Determinants of credit risk of SMEs in the banking sector of the Czech Republic and Slovakia

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Summary
The aim of this article is to quantify and compare the important current determinants of credit risk of SME in the selected regions of the Czech Republic and Slovakia. Based on our research, it can be stated that business environment worsened in the Czech Republic and Slovakia, which is determined by higher level of credit. Nowadays, entrepreneurs consider market risk as the most important risk. The average performance decrease was in the Czech Republic and Slovakia more than 15%. In both countries, there is large group of entrepreneurs who evaluate the approach of banks to SMEs financing as the negative one. In the Czech Republic, up to 95% of entrepreneurs said that they believed that their companies will survive in next five years. In Slovakia, this share was 91%.

Keywords: small and medium-sized enterprises (SME), business risks, credit risk, market risk, commercial banks

JEL: L26, O16, G32

The issue of credit risk of small and medium-sized enterprises (SMEs) represents now the current area for theoretical research and practical applications in the process of credit risk management by commercial banks.

The global financial crisis has caused considerable concerns as to what the banks' practices will be in relation to the loan financing of corporate sector. Current signals confirm that banks in the Czech Republic and Slovakia respond to their clients by tightened conditions. From the perspective of companies, very unfavorable situation can be occurred because of restricts situation of business community in relation to financing by bank instruments. (Geršl and Jakubík, 2012).

Fang, Lu and Su (2013) investigated changes in the financial performance of commercial banks after the global subprime financial crisis. Their results confirmed the deterioration of quality assets and profitability of banks with increasing risk in the banking sector.

It can be assumed that the quality of business environment has deteriorated. In the current turbulent economic environment, significant changes in the credit risk management of small and medium enterprises have been occurred. In this article, important determinants of credit risk of SMEs in selected regions of the Czech Republic and Slovakia has been examined.

1. Theoretical aspects of credit risk of SME
SMEs have become an increasingly important component of economic development which represents a substantial proportion of the national economies all around the world (Karpak and Topcu, 2010). In this context, Henderson and Weiler (2010) state that SMEs could be characterized as the major engine of economic growth.
European Commission (2011, s 4) indicate that “source of lifeblood” of the European Economic Community is 23 million European small and medium enterprises that represent more than 98 % of the business community. They provide two-thirds of total employment contracts in the private sector and in last five years they created approximately 80 % of new job opportunities.

SME play important role also in the economic system of the Czech Republic and Slovakia.

For example, share of SME in total number of active enterprises in the Czech Republic in 2012 was 99,86 %. Share of added value in 2012 was 53,81 %. Share of SME’s employees in total employment in business sector of the Czech Republic in 2012 was 59,43 %. In the Slovakia, share of SMEs in total number of active enterprises was 99,2 %, in total employment was 72,2 %. Share of added value was 55,6 % and share of SMEs in profit before taxes was 51,6 %.

Important issue of SMEs is represented by financial gap because many of these companies have very limited access to external financial resources. Even before the economic downturn, small business had some troubles with availability of financial funds which are necessary for growth and innovation. Due to the financial crisis, banks are even less willing to lend to business sector which lead to further exacerbated problems to which facing companies. (Evropská komise, 2011)

In this context, Dierkes, Erner, Langer and Norden (2013) state that companies in small and medium sector are smaller, more informationally opaque, riskier, and more dependent on trade credit and bank loans. According to Canales and Nanda (2012) small businesses, and particularly young small businesses, have little internal cash flow to finance their operations and are also associated with significant asymmetric information.

According to Majková-Sobeková (2012), high risk of SMEs is based on high debt ratio and limited ability to guarantee. According to this fact, obtaining commercial loans is for such companies problematic. In this context, Di Giuli, Caselli and Gatti (2011) reported that credit availability is very important element for development of small and medium enterprises.

Neuberger and Räthke (2009) analyzed SME loan financing. According to authors, microenterprises are especially prone to incorrect selection and moral hazard and therefore their access to loan is limited. Small firms are characterized by higher information asymmetry and by credit risk.

