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Corruption as an Obstacle for Starting a New Business in Serbia

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Abstract. This paper examines the perceptions and actual experiences of SME owners and entrepreneurs in Serbia regarding the impact of corruption on the establishment of new businesses. It is based on primary research conducted in 2015 on a sample of 250 entrepreneurs and owners of small and medium-sized enterprises in Serbia. An original questionnaire was used for data collection. Our research shows that corruption is clearly present in Serbia as almost 60% of business owners in our sample admits to have used some form of corruption when they started their own business. Areas important for starting a business in which corruption is most present are: obtaining subsidies, grants, and other favourable sources of financing for starting a business; issuing construction permits; and registering property. The presence of corruption in these and other areas that are important for starting a business affect the time needed to start a business, the costs of its registration and provision of initial capital.

Keywords: Entrepreneurs, small and medium-sized enterprises, corruption, Serbia.

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1. Introduction

Entrepreneurial activity, which is reflected in the establishment and development of new businesses, is one of the key driving forces of economic growth (Smallbone and Welter 2001; Puffer et al. 2010; Ivanović-Djukić et al., 2018). Particular significance of newly established enterprises lies in the fact that they are dynamic, quick to learn, and rapidly changing (Čučković and Bartlett, 2007), thereby increasing their competitiveness, as well as competitiveness of the entire

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economy (Koster and Rai, 2008; Valliere and Peterson, 2009; Burke, 2011; Gruenhagen and Davidsson, 2018).

However, starting a new business may be affected by a number of constraints. A serious constraint to starting a new business is to obtain start-up capital (Moore et al. 2008; Kerr and Nanda, 2009). Bank loans for start-ups are often unfavourable, due to the fact that entrepreneurial business brings about high risk and a long period of return on investment in innovation (Berger et al., 2011; Shen et al., 2012). In addition, entrepreneurs have limited access to capital markets, and ensuring sources of funding can be a serious problem for the development of entrepreneurship (Sievers and Vandenberg, 2007). Oftentimes, entrepreneurs have difficult access to modern technology and the market. They may also lack information on market opportunities, standards and regulations, which may jeopardize the effectiveness and efficiency of operations, flexibility, and, ultimately, affect the amount of profits (McLarty et al., 2012). Tax policy, legal and administrative procedures, and legislation in the field of entrepreneurship may also be limiting factors to starting a new business. These challenges can be even greater in transitional countries such as Serbia, due to the inherited structural and other economic problems of the past. One of the serious macroeconomic problems of countries in transition is corruption.

Corruption in Serbia is present in all spheres of economy and society (Transparency International, 2018), so that it has an impact on entrepreneurship. Corruption, defined as "the abuse of entrusted power for private gain" (Transparency International, 2019), distorts resource allocation by transferring it into the hands of private elite, which leads to increased inequality and poverty, reduces efficiency of the public sector (Misangyi et al., 2008), and may have a negative impact on economic trends, including the establishment of new businesses. First of all, because of corruption, civil servants, driven by personal benefits, make decisions contrary to the public interest, which may increase the costs of establishing new businesses, extend the time of starting a business, encourage unfair competition, direct favourable sources of finances into the wrong hands, and in a number of other ways discourage development of entrepreneurship (Budak and Rajh, 2014; Hanousek and Kochanova, 2016). However, there are also claims that corruption can have a positive effect on entrepreneurship (Vial and Hanoteau, 2010) as "greasing the wheels" can shorten the time and reduce the costs of starting a new business (Vial and Hanoteau, 2010; Dreher and Gassebner, 2013).

Although the impact of corruption on entrepreneurship is a topical issue, especially in the countries in transition, it is not much studied in literature. One notable exception is the study by Budak and Rajh (2014) who investigated business people's views on the ways in which the business sector is dealing with corruption as well as on the perceived role of private and government agents in curbing corruption in seven countries of the Western Balkans. Also, Williams et al. (2017) investigated how the institutional environment impacts the nature of

corruption affecting entrepreneurship in transition economies. Both studies analyzed the impact of corruption on entrepreneurship and doing business in general, without specifically focusing on establishment of new businesses. The papers that examine the impact of corruption on the establishment of a new business are rare. In addition, there is not much empirical evidence that the relationship between these phenomena is strong and statistically significant. Therefore, in this paper we examine whether corruption affects the establishment of new businesses, and we identify areas in the field of starting a new business where corruption is most pronounced. We do so by analyzing the perceptions and opinions of Serbian entrepreneurs on the impact of corruption on the establishment of new businesses, and by checking whether the actual experience of entrepreneurs and their perceptions match.

Our contribution to existing literature is in researching the impact of corruption on the process of starting new businesses. At present, there is a number of papers that examined the link between corruption and doing business in general (Tonoyan et al., 2010; Budak and Rajh, 2014; Hameed and Magpile 2014; Wiliams et al., 2017), but papers, especially empirical studies that analyze the impact of corruption on the establishment of new businesses are rare. Given that the level of corruption is relatively high in countries in transition, such as Serbia (Transparency International, 2018), and that it affects the functioning of all segments of the economy and society, we consider that researching this issue is extremely important. The unique element of our study is the analysis of previous personal experience of SME owners related to certain forms of corruptive behaviour used during the process of starting a business, whereas most of the previous papers analysed only attitudes and perceptions of the respondents concerning corruption (e.g. Campos et al., 2010b).

