

# Researching the Entrepreneurial Sector in Serbia

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**Abstract** The aim of the chapter is to identify and analyze the key requirements for the growth of innovative and entrepreneurial businesses in Serbia. We used annual surveys on entrepreneurs and SME owners, conducted by the National Agency for Regional Development. The Agency reports include a number of factors that matter the most to Serbian entrepreneurs, including: government subsidies, banks interest rates, administrative procedures, the efficiency of managing accounts receivable, and the impact of entrepreneurial financial management. We analyze the impact of the selected factors on the gross value added (GVA), as an indicator of the growth of SMEE sector in Serbia, for the period 2004–2012. The composite indicators were created and statistically analysed. Our research suggests that the state incentives and the cost of doing business have the greatest impact on the entrepreneurship and business development/growth in Serbia.

## 1 Theoretical Background

Entrepreneurship is one of the key driving forces of economic development. It contributes to the process of increasing economic stability and economic development by creating new employment opportunities (Belka 1995; Richter and Schaffer 1996; Sexton and Landstrom 2000), offering a variety of products to consumers (Berkowitz and DeJong 2001), increasing gross domestic product, alleviating poverty and ensuring welfare of society in the long term (Berkowitz and DeJong 2001). In transition economies, the development of entrepreneurship is even more important because it encourages the development of a market economy by creating

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an open competitive market (Megginson and Netter 2001) and contributes to limiting the market power of public companies (McMillian and Woodruff 2002). The particular importance of small enterprises and entrepreneurs in transition countries is that they are very dynamic, fast learners and flexible to change (Čučković and Bartlett 2007), which helps them increase the competitiveness of the entire economy and contribute to accelerating the process of transition (Carlin 2001; Djankov and Murrell 2002).

However, the establishment of entrepreneurial businesses and their development to the level of successful stable organizations is associated with a number of dilemmas and uncertainties, which is why they are influenced by a number of supporting or constraining factors. A number of researchers have engaged in empirical research into the problems faced by entrepreneurs and critical success factors of their businesses based on a particular sample of entrepreneurs. Thus, for example, McLarty et al. (2012), Indarti and Langenberg (2005), studied the key factors influencing the business success of small and medium enterprises and entrepreneurs in the Czech Republic, Bangladesh, Japan, Singapore and Australia. Kauranen (1996) and Pelham (2000) studied the determinants of the future success of firms in the short and long term.

Their research as well as other empirical studies identified a number of constraining factors of starting and developing new business ventures. Some of the most common problems when starting a business, as stated by researchers, are: the provision of seed capital (Arthur 2003; Sievers and Vandenberg 2007), the provision of appropriate technology (Mazzarol et al. 1999), lack of information on market opportunities, standards and regulations (Sievers and Vandenberg 2007), and the lack of knowledge and experience. At the same time, the greatest impact on the success of the business and development of entrepreneurial organizations is exerted by: characteristics of entrepreneurs (Kauranen 1996; Kristiansen 2002), the specifics of the started business (Duchesneau and Gartner 1990; Kristiansen 2002), knowledge and skills in the field of management (Lubatkin et al. 2006; McMahan 2001; Salminen 2000; Swierczek and Ha 2003), the characteristics of products and services (Islam et al. 2008; Wiklund and Shepherd 2004), demands, expectations and consumer purchasing power (Pelham 2000; Reynolds et al. 2001), way of doing business and the ability to cooperate with other organizations and institutions, resource opportunities and financial capacities of entrepreneurs (McMahon 2001; Shen et al. 2012; Swierczek and Ha 2003), strategic focus of business (Gundry et al. 2003; Ortiz and Lombardo 2009), the external environment (Indarti and Langenberg 2005) and so on.

Transition countries are facing a number of additional problems and constraints to the development of entrepreneurship. These countries are mainly characterized by large systemic risk caused by economic, political and legal instability that have a discouraging influence on the establishment of new businesses and slow down the development of existing businesses (McMillian and Woodruff 2002). Entrepreneurs in developing countries feel unprotected, since the laws and the courts are unreliable, which is why they must look for reliable customers that settle their liabilities on time and reliable suppliers that deliver raw materials of adequate

quality (Johnson et al. 2002; McMillian and Woodruff 2002). A particular problem that transition countries are facing is reflected in the provision of sources of funding that will be used for starting a business as well as in the later stages of business development (Bygrave 2003; Leeds and Sunderland 2003). When starting a business, potential entrepreneurs in transition economies rely on their own funds, which are mostly made of very modest personal and family savings. Even in the later stages of business development, entrepreneurs in countries in transition cannot rely on external sources of funding as bank loans are usually expensive and completely inaccessible to some entrepreneurs, while informal sources of funding are usually associated with very high risks (Bygrave 2003; McMillian and Woodruff 2002).

