

## BUSINESS RECOVERY AND INSTITUTIONAL CONSTRAINTS: EVIDENCE FROM VISEGRAD COUNTRIES AND SERBIA

Gentjan ÇERA <sup>1</sup>, Khurram Ajaz KHAN <sup>2\*</sup>, Judit OLAH <sup>3</sup>,  
Zdenko METZKER <sup>4</sup>

<sup>1</sup>*Faculty of Economics and Agribusiness, Agricultral University of Tirana,  
Tirana, Albania*

<sup>2</sup>*Department of Finance, School of Business and Economics,  
Westminster International University in Tashkent, Uzbekistan*

<sup>3</sup>*Department of Management, Faculty of Applied Sciences, WSB University,  
Dąbrowa Górnicza, Poland*

<sup>4</sup>*Faculty of Management and Economics, Tomas Bata University,  
Zlin, Czech Republic*

Received 25 May 2023; accepted 19 September 2023

**Abstract.** The current study investigates how institutional constraints and firms' and entrepreneurs' characteristics affect business recovery. Some elements have not yet been rigorously examined in the existing literature, especially not concerning the post-communist countries' business recovery component and the same is the research gap current study intended to address. To evaluate the study model, ordinal logistic regression was used. More than 300 valid questionnaires are collected from the Czech Republic, Hungary, and Serbia. The findings show that factors such as firm tenure and size, location, sector, entrepreneurial motivation, product change, etc., have conflicting effects on business recovery. Some of the outcomes of the present study is supported by the existing studies and some requires further research. The study focuses on the less explored independent variables and their association with business recovery, specifically on SMEs, which highlights the paper's originality. The output of the current study adds to the existing literature of business recovery and institutional constraints. Policymakers interested in removing institutional limitations and promoting a quicker business recovery for SMEs are drawn to the research. The study findings are also helpful from a managerial standpoint because business owners and managers significantly impact decisions about entrepreneur motivation, product change, and other issues.

**Keywords:** SMEs, institutional constraints, business recovery, downsizing, product change, entrepreneurial experience, business cycle.

**JEL Classification:** E32, K23, L26.

---

\*Corresponding author. E-mail: [k.a.khan@wiut.uz](mailto:k.a.khan@wiut.uz)

## Introduction

All types of entrepreneurs, such as early-stage, opportunity-driven, etc., are imperative for economic growth. All contribute tremendously to sustainable economic development and growth through employment generation, creating value products, government revenues etc. (Ivanović-Djukić et al., 2018; Meyer & Krüger, 2021; Smekalova et al., 2014; Stoica et al., 2020). A recent study found that across the sample of European countries, opportunity-driven entrepreneurship and early-stage entrepreneurship would be major determinants in boosting economic growth (Stoica et al., 2020). Entrepreneurship is crucial for economic progress and contributes to a country's economic development (Ivanović-Djukić et al., 2018). Therefore, it can be linked that poor entrepreneurial growth in a nation can hamper its economic growth and development. All economies must create a pleasant and constraints-free business environment to support entrepreneurship and business development. Prior studies have focused on several constraints divided into internal and external, such as infrastructural constraints, financial constraints, political constraints, business legislation, infrastructure, unfair competition etc. (Belas et al., 2020; Du & Nguyen, 2022; Hussain et al., 2021; Panda & Dash, 2014; Smallbone & Welter, 2012; Trail & Mccullough, 2018; Xheneti & Bartlett, 2012). Since the constraints are the barriers for both startups and running businesses, it requires attention to control consistently for the ideal business set-up and operations. These barriers are not only constraints to new business entries but the existing businesses also. That's why the present study's focus is not to investigate the constraints for the startups or expansion of established businesses but rather on the constraints that hindered business recovery, especially after the recent massive economic pullback due to the COVID-19 pandemic since early 2020.