Additionally, the aim of the paper is to propose measures that can mitigate the negative effects of corruption and thus make the environment more favourable for establishment of new businesses. A further aim of this paper is to propose measures that can influence the attitudes and behaviour of the population in Serbia (potential entrepreneurs), to reduce their propensity to corruption.

The paper will first give an overview of literature on the impact of corruption on the establishment of new businesses. Section 3 will derive and present hypotheses. Section 4 will explain the research methodology and present and discuss the results. The final part of the paper will present concluding remarks and recommendations for macroeconomic policy makers.

2. Literature Review

Corruption is the abuse of a position, power, or procedures to achieve some personal or group interests. It implies violation of the established rules, practices, and procedures, in order to achieve personal gain, to the detriment of the public interest (Osuagwu, 2012). In addition to bribery and similar simpler modalities of corrupt rent-seeking, sophisticated corruption arrangements may include political financing, conflict of interest, lobbying, and privileging, such as recruitment of staff or loyal partners to ensure institutional and political support.

Regardless of whether it consists of "small-scale" or "large-scale" arrangements, corruption can create plenty of problems in society. First of all, it hinders social and economic development through increased inequality and poverty, as bribes and other forms of corrupt behaviour increase the costs of public services. At the same time, this leads to an increase of resources which a country needs to cope with costs and risks of corrupt behaviour, as well as a reduction of state revenues, thus limiting funds available to public services such as health, education, and infrastructure (Swaleheen, 2011). Dissatisfied civil servants in these services, in order to increase income, receive a bribe and exhibit different behaviour towards those who offer and those who do not offer bribes, thus, affecting the daily life of citizens and the development of the business sector (Budak and Rajh, 2014).

Furthermore, corruption increases transaction costs (Budak and Rajh, 2014). Instead of performing their core activities and investing in innovation and development, enterprises in a corrupt business environment need to spend significant financial resources and time to fight corruption, which reduces their effectiveness. At the same time, this creates a business environment that discourages the establishment of new businesses.

Corruption commission, which is required to enter the market, ensure compliance with regulations, cope with excessive bureaucracy, or obtain political cover, increases the costs of establishment (Aidt and Dutta, 2008; Ateljević and Budak, 2010; Hameed and Magpile 2014). Also, potential founders can be exposed to corruption pressure on the market due to unfair competitive advantages acquired by another company which offers a corruption agreement to third parties. Newly established companies doing business with the public sector use corrupt practices more often because public procurement is particularly vulnerable to corruption (Ateljević and Budak, 2010). Therefore, corruption can be a barrier to starting a new business in different ways.

In addition, the presence of corruption, as an integral element of the business environment, may become part of the national culture and it shapes the consciousness and behaviour of individuals in a country (Welter and Smallbone, 2011; Wiliams et al., 2017). In countries where corruption is extremely pronounced, business people and potential entrepreneurs with experience of bribery, justify corruption as a necessary mechanism to start a business, and use it at every stage of the entrepreneurial process (Tonoyan et al., 2010). At the same time, for individuals who have aversion to corruption, awareness of the need for any form of illegal behaviour can be the cause of withdrawal from starting a new business, even when it promises high growth rates. This situation may make innovative individuals (who have good ideas for a new business or original solutions that can grow into a fast-growing company) give up entrepreneurial activities or work in another business environment (where corruption is less frequent), which limits the development of entrepreneurship.

Contrary to the claims and arguments that corruption acts as a disincentive to starting a new business, there are also explanations based on which it can even have a positive impact. In countries with a high level of corruption, officials can easily be bribed to issue a permit, potentially allowing entrepreneurial activity and, in particular, the company's market entry. Corruption may, for example, also reduce queues in the public service, and shorten the time required for starting a new business (Antunes and Cavalcanti, 2007). Méon and Sekkat (2005) summarize arguments in favor of the "grease" hypothesis, as a stimulus to starting a new business. Firstly, corruption can increase the speed at which bureaucrats issue permits necessary to start a new business, so that it stimulates the acceleration of the process (Méon and Weill, 2010). Secondly, corruption can increase their income and increase their motivation to work, so that they work more efficiently (among other things, in the area of registration of new companies) (Méon, Schneider and Weill, 2011).

Nevertheless, empirical studies at the macro level generally show that corruption has a negative impact on economic growth and all economic trends. Campos et al. (2010a) carried out econometric meta-analysis of data from 41 studies (with 460 estimates), and showed that, with significant variation in explanations and analyses, ultimately, corruption has a negative impact on economic development. Méon and Sekkat (2005) examined the impact of corruption on investment, efficiency of state administration, and economic growth on a sample of 63 countries, and showed that corruption has a negative impact on each of these elements, but that this influence is different in different countries. In further research, Méon and Weill (2010) conducted panel analysis on a sample of 69 countries (developed and developing), and showed that corruption reduces the overall efficiency of the state and brings a variety of adverse effects in the countries in which institutions function well, but that it may also have some benefits for the efficiency of state administration in the countries where institutions are inefficient. Mallik and Saha (2016) investigate the corruption-growth relationship in a sample of 146 countries for the period 1984-2009. The findings reflect that corruption is not always growthinhibitory; for some countries it is growth-enhancing, which supports the "greasing-the-wheels" hypothesis. Entrepreneurs are significantly affected by the institutional environment and, if institutions are weak, entrepreneurs can become exposed to and embroiled in corrupt practices (Xheneti et al., 2013; Williams and Vorley 2015; Williams et al., 2017).