Kirschenmann and Norden (2012) analyzed the dependency between borrower risk and loan maturity in small business lending. A major implication of their study for research on small business lending is that there are multiple mechanisms that explain the positive relation between borrower risk and loan maturity. These mechanisms, information asymmetry and bargaining power are especially important in small business lending because small firms are informationally opaque and bank-dependent.

Moro and Fink (2012) state that banks play an essential role in financing of SMEs because they have more difficulties to access equity on capital markets. The process used by banks to decide whether and how much to lend relies on different
lending technologies and banks usually tend to use more than one technology at a time.

Neuberger and Rächke (2009) argue that a relationship between the bank and the client is determined by credit techniques which can be characterized as relational lending or lending transaction. Relational lending is primarily based on soft information (such as personality and character qualities, quality of management in the company, business strategy, ownership structure, etc.) that are achieved by the bank within the direct contact with the client, in the local territory and under long-term observation of financial performance of the company. Transaction lending is based on hard data (quantitative data) such as: return on equity, profitability, operating cash flow, interest coverage, liquidity, etc. According to authors, direct aspects of credit risk do not have significant impact on the SME segment.

As the explanation is the fact, that small companies have a tendency to have low credit risk because they are small and their legal form is often linked with unlimited guarantee and commercial banks provide commercial personal guarantee for loans.

Banks stated in their documents that there is a rule in the rating process: the smaller company, the more important soft information. In this context, Belás a kolektív (2013) report that personal characteristics of the entrepreneurs are very important in relation to the financial performance of the company which is determined by the level of credit risk in the SME segment. Witzany (2010) states that accounting data have low explanatory power in relation to SME and that an expert approach is important in the rating process. Altman, Sabato and Wilson (2010) report that use of non-financial variables of default indicator significantly improves the quality of rating models (predictive power). In this context, Dierkes, Erner, Langer and Norden (2013, p. 2877) state that business credit information sharing substantially improves the accuracy of aggregate and firm-specific default predictions. The default prediction accuracy is improved for older firms and those with limited liability, and it depends on the sharing of firms’ payment history and the number of firms covered by a local credit bureau office. The value of soft business credit information sharing is higher for smaller and less distant firms. Authors report that the higher the value of credit business information the lower the realized default rates.

According to Beck, Demirguc-Kunt and Pería (2011) who compared credit involvement of large international banks and local banks in the SME segment, soft information is evaluated by foreign banks as the less important one compared to domestic banks where they use more decentralized processes within credit approval and also work more with risk management. According to authors, foreign banks are placing more importance on the collateralization of loans and less importance on soft information.

Moro and Fink (2012) state that the econometric findings show that lending relationships cannot be reduced to facts and figures because, by leveraging strong relationships, trust can also support and increase the amount of other soft and hard information that the loan manager can access and, thus, help the loan manager to take decisions.
The document of European Commission (2006) states that in the research of McKinsey & Company, 75% of the total number of medium and large-sized banks consider indebtedness of enterprises as the most important quantitative factor of internal rating. 50% of banks give equal attention to the following indicators: liquidity and profitability. From wide range of possible qualitative factors, approximately 50% of medium and large-sized banks give high or very high attention to the quality management of SME and to following factors such as: market situation of SME and its legal form. According to this document, qualitative factors have a bigger impact on the rating in the case of larger companies or larger loans. In the case of start-ups companies, weights of these factors on the overall rating represent approximately 60%. In the case of companies with sufficiently long business history (minimum 2 years), weight of qualitative factors is significantly lower and represents average of 20-30%.

Agostino, Gagliardi and Trivieri (2011) discovered that bank concentration seems to positively (and significantly) affect SMEs default risk when credit relationships are very concentrated; that is when firms borrow heavily from their main bank and have few credit relationships with other intermediaries. A possible interpretation being that, as debt from the main bank increases and firms do not resort to multiple banking connection (in the attempt to induce competition among lenders, entrepreneurs might remain locked into lending relationships and so, become exposed to the potential negative effects of concentrated markets. The results suggest that a detrimental effect of bank market structure on firm default probability would emerge when lending relationships are highly concentrated, and it would be stronger the longer the duration of bank-firm relations.

