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Risk perception differences between micro-, small and medium enterprises

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Abstract. The aim of this article is to define and compare the major determinants of financial and credit risks between micro-, small and medium enterprises. The research of entrepreneurs' opinions about business environment in Czech Republic was carried out in 2015. We found that financial risk intensively impacts business environment, while only a small group of entrepreneurs stated they are able to properly manage those risks. Entrepreneurs agreed that the importance of credit risk increased during the crisis. Small and medium enterprises demonstrated better knowledge of credit conditions of commercial banks and gave more positive assessment of the transparency of these conditions as compared to micro-enterprises.

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INRODUCTION

The development of small and medium business is one of the basic preconditions for healthy economic development of the country. Small and medium enterprises (SMEs) play an important role in any market economy, because they can promptly meet the latest trends in demand and the needs and expectations of demanding customers due to small firms' higher adaptability and creativity. They are an element of economic and social stability. (Májková, 2012; Fetisovová et al., 2012).

SMEs support the competitive dynamics of economic systems and have direct or indirect influence on large companies. This influence can be primarily noticed in the sector of increasing efficiency and innovation. (Pavelková et al., 2009)

In this article we examine the selected approaches and attitudes of entrepreneurs from the SME sector to risk management, along with their risk perception features and differences, if any.

1. THEORETICAL BACKROUND

Most business decisions are carried out under conditions of uncertainty. This means that there is some uncertainty and randomness in the development of conditions for the business activities, during these activities, and also in their results. If we are able to quantify the likelihood of diversions of actual processes and results from the expected level, we talk about risk. Thus the risk is quantified uncertainty. (Fetisovová et al., 2012)

Business risk has a complex form because it involves multiple interrelated partial risks. Fetisovová et al. (2012) divide the entrepreneurial risk on: strategic risks, operational risks, financial risks, social-political risks and reputation risks.

According to Hnilica and Fotr (2009) business risk can be considered as the possibility that real outcomes of the business activity will differ from anticipated outcomes, while and these deviations may be desirable (company achieve higher profits than planned) or adverse (company suffers loss instead planned profit); the magnitude of the variation may be variable. The authors classify the risks as production risks, economic, market, financial, credit, legislative, political, environmental, personnel, information risk, and force majeure. Lusková, Hudáková and Buganová (2013) have the similar classification of the business risks.

Enterprises that systematically manage key risks are able to eliminate these risks with significantly higher success rate than companies that do not have defined rules and structured approach to risk management. The companies with a comprehensive Enterprise Risk Management, which is typical especially for large and medium-sized enterprises, manage those risks at the most efficient way. Less systematic ad-hoc approach is usual for small businesses, while most of them achieves mediocre results (Hudáková, 2013; Belás et al., 2014).

Best results are achieved by the enterprises that not only manage risks but also evaluate the effectiveness of its management. While the management of financial risks (eg. foreign exchange and interest rate risk) and risks related to the insolvency of customers is common, businesses pay much less attention to other kinds of risks associated with their business partners, such as supply risks or market reputational ris. (Riadenie odberateľských…, 2013).

Association for Financial Professionals in cooperation with the Zanders Treasury and Finance Solutions Company conducted international survey targeted on *global trends in risk management of enterprises* in 2013. According to this survey, European companies consider the liquidity risk, foreign exchange risk and reputation risk to be the biggest threat to their business. Great attention is paid to both business and counterparty default risk, whether in terms of credit risk of customers or the financial stability of suppliers, banks and other providers of finance. The results obtained from the survey also show that the most common objective of risk management in enterprises is to eliminate risks impact on the income statement (92 %) and to ensure compliance with legal requirements (91%). About 90 % of companies stated that they are more aware of the need for better risk management in the post-crisis period and they started to act like that, have implemented new internal controls and change processes in order to eliminate the risks; 23 % of companies have created special risk management teams, 81 % of privately held companies (not listed on a stock exchange) have implemented a program for active risk management. This means that the difficult market situation in the post-crisis period forced not only large companies, but even small businesses to pay attention to risk management (CFO, 2013).