So, empirical research shows that the impact of corruption on the efficiency of public administration, public revenues, investment, and other economic elements is mostly negative, especially in countries where public institutions are efficient. In countries with underdeveloped institutional environments, corruption may bring some benefits, but, ultimately, has negative effects. A high level of corruption in the business environment increases uncertainty and risks of failure, and discourages establishment of new business.

Empirical research of the impact of corruption on the establishment of new businesses is limited. Campos et al. (2010b) focused on a sample of 186 Brazilian companies to examine the key barriers to starting a new business. They showed that corruption is a serious barrier to starting a new business (entry of new firms); even 70% of managers surveyed believe that corruption is the most serious barrier (offered as one of 15 factors) for the establishment of new companies. Dreher and Gassebner (2013) used a sample of 43 countries to check whether administrative procedures affect the establishment of new businesses and whether corruption in administrative procedures can encourage or discourage establishment of new business. They showed that a large number of administrative procedures and a high level of initial capital needed to start a business limit the development of entrepreneurship. They also demonstrated that, at the maximum level of regulation, corruption increases entrepreneurial activity. In other words, in countries with plenty of restrictions, corruption can be seen as useful. However, they distance themselves and say that this finding should be interpreted with caution, because a great number of entrepreneurs entering the market are not necessarily useful for society, especially since research shows that, in developing countries, necessity-based entrepreneurship prevails, which does not have a significant impact on economic growth (Valliere and Peterson, 2009).

A limitation of the Dreher and Gassebner study is that it does not take into account the long-term effects of those newly established companies that arose by using corruption on economic growth, because they might have been formed (as "phantom" companies) just to enable corrupt officials to get the rent. If regulations effectively block the entry of firms likely to fail, or the ones whose offer of goods and services the government wants to stop, then higher entrepreneurial activity rates that result from evading these regulations through corruption, can be regarded as socially wasteful (Dreher and Gassebner 2013). Klapper et al. (2006) support this thesis in their research. They studied the impact of the business environment on starting a new business in Western and Eastern Europe, and showed that, in the developed countries of Europe, where regulations are most effectively applied, administrative procedures and corruption do not have a great influence on starting a new business. Unlike them, in developing countries and in countries with a high degree of corruption, administrative procedures have a great influence on starting a new business, and if they increase the cost of establishment, potential founders increasingly use various forms of corrupt behaviour to avoid them and facilitate the process of establishment.

All in all, it is still not clear whether corruption affects the establishment of new businesses in countries in transition and whether the impact is positive or negative. Therefore, this paper will use statistical methods to analyze the impact of corruption on the establishment of new businesses, based on a sample of small and medium-sized enterprises and entrepreneurs in Serbia. What is more, the analysis will also focus on the areas important for starting a new business where corruption is most present in Serbia, based on the actual experiences of entrepreneurs.

3. Hypotheses

The previous section suggests that corruption has become a very serious problem, which may hamper the establishment of new businesses. However, corruption is not equally represented in all countries of the world, so its influence on starting a business and other economic trends is not the same in all countries and regions. One of the reports that monitors the level of corruption at the national level is the Global Corruption Perceptions Index (CPI – Corruption Perceptions Index), published by Transparency International (2018), which is presented in Table 1 for Western Balkan countries. This index measures the degree to which corruption is perceived in the public sector (corruption of government officials and public servants), on the basis of studies that examine expert opinions of representatives of institutions and business people.² Although this index is often used in empirical studies to monitor corruption, there are certain methodological problems. Until 2011, the methodology applied relied on the scoring in the range of 0 to 10, while in 2012 the methodology changed, and scoring from 0 up to 100 was introduced.

Another often used indicator of corruption is contained in the reports of the World Bank on monitoring competitiveness (The Global Competitiveness Report) (Schwab, 2014). These reports, in addition to factors used to calculate the index of competitiveness of each country, analyze the most problematic factors for doing business in the surveyed countries. One of the 15 identified factors that may be problematic for doing business in some countries is corruption.³ From the list of 15 factors, respondents in each country were asked to choose the five most problematic factors for doing business in their country and to rank them from 1 (most problematic) to 5 (least problematic).

^{2.} In the year 2017, New Zealand and Denmark rank highest with scores of 89 and 88, respectively. Syria, South Sudan and Somalia rank lowest with scores of 14, 12 and 9, respectively. So, a higher score of this index means a lower level of corruption. The best performing region is Western Europe with an average score of 66. The worst performing regions are Sub-Saharan Africa (average score 32) and Eastern Europe and Central Asia (average score 34). Retrieved from: https://www.transparency.org/news/feature/corruption_perceptions_index_2017#table

^{3.} Other factors are: access to financing, inefficient government bureaucracy, political instability, poor work ethics, government instability, inadequate infrastructure, tax rates, inadequate education of labor, complexity of tax regulations, crime and theft, regulations on foreign currencies, restrictive labor regulations, lack of innovative capacity, and inflation.

