. The significance of SMEs in Slovakia is even higher (Belas et al., 2015a; Kozubikova et al., 2015; Sobekova-Majkova, 2011; Fetisovova, 2012), while according to the data of the European Commission (2014) their share reaches 99.9% and the share in the number of employees reaches 72.2%. Small and medium-sized enterprises produce around 60% of value added in the EU.

Financial risk is an umbrella term for multiple types of risk associated with financing, including financial transactions that include loans risk, asset-backed risk, credit risk, foreign investment risk, liquidity risk, market risk, operational risk, etc. (Bartram et al., 2015). The impact of financial risks on the SME segment is a widely discussed topic. SMEs are quite vulnerable, especially in financing, and have higher risk perception as a result of frequent denials in credit. The increase of borrowing costs during the crisis increases the probability of their default and hence, makes them more vulnerable during the financially stressful periods (Ardic, 2012; Casey and Toole, 2014; Kundin and Erecgovac, 2011; Ozturk and Mrkaic, 2014).

Access to finance is of a significant importance for the development of SMEs, thus financial risk is a possibility that a company will not be able to implement its strategic intentions due to financial reasons, or the inability to obtain required amount of funds at a given time by obtaining credit resources or due to enormous price growth of these resources – has and extreme importance for this segment (Fetisovova et al., 2012; Majkova, 2012).

The structure of the article is as follows. Financial risk and its essential attributes are presented in the introduction part. The results of our own empirical research in business environment in Czech Republic and Slovakia are presented in the next chapter. A part of this chapter is devoted to the comparison of attitudes of Czech and Slovak entrepreneurs to the selected aspects of financial risk in terms of gender, education of entrepreneurs and company's age. The last part of the article presents the results of our research.

Theoretical background. The term "entrepreneurship" generally means that some person invests his/her own assets into business activities hoping that this investment will bring desired profit. Unless the results of entrepreneurships are not according to

a business plan, entrepreneur may lose these resources, and this is a basic definition of "business risk".

Financial risk involves the relationship between company and its expected revenues, which may be lost or deteriorated. This risk is usually affected by 3 factors: 1) entity is exposed to the possibility of loss; 2) assets or income, the decrease of the value or change in ownership which can cause financial losses; 3) the threat which can cause loss (Smejkal and Rais, 2013).

Financial risk may occur in business environment in its various forms: companies may not have enough resources from external funding; freezing of financial flows in corporate environments; significant changes in the financial condition of an enterprise etc. In this context (Smejkal and Rais, 2013) stated that the risk of secondary insolvency is the one of the main risk factors in trade with unknown partner in many Czech businesses.

Financial crisis caused the growth of financial risks in business environment because of the decreasing demand which transformed gradually to the area of financial risk. The research on the impact of the world financial crisis to SMEs in Europe and USA by A. Sannajust (2014) showed that SME suffer more than larger enterprises, and face higher rate of rejections in bank loans. His examination of the main factors of loan rejection within an international sample (Europe and USA) confirmed that small and young companies in Europe have more problems, and in the USA family-owned companies have more difficulties in obtaining bank loans, while the determinants that affect SMEs to obtain bank loan are mainly internal factors, such as financial results, ownership structure, size of company. A. Sannajust (2014) also studied external factors, including banking constraints, and risk at financial markets.

Negative factors which brought the crisis were also reflected in tightening procedures for commercial banks to finance SMEs through bank loans. L. Farinha and S. Felixa (2015) examined the importance of credit demand and credit supply-related factors in explaining the evolution of crediting in Portuguese SMEs sector and suggested that while the interest rate is a strong driver of SMEs' demand for bank loans, as well as their internal financing capacity, and while credit supply mostly depends on firms' ability to generate cash flows and reimburse their debt, and on the amount of collateral, a considerable fraction of Portuguese SMEs were affected by credit rationing in the crisis period.

F. Bancel and U.R. Mittoo (2011) found that firms with high financial flexibility suffer lower impact from the crisis, are likely to have lower leverage, higher cash ratios, and lower impact from the crisis on their business operations.