With respect to the Republic of Serbia (RS), the macroeconomic environment as a prerequisite for the development of entrepreneurship is not different from the environment of other countries in transition. Although a series of measures aimed at development of entrepreneurship have been implemented in the RS in recent years (Government of the Republic of Serbia 2008), the situation in this sector in Serbia still cannot be considered satisfactory because of the presence of a large number of problems and constraints (Stefanovic et al. 2013). Potential entrepreneurs are faced with many problems in starting a business, such as: difficulties in providing sources of funding, a number of administrative barriers, lack of skilled labor, lack of information on markets and technologies and so on (National Agency for Regional Development—NARD 2012). Furthermore, Serbia is characterized by a high degree of systemic risk caused by political and legal instability, which, together with its grey market and pronounced corruption in all spheres of society, creates constraints for the business of entrepreneurs, such as the difficulty or inability to collect receivables, disregarding deadlines and other contractual obligations by trading partners, non-compliance of the quality of suppliers' raw materials with the regulatory standards, the presence of unfair competition etc. (NARD 2012). In addition, unfavorable macroeconomic indicators further hinder entrepreneurs' business and reduce their competitiveness on domestic and foreign markets.

The above and many other macroeconomic problems, as well as the effects of the global economic crisis, stand for a serious constraint to the development of entrepreneurship in Serbia. However, deeper analysis of entrepreneurs' business in Serbia (Ivanovic-Djukic and Stefanovic 2011) shows that the negative impact on the development of the sector was also exerted by a large number of internal factors, primarily related to faulty decisions entrepreneurs brought in the past, which often resulted in the deterioration of entrepreneurs' performance or business failure. In this chapter, we identify the key constraining factors of the development of entrepreneurship in Serbia and analyze their impact in order to find ways to overcome their negative effects. The aim of this chapter is to encourage the growth of the entrepreneurial sector in Serbia by identifying key prerequisites of the development of entrepreneurship and ways to mitigate the identified problems. In this regard, we will first try to identify the key issues that constrain the development of entrepreneurship in the RS and factors causing these problems. Furthermore, we will employ methods of statistical analysis in order to examine the impact of each of the identified factors on gross value added (GVA) by the SMEEs in the RS, as an

indicator of their growth and development. Finally, we will use the obtained results for indicating the implications for managers of SMEs and entrepreneurs and proposing measures to mitigate the problems with the aim of stimulating the development of entrepreneurship.

## 2 Analysis of Key Problems of the Development of Entrepreneurship in Serbia

Slow growth of entrepreneurship in Serbia was certainly affected by the global economic crisis. However, poor macroeconomic conditions (in 2012, the inflation rate was 12.2 %, the budget deficit was 6.4 % of GDP, the level of investment was 18 % of GDP, and unemployment rate has reached 23.9 %) (National Bank of Serbia—NBS 2013),<sup>1</sup> long-run problems related to inadequate economic structure and system inefficiency of economic entities in Serbia (Stefanovic et al. 2013), as well as a number of faulty decisions of Serbian entrepreneurs that have led to the failure of their businesses, are also responsible for the current state of this sector in Serbia.

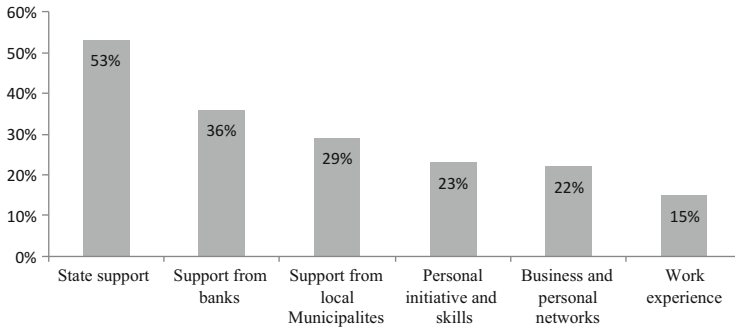
In order to identify the key constraints to the development of entrepreneurship and the factors which enhancement can give rise to the improvement of the business, we will start from the data presented in the annual survey, conducted each year (starting from 2009) by the National Agency for Regional Development (NARD 2013).<sup>2</sup> According to these reports, Serbian entrepreneurs identify the following as the biggest problems in doing business: lack of financial resources, administrative procedures and regulations, non-compliance with the standards, lack of information on markets, lack of skilled labor and the lack of information on technologies.