Both reports point to the fact that corruption has not spared any country in the world no matter how the world has become modern and prosperous. Yet it is extremely pronounced in transition countries, which include most of the countries of the Western Balkans, as can be seen in Table 1.

Country	'05	' 06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17
Albania	2.4	2.9	2.9	3.4	3.2	3.3	3.1	33	31	33	36	39	38
Bosnia and Herzegovina	2.9	2.9	3.3	3.2	3.0	3.2	3.2	42	42	39	38	39	38
Croatia	3.4	3.4	4.1	4.4	4.1	4.1	4	46	48	48	51	49	49
Macedonia	2.7	2.7	3.3	3.6	3.8	4.1	3.9	43	45	44	43	37	35
Montenegro	2.8	3.0	3.3	3.4	3.9	3.7	4	41	44	42	44	45	46
Serbia	2.8	3.0	3.4	3.4	3.5	3.5	3.3	39	42	41	40	42	41

Table 1: Corruption Perceptions Index in the countries of the Western Balkans in the period from 2005 to $2017\,$

Source: Transparency International (2018).

Note: A higher value implies a lower level of corruption.

The Western Balkans is seen as a region with a high level of corruption. Corruption is seen as a major obstacle to investment in the region and for efficient operations (EUROCHAMBRES, 2009). Reports on corruption show that corruption is high in all countries of the Western Balkans, and that no country has met the criteria in the fight against corruption. Although there is a common view on the regional presence of corruption and its negative impact on the development of the business sector, there are significant differences in the business environment. In this paper, the focus will be on Serbia.

Corruption in Serbia most often refers to bribery, as a form of petty corruption, which continues to be a daily reality in Serbia and has a significant impact on the relationship between citizens and government officials.⁴ In addition to bribery of government officials, there is "business-to-business" bribery, aimed at obtaining some benefits.⁵ Approximately one in seven companies pays bribes to secure better prices (14.7%); in 8.8% of cases in order to obtain specific

^{4.} The average level of bribery in Serbia amounts to 6.6% (citizens' transactions with state officials) (Bisogno et al., 2013). Payment can take various forms: money, goods, food and drink, valuables, or explicit exchange of benefits. In the Serbian business world, cash payments, as well as the provision of food and drink, are the most important forms of bribe among private sector entities, as well as between businesses and public officials. However, an exchange of benefits also plays an important role when it comes to illegal deals between business people.

^{5.} In contrast, more than one-third (36.4%) of cases involves some kind of request. Bribe is given after being requested explicitly (27.7%) or implicitly (4.1%), while in 4.6% of cases, a third party is associated with the request for bribe. It is notable that bribe is mostly paid after delivery of goods or services concerned (56%), while about one-quarter (26.8%) is paid before the service. Furthermore, 7.2% is paid at the same time or one part before and one part after the service, and almost every of ten (9.9%) business representatives does not remember when the bribe was delivered (Bisogno et al., 2013).

information, and in 7.1% of cases to enter into a contract⁶ (Bisogno et al., 2013, p. 11). Each of these forms of bribery creates unfair competition that limits the operations of business entities that do not use bribery, but at the same time creates an unhealthy business environment that discourages the establishment of new businesses.

Corruption in Serbia is present in all aspects of business life and it can affect a large number of segments significant for starting a new business. In general, regulations and administrative procedures are key areas in which the interests of business people and civil servants sharply contrast each other, and in which a variety of opportunities for corruption occur. The higher the number of procedures necessary for establishment, the greater the opportunity for public officials to respond to corrupt behaviour is and the greater the likelihood that the potential founders of enterprises and entrepreneurs will engage in corruption with a desire to "accelerate" things. In Serbia, if individuals decide to start their own business, the first problems and difficulties may arise when registering businesses due to overly complicated and lengthy administrative procedures. In order to mitigate the negative effects of complex administrative procedures (reduce costs and shorten the time of establishment), a number of entrepreneurs in Serbia try to solve the problem by using different forms of corruption. In recent years, the process of registering new companies has become easier, and the time required for establishment shortened (World Bank 2019). Amendments to the Law on Enterprises and the Law on Private Entrepreneurs simplified registration procedures. Furthermore, the costs of establishment have been reduced. However, the problem can occur if establishment requires permits to build new facilities or various other permits.

A significant problem in connection with the establishment of new businesses lies in obtaining construction permits for the construction of buildings, which entrepreneurs often face when they need to expand their business or build a new production capacity and office space. New legislation has been passed in order to accelerate and simplify this procedure (World Bank 2019). However, as is the case with a large number of new regulations, development and their proper application in practice take time, which creates numerous obstacles. This may make the process of establishing a new company significantly more expensive and prolonged. This is especially the case if it is necessary to obtain multiple permits from different administrative bodies. The problem is further complicated by the fact that property relations in the cadastre in Serbia are not well-arranged. To speed up the process, a large number of potential entrepreneurs resort to various forms of corrupt behaviour, especially bribing civil servants. This leads to an increase in costs of establishment, but also to the creation of bad perception

^{6.} Economic sectors in which bribery is most common are: production of electricity, gas, and water supply sector (8%), construction sector (7.3%), wholesale and retail trade (6.1%), and tourism (5%) (Bisogno et al., 2013).

of the possibility of establishment among citizens in Serbia (including potential entrepreneurs).