Gambini and Zazzaro (2013, p. 1004) state that small firms maintaining a stable credit relationship with a main bank grow less than bank-independent small firms. This is especially true for small expanding firms, while for downsizing ones maintaining stable relationships with a main bank does not restrain their decline in employment and asset size. With regard to medium-large firms, results indicate almost the opposite. Long-lasting bank ties have a modest impact on growth performance of medium-large firms.

According to our opinion, there is a whole range of factors that ultimately determine the level of financial performance of SMEs. Figure 1 shows fundamental determinants of financial performance of SMEs which represent the most important input to the rating process within which commercial banks evaluate the credit worthiness of SMEs. The level of financial performance of the company is determined by its credit risk, i.e. possibility to use loan financing.

Considerable extent, varying intensity of influence and variability of individual aspects of the financial performance of SMEs indicate that the assessment of credit quality of these companies represent intensive management activities of commercial banks.
The intensity of credit risk depends on the ability and willingness of the company to meet its obligations toward the bank.

According to our opinion, the most important factor of successful loan repayment is the financial ability of borrowers to repay their obligations to the bank which is determined by the level of financial performance of the company. Ability to manage business risks determines the financial performance of companies because the impact of different type of business risks is transformed into the financial performance of the company.

In context of this article, current trends of business environment in the Czech Republic and Slovakia which have a significant impact on the level of credit risk have been presented.

2. Research aim, methodology and results

Aim of this article is to define and compare important attributes of credit risk of SMEs in selected regions of the Czech Republic and Slovakia. These attributes represent a result of influence of current determinants of SMEs financial performance.

The research of business risks of SMEs has been conducted in 2013 in selected regions of the Czech Republic and Slovakia though a questionnaire survey. In Zlín region, data from 180 SMEs has been obtained. In Žilina and Trenčín region, data from 105 SMEs has been obtained. Data from individual companies has been provided by their entrepreneurs.

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**Fig. 1: Determinants of the financial stability of SMEs. Source: own source**

Financial performance of SMEs

- Quality of macroeconomic environment (GDP, employment)
- Financial risks of the company (cash, debt, cash reserves, rentability, etc.)
- Operational risks (mishandling of processes in the company)
- Personnel risk of the company (low quality of employees)
- Personal characteristics, professional qualifications, optimism of entrepreneurs
- Market risks (lack of contracts, high intensity of competitors etc.)
- Legal risks (poor law enforcement in trade relations)
- Security risks (accidents, incidents, etc.)
- Market risks (lack of contracts, high intensity of competitors etc.)
Zlín region has an area of 3,964 km², has about 600,000 inhabitants, HDP per capita is around € 12,160, unemployment was in 2012 around 8%.

Trenčín region has an area of 4,502 km², has about 600,000 inhabitants, GDP per capita reached in 2010 € 10,744 (88,57 % of the average GDO per capita of Slovakia), registered unemployment rate was in 2012 at 10,89 % (significantly below 14,44 % in Slovakia). This region has a strong industrial tradition which is reflected in the fact that the share of the industry on GDP reached in 2010 the level of 33,96 % what significantly exceeds the national average of 26,46 %. However, this region is struggling with transformation problems and needs to increase dynamic adaptation to the knowledge economy conditions particularly in sector of information, communication, technical, scientific and administrative services. The share of these sectors in the GDP formation reaches only 7,85 % which is substantially lower than the share of these sectors which contributes to the GDP formation of Slovakia (12,26 %).

Based on results during article processing, seven scientific assumption using estimation methods have been set:

SA 1. Due to the impact of global financial crisis on SMEs in the Czech Republic and Slovakia, the most important parameters of credit risk have significantly deteriorated. Performances of SMEs decreased in 60 % of companies from the total number of companies in the Czech Republic and Slovakia. More than 20 % of companies in both countries stated that their performance decreased by more than 20 %.

SA 2. Due to intensive influence of market risk, profit has decreased at least in 50 % of companies from the total number of SME in the Czech Republic and Slovakia. More than 20 % of the total number of SME stated that their profit decreased by more than 20 %.

SA 3. Banks’ approach to SME financing deteriorated. At least 30 % of Czech and Slovak entrepreneurs in SME segment thought that banks behave in an inappropriate manner (line 3+4).

SA 4. At least 30 % of Czech and Slovak entrepreneurs in SME segment thought that banks’ approach has worsened during the crisis (line 1+2).