Each of these problems is influenced by a large number of external and internal factors. For example, the provision of additional sources of funding is primarily affected by a large number of external factors, such as high interest rates (78 % of respondents pointed to this factor), high bank fees (38 %), the necessity of collateral—guarantees (33 %), a limited amount of the loan (20 %) and long procedure of loan approval (18 %), as well as internal factors, such as low creditworthiness of entrepreneurs, high indebtedness, insolvency and so on. Reshaping of some of the

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<sup>1</sup> That entrepreneurs themselves do not regard the global economic crisis as the main cause of poor performance is evidenced by the fact that based on the survey of owners of SMEs and entrepreneurs in Serbia about the situation, needs and problems in business (NARD 2012), 28 % of entrepreneurs claimed that the crisis did not have significant impact on their business, which is two times more than in 2011 and 180 % more than in 2010.

<sup>2</sup> The research was conducted on the basis of the survey of 2555 owners of SMEs and entrepreneurs. Based on their subjective evaluation, they graded these factors by using grades 1–6, where 1 was the grade assigned to the factor that had the strongest impact and 6 was the grade assigned to the factor with the least impact on the business of entrepreneurs.



**Fig. 1** Factors that need to be improved in the first place (Multiple-choice questions were provided. This is the presentation of the most frequently given answers.) *Source:* NARD (2013)

**Table 1** Movement of selected external factors of the business of SMEEs in the period 2004–2012

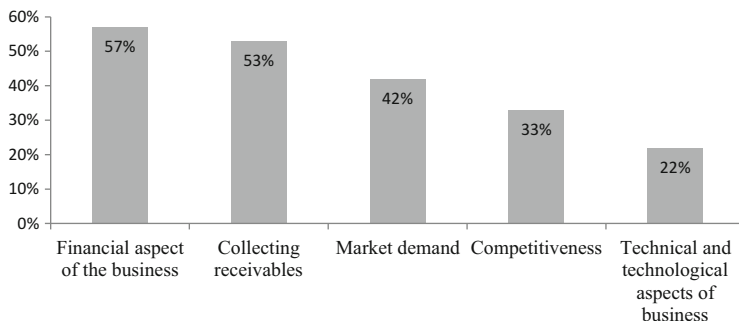
Factor	2004	2005	2006	2007	2008	2009	2010	2011	2012
Financial support of the Development Fund of the RS (in millions of euros)	133.6	102.1	120.3	190.5	186.0	295.2	184.6	157.2	181.5
Banks’ interest rate on loans (%)	15.5	16.8	16.6	11.1	16.1	11.8	17.3	17.2	17.4
The number of procedures to start a business	12	12	11	11	11	11	7	7	7

*Source:* Ministry of Regional Development and Local Self-Government (2012, 2013), The World Bank (2014), Doing Business (2014), The World Economic Forum (2013)

major external and internal factors can affect the improvement of problematic business segments. Key aspects of the business that need to be improved in the opinion of the respondents are shown in the Fig. 1.

As the Fig. 1 shows, the key factors that can contribute to the improvement of business are state support (53 %), support of commercial banks (36 %), support of the local self-government (29 %). Therefore, in the following segment we will take into account some key macroeconomic factors, such as the state financial support from the Development Fund of the Republic of Serbia, banks’ interest rates and the number of procedures to start a business (as given in the table below), as opposed to what will be a detailed analysis of the impact of internal factors on the growth and development of the entrepreneurial sector in Serbia. Data related to the movement of external factors in the analyzed period (2004–2012) are given in Table 1.

It is characteristic that significantly fewer respondents recognize that it is necessary to improve personal initiative and skills (23 %) as well as work experience (15 %), business and personal contacts and networks (22 %). These suggest that Serbian entrepreneurs still believe that factors from the external environment



**Fig. 2** Aspects of business that need to be improved in the first place (Multiple-choice questions were provided. This is the presentation of the most frequently given answers.) *Source*: NARD (2013)

have a crucial impact on the success of their business, as well as to low willingness of entrepreneurs to realize the problems that stem from their lack of knowledge, competencies, skills, experience and poor business and social networking. In contrast, we believe that internal factors related to entrepreneurs' knowledge, skills and ability to conduct business have a very large impact on the business of entrepreneurs.