Similar problems occur with obtaining electricity connections, where there is also a large number of different procedures, which provide opportunities for manipulation. Entrepreneurs and owners of SMEs, often use different forms of corrupt behaviour to get the most favourable conditions for obtaining electricity connections.

So, the presence of a large number of administrative restrictions in Serbia creates the potential for corruption. Research of the United Nations Office on Drugs and Crime (Bisogno et al., 2013, pp. 37-43) shows that out of all the companies that had contacts with civil servants in the period of 12 months before the research, 17% paid bribes to a government official, which is a high percentage. According to research, the most common reason why enterprises pay bribes is to speed up the procedure related to obtaining construction permits (40.3% of all paid bribes), which shows that, due to the poor business environment and widespread government intervention, corruption in Serbia is mainly there to exercise rights, i.e. make national administration perform its duties in implementing such widespread government intervention. This view is confirmed by the finding that nearly a quarter (23.4%) of paid bribes had no specific purpose for companies that paid for them, suggesting that this is a kind of investment in the so-called friendship with government officials for the benefit of future, unspecified services, apparently aimed at accelerating administrative procedures (Bisogno et al., 2013, pp. 43-45).

An extremely serious problem in the establishment of enterprises in Serbia is to provide initial capital, so that obtaining favourable sources of financing for beginners plays a very significant role. Corruption in this area can have a dramatic impact as well. The high rate of corruption leads to much less benefits to the development of entrepreneurship than is possible, because favourable sources of funding hardly reach entrepreneurs with the greatest growth potential, but get lost in "phantom companies" that are created for getting corruption rents. Also, corruption can have a major impact on the interest of potential entrepreneurs to invest. Research shows that, in Serbia, 9.2% of SMEs have decided not to invest in major development projects, out of fear that they will have to pay bribes in order to achieve the desired goals (Bisogno et al., 2013). Taking into account that only a small part of SMEs are able to provide for higher investment, it can be concluded that corruption has a negative impact on the development of SMEs. Hence, corruption can affect business start-ups through a number of different factors.

Bearing the above in mind, our first hypothesis is:

H1: The level of corruption in Serbia is the highest in those areas where there is the largest number of restrictions on the establishment of new businesses, associated with the work of state office clerks. This hypothesis is separated into 3 sub-hypotheses:

H1a: Obtaining subsidies, grants and other favourable sources of financing is an area where the level of corruption is very high, since the provision of initial capital is identified as the biggest problem in the establishment of new SMEs in the Republic of Serbia.

H1b: Obtaining construction permits is an area where corruption is widespread, because there is a large number of administrative procedures in this area.

H1c: Registering property is an area where the level of corruption is high due to the presence of a large number of pending cadastral issues in Serbia.

A very important aspect of the impact of corruption on the establishment of new businesses is related to negative perceptions of the business environment by potential founders. It is well-known that perception is the basic factor for shaping economic behaviour of business entities. The perception of a favourable business environment, for example, creates an expectation of a positive return on investment, which is why entrepreneurs and businesses owners are more inclined to invest in such an environment than in a negative business environment. In order to effectively carry out their economic activities and to achieve business goals, entrepreneurs require a business environment with the right conditions to enable them to be productive and profitable. These conditions include the rule of law for the enforcement of contracts, certainty, the necessary regulatory framework, and functioning infrastructure. On the other hand, the absence of these conditions, or the presence of factors harmful to the business climate, is an obstacle to business and prevents the private sector from prospering and developing its full potential.

In Serbia, due to the high level of corruption, citizens have a negative perception towards the business environment. People (including potential entrepreneurs) believe that the business environment is extremely negative for the establishment and development of new businesses. Even more so, entrepreneurs perceive corruption as the fifth obstacle to their business activities (in addition to exchange rate fluctuations, complicated tax procedures, frequent changes in laws and regulations, and political instability), which acts through a number of different factors (Bisogno, 2013, p. 11).⁷ Bearing the above in mind, the second hypothesisis is:

H2: The key factors through which corruption affects establishment of new business are the provision of initial capital as well as the costs and time necessary to obtain construction permits and registering property.

^{7.} Corruption is considered as a major obstacle for more than half (52.5%) of business people, after exchange fluctuations (77.8%), complicated tax laws (61.2%), frequent changes in laws and regulations (59.3%), and political instability (52.7%).

4. Empirical Analysis

4.1. Research Methodology

The empirical analysis consists of two parts. In the first part, descriptive statistics are used to analyze the actual experiences and perceptions of the surveyed business owners (entrepreneurs and owners of small and medium-sized enterprises) with the purpose to identify areas where corruption is most present (Sections 4.2. and 4.3.). The second part of the research relates to the application of factor analysis to identify the key factors through which corruption affects establishment of new business in Serbia, based on the perceptions of the surveyed business owners (Section 4.4.). Primary research was conducted by interviewing business owners.