According to the survey conducted by The Economist Intelligence Unit and Dun & Bradstreet in 2013, enterprises consider business risks associated with selling dependence on a small number of customers or specific market segments, credit risk (the risk of insolvency), and high administrative costs and time associated with processing customers' demands, to be the most significant (Riadenie odberateľských…., 2013).

The aim of SMEs is to maximize profit, while the objective of the process of risk management is to identify, analyze, evaluate, treat and monitor the risks that could endanger the profit of the company. Success of SMEs depends on their ability to adapt to varying conditions and unstable business environment in which they carry out their business activities. Risks arising from the volatility of the business environment represent the potential sources of crises for SMEs, which often lead to the termination of their business. The need to manage risks fast is based on the fact that a large number of SMEs is forced to terminate their business already in the first year of the business. Underestimation, mismanagement, respectively ignorance of business risks is the way to bankruptcy, and therefore it is necessary to choose the right form of risk management. Often the lack of knowledge and experience of the owners and managers in the risk management is a big problem in small and medium-sized enterprises (Buganová, 2013; Belás et al., 2014; Kozubíková, 2015).

The actual process of risk management has the great importance in achieving business goals in the segment of SMEs. The risk management should implement the following activities: clearly formulated policies, strategies and objectives of risk management, proposed framework, principles and structure of the risk management process, defined processes, methods and tools in the process of risk management, clearly established responsibilities and powers in the context of risk management, risk management system and its processes must be continuously monitored, evaluated, documented and improved. The core of risk management system is to learn how to live in the company at risk. It's not just about to consider risk or to eliminate it, but it is more about to consider risk as part of SME at all levels. Total ignorance of the risk in nowadays is a very dangerous strategy that leads to crises which may have very devastating impact on the company (Buganová, 2013;Belás et al., 2014).

In our regional survey we found that the most important business risks which were perceived by entrepreneurs in the Czech Republic and Slovakia were as follows: market, financial and personnel risks. Financial risk (poor access to financing) was identified as a key risk by 57.22% of entrepreneurs in the Czech Republic and 58.54 % in Slovakia (Belás et al., 2014).

SMEs in contrast to large enterprises are faced with a competitive disadvantage in the financial, manufacturing, personnel, legal and strategic field (Pavelková et al., 2009) resulting from the nature of small and medium businesses (Májková, 2012).

The size of a company can play an important role in the context of obtaining external financial sources and their prices. Smaller companies have greater difficulties in obtaining external financial resources (Kalusová and Fetisovová, 2015; Pervan and Kuvek, 2013; Fetisovová et al., 2012) and therefore have to pay higher prices (Ozturk and Mrkaic, 2014; Blazy and Weill, 2013; Fetisovová et al., 2012).

Higher risk of SMEs is determined by a low degree of diversification of their business activities, small capital strength, limited access to credit, the method of liability of the owners and lower managerial skills (Fetisovová et al. 2012).

Kundin and Erecgovac (2011) have found that from 2008 to 2010 the interest rates for SME financing increased from 124 basis points to 264 basis points. They have also reported that the size of the firm plays an important role in getting financing from the banks in the period of foundation. As the size of the firm increases, the interest rate decreases due to positive information about the firm in the market. During the period of financial distress, the credit spread between large firms and small firms grows and in the countries with high risk perception most of the SMEs are denied for credit. The increased borrowing costs for SMEs also increased the probability of default and hence, they were more vulnerable in the financial distress periods.

Neuberger, Rathke, and Schacht (2006) state that the number of bank relationship increases with the firm size, because a larger firm needs more financing and sometimes it is not possible to get the financing just from one bank. Moreover, bank relationship deceases with firm category, manufacturing firms prefers to be with only one house-bank, in contrary service organization prefers to have more than one bank relationship for financing. However, in contrast to previous research, they do not find any significant negative relationship between more than one bank relationship and reduced supply of credit to small business. Nevertheless, the results show that, the relationship is higher for the micro firms and they are relying in relation to bank loans on the small mutual banks and the medium sized enterprises are having relationship with big banks.