In order to identify business areas that create the greatest number of problems for entrepreneurs and constrain the development of entrepreneurship, this chapter will start from the results obtained by surveying entrepreneurs (NARD 2013), which are shown in the Fig. 2, and the results of our previous studies (Ivanovic-Djukic and Stefanovic 2011).

Therefore, the respondents have estimated that the key aspects of business that should be improved are: financial management (57 %), receivables collection (53 %) <sup>3</sup> and improving competitiveness in order to increase demand for their products (33 %). Since most of the respondents have mentioned these three aspects of business as the most important, we will analyze their impact on the growth and development of the entrepreneurial sector in Serbia. Bearing in mind that each of these aspects of business are complex and whose monitoring can involve a large number of indicators, we will first analyze each area individually with the help of partial indicators that are relevant for each area, after which for some of them a corresponding composite indicator will be created.

The first area of business that needs improvement is related to financial management. Deeper analysis of financial indicators points to a conclusion that during the observed period Serbian entrepreneurs experienced serious financial structure changes related to increasing the level of indebtedness, which resulted in the increase of financial risk, reduced earning capacities, increased illiquidity and

<sup>3</sup> Research has also shown that micro and small enterprises and entrepreneurs are the ones that have the biggest problems with these aspects of business, which indicates insufficient capacities of the owners of these enterprises and entrepreneurs to face the problems of financial management.

**Table 2** Financial indicators of Serbian SMEEs for the period 2004–2012

Year	Receivables turnover ratio	Current ratio of liquidity	Rate of return on average working capital	Solvency ratio	Debt ratio	Financial leverage	Interest coverage ratio
2004	3.18	0.92	10.54	0.72	0.58	1.11	6.96
2005	2.97	0.96	15.77	0.70	0.59	1.17	7.06
2006	3.05	1.01	16.80	0.73	0.59	1.12	9.65
2007	2.89	1.05	15.94	0.64	0.61	1.09	12.14
2008	2.69	1.00	12.78	0.58	0.63	1.18	6.65
2009	2.28	0.97	9.86	0.57	0.64	1.28	5.50
2010	2.15	0.96	9.48	0.56	0.64	1.24	5.25
2011	2.21	0.94	11.14	0.56	0.64	1.16	5.25
2012	1.96	1.00	9.57	0.59	0.63	1.18	5.75

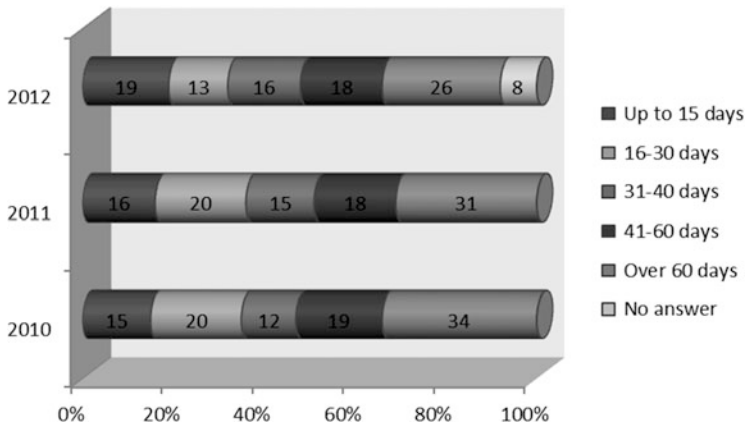
Source: Authors’ own calculations based on the data of Business Registers Agency—BRA (2004–2012)

insolvency of Serbian entrepreneurs, and caused gradual melting of equity and bankruptcy of a number of entrepreneurs (Ivanovic-Djukic and Stefanovic 2011). In this regard, indicators by which we will monitor the success of the financial management of Serbian entrepreneurs will be: debt ratio, the factor of financial leverage and solvency ratio. Dynamics of these indicators, as well as data on the dynamics of earning capacity and losses that caused the melting of the capital in the period from 2004 to 2012 are shown in the Table 2.

The Table 2 shows that the financial structure of the Serbian entrepreneurs was constantly changing in this period. The share of debts in the financial structure continuously increased at the expense of the equity, and indebtedness of SMEEs was getting bigger. Higher indebtedness has led to an increase in the burden of business performance by financial expenses (as evidenced by interest coverage ratio that decreased gradually, starting from 2008) and an increase in financial risk (which is here presented by financial leverage), which resulted in reducing earning capacities and reducing liquidity and solvency of Serbian SMEEs.