The sample included 250 business owners who were interviewed in 2015. 33.2% of them come from the manufacturing sector, 50.4% from the trade sector, 12.4% from the services sector and 4% of businesses were classified as other. The micro-enterprises participated with 51.6% in the sample, 32.4% were small enterprises and 16% of the companies in the sample were medium-sized enterprises. In terms of manager's age structure, 8% of managers in the sample were under 25 years old, 12.4% between 25 and 35, 38% between 35 and 45, then 33.6% between 45 and 55, and 8% of managers were over 55 year old.

4.2. Results on Actual Experiences with Corruption by Entrepreneurs

In order to test the hypotheses, we used the results of the survey of business owners from our sample. First, we analyzed the experience of business owners related to corruption. We asked them if they used some form of corruption when they started their own businesses? We found that 59.6% of business owners in our sample used some form of corruption when they started their own business. We then examined the experience of business owners related to various areas that are important for starting a business and in which they used corrupt behaviour when they started their own business. The results are shown in Table 2.

	Frequency	Percent	% based on the form of corrupt behaviour
Did not use corruption	101	40.4	
Used corruption to register firm	10	4.0	6.7
Used corruption to obtain construction permit	21	8.4	14.1
Used corruption to obtain electricity connection	10	4.0	6.7
Used corruption to register property	44	17.6	29.5
Used corruption to obtain subsidies, grants	53	21.2	35.6
Other	11	4.4	7.4
Total	250	100.0	100.0

Table 2: Distribution of different forms of corrupt behaviour

Source: Authors

The largest number of business owners from our sample used corruption to obtain subsidies, grants and other favourable sources of financing (35.6% of business owners who used some form of corruption). Hence, this is the area where corruption is most pronounced. This is a serious problem because the provision of initial capital represents the most serious constraint to the development of entrepreneurship in Serbia, and Serbia only gives a relatively small amount of financial incentives (subsidies, favourable loans, etc.). Due to corruption, even this small amount of incentives, which is aimed at start-ups, goes into the wrong hands, i.e. to entrepreneurs whose businesses do not promise high added value and employment of new workers. Even this small amount of favourable sources of financing rests for potential entrepreneurs with great ideas, based on identified market opportunities.

The next corrupt area is registering property (29.5% of business owners with corrupt experience used corruption in this area). This is due to the pending cadastral issues that are typical for Serbia. Therefore, it often takes a lot of time to determine the origin of property and transfer it to potential entrepreneurs, which is essential when starting new businesses in new commercial buildings. To save time, a large number of investors opt for different forms of corrupt behaviour, but it also increases costs because of the payment of corruption rent.

The last area where corruption is widespread is obtaining construction permits (14%). This might have been expected, since this area is connected with a large number of administrative procedures, which creates space for corruption. It is positive that many new businesses do not require construction permits (since a large number of entrepreneurs use existing facilities), so that the overall impact of this segment is somewhat smaller. However, in those areas where starting a new business requires a large number of construction permits, especially in new innovative sectors (such as, for example, the construction of facilities for the production of electricity from renewable sources), obtaining construction permits can significantly prolong the process of starting a new business, which encourages numerous investors to use different forms of corrupt behaviour or give up the idea of establishing a new business.

4.3. Results on Perceptions of Corruption by Entrepreneurs

In addition to the analysis of the experience of business owners, we examined their opinions (perceptions) about the impact of corruption on establishment of new business. Business owners from the sample were asked to score from 1 to 5 (where 1 means: Strongly disagree, and 5: Strongly agree) the offered statements about whether corruption affects individual segments essential for starting a business according to the Doing Business Report (World Bank, 2016). This Report monitors 11 areas as highly relevant for doing business, based on several indicators. We only used the indicators in the areas that are essential for starting a business. So 14 questions and answers were obtained regarding attitudes about the impact of corruption on the establishment of new businesses. These are presented in Table 3.

	Mean	Std. Deviation
(X ₁) Corruption affects time to register firm	3.064	1.163
(X ₂) Corruption can affect costs to register firm	2.980	1.519
(X ₃) Corruption affects time to obtain construction permits	3.772	1.254
(X ₄) Corruption can affect costs of obtaining construction permits	3.400	1.338
(X ₅) Corruption affects time required to obtain electricity connections	3.436	1.282
(X ₆) Corruption affects time to register property	3.732	1.351
(X ₇) Corruption helps in obtaining subsidies, grants, etc.	4.040	1.173
(X ₈) Corruption provides a better information basis regarding favourab sources of financing	ole 3.856	1.013
(X ₉) Corruption can affect getting a loan to start a business	3.112	1.446
(X ₁₀) Corruption can affect costs of goods clearance	3.568	1.433
(X ₁₁) Corruption affects time of customs clearance of goods	3.480	1.280
(X ₁₂) Corruption affects time to make court decisions	3.776	1.118
(X ₁₃) Corruption can affect costs of registering property	3.640	1.140
(X ₁₄) Corruption can affect costs of obtaining electricity connections	3.524	1.148

Table 3: Entrepreneurs' opinions on the role of corruption in the Serbian economy

Source: Authors

The attitudes of the respondents towards corruption are captured in grades from 1 to 5. We see in Table 3 that the highest average rating was given to the statement: "Corruption helps in obtaining subsidies, grants, etc." (4.04). This matches the actual experiences with corruption of entrepreneurs as 35% of

surveyed entrepreneurs who use corruption do so in this area (see Table 2). The related indicator of the role of corruption in obtaining a better information basis regarding sources of finance also gets a high score (3.856). We can conclude that obtaining subsidies and grants is an area in which corruption in Serbia is most present, in practice as well as in the consciousness of entrepreneurs. These results support hypothesis 1a.