Specifically, the focus of the present study is on Institutional constraints. The reason to justify the direction of the present paper on institutional constraints is that they provide a framework within which SMEs have to play their role. It is important to peep into the part of the institutional framework because an institutional view on business growth emphasizes how institutional change can either enable or hinder firm growth while still allowing for the consideration of entrepreneurial goals and motives. The different institutional frameworks in post-communist nations remain understudied, perhaps due to the challenges of doing research in such settings, and knowledge of the institutional (political, social, and economic) aspects driving business growth is very limited (Xheneti & Bartlett, 2012). Also, due to the pandemic, many structural changes have been made, which might challenge the SMEs' business recovery. It makes institutional constraints important to be studied.

To combat the fast spread of the COVID-19 pandemic, governments of almost all the countries around the world put restrictions on trade and implemented shutdowns. It results in supply and demand shocks, resulting in output and productivity losses, as it blocks the logistics and normal production chain (Michalkova et al., 2022). Almost all sizes of businesses got frozen or faced severe slowdown due to nationwide lockdown and social distancing. The recent pandemic pushed many businesses into poor states, especially the small and medium enterprises, because of their features. For example, they have very limited available resources, limited financial support and funding (Belas et al., 2022), uneasy capital market access etc. (Ferreira de Araújo Lima et al., 2020; Verbano & Venturini, 2013; Williams et al., 2019). Due

to these features, small and medium enterprises are more vulnerable to business risk, and the adverse business environment can affect their operations severely and rapidly. The recent pandemic gave a good lesson to SMEs to prepare for unforeseen challenges.

Suppose we divide the impact of COVID-19 on SMEs into two phases. The first phase is about the slowdown of the business due to several restrictions to curb the effect of COVID-19. The second is the recovery phase. The challenge is measuring, understanding, and finding the solution to how and what affects business recovery. Several papers reveal the severe impact of COVID-19 on SME businesses (Chit et al., 2023; Juergensen et al., 2020). To focus on the second, the recovery phase, the researchers and entrepreneurs have to understand the key factors. Considering its importance, recovery is crucial to bring back the economy to a better economic state. The present paper intends to contribute toward business recovery and the key hurdles affecting SMEs' business recovery.

The present study covered only Czech Republic and Hungary which are the members of Visegrad group to compare with Serbia an emerging economy. The further use of Visegrad nations in the present study refers only to the Czech Republic and Hungary. The present analysis covered Visegrad nations due to several reasons. First, these nations share many similarities (Durana et al., 2021; Meyer, 2020; Olah et al., 2021; Oláh et al., 2019a, 2019b; Rozsa et al., 2021). The Visegrad nations' economies heavily depend on SMEs for economic activities and employment (Çera et al., 2019a; Metzker et al., 2021; Rahman et al., 2017). Compared with other countries that had experienced a communist phase in central and eastern Europe, Visegrad nations are among the fastest-growing nations (Fidrmuc et al., 2002). Similarly, Serbia is willing to be part of Schengen and the European Union (Bazić, 2020). To prove its contender points, Serbia is constantly striving toward better economic growth and stability (National Bank of Serbia, 2020; World Bank Group, 2022). It seems logical to include and compare Serbia with other Visegrad nations, specifically the Czech Republic and Hungary in such a scenario. The output of the study can be helpful to entrepreneurs and policymakers in understanding the key factor in business recovery. The results of the analysis not only help in understanding factors for faster business recovery but also SMEs' stability. The present study adds to SMEs' business recovery and stability literature. The main novelty of the present is to understand the key factors responsible for business recovery and hurdles affecting faster business recovery, specifically in Visegrad nations. To the extent of the author's knowledge. The present study is among the first few to study the factors that constrain business recovery of SMEs post-COVID-19 among Visegrad nations and Serbia. Studies cover institutional constraints and business growth, but how institutional growth affects business recovery is the new addition to the existing literature. The present study not only explores the institutional constraint but also covers how internal resources, entrepreneurs' psychological motives, firm age, size, product change, sector change and downsizing on business recovery comprehensively. Firm size, age, product change are frequently mentioned as an essential, core firm attributes (Chen et al., 2021; Coad et al., 2018; Dang et al., 2018). Suggestions from the existing studies support the idea of the present study. Future study should incorporate more micro-level approaches where the perspectives of managers and owners should be captured and documented. The relevance psychological state of business managers and leaders after the disaster and how this affects business recovery should be included in