Financial leverage in Serbian SMEEs in 2009 has risen sharply, indicating a very high financial risk and pronounced negative effects of the poorly composed financial structure on business performance. This has led to a reduction in the earning capacity of Serbian entrepreneurs and the slowdown of their growth, as well as the reduction in solvency, liquidity and creditworthiness of Serbian entrepreneurs. First of all, insufficient debt-equity ratio increased insolvency of Serbian entrepreneurs by 22 % in the period from 2004 to 2012 and increased debt asset ratio. It follows that the indebtedness of SMEEs in the Republic of Serbia in terms of long-term debts and current liabilities, year after year, permanently increased. Similar trends occurred in the movement of liquidity and creditworthiness of Serbian entrepreneurs.

Another severe problem of Serbian SMEEs is related to collecting receivables. Entrepreneurs in the RS are faced with a very long receivables collection period,



**Fig. 3** Dynamics of receivables collection for the period 2010–2012. *Source:* NARD (2010, 2011, 2012) (modified)

and short accounts payable deadlines. Movement of receivables collection period of Serbian SMEEs for the period 2010–2012 (for which data are available) occurred as shown in Fig. 3.

Given the fact that the data on a number of receivables collection days have been presented in NARD reports since 2010, while the time series of other indicators have been monitored for the period 2004–2012, in order to obtain data that would allow statistical analysis of time series of relevant indicators, we chose to monitor the receivables turnover ratio, since it indicates the efficiency of collecting receivables in a firm. As shown in Table 2, receivables turnover ratio decreased by 62 % in the period from 2004 to 2012. The reduction of this ratio indicates that in the SMEE sector in Serbia, year after year, an increasing share of sales revenue remained uncollected at the end of the year, meaning that income from sales became relatively smaller and smaller. Reducing the inflow of sales income (as a key source of funding) caused a decrease in the ability to pay due accounts receivable. This is confirmed by the liquidity ratio that has been recording gradual decline since 2007. Reduced liquidity due to difficulties in collecting receivables forced entrepreneurs to take out loans for maintaining liquidity, often at very high interest rates. Interest expense led to a reduction in earnings per unit of average engaged working capital, as seen by the rate of return on working capital. As can be seen from the Table 2, in the period from 2006 to 2010 this rate gradually decreased, while in 2011 and 2012 it recorded a gradual increase.

The last identified area of concern is related to the competitiveness of Serbian entrepreneurs. According to the World Economic Forum, Serbia is one of the least competitive European countries and its competitiveness is deteriorating. Specifically, based on the Global Competitiveness Report for 2011–2012, Serbia was ranked 95th out of 142 countries. In the Report for 2012–2013, it was ranked 95th among 144 countries, whereas in the Report for 2013–2014 it was ranked 101st out of 148 countries (WEF 2013). Given this data, we have chosen to monitor



cost competitiveness indicators of Serbian SMEEs. Cost competitiveness of the non-financial sectors of the Serbian economy is monitored by way of the average labor cost, labor costs per hour and unit labor costs,<sup>4</sup> given in Table 3, on the basis of which we have chosen to calculate the cost competitiveness composite indicator of Serbian SMEEs.

Based on all these data on the dynamics of selected internal and external factors of business and development of the SMEE sector in Serbia, we established statistical research model and performed statistical analysis, which follows below.

### 3 Hypotheses, Statistical Model and Discussion of Results

Research on the state, needs and problems of SMEEs in Serbia, conducted on the basis of the survey of 2555 SME owners and entrepreneurs in Serbia, identified the following as the most important requirements for business improvement: more support from the government, fewer government restrictions and greater support from commercial banks. At the same time, entrepreneurs attached the least importance to better management. In addition to the undoubtedly great influence of government financial incentives, reduced administrative procedures and favorable conditions of lending provided by commercial banks in the form of interest rates on the establishment, growth and development of the SME sector in Serbia, that is, external factors (Stefanovic et al. 2013), the authors believe that the growth and competitiveness of SMEEs in Serbia requires strengthening entrepreneurs' internal forces. In addition to the development of innovative and knowledge-intensive products and higher exports, the growth of the entrepreneurial sector in Serbia is largely influenced by internal factors reflected in better financial management, efficient receivables collection and higher cost competitiveness. Taking this into consideration, the following research hypotheses have been established:

- H1: Financial management in the field of financial structure design affects the growth of SMEEs in Serbia.
- H2: More efficient receivables collection encourages the growth of SMEEs in Serbia.
- H3: Increased cost competitiveness affects the growth of SMEEs in Serbia.
- H4: Higher state financial incentives, particularly from the Development Fund, encourage the growth of SMEEs in Serbia.
- H5: Improved lending conditions of banks through lower interest rates have a positive impact on the growth of SMEEs in Serbia.
- H6: Reducing administrative procedures affects the growth of SMEEs in Serbia.