Bruns and Fletcher (2008) found that, the availability of collateral, past financial position and business competency are the determinant factors for enhancing credit. On top of that, CEO's maturity and human capital, business plan and borrowers share to the investment also play an important role for granting the credit. They have stated that CEO's human capital can positively affect the future performance of the business and it can reduce the probability of future business failure.

Hanedar, Broccardo, and Bazzana (2014) brought a very interesting discovery in the field of lending to SMEs. They have examined the relationship between collateral requirements and loans to SMEs in 27 developing and emerging economics in central Europe and Asia. The results show that, collateral requirements are more pronounced for the medium firm's rather than micro or small firms. They have argued that, most of the micro and small firms do not have enough assets to use it as collateral, thus they find micro credit or informal institutions to be more useful sources of finance. Borrower's credit features does affect the collateral in the developing countries, when the riskiness of the borrowers increases collateral can mitigate the adverse selection problem to a certain extent. However, they did not find positive or negative effect of collateral and loan prices, it can be suggested that, collateral cannot reduce the interest rate of the loans in the selected countries. They also did not find any significant relationship between information sharing by SMEs and banks in the competitive market. Hence, they did not find any relationship between loan prices and trustworthiness while lending to SMEs. They have found that, SMEs situated in the cities, where there are more banks providing loans, the lower amount of collateral is requested in comparison to SMEs those are situated to the rural areas. They argue that, in the rural areas there are not so much options to take loans because the number of banks are limited, hence they have to pay higher margin of collateral to take the loans.

2. RESEARCH OBJECTIVE, METHODOLOGY AND DATA

The aim of the article is to define and compare the significant attributes of risk management in the environment of SMEs depending on the size of the company. Within the stated objective we compare the attitudes and approaches of entrepreneurs who own micro-enterprise with owners of small and medium-sized enterprises.

The survey of the quality of the business environment was carried out in the first half of 2015 through a questionnaire on a sample of 1,141 respondents in the Czech Republic. The method of choosing companies was as follows. We randomly selected a total of 1650 companies from the Albertina database. These companies were contacted via email, where the business owners were asked to complete a questionnaire, which was placed on the website[1]. If these companies had not responded to our mail, we addressed them by telephone.

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

In accordance with the recommendation of the European Commission no. 2003/361 / EC we separated microenterprises employing 0-9, small enterprises (10-49 employees) and medium-sized enterprises (50-249 employees) within the category of SMEs in the questionnaire.

Respondents were representing the following sectors: trade (33%), manufacturing (23%), construction (14%), transport (6%), agriculture (3%) and other services (39%).

Based on research by other authors, which we presented in the previous section of the article and based on our own research in this field we assume that the quality of the business environment is determined by the external environment (state, company, banks, business risks) and subjective characteristics of entrepreneurs (gender, education, size and age of the company).

In this article we set out five scientific hypotheses by the method of expert estimation:

H1: Financial risk intensively acts in the business environment. At least 70% of entrepreneurs agree with this opinion. There are no statistically significant differences in the responses of micro-enterprise (ME) and larger enterprises in segment SMEs (LSMEs).

H2: Entrepreneurs can properly manage financial risks in their companies. Up to 30% of entrepreneurs agree with this opinion. We assumed that LSMEs will to a greater extent agree with this opinion, in comparison with ME.

H3: The importance of credit risk increased during the crisis. At least 60% of entrepreneurs agree with this opinion. We assumed that LSMEs will to a greater extent agree with this opinion, in comparison with ME.

H4: SME entrepreneurs are well informed about the conditions under which banks provide loans. Up to 30% of entrepreneurs agree with this opinion. We assumed that LSMEs will to a greater extent agree with this opinion in comparison with ME.

H5: The conditions under which banks provide loans to SMEs are transparent. Up to 30 % of entrepreneurs agree with this opinion. We assumed that LSMEs will to a greater extent agree with this opinion, in comparison with ME.