this body of literature (Corey & Deitch, 2011). Subjective metrics are helpful measures of a business's recovery because they capture respondents' all-encompassing and intuitive perception of the business's wellbeing, stability, and potential for long-term sustainability. Business owners and decision-makers receive and react to a variety of complex signals regarding the future of their firm as they navigate a post-disaster environment. Hence, collecting views of recovery from business owners is crucial and make sense (Stevenson et al., 2018). More so, the available research on business recovery and its connection with internal constraints are very limited (Huang et al., 2018). This further exploration based on other factors will address the mentioned gap. Hence, all these adds to the originality of the present research which is not yet addressed in the existing literature. Comparing the firms of an emerging nation with the developed economies could be an interesting finding and the results of the present study could be useful in comparing the recent studies' outcomes.

The study follows the following sequence: the literature review followed by the introduction section. Then the research methodology and analysis section. Finally, the results, analysis, discussion, and conclusion include future research agenda and limitations.

## **1. Literature review**

The present literature review intends to bring out and highlight three concern areas, how institutional constraints affect business recovery, how internal resources affect business recovery and how psychological motives and motivations affect business recovery. In line with the objective of the present study, which is to know which factors are significant or insignificant in business recovery, the literature review below justifies how institutional constraints, internal resources and psychological motives significantly or insignificantly affect business recovery.

The major obstacles SMEs faced in COVID-19 were insufficient cash flow and supply chain disruptions (Hossain et al., 2022). It is found that the practices can aid SMEs in surviving and performing better, such as leadership, regenerations, employee activities, marketing activities etc. (Adam & Alarifi, 2021). During the process of the recovery, entrepreneurs had to contend with a drastically altered and constantly shifting external environment. Keeping control of resources and costs are vital for business recovery (Morrish & Jones, 2020).

### **1.1. Institutional constraints and business recovery**

The present investigation focuses first on the scope of institutional theory. Institutional constraints result from the creation of a certain system and limitations. The government's monetary and fiscal policies are essential to high-quality economic growth. Formal institutional constraints (such as rules, laws and regulations, systems, etc.) and informal institutional constraints (such as behaviour norms, organizational culture, etc.) are the two basic types of institutional limitations (Li et al., 2021). Institutions provide a human interaction framework (North, 1990). The formal institutional constraints are related to human interactions with institutions. It is a complex web or system that affects entrepreneurs' interaction within the environment to run their business operations. Because of the COVID-19 pandemic,

many SMEs went towards business downfall. The lesser the hurdle, the faster they recover. Therefore, how the present institutional framework supports or affects business recovery needs to be investigated. Factors such as legal, regulatory, political etc., and their complexity and loopholes lead firms towards several risks (Çera et al., 2019b). A study by Blume (2006) states that local economic policies affect the local business climate. Also, the macroeconomic environment impacts the quality of the business environment (Belas et al., 2019a; Çera et al., 2019c; Dvorsky et al., 2020). Previous studies have found that business climates affect firms' operations and performance (Belas et al., 2019b; Cepel et al., 2020; Khan et al., 2019). Hence, SMEs can grow faster with favourable macro policies and regulatory plans. Several studies found that institutional constraints affect business growth and development (Çera et al., 2019b; Xheneti & Bartlett, 2012). Also, a rigid institutional framework can be a barrier to economic development; hence, unfavourable institutional factors need to be modified (Son, 2012). A recent study stated that the bank's preferential and tax-supporting policies significantly influenced how businesses developed during the COVID 19 pandemic. Other variables that were thought to have a significant impact on the development of the enterprise were insurance policies, government capital assistance programs, public administration practices, and the function of professional associations. The study makes policy recommendations based on the findings to assist SMEs in overcoming challenges during the coronavirus pandemic (Le et al., 2020).