The opposite (but corresponding with the results of several surveys about the access to finance of SMEs conducted in France) result, which goes against the common view that SMEs suffer from strong credit restrictions during crises are presented in the study based on the sample of around 60,000 SMEs by (Krempa and Sevestrec, 2013) who came to the conclusion that, despite stronger standards used by banks after the crisis while granting credits, French SMEs do not appear to be strongly affected by credit rationing since 2008.

E. Casey and C.M. Toole (2014) found that bank-constrained SMEs are more likely to use alternative external finance including trade credit, informal lending, loans from other companies, market financing (issued debt or equity) or state grants.

According to I. Steinerowska-Streb and A. Steiner (2014) lack of finance is considered to be the main problem for SMEs growth. The fact that access to finance is necessary for the growth and further development of SMEs was also proved by S. Mercieca et al. (2009). I. Belas et al. (2015b), M. Sobekova-Majkova (2011), V. Jakubec et al. (2012) etc. declare that lack of capital or access to finance are the biggest problems of SMEs.

Aim, methodology and data. The aim of this article is to define significant factors of financial risk and quantify attitudes and evaluations of entrepreneurs in the SME segment. A partial objective is the comparison of the intensity of these factors in Czech and Slovak environment.

Based on the theoretical analysis we pose 4 scientific hypotheses using the estimation technique:

H1: Financial risk rises intensively in Czech Republic and Slovakia. This opinion is shared by more than 60% of the entrepreneurs in the SMEs segment. There are no significant differences in opinions of the entrepreneurs in total, by gender, education or company age.

H2: The crisis has significantly increased the intensity of financial risks in business. This opinion is shared by more than 60% of the entrepreneurs in both countries. There are no significant differences in opinions by gender, education or company age.

H3: SMEs have difficulties in gaining access to external financing. This opinion is shared by more than 60% of the entrepreneurs in both countries. There are no significant differences in opinions by gender, education or company age.

H4: Entrepreneurs are able to properly manage financial risks. This opinion is shared by more than 30% of the entrepreneurs in both countries. There are no significant differences in opinions by gender, education or company age.

To verify these hypotheses the questionnaire survey in Czech Republic and Slovakia has been conducted.

The survey on the quality of business environment was carried out in the first half of 2015 through a questionnaire on the sample of 1,141 respondents in Czech Republic. The method of choosing companies was as follows. We randomly selected the total of 1,650 companies from the Albertina database. These companies were contacted via email, business owners were asked to complete a questionnaire, which was placed on a website. If companies had not responded to our mail, we addressed them by telephone.

The structure of the sample was as follows: 75% men, 25% women; 48% of the respondents reported secondary education, 34% had university degree and 18% reported secondary education without graduation; 65% of the total number of companies were microenterprises, 27% were small enterprises and 8% were medium-sized. 62% of the companies' owners stated that the company exists for more than 10 years, 21% of them stated they operate a maximum of 5 years and 17% reported that the company is 5 to 10 years old.

The research focused on the actual situation in Slovak business environment was carried out in 2016. The questionnaire called "Financial Risks of SMEs in Slovakia" was distributed online.

The structure of the respondents was as follows: 70% men, 30% women; 29% of the respondents reported they had secondary education, 65% had university degrees and 6% reported they had secondary education without graduation; 66% of the total

number of companies are microenterprises, 22% are small enterprises and 7% are medium-sized enterprises, 7% are large ones. 48% of companies' owners stated that the company exists for more than 10 years, 29% of them stated that they operate the maximum of 5 years and 23% of them reported that their company is 5 to 10 years old.

Statistically significant differences between the designated groups of entrepreneurs were compared through Pearson statistics at the significance level of 5%. If the calculated p-value was lower than 5%, we reject the null hypothesis and the alternative hypothesis was adopted. The calculations were made through the free software available at www.socscistatistics.com.

Results and discussion. Tables present the results of empirical research in Czech Republic and Slovakia.