SA 5. The level of detailed knowledge of credit conditions of commercial banks from the point of Czech and Slovak entrepreneurs in SME segment is less than 50 %.

SA 6. At least 90 % of Czech and Slovak entrepreneurs in SME segment indicated that they are able to manage financial risks (line 1+2).

SA 7. Despite the deterioration of business environment, entrepreneurs are optimists. At least 90 % of entrepreneurs in SME segment believe that their company will survive in next five years.

From the total of 190 surveyed companies in Zlín region, 70 % do their business more than 10 years, 21 % do their business from 10 to 5 years and 9 % do their business from 5 to 1 year. It may be noted that this research has quite experienced entrepreneurs. Size structure of companies was as follows: 58 % were
micro-enterprises, 31% were small enterprises and 11% were medium-sized enterprises.

From the total number of surveyed companies in Trenčín region, 54% of companies do their business more than 10 years, 25% do their business from 10 to 5 years and 21% do their business from 5 to 1 year. Size structure of companies was as follows: 62% were micro-enterprises, 31% were small enterprises and 7% were medium-sized enterprises.

The associations in contingency tables were analyzed by Pearson statistics for count data. In the cases, where of asymptotic requirements for the test were violated; series of 5000 Monte Carlo replications from original data has been conducted. P-value is being compared with standard 5% confidence level. P-value lowers than confidence level leads to rejection of the null hypothesis. The null claims there is no association between variables. Calculations have been performed in statistical packages XLStatistics and R. Also tools of descriptive statistics have been used such as: percentages and averages.

3. Results

According to results of our research, businessmen consider the market risk as the most important risk at this time. Up to 79.44% of Czech and 82.86% of Slovak entrepreneurs reported that the market risk represents key business risk at this time. Significant differences within assessment of key business risks in both countries have not been identified.

Entrepreneurs in both countries assigned the highest average value to the market risk. Czech entrepreneurs evaluated the intensity of market risk influence at an average level of 44.49% and at an average level of 44.14% in Slovakia. The second most perceived risk in the Czech Republic was the financial risk (this risk was reported by 57.22% of entrepreneurs and was assigned average value of 20.03%). The third most perceived risk represented the personnel risk in the Czech Republic (this risk was reported by 43.33% of entrepreneurs and was assigned an average value of 12.57%). The second most perceived risk in Slovakia was financial risk also (50.48/15.19) and followed by personal risk (47.62/14.78%).

Existence of market risk significantly determined the financial performance of companies in the Czech Republic and Slovakia. These data are shown in Table 1 and Table 2.

Table 1 presents how much SME performances decreased according to entrepreneurs in 2013 compared to pre-crisis period.

<table>
<thead>
<tr>
<th>By what percentage has you current performance decreased compared to the pre-crisis period?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>P - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. up to 10%</td>
<td>17.24</td>
<td>19.61</td>
<td>0.7408</td>
</tr>
<tr>
<td>2. from 11 to 20%</td>
<td>13.79</td>
<td>11.76</td>
<td>0.7658</td>
</tr>
<tr>
<td>3. from 21 to 30%</td>
<td>17.24</td>
<td>21.57</td>
<td>0.4667</td>
</tr>
</tbody>
</table>
In our research, 68.39% of Czech and 73.53% of Slovak entrepreneurs stated that their company’s performances have decreased compared to the pre-crisis period. Statistically significant differences within a performance decrease in both countries have not been discovered.

In the Czech Republic and Slovakia, a share of companies that experienced a decrease in company’s performance by at least 20%, is higher than 20% (p-value < 0.01).

Table 2 presents opinions of entrepreneurs about how much decrease their profitability compared to pre-crisis period.