Statistically significant differences between the designated social groups were compared through Pearson statistics at 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: http://www.socscistatistics.com/tests. Statistically significant differences in individual responses were investigated by means of Z-score. The calculations were made through the free software available at: http://www.socscistatistics.com/tests/ztest/Default2.aspx.

[1] https://docs.google.com/forms/d/1U9coaC5JRL0N2QOOO6Xb8j3mnaZXdSM47Kugt4EDGFo/viewform?usp=send_form

3. RESULTS AND DISCUSSION

Table 1 presents the results of research on the assessment of financial risk intensity.

Table 1

Assessment of financial risk intensity in the Czech Republic. Source: own source

Financial risk intensively acts on the business environment (poor access to external sources of finance, poor payment discipline, etc.).	ME	LSMEs	p-value Z-score
1. totally agree	120	61	0.6599
2. agree share in % (1+2) share in % total: 77.56	456 77.84	248 75.00	0.9442 0.7642*
3. take no position	109	51	0.3524
4. disagree	50	38	0.1010
5. completely disagree	5	3	0.8887
Together:	740	401	
Chi-square p-value	3.4313 0.4884		

*p-value is cumulative, includes responses 1+2

Source: own calculation.

H1 was confirmed. More than 70% of entrepreneurs agreed that financial risk intensively acts in the business environment. We found that there were no statistically significant differences in the responses of ME and LSMEs.

In this context, we can present that the results of our findings are comparable to Fetisovová et al. (2012) and Májková (2012).

Table 2 presents the results in the field of risk management. We asked entrepreneurs if they believe that they can properly manage financial risks in their companies.

Table 2

The ability of entrepreneurs to manage financial risks. Source: own source

Entrepreneurs are able to properly manage financial risks in their companies.	ME	LSMEs	p-value Z-score
1. totally agree	8	6	0.5419
2. agree share in % (1+2) share in % total: 27.26	190 26.76	121 31.67	0.1031 0.0784*
3. take no position	280	143	0.4654
4. disagree	238	121	0.4902
5. completely disagree	24	10	0.4777
Together:	740	401	
Chi-square p-value	3.4458 0.4862		

Source: own calculation.

H2 was confirmed. 27.26% of entrepreneurs stated that they are able to properly manage financial risks in their business. We found that there were no statistically significant differences in the responses obtained from ME and LSMEs.

These results are different from the results of our regional research conducted in 2013, in which 41% of entrepreneurs in the Czech Republic said that they are able to properly manage financial risks in their business. (Belás et al., 2014)

We expect that our current research, which was conducted throughout the whole Czech Republic better describes the situation in financial risk management in SMEs.

Table 3 presents an assessment of entrepreneurs in the current credit risk exposure.

Table 3

Assessment of the current credit risk situation in the company. Source: own source

The importance of credit risks increased during the crisis.	ME	LSMEs	p-value Z-score
1. totally agree	61	40	0.3271
2. agree share in % (1+2) share in % total: 63.45	397 61.89	226 66.33	*0.0000* 0.1362*
3. takes no position	217	97	0.0643
4. disagree	56	37	0.3271
5. completely disagree	9	1	0.0949
Together:	740	401	
Chi-square p-value	22.2784 0.0002		

Source: own calculation.

H3 was partially confirmed. We found that 63.45% of all entrepreneurs agreed with this statement. Our assumption that LSMEs would agree more with this opinion in comparison to ME was not confirmed (p-value = 0.1362).

According to our findings Czech entrepreneurs agreed with the opinion that the importance of credit risk increased during the crisis grew. In this regard, the results of our research are compatible with the conclusion of Kundin and Erecgovac (2011). Assessment of the current situation in the credit risk is not dependent on the size of the company, therefore our findings are different from the conclusion of Kalusová and Fetisovová (2015), Pervan and Kuvek (2013) and Fetisovová et al. (2012).

Table 4 presents the results of research in the field of understanding of credit conditions by entrepreneurs.

Table 4

The degree of understanding of credit conditions. Source: own source.