Table 1 presents the opinions of the entrepreneurs on the intensity of financial risk in Czech Republic and in Slovakia.

Table 1. The intensity of financial risks in Czech and Slovak business environment, authors'

Financial risk intensively affects business environment	Total number of CR/SR 1141/438	Males CR/SR 861/305	Females CR/SR 280/133	HE CR/SR 392/285	OE CR/SR 749/153	10+ CR/SR 705/211	10- CR/SR 436/227
1. Strongly agree	181/120	142/86	39/34	49/78	132/42	126/67	55/53
2. Agree	704/237	533/166	171/71	245/158	459/79	431/118	273/119
In total: %	885/357 77.6/81.5	675/252 78.4/82.6	210/105 75.0/78.9	294/236 75.0/82.8	591/121 78.9/79.1	557/185 79.0/87.7	328/172 75.2/75.8
3. I do not hold any position	160/52	120/41	40/11	60/28	100/24	85/15	75/37
4. Disagree	88/23	62/10	26/13	36/16	52/7	58/9	30/14
5. Strongly disagree	8/6	4/2	4/4	2/5	6/1	5/2	3/4
Z-score/p-value	0.0873	0.2380 0.3628		0.1336 0.3371		0.1362 0.0013	

Notes: CR – Czech Republic, SR – Slovakia, HE – higher education, OE – other education, 10+ – companies doing business more than 10 years, 10- – companies doing business for less than 10 years.

The research data shows that financial risk significantly affects business environment, while 77.6% of Czech and 81.5% of Slovak entrepreneurs demonstrate this opinion. Slovak entrepreneurs more intensively perceive financial risks. The value of test criteria (p-value = 0.0873) did not confirm statistically significant differences in the perception of financial risks in these both countries. It was also found there are no statistically significant differences between entrepreneurs in terms of gender, education and company's age, which confirmed the calculated p-values (except p-value = 0.0013, which indicates that older companies in Slovakia more intensively perceive financial risks than younger companies).

H1 has been confirmed.

The first part of H2 has been confirmed. It was found that 66.7% of entrepreneurs agree with the statement that the importance of financial risks increased during the period of financial crisis. The share of these entrepreneurs is significantly higher in Slovakia (74.2%, p-value = 0.0040).

Table 2. The growth of financial risk after the crisis, authors'

The importance of financial risk increase during the crisis	Total number of CR/SR	Males CR/SR	Females CR/SR	HE CR/SR	OE CR/SR	10 + CR/SR	10- CR/SR
1. Strongly agree	59/86	43/62	16/24	22/57	37/29	39/51	20/35
2. Agree	702/239	535/176	167/63	232/151	470/88	468/125	234/114
In total: %	761/325 66.7/74.2	578/238 67.1/78.0	183/87 65.4/65.4	254/208 64.8/73.0	507/117 67.7/76.5	507/176 71.9/83.4	254/149 58.3/65.6
3. I do not hold any position	318/81	235/49	83/32	118/53	200/28	158/21	160/60
4. Disagree	57/19	45/11	12/8	19/15	38/4	38/8	19/11
5. Strongly disagree	5/13	3/7	2/6	1/9	4/4	2/6	3/7
Z-score/p-value	0.0040	0.5823 0.0054		0.3222 0.4237		0 0	

Notes: see Table 1.

Second part of H2 has been rejected. The values of test criteria (p-value = 0.0054/0/0) showed that there are important differences in entrepreneurs' opinions in Slovakia (males and older companies more significantly perceive the growth in the importance of financial risks after the crisis). Older companies more intensively perceive the growth in the importance of financial risks after the financial crisis in Czech Republic.

Table 3 presents the entrepreneurs' opinions concerning the access to external financing.