<table>
<thead>
<tr>
<th>How has your profitability changed compared to pre-crisis period?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. significantly decreased (more than 20%)</td>
<td>23.89</td>
<td>30.48</td>
<td>0.2807</td>
</tr>
<tr>
<td>2. slightly decreased (0-20%)</td>
<td>34.44</td>
<td>37.14</td>
<td>0.7406</td>
</tr>
<tr>
<td>3. is stabilized</td>
<td>21.67</td>
<td>19.05</td>
<td>0.7078</td>
</tr>
<tr>
<td>4. slightly increased (0-20%)</td>
<td>12.22</td>
<td>6.67</td>
<td>0.1959</td>
</tr>
<tr>
<td>5. significantly increased (more than 20%)</td>
<td>3.89</td>
<td>3.81</td>
<td>-</td>
</tr>
<tr>
<td>6. I was not doing business in the pre-crisis period</td>
<td>3.89</td>
<td>2.85</td>
<td>-</td>
</tr>
</tbody>
</table>

\[ \chi^2=2.9340 \text{ (p-value=0.4019)} \]

Source: own source

Note: data in line 4 and 5 has been combined to one group

In our study, 58.33% of Czech and 67.62% of Slovak entrepreneurs stated that their profits have decreased compared to the pre-crisis period. Statistically significant differences within performance decrease in both countries have not been discovered.

In the Czech Republic, there is no portion of companies that detected profit decrease by at least 20% which is higher than 20% (p-value = 0.0722). In Slovakia, this share is higher than 20% (p-value = 0.0030).

Existence of the most important business risks determined tighter credit conditions of commercial banks. This trend is perceived by SMEs which can be shown in Table 3 and 4.
Tab. 3: Banks’ approach to SME financing.

<table>
<thead>
<tr>
<th>How do you assess banks’ approach to SMEs financing?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. banks fully accept our needs and meet our requirements</td>
<td>4.44</td>
<td>0.95</td>
<td>-</td>
</tr>
<tr>
<td>2. banks behave appropriately</td>
<td>38.89</td>
<td>34.29</td>
<td>0.5160</td>
</tr>
<tr>
<td>3. banks behave stiffly</td>
<td>8.89</td>
<td>9.52</td>
<td>1.0000</td>
</tr>
<tr>
<td>4. banks use too harsh criteria for loan provision</td>
<td>26.11</td>
<td>43.81</td>
<td>0.0030</td>
</tr>
<tr>
<td>5. I do not know to judge</td>
<td>21.67</td>
<td>11.43</td>
<td>0.0440</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 13.2181 \text{ (p-value = 0.0110)} \]

Source: own source

In our research, 35.00\% of Czech and 53.33\% of Slovak entrepreneurs (sum of lines 3 and 4 within Table 3) stated that banks in relation to SMEs behave stiffly or have too harsh criteria. Share of Slovak entrepreneurs that evaluated that banks use too harsh criteria when providing loans is higher than the share of Czech entrepreneurs (p – value = 0.0030).

Czech entrepreneurs increasingly acknowledged that they are not able to assess bank’s approach to SME financing (p-value = 0.0440).

Table 4 present opinions of SME entrepreneurs about the fact whether attitudes of commercial banks have changed during the crisis.

Tab. 4: Attitudes’ change in commercial banks during the crisis.

<table>
<thead>
<tr>
<th>How has banks’ attitude changed within providing loans in this time compared to the year of 2008 (before the crisis)?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. banks’ approach has significantly worsened</td>
<td>10.00</td>
<td>22.86</td>
<td>0.0050</td>
</tr>
<tr>
<td>2. banks’ approach has slightly worsened</td>
<td>21.67</td>
<td>24.76</td>
<td>0.6490</td>
</tr>
<tr>
<td>3. banks’ approach has slightly improved</td>
<td>12.22</td>
<td>9.52</td>
<td>0.6790</td>
</tr>
<tr>
<td>4. banks’ approach has significantly improved</td>
<td>1.67</td>
<td>1.90</td>
<td>0.6790</td>
</tr>
<tr>
<td>5. banks’ approach has not changed at all</td>
<td>11.11</td>
<td>12.38</td>
<td>0.8590</td>
</tr>
<tr>
<td>6. I do not know to judge</td>
<td>43.33</td>
<td>28.58</td>
<td>0.0190</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 11.9340 \text{ (p-value = 0.0178)} \]

Source: own source

Note: data in the line 3 and 4 has been combined to one group

In the Czech Republic, there is no evidence that the share of entrepreneurs who thought that the banks’ approach to providing loans compared to the year of 2008 has worsened is higher than 30 \% (p – value = 0.3421). In Slovakia, this share was significantly higher than 30 \% (p – value > 0.001).
In this context it has been investigated if entrepreneurs in the Czech Republic and Slovakia know credit conditions of commercial banks. Results are shown in Table 5.