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<sup>4</sup> Unit labor costs (ULC) stand for the average labor cost per unit of production expressed as the ratio of gross earnings to gross domestic product, that is, ratio of total labor costs to real output. Economy with lower ULC can be considered competitive and is able to increase its international market share.

**Table 3** Cost competitiveness indicators of Serbian SMEEs

Indicator	2004	2005	2006	2007	2008	2009	2010	2011	2012
Average labor costs (in thousands of RSD)	239.4	333.9	428.6	487.3	552.1	599.1	640.8	712.9	783.8
Labor costs per hour (in RSD)	114.6	159.9	205.3	233.4	263.4	286.9	306.9	342.7	375.4
Unit labor costs	0.505	0.580	0.631	0.614	0.619	0.672	0.639	0.639	0.627

Source: MoE, MoRDLS, NARD (2013) (modified)

It should be noted that, due to a large number of indicators reflecting the efficiency of financial management or financial structure design, a composite indicator was created, as was the case with cost competitiveness. Efficiency in receivables collection was monitored through receivables turnover ratio. In considering the indicators pointing to the growth and development of the entrepreneurial sector, we started from a number of possible indicators (the number of newly established SMEEs, the number of new employees in SMEEs, turnover, gross value added). However, in view of the comprehensiveness of the SMEE sector, we decided to monitor the growth of the entrepreneurial sector through gross value added (GVA). Therefore, the gross value added was identified as the dependent variable and observed for the period 2004–2012 while the factors were defined as independent variables. Accordingly, the statistical model is based on the following variables:

Dependent variable: Gross value added of SMEEs.

Independent variables:

- The composite indicator of financial management
- Receivables turnover ratio
- The composite indicator of cost competitiveness
- Financial incentives from the Development Fund of the Republic of Serbia
- Interest rates on loans from commercial banks
- Number of administrative procedures when establishing a business.

By applying principal component analysis and linear aggregation, two composite indicators have been created: financial management and cost competitiveness.

The composite indicator of *financial management* consists of three variables:

- Interest coverage ratio
- Capital structure (debt ratio)
- Financial leverage

The composite indicator *cost competitiveness* consists of three variables:

- Average labor costs
- Labor costs per hour
- Unit labor costs

Prior to the implementation of the principal component analysis, which belongs to the methods of factor extraction in factor analysis, all the above variables were normalized. The modified method of min-max transformation (in accordance with the methodology of the World Economic Forum) was applied. Equation on the basis of which the normalization of variables was performed is:

$$TI_{ji} = 6 \times \frac{I_{ji} - I_j^{min}}{I_j^{max} - I_j^{min}} + 1 \tag{1}$$

where:

**Table 4** Composite indicators

Year	Indicator of financial management	Indicator of cost competitiveness
2004	1.710	1.000
2005	2.726	2.866
2006	2.908	4.550
2007	3.925	5.410
2008	4.003	6.168
2009	5.108	6.341
2010	4.592	5.814
2011	3.703	6.638
2012	3.747	6.426

Source: Our own calculations

$TI_{ji}$ —transformed value of variable  $j$  in year  $i$

$I_{ji}$ —the value of variable  $j$  in year  $i$

$I_j^{min}$ —the minimum value of variable  $j$  in all years

$I_j^{max}$ —the maximum value of variable  $j$  in all years.

After normalization with the help of principal component analysis, the weights of each variable in the structure of composite indicators were determined. The basis for calculating the weights were factor loadings obtained in applied analysis. After linear aggregation, the values of composite indicators were obtained (Table 4).

Correlation coefficients between the dependent and independent variables were calculated first, and the results are shown in the Table 5.