The microeconomic and macroeconomic effects of the recent pandemic affected large and small businesses differently. Smaller firms were at a greater disadvantage because of their features, limited resources and inability to survive crises. In such a scenario, it becomes imperative to explore the role of local and national governments, state-owned organizations, public societies, and other related factors to minimize the consequence of crises (Belitski et al., 2022). A study discovered that post-pandemic, most SMEs cannot resume operations due to a lack of resources, workers' inability to work again, interrupted supply chains, and decreased market demand. Since many SMEs had to continue paying for numerous fixed expenses despite having little or no revenue, they were also susceptible to cash flow issues. The study also gave recommendations regarding cash flow relief, highlighting the financial institution's role and financial constraints, work resumption, and consumption stimulation to aid SME survival and economic recovery from the disaster situation. These delays in work resumption have put unprecedented pressure on the survival of many SMEs (Lu et al., 2020). It reflects how important are the institutional factors for the SMEs' business recovery. In this regard, OECD gave its policy priorities for SME recovery and long-term resilience in the following points. First, ensure access to finance at adequate terms (highlight the financial constraints). Second, promote digital technology adoption and greener business practices (highlight the information and communication technology and environmental constraints). Third, Calibrate the burden of regulation and encourage good governance (regulatory and compliance framework constraints). Fourth, promoting SME internationalization (policy and rules constraints), fostering skills and education (capability of SMEs constraints) etc. A very recent study suggests that future research must consider the institutional constraints faced by SMEs. Institutional barriers, such as weaknesses in institutions that impede business operations, are a common problem for SMEs in transition countries. SMEs with few resources

struggle to function effectively in these settings. The lack of resources still limits the options available to SMEs in transition economies when faced with red tape or arbitrary taxation in these countries (Ganau & Rodríguez-POSE, 2022; Istiqliler et al., 2023).

Based on the discussion mentioned above, it can be understood that Institutional constraints are the key factors which play an effective role in SMEs' development and growth. So, in this sense, especially post COVID-19 pandemic, there is a need for a favorable institutional framework for SME faster business recovery. Hence, the present study examines how institutional factors affect business recovery in the Visegrad and Serbian region context.

## 1.2. Internal resources and business recovery

It is well known that small and medium enterprises have limited resources compared to large-scale business houses, which makes them more vulnerable. Risks arising in fluctuating business environments due to unfavorable or rigid Institutional frameworks hinder faster economic growth (Son, 2012). It has been found that firms with better resources can survive easily during difficult times. The ability of SMEs to react to quickly shifting market demand, technological development, and capacity constraints related to knowledge, innovation, and creativity are among the hurdles they must overcome (Yoshino, 2016). It shows that better internal resources enhance firms' capability to minimize the impact of external influence and constraints and improve competitive advantage (Cheraghalizadeh et al., 2021). Even though the industry structures of service and non-service businesses may differ, the underlying resources ensuring their survival remain the same (Coleman et al., 2013). Looking into the meaning of resources includes all types of firms' assets, capabilities, intellectual capital, information, tangible and intangible assets etc. The firm's strength and its competitive advantage are built on its resources in the long run (Barney, 1991). Therefore, it can be understood that the stronger the firm's strength, the higher the chance of a strong, stable, and fast recovery from business downfall. Hence, it is believed that if a firm can manage internal resources in such a way to build its inner strength, which can ultimately help in the firm's stability and business recovery.

A study provided a conceptual framework for exploring the variables affecting small and medium-sized businesses (SMEs') failure and the extent of their recovery. Reveals that the level of recovery, stage of the business life cycle, and industry of a failed SME affect the ranking of the reasons causing SME failure. The article emphasizes the need to improve the circumstances in which SMEs function, particularly by removing barriers to their expansion and development and creating a suitable entrepreneurial support system. Additionally, SMEs can become more resilient to the negative consequences of these factors and deal with them more effectively by having a comprehensive understanding of the reasons for failure (Nikolić et al., 2019). In the past, it has been found that the characteristics of SMEs, customers and markets, business practices, available resources and financing, and external environment were the most important elements influencing SMEs' ability to succeed in business (Chittaworn et al., 2011).