Tab. 5: Level of knowledge of credit conditions by entrepreneurs.

<table>
<thead>
<tr>
<th>Do you know criteria which are used by banks to evaluate clients’ creditworthiness in the credit process?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. yes</td>
<td>43.89</td>
<td>51.43</td>
<td>0.2680</td>
</tr>
<tr>
<td>2. no</td>
<td>14.44</td>
<td>8.57</td>
<td>0.2040</td>
</tr>
<tr>
<td>3. I have some vision about it</td>
<td>41.67</td>
<td>40.00</td>
<td>0.8790</td>
</tr>
</tbody>
</table>

χ²=2.7153 (p - value=0.2570)

Source: own source

The level of detailed knowledge about credit conditions of commercial banks by Czech and Slovak entrepreneurs in SME segment (line 1 in Table 5) is not lower than 50 % (p – value in the Czech Republic = 0,0586 and p –value in Slovakia = 0,5770). The structure of responses of Czech and Slovak entrepreneurs is not differed.

Results of our research confirmed that the level of knowledge of credit criteria by entrepreneurs is relatively low because only 44 % of Czech and 51 % of Slovak businessmen clearly indicated that they know criteria that banks evaluate company’s creditworthiness. The knowledge of these criteria represents important factor in the process of obtaining of SMEs credit financing.

Companies’ ability to manage financial risks represents important issue within an assessment of the intensity of credit risk. Table 6 is shown opinions of entrepreneurs on this issue.

Tab. 6: The ability to manage financial risks in the company.

<table>
<thead>
<tr>
<th>Do you think that you are able to properly manage financial risks in the company?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. yes</td>
<td>41.11</td>
<td>31.43</td>
<td>0.1323</td>
</tr>
<tr>
<td>2. to the certain level</td>
<td>55.00</td>
<td>57.14</td>
<td>0.8183</td>
</tr>
<tr>
<td>3. no</td>
<td>0.56</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>4. I do not know to judge</td>
<td>3.33</td>
<td>11.43</td>
<td>-</td>
</tr>
</tbody>
</table>

χ²= cannot be correctly calculated

Source: own source

The share of entrepreneurs in the Czech Republic who thought that they are able to manage financial risks properly (line 1 + line 2 in Table 6) was higher than 90 % (p – value = 0,0040). This argument does not apply to Slovakia (p – value = 0,6528). Structure of answers of Czech and Slovak entrepreneurs did not differ.
Business optimism decisively affects operation and existence of the company and also level of credit risk. The level of business optimism has been obtained through following questions which are seen in Table 7.

Tab. 7: The level of business optimism.

<table>
<thead>
<tr>
<th>Do you believe that your company will survive in next five years?</th>
<th>Czech Republic 2013 in %</th>
<th>Slovakia 2013 in %</th>
<th>p - value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. definitely</td>
<td>49.44</td>
<td>35.24</td>
<td>0.0270</td>
</tr>
<tr>
<td>2. no</td>
<td>0.56</td>
<td>0.00</td>
<td>-</td>
</tr>
<tr>
<td>3. with certain concerns</td>
<td>45.56</td>
<td>56.19</td>
<td>0.1075</td>
</tr>
<tr>
<td>4. with big concerns</td>
<td>4.44</td>
<td>8.57</td>
<td>0.2461</td>
</tr>
</tbody>
</table>

\[ \chi^2 = \text{cannot be correctly calculated} \]

Source: own source

Despite the deterioration of business environment, entrepreneurs were optimists. Entrepreneurs in the Czech Republic were more optimistic than in Slovakia. In the Czech Republic, more than 90 % of entrepreneurs believed that their companies will survive in next five years (\( p – \text{value} = 0.0174 \)). In Slovakia, this share was also high but it does not exceed 90 % (\( p – \text{value} = 0.3750 \)). The structure of answers differ because in the Czech Republic there was statistically more entrepreneurs who definitely believed that their company will survive in next five years.