The Table 5 shows that the strongest direct correlation exists between GVA and incentives from the Development Fund of the RS (which is shown by the correlation coefficient amounting to 0.833). This means that the increase in approved funds from the Development Fund during the observed period was followed by an increase in GVA of the SMEE sector and vice versa. The statistical significance of this correlation is also very high (actual significance level is 0.005), so that the conclusions can be generalized, and we can say that the annual amount of approved funds from the Development Fund is in direct correlation with the amount of gross value added of the SMEE sector. In contrast, the low level of correlation was characteristic of banks' interest rates on loans and GVA (the correlation coefficient is  $-0.267$ ), meaning that a decrease in interest rates during the period was accompanied by an increase in GVA. Such a weak correlation can be explained by the fact analyzed above, implying that due to unfavourable lending conditions and the long-term impact of the economic crisis, entrepreneurs in Serbia are not inclined to take loans out, relying more on their own resources in business development. Similarly, the reduction of administrative procedures was accompanied by an increase in GVA of the SMEE sector in Serbia (the correlation coefficient is  $-0.374$ ).

With respect to internal factors, the strongest correlation exists between GVA and indicators of financial management (correlation coefficient is 0.75) and cost competitiveness (0.617), while a slightly lower correlation exists between GVA and

**Table 5** Correlation coefficients

	GVA	Receivables turnover ratio	The composite indicator of financial management	Financial incentives from the Development Fund	Lending interest rate	Number of administrative procedures	The composite indicator of cost competitiveness
Receivables turnover ratio	<b>-0.467</b> (0.205)	1.000					
The composite indicator of financial management	<b>0.750*</b> (0.020)	-0.633 (0.067)	1.000				
Financial incentives from the Development Fund	<b>0.833**</b> (0.005)	-0.450 (0.224)	0.883** (0.002)	1.000			
Lending interest rate	<b>-0.267</b> (0.488)	-0.600 (0.088)	-0.100 (0.798)	-0.417 (0.265)	1.000		
Number of administrative procedures	<b>-0.374</b> (0.321)	0.882** (0.002)	-0.499 (0.172)	-0.321 (0.400)	-0.615 (0.078)	1.000	
The composite indicator of cost competitiveness	<b>0.617</b> (0.077)	-0.850** (0.004)	0.567 (0.112)	0.483 (0.187)	0.367 (0.332)	-0.811** (0.008)	1.000

Note: Realized level of significance (p-value) are given in parentheses

\*Correlation is significant at the level 0.05

\*\*Correlation is significant at the level 0.01

**Table 6** Regression analysis

Model	Unstandardized coefficients		Standardized coefficients	T	Sig.
	B	Std. error	Beta		
(Constant)	-12,902.801	13,252.163		-0.974	0.433
Receivables turnover ratio	4275.087	3439.339	0.798	1.243	0.340
Financial incentives from the Development Fund	20.449	21.425	0.474	0.954	0.441
Lending interest rate	140.114	320.072	0.139	0.438	0.704
Number of administrative procedures to register a business	-302.093	503.037	-0.275	-0.601	0.609
The composite indicator of financial management	-406.138	1036.039	-0.172	-0.392	0.733
The composite indicator of cost competitiveness	1595.764	444.160	1.264	3.593	0.069

receivables turnover ratio (-0.467). This means that GVA growth was accompanied by an increase of the composite indicator of financial management, as well as an increase in the composite indicator of cost competitiveness. Since the significance level of each of these indicators is  $>0.05$  the conclusions cannot be generalized, but applied only to the specific period of time from 2004 to 2012.

The results of applied regression analysis show that the estimated model was representative since the coefficient of determination was high and amounted to 0.96, the same as the adjusted coefficient of determination which amounted to 0.839. The estimated values of parameters of the created regression model are given in the Table 6:

Table 6 shows the impact of changes in each of the independent variables on the GVA in the observed period. The increase in the receivables collection ratio by one turnover led to an average increase in GVA by 4275 million euros in the observed period. Given that the receivables turnover ratio decreased (which means that the receivable collection period prolonged) in the observed period, this factor had an extremely negative impact on the GVA and the growth of the SMEE sector, and vice versa, thus confirming the H2 hypothesis.

The situation is similar with the effect of other internal factors. Due to the increase in the debt ratio, which caused an increase in interest coverage ratio and triggered a negative effect of financial leverage, financial management worsened and had a negative impact on GVA, which is confirmed by a negative regression coefficient attached to the composite indicator of financial management. More specifically, this coefficient shows that the deterioration in indicators of financial management by 1 index point in the observed period led to an average reduction of GVA by 406 million euros. This confirms the hypothesis H1. In addition, the increase in cost competitiveness indicators of Serbian SMEEs also affected GVA. More specifically, the increase in the composite indicator of cost competitiveness by 1 index point caused an increment of GVA by 1595.764 million euros, which proves the hypothesis H3.