Table 3. The approach of SMEs in gaining access to external sources of financing, authors'

SMEs have difficulties in gaining access to external financial sources (financial markets, bank loans and state support programmes)	Total number of CR/SR	Males CR/SR	Females CR/SR	HE CR/SR	OE CR/SR	10+ CR/SR	10- CR/SR
1. Strongly agree	52/58	39/44	13/14	15/37	37/21	35/28	17/30
2. Agree	467/175	348/118	119/57	151/115	316/60	276/83	191/92
In total: %	519/233 45.5/53.2	387/162 44.9/53.1	132/71 47.1/53.4	166/152 42.4/53.5	353/81 47.1/52.9	311/111 44.1/52.6	208/122 47.7/53.7
3. I do not hold any position	412/129	313/99	99/30	141/83	271/46	256/64	156/65
4. Disagree	188/57	142/38	46/19	79/39	109/18	121/27	67/30
5. Strongly disagree	22/19	19/6	3/13	6/11	16/8	17/9	5/10
Z-score/p-value	0.0060	0.5222 0.9601		0.1236 0.9364		0.2380 0.8103	

Notes: see Table 1.

The first part of H3 has been rejected. Only 45.5% of the entrepreneurs in Czech Republic share the opinion that SMEs have difficulties in gaining access to external financing. The results were significantly higher in Slovakia (p -value = 0.0060).

The second part of H3 has been confirmed. There are not significant differences in entrepreneurs' opinions by gender, education or the size of a company.

Table 4. Opinions of entrepreneurs on their ability to correctly manage financial risks of their companies, authors'

Entrepreneurs can properly manage financial risks in their companies	Total number of CR/SR	Males CR/SR	Females CR/SR	HE CR/SR	OE CR/SR	10+ CR/SR	10- CR/SR
1. Strongly agree	14/17	12/7	2/10	3/13	11/4	7/6	7/11
2. Agree	311/97	225/65	86/32	96/51	215/46	200/49	111/48
In total: %	325/114 28.5/26.1	237/72 27.5/23.6	88/42 31.4/31.6	99/64 25.3/22.5	226/50 30.2/32.7	207/55 29.4/26.1	118/59 27.1/21.6
3. I do not hold any position	423/125	329/86	94/39	151/85	272/40	277/56	146/69
4. Disagree	359/171	270/127	89/44	130/119	229/52	204/85	155/86
5. Strongly disagree	34/28	25/20	9/8	12/17	22/11	17/15	17/13
Z-score/p-value	0.3271	0.2077 0.0801		0.0801 0.0203		0.4009 0.2713	

Notes: see Table 1.

The first part of H4 has been rejected. Our research reveals that a small share of entrepreneurs in Czech Republic (28.5%) and also in Slovakia (26.1%) have the opinion they can properly manage their financial risks.

The second part of H4 has been confirmed. There are no significant differences between the opinions of entrepreneurs in terms of gender, education or the age of a company. Significant differences were found only in Slovakia, where entrepreneurs with lower education have declared higher ability to manage risks (p -value = 0.0203).

Conclusion. This research shows that financial risk significantly influences business environment in both countries. Entrepreneurs present the opinion that the importance of financial risk increased during the period of financial crisis.

Czech entrepreneurs less critically declared the SMEs to have difficulties in gaining access to external financing. It was found that only a small part of entrepreneurs in both countries can properly manage financial risks in their companies. Our research results indicate there are some differences in the opinions of entrepreneurs in both countries in total, by gender, education and age of company. The biggest differences were observed in the assessment of the impact of the financial crisis on the growth of financial risk and the access of SMEs to external sources of financing in both countries, Czech entrepreneurs presented a more positive attitude than Slovak entrepreneurs. Some differences in attitudes of the companies were presented in terms of their age, it was found that older firms in both countries more intensively perceive the importance of financial risks in the times of crisis.

The research has some limitations due to the fact that it was conducted only in Czech Republic and Slovakia, two out of four V4 members. The comparison of the

data from Poland and Hungary can bring a wider overview on the overall situation in this region.

The existing studies quite clearly show there are significant differences in the perception of financial risks in terms of age of companies that operate in the segment of SMEs and therefore we are planning further researches to focus on this.

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