4. Discussion

In long term horizon, discussion about SMEs issues is focused on levies problematic, quality of legal system and support of SME by the state. Our research confirmed that there exist currently other priorities in business environment. Entrepreneurs intensively perceive market risk influence which caused that companies do not have enough contracts where a result of which there has been a decrease in their performance. In this context it is important to create systematic conditions for growth of consumer optimism in the economy.

Results of our research confirmed the deterioration of business environment where commercial banks responded by tighter credit conditions. In this context, for example Jeong and Jung (2013) argue that the relationship between the credit cycle and the business cycle has recently received attention in the wake of the global financial crisis. This trend was also obvious for the banking sector in the Czech Republic and Slovakia. Banks before crisis forced loans to companies and after crisis outbreak banks rapidly tightened their conditions that caused existential problems for many smaller companies. It was not unusual for banks to demand early repayment of provided loans, respectively repay substantial portion of these loans.

Analysis of important determinants of credit risk of SMEs in the Czech Republic and Slovakia shows higher intensity of credit risk influence in both banking sectors. In this context it is important that banks were able to optimize their
approaches within the evaluation of credit risks of SMEs respectively that companies were able to know credit criteria of commercial banks better. In this context, for example Behr and Güttler (2007) see the solution on companies’ part that understood banks’ approach within the evaluation of creditworthiness and also they were 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 position. Also this fact would lead to 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 author, knowledge of own PD also allows 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.

Results of our research showed that knowledge of credit criteria by Czech and Slovak entrepreneurs is relatively low thereby they are losing mentioned advantages and opportunities.

In relation to SMEs, it is generally accepted the opinion that appropriate technique of lending is the relationship lending. For example, Moro and Fink (2013) reported that the confidence plays a very important role within loan provision based on client’s relationship with a bank and it is higher than it was previously expected. Authors found that if credit managers evaluate customers with trust and other parts such as ability of benevolence and integrity than the access to the lending is improving. Despite this fact, Beck, Demirgüc-Kunt and Martínez-Pería (2011) reported that results of their study are not able to support the statement that relationship lending is associated with larger volume and cheaper SMEs financing.

From practice of Czech and Slovak banks comes that results of internal rating are considered as dominant if the company is not passed successfully within this process. Its possibilities to obtain loan are practically none because many banks consider negative results of internal rating as KO criteria. Question is whether this approach is not harmful to banks themselves.

Despite the deterioration of business environment, the level of business optimism is quite high. In our research, entrepreneurs definitely stated that they believe in future of their companies which can be described as good news for the economy of both countries.

5. Conclusion

Results of our research confirm the validity of the scientific assumption no.1. SMEs performances decreased at least of 60 % of companies of the total number of companies in the Czech Republic and Slovakia. More than 20 % of companies in both countries said that their performances decreased by more than 20 %.

First part of the scientific assumption no.2 has been confirmed. In our research, 58,33 % of Czech and 67,62 % of Slovak entrepreneurs stated that their profits declined compared to pre-crisis period. Second part of this scientific assumption was valid for Slovakia but not valid for the Czech Republic, where the
share of entrepreneurs who recorded profit decrease by more than 20 % was not higher than 20 %.

The scientific assumption no.3 has been confirmed. In our research, 35 % of Czech and 53,33 % of Slovak entrepreneurs reported that banks behave in an inappropriate manner in relation to SMEs.

The scientific assumption no.4 has been confirmed in Slovakia where more than 30 % of entrepreneurs thought that banks’ approach to loan provision has deteriorated compared to the year of 2008. This assumption was not valid in the Czech Republic.

The scientific assumption no. 5 has been rejected because the level of detailed knowledge of credit conditions of commercial banks by Czech and Slovak entrepreneurs in SMEs segment was not higher than 50 %.

The scientific assumption no. 6 was valid in the Czech Republic where the share of entrepreneurs who thought that they are able to manage financial risks was higher than 90 %. This assumption was not valid for Slovak entrepreneurs.

The scientific assumption no. 7 has been confirmed in Czech economy where more than 90 % of entrepreneurs believed that their company will survive in next five years. This scientific assumption was not valid for Slovak entrepreneurs where this share was also high but do not exceed 90 %.

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