When analyzing the impact of external factors, the following conclusions can be drawn. Increasing the amount of funds approved by the Development Fund by 1 million euros caused an average increase in GVA by 20 million euros in the observed period. This proves hypothesis H4. The increase in banks' interest rates on loans led to an average increase in GVA by 140 million euros in the observed period. Therefore, hypothesis H5 cannot be confirmed. This result can be explained by the fact that during the observed period interests alternately increased and decreased in certain years, whereas GVA constantly grew. Increasing the number of administrative procedures in the course of establishing business led to an average reduction of GVA by 302 million euros in the observed period, which proves the hypothesis H6.

## 4 Chapter Summary

It can be concluded that the SMEEs in Serbia in the past had faced a number of problems which mainly had a constraining effect on the development of this sector. Analysis of the impact of external factors confirmed the undeniable fact that the impact of state incentives (primarily financial) is of great importance for the development of the entrepreneurial sector in Serbia. Increasing incentives from the Development Fund (in the form of grants or soft loans for fixed and current assets, establishment of start-ups, encouraging women's entrepreneurship and other incentives) leads to an increase in the GVA, growth and the development of SMEEs. Therefore, the state should make an effort to ensure greater amounts from this fund in the future. In addition to state loans, efforts must be directed towards improving commercial banks' credit conditions for entrepreneurs. Although no statistically significant relationship between banks' credit conditions and GVA has been determined, this result is mainly attributable to variation in interest rates on loans from year to year and a low propensity Serbian entrepreneurs to borrow due to poor credit conditions, rather than to the actual absence of these connections. A similar situation exists in terms of the number of administrative procedures which have a negative effect on the growth and development of the entrepreneurial sector. In this regard, the government has already taken some steps towards reducing these regulations (the so-called program of the "regulatory guillotine").

Besides the negative impact of the factors from the macroeconomic environment, the slowdown of the growth in the SMEE sector was also affected by a large number of internal factors. In this study we investigated the impact of factors related to financial management, receivables collection and cost competitiveness because in the opinion of SME managers and entrepreneurs, improvement of these areas can make the greatest contribution to the development of the SMEE sector. With the help of the regression model we confirmed that the changes in the financial structure, caused by an increase in debt ratio, created a number of problems for entrepreneurs (liquidity reduction, solvency reduction, reduced earning capacity,

increased losses above capital etc.), which negatively affected the GVA in the period from 2004 to 2012. In this regard, entrepreneurs in Serbia can be advised to take care of the effects of financial risk when taking out loans in the future, since any borrowing in a situation where the average rate of interest is higher than the rate of return on operating assets causes a negative impact of financial leverage on profitability and liquidity, which is more pronounced if the debt ratio is higher.

Furthermore, this chapter has shown that difficulties in receivables collection created numerous problems to SMEs in Serbia in the period from 2004 to 2012, so that the reduction of receivables turnover ratio (caused by extending receivables collection period) negatively affected GVA. In this regard, entrepreneurs and managers in the RS may be advised to check customers' liquidity and solvency when allowing deferred payment. Economic policy makers may be advised to impose harsher sanctions for non-compliance with contractual obligations relating to the payment deadlines.

In addition, the study has shown that the serious problems for Serbian entrepreneurs were created by cost increase, that is, decrease in cost competitiveness, which had a negative impact on the GVA. Given that the decrease in cost competitiveness, caused by an increase in average labor costs, labor costs per hour and unit labor costs, had a negative impact on the growth and development of the entrepreneurial sector in Serbia. For better international positioning of Serbian SMEs in the future, more efficient exploitation of resources in doing business that lead to reduced costs, will be of great importance.

One of the important constraints to the model concerns the fact that it is designed on the basis of available statistical data. Due to a lack of appropriate data for the analyzed period from 2004 to 2012, we were not able to analyze the impact of all relevant factors (for example, number of receivables collection days). What is more, an indicator of financial management can be seen through some other indicators, but not through the analyzed indicators that are related to financial structure design and that we decided to use to achieve the balance of indicators in the model. Since the results of the analysis showed a low level of significance of the observed factors (significance  $>0.05$ ), conclusions regarding the hypotheses cannot be generalized, thus they can only be referred to the observed period.

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