The conditions under which banks provide loans to SME are well known to entrepreneurs.	ME	LSMEs	p-value Z-score
1. totally agree	8	11	*0.0366*
2. agree share in % (1+2) share in % total: 29.01	179 25.27	133 35.91	*0.0012* *0.0002**
3. take no position	233	111	0.1802
4. disagree	296	130	*0.0114*
5. completely disagree	24	16	0.5157
Together:	740	401	
Chi-square p-value	17.6468 0.0014		

Source: own calculation.

H4 was confirmed. 29.01% of entrepreneurs stated that they know the conditions under which banks provide loans to SMEs. Our assumption that LSMEs will to a greater extent agree with this opinion in comparison to ME was confirmed (p-value = 0.0002).

The results of our research showed that knowledge of credit criteria among Czech entrepreneurs is relatively low, thereby they are losing mentioned advantages and opportunities. In this context, for example Behr and Güttler (2007) see the solution on the side of the company to understand banks' approach within the evaluation of creditworthiness and also to be able to evaluate their expected probability of default (PD) using rating model. This fact could help firms to understand their position from the bank's point of view. Also this fact would lead them to be more willing provide necessary document about themselves for better assessment of their creditworthiness and also it would lead to the possibility of further negotiations between the bank and the company about credit conditions. According to authors, knowledge of own PD also allows the company to increase transparency in credit process. As well as it allows potential use for searching of external funding sources. If SMEs have knowledge about their creditworthiness, they may affect management decisions in favor of new sources of external funding due to the expanding range of financing options.

Table 5 presents an assessment of transparency of credit conditions by entrepreneurs.

H5 was partially confirmed. The first part of the hypothesis was not confirmed, because we found that 30.24 % of entrepreneurs stated that they consider credit conditions to be transparent. The second part of the H5 was confirmed, because we found that LSMEs agreed to the greater extent with this opinion in comparison to ME.

Table 5

Transparency of credit conditions. Source: own source

The conditions under which banks provide loans to SMEs are transparent.	ME	LSMEs	p-value Z-score
1. totally agree	3	10	*0.0015*
2. agree share in % (1+2) share in % total: 30.24	181 24.86	151 40.15	*0.0000* *0.0000**
3. take no position	386	152	*0.0000*
4. disagree	156	81	0.7263
5. completely disagree	14	7	0.8572
Together:			
Chi-square p-value	36.8586 <0.0001		

Source: own calculation.

According to our findings, even employees of commercial banks do not know the exact credit conditions in the Czech Republic. In discussion with bank experts we found that only a narrow group of bank specialists knows for example weights of the rating models, which are used to evaluate the credit worthiness of SMEs in the bank, and banks in every way prevent the disclosure of these conditions. The banks assume that clients would abuse the knowledge of exact credit conditions for obtaining „bad credit"(credit with higher probability of default) (Belás et al.,2014).

On the other hand, it is strange if arbitrary interference in credit conditions may result in the situation that the bank will not extend the length of the credit for the client even in case that its financial situation improved.

CONCLUSION

The aim of the paper was to define and compare the significant attributes of risk management in an environment of SMEs depending on the size of the company. Within the stated objective, we compared the attitudes and approaches of entrepreneurs who own micro-enterprises with the owners of other small and medium-sized enterprises.

The current business conditions for SMEs are very challenging. The business environment is determined by a significant decline in purchasing power of demand. This puts pressure on the amount of sales achieved and increases financial risk. SMEs are then less able to access external financial sources.

It is inevitable that the management of significant risks in the business environment depends on the top managers in the company. Many of them are also owners of these companies. In our research we found that knowledge of the owners of SMEs in the management of financial and credit risks is not excellent. We also found that owners of SMEs know conditions better, consider and think about them as transparent in the greater extent compared to micro-enterprises. We assume that one of the main reasons for this is that larger companies can be more successful in obtaining loans. Conversely, micro-enterprises, which are often financed by their own resources, can not know the credit conditions of the banks, and therefore are negatively evaluated by them.

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REFERENCES

Behr, P., Guettler, A. (2007). Credit Risk Assessment and Relationship Lending: An Empirical Analysis of German Small and Medium-Sized Enterprises. *Journal of Small Business Management* 45(2): 194-213.