Specifically in the context of Serbia, compared to the repercussions of the 2008 financial crisis, the pandemic's negative effects on Serbia's economy have been more significant. Beginning in April 2020, the government passed a thorough recovery program to lessen the effect

on employment and liquidity in the private sector (Pejin Stokic, 2020). Specifically in the geographic context of Serbia concerning business recovery, very limited number of studies are available, a study on mature companies suggest that the managers prefer to implement divestment strategies for recovery and divestment strategies deals with internal resources and assets management (Kontic, 2012). Another study mentioned the ease of mobilizing resources is among the implications of business recovery (Chang et al., 2022). Ballesteros et al. (2017) assert that businesses have dynamic characteristics that improve their ability to quickly decide what to do with resources after a crisis, recognize areas of urgent need, and respond in a cost-effective manner. Specifically, in a study on Serbian SMEs, a lot depends on the SMEs characteristics related to the impact of disaster and further recovery (Aničić & Paunović, 2022). Small enterprises in Serbia having access to finance for working capital requirements and financing longer-term initiatives under more accommodating and advantageous terms, providing internal resources can bring stability and support in recovery (EIB, 2021).

Based on the concept that better internal resources can help firms recover faster. Since the internal resources gave strength to the firm. Considering the recent pandemic, which severely affected the firms and their resources. In such a situation, it seems logical to examine the critical internal resources in the Visegrad and Serbian regions.

### **1.3. Psychological motives/motivation and business recovery**

The key person who runs SMEs is the owner/entrepreneur, unlike in large firms where the group of key people takes strategic decisions among top management. Since SMEs are managed and controlled by owners or entrepreneurs, a lot depends on how owners and managers manage and plan their business (Dvorský et al., 2021; Khan et al., 2020; Zarnadze et al., 2022). Hence, the behavioural part of the owner and entrepreneurs cannot be ignored – specifically, their psychological motivation. Entrepreneurial motivation is seen as the firm's capability resource and a crucial component of deploying sustained competitive advantages (Machmud & Sidharta, 2016). Therefore, entrepreneurial motive and motivation play an important role in firms' growth, stability, expansion, and recovery. The motivation for work is defined as "Motivation is made up of three components: Direction: what a person is trying to do, Effort: how hard a person is trying, Persistence: how long person is trying a person continues trying" (Arnold et al., 1991). The mentioned definition highlights that post-pandemic entrepreneurs and owners might have clear direction and have to put extra effort and be persistent to bring back the business stability and recovery. Digging a bit deeper, motivation theoretically comes from two sources drive theories and incentive theories. According to driving theories, a person is motivated by an internal stimulation, like hunger or fear, and seeks a way to release the tension that results from that stimulus. The pre- and post-situation of the COVID-19 pandemic created fear in entrepreneurs and owners of the business, which now ultimately motivates them to return to their normal business and grow further. There could be a fear factor that motivates the entrepreneurs positively to return to their previous position.

Similarly, incentive theories might motivate entrepreneurs to achieve new financial figures and regain their profitability and market share (Carsrud & Brännback, 2011). Hence

the pandemic can have both effects, drive, and pull motivations among entrepreneurs and owners. Furthermore, it has been found in a recent study that opportunity-motivated, or pull, entrepreneurship might have become further positive after lockdown restrictions and other measures are relieved (Seah, 2021). It also found that the personal factors of entrepreneurs also significantly affect firms' success (Soomro et al., 2019) various entrepreneurial hurdles need to be reduced (Cockalo et al., 2017; Čočalo et al., 2020). Academicians should create and carry out thorough investigations into the causes and impacts of entrepreneurial motivation (Murnieks et al., 2020). Hence checking how entrepreneurs' motivation can affect business recovery could be one aspect, which still does not have enough evidence in the existing literature. Based on this, the present study tests how entrepreneurs' motives and motivations are significant for business recovery.

Furthermore, motivated, and trained youth and entrepreneurs are essential to firms' internal resources for any developed or developing nation. This phenomenon, specifically in Serbia, is still lacking (Djordjevic et al., 2021b), which needs to consider seriously, youth contribution as an entrepreneur and in business formation is essential for any developed or developing nation (Djordjevic et al., 2021a; Kreiner et al., 2021). Therefore, motivation to entrepreneurs could help in business recovery since they wish to achieve business success and ultimately contribute to