A high rating was also given to the statement: "Corruption affects time to obtain construction permits" (3.772). This also matches actual behaviour of entrepreneurs as 14% of entrepreneurs who use corruption do so in this area (see Table 2). This means that in this area corruption is present both in practice and in the minds of entrepreneurs, in line with hypothesis 1b.

Respondents also strongly agreed with the statement "Corruption affects time to make court decisions" (average 3.776, see Table 3). In contrast to this perception of entrepreneurs, the impact of corruption on time to make court decisions is not emphasized in practice (note that the statement is absent in Table 2). This can be explained by the fact that only a small number of entrepreneurs in Serbia decide to court proceedings because of their expected long duration. For this reason, there is a discrepancy between the perceptions and experiences of entrepreneurs in this area of corruption.

High ratings were also given to the statements related to the time and costs of registering property (3.732 and 3.640 respectively). This again matches actual behaviour as 29.5% of entrepreneurs who use corruption are involved in this area; see Table 2. These results support hypothesis 1c.

The lowest average ratings were given to the statements regarding the impact of corruption on the time and costs of registering a firm (3.064 and 2.980 respectively which reflects a neutral attitude). Nevertheless, still 4 percent of our sample of Serbian entrepreneurs was involved in corruption in this area (see Table 2).

In order to verify the link between actual experiences and general opinions of entrepreneurs in the various areas of corruption, a simple correlation analysis was made. The results are shown in Table 4.

Used corruption to:							
	(1) Register firm	(2) Obtain construction permit	(3) Obtain electricity connection	(4)Register property	(5) Obtain subsidies, grants, etc.	(6) Other	
Correlation with perception counterpart	0.366	0.583	0.493	0.468	0.747	0.361	

Table 4: Correlations between actual experiences and general perceptions of Serbian entrepreneurs

Notes: The correlations refer to those between actual experiences of entrepreneurs with corruption in the six areas reported in Table 2 (and mentioned in the second row of Table 4), and the corresponding general perception variables from Table 3, as follows: Area (1) Corruption affects time to register firm and Corruption can affect costs to register firm; (2) Corruption affects time to obtain construction permits and Corruption can affect costs of obtaining construction permits; (3) Corruption affects time required to obtain electricity connections and Corruption can affect costs of obtaining electricity connections; (4) Corruption affects time to register property and Corruption can affect costs of registering property; (5) Corruption helps in obtaining subsidies, grants, etc. and Corruption provides a better information basis regarding favourable sources of financing; (6) Corruption can affect getting a loan to start a business; Corruption can affect costs of goods clearance; Corruption affects time of customs clearance of goods; and Corruption affects time to make court decisions. For each of the six areas the perception variables were averaged and the averaged perception variable was then correlated with the corresponding experience variable from Table 2.

All correlations are significant at the 1% level.

As expected, the correlations between the behaviour of entrepreneurs and their perceptions about corruption are positive and statistically significant in all segments. Still, there are interesting differences between segments. A very high correlation (0.747) was found between the perception of entrepreneurs and their behaviour in the field of obtaining subsidies and grants. This was also shown in a previous comparison. This high consistency between behaviour and perceptions, along with the high mean values for these variables in Tables 2 and 3, suggest that corruption in the area of obtaining subsidies and grants is quite ubiquitous in the Serbian economy. On the other hand, the lowest correlation is found in the area of registering a firm, which coincides with relatively low mean values in Tables 2 and 3. This suggests that corruption in the area of registering a firm is relatively less widespread in Serbia, compared to other segments of corruption.

4.4. Factor Analysis

To identify the key factors through which corruption affects the establishment of new businesses, variables from Table 3 were grouped. In this regard, factor analysis was conducted. By checking the preconditions for the implementation of factor analysis procedures, we found that mutual correlations between our 14 variables were for the most part above 0.3, while the KMO statistic was 0.718, and Bartlett's test of sphericity reached statistical significance, indicating

factorability of our set of variables. Principal components analysis indicates the presence of three components with characteristic values over 1, which explains 77% of variance. Also, Scree Plot analysis found a clear breaking point on the third component, so we opted for a three-factor approach.

In order to facilitate the interpretation of the identified three components, Direct Oblimin rotation was conducted. This rotation method revealed that all three components have a large number of high weight factors and all variables exhibit significant weights at only one of the components (Table 5). According to these results, it can be seen that there are three main groups of factors concerning the impact of corruption on the establishment of new businesses. The first group includes factors related to time, the second those related to costs, and the third involves factors related to investment (capital) required to start a business. These results support hypothesis 2.

	Component		
	Time	Costs	Capital
Corruption affects time to obtain construction permits	-0.876		
Corruption affects time to register property	-0.828		
Corruption affects time to make court decisions	-0.787		
Corruption affects time of registering a firm	-0.786		
Corruption affects time required to obtain electricity connections	-0.777		
Corruption affects time of customs clearance of goods	-0.635		
Corruption can affect costs of obtaining construction permits		0.950	
Corruption can affect costs of goods clearance		-0.864	
Corruption can affect costs of registering property		0.834	
Corruption can affect costs of obtaining electricity connections		0.824	
Corruption can affect costs of registering a firm		0.705	
Corruption provides a better information basis regarding favourable sources of financing			0.868
Corruption helps in obtaining subsidies, grants, etc.			0.894
Corruption can affect getting a loan to start a business			0.414

Table 5: Pattern Matrix

The table shows that the highest factor loading in the group related to costs (0.950) and in the group related to time (-0.876) belongs to the effect of corruption on obtaining construction permits. Thus, various forms of corrupt behaviour can affect the shortening of time needed to obtain construction permits, but increase the costs of obtaining them, because, in addition to paying official state taxes, one needs to pay rent to civil servants. The situation is similar with the registration of property, the factor loading in the group related to time being the second by weight (-0.828), and in the group related to costs the third (0.834). When it comes to costs, the impact of corruption on the costs of customs

clearance of goods and materials is significant, which can reduce the costs of registration (because bribing customs officers offers lower tariffs than anticipated) if the equipment and raw materials needed to start a business are imported from abroad. Finally, obtaining subsidies, grants, and other favourable sources of financing aimed at starting a business, as well as obtaining information about tenders for granting favourable sources of financing are identified as shaping a third relevant factor through which corruption affects establishment of new businesses in Serbia.

5. Conclusion and Policy Implications

Our research has shown that corruption is present in Serbia to a large extent. About 60% of respondents in our sample indicated to have used some form of corrupt behaviour when starting a business. Areas important for starting a business in which corruption is most present are: obtaining subsidies, grants, and other favourable sources of financing for starting a business; issuing construction permits; and registering property.

The perception of entrepreneurs about the presence of corruption generally coincides with their own experience. This is especially characteristic for receiving subsidies and grants. It is the area where, according to experience and in the opinion of entrepreneurs, corruption is the most common. The situation is similar for the areas related to obtaining building permits and registering property. For all these areas, entrepreneurs believe that corruption is very pronounced, which also confirms their own experiences.

Certain disagreements of experience and perception are related to the court decisions. Entrepreneurs believe that corruption has a major impact on the duration of litigation, which is not apparent from their experience. This can be explained by the fact that precisely due to the expected duration of the court dispute, entrepreneurs do not initiate lawsuits.

We also found that the presence of corruption in these and other areas that are important for starting a business affect the time needed to start a business, the costs of its registration, and provision of initial capital. Since each of these factors is important for the founding process, it is safe to say that corruption discourages the launch of new businesses.

Some of the key reasons of corruption in Serbia are: non-transparent laws and regulations, inefficiency of administrative services (in charge of issuing permits and property registration), courts, customs authorities, the lack of severe sanctions for unethical behaviour of employees in public institutions, and the like. To change the situation, it is necessary to implement a large number of different measures (Bisogno et al., 2013, pp. 67-68). First of all, measures and policies for the elimination of corruption as an obstacle to starting a new business in Serbia should focus on introducing strict sanctions for abuse of power and promoting

transparency and openness of public services, in particular when approving subsidies, grants, and other favourable sources of financing aimed at launching a new business, when issuing construction permits and when registering property. For example, increased transparency of the procedures of granting subsidies from state funds would increase the possibility of disclosure of corrupt activities and sanction employees in public services. This would raise the transaction costs of manipulation so that the misuse of public authority would not yield good results, and the funds intended for the development of entrepreneurship would come into the right hands.

It is important that the government consistently implements measures aimed at eliminating corruption. The government must demonstrate its commitment to fight corruption, through adoption and implementation of various rules and regulations, setting stricter sanctions, leading by personal example (the practice of public enterprises and transactions of local authorities), and by promoting the transparency of corporate social responsibility, etc. These are vital measures to gain confidence in institutions and encourage business people and employees in the public services to report cases of corruption.

What is more, a very important group of measures is related to raising awareness of the harmful effects of corruption. An important role in this regard can be given to the media. The media can support relevant institutions and organizations that implement anti-corruption measures. Also, one of the possible measures could be to promote codes of conduct in business associations or industry sectors. This approach ensures that companies will not lag behind their competitors in an industry involved in corruption. Furthermore, given the whole range of standards, the impact on the business environment will be much higher. A useful measure could be the introduction of an anonymous phone line to report observed corrupt activities or attempts in their implementation. In this regard, significant support can come from clusters and other business associations of SMEs, which gather small and medium-sized enterprises in a particular geographic area. Business associations can help small and medium-sized enterprises in collecting information on reported acts of corruption, and in submitting complaints to committees in various industrial sectors. Nongovernmental organizations can also help in the fight against corruption, by implementing research, publishing information, developing education, and raising awareness. These measures can help Serbia build a more stimulating and stable environment that would encourage starting new businesses, which may in turn stimulate economic development.

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