Belás, J., Macháček, J., Bartoš, P., Hlawiczka, R., Hudáková, M. (2014). Business risks and the level of entrepreneurial optimism of SME in the Czech and Slovak Republic. *Journal of competitiveness,* Vol. 6, Issue 2, s.30-41.

Belás, J. a kol. (2014). *Podnikateľské prostredie malých a stredných firiem v Českej a Slovenskej republike.* Žilina: Georg.

Belás, J., Bartoš, P., Hošták, P., Hlawiczka, R., Demjan, V. (2014). Determinants of credit risk of SMEs in the banking sector of the Czech Republic and Slovakia. *Proceedings of the 19th Annual International Konference on Macroeconomic Analysis and International Finance,* May 29.-31., Rethymno, Greece.

Belás, J., Bartoš, P., Habánik, J., Novák, P. (2014), Significant Attributes of the Business Environment in Small and Meduim-Sized Enterprises, Economics and Sociology, Vol. 7, No 3, pp. 22-39. DOI: 10.14254/2071-789X.2014/7-3/2

Blazy, R., Weill, L., (2013). Why do Banks Ask for Collateral in SME lending?*Applied Financial Economics,* Vol. 23(13), pp. 1109-1122.

Bruns, V., Fletcher, M. (2008). Banks's Risk Assessment to Swedish SME's. *Venture Capital,* Vol. 10(2), pp. 171-194.

CFO.(2013).*Risk manažment: najväčšie riziká, ktorým čelia európske firmy*. Avalable at: http://www.cfo.sk/articles/risk-manazment-najvacsie-rizika- ktorym-celia-europske-firmy#.UjbZIMZM-Qo

Fetisovová, E. a kol. (2012). *Aktuálne problémy financií malých a stredných podnikov.* Bratislava: Ekonóm.

Hanedar, E.Y., Broccardo, E., Bazzana, F. (2014). Collateral Requirements of SMEs: The Evidence from Less developed Countries.*Journal of Banking and Finance*, Vol. 38, pp. 106-121.

Hnilica, J., Fotr, J. (2009). *Aplikovaná analýza rizika ve finančním managementu a investičním rozhodování.* Praha: Grada.

Kalusová, L., Fetisovová, E. 2015. Determinanty finančnej štruktúry slovenských malých a stredných podnikov. *Ekonomický časopis,* Vol. 63, No. 3, pp. 278-300.

Kundin, A., Erecgovac, R. (2011). Credit Rationing in Financial Distress: Croatia's SMEs Finance Approach. *International Journal of Law and Management*, Vol. 53(1): 62-84.

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*, Vol. 8, No 1, pp. 41-54 DOI: 10.14254/2071- 789X.2015/8-1/4

Lusková, M., Hudáková, M., Buganová, K. (2013). *Manažérstvo kvality a rizika.* Žilina: Edis.

Májková, M. (2012). *Možnosti financovania malých a stredných podnikov v SR.* Brno: Tribun.

Neuberger, D., Rathke, S., Schacht, C. (2006). The Number of Bank Relationship of SMEs: A Disaggregated Analysis of Changes in the Swiss Loan Market. *Economic Notes*, Vol. 35(3), pp. 319-353.

Pavelková, D. a kol. (2009). *Klastry a jejich vliv na výkonnost firem.* Praha: Grada.

Pervan, I., Kuvek, T. 2013. The relevant Importance of Financial Ratios and Non-Financial variables in Predicting of Insolvency. *In Croatian Operational research review,* 4:187-197.

Ozturk, B., & Mrkaic, M. (2014). *Access to Finance by SMEs in the Euro Area_ What Helps or Hampers.* IMF Working Paper, European Department.

Riadenie odberateľských a dodávateľských rizík. (2013).Avalable at:http://www.cfo.sk/articles/riadenie-odberatelskych-a-dodavatelskych-rizik#.UxWBxl5NLA

http://www.socscistatistics.com/tests.

http://www.socscistatistics.com/tests/ztest/Default2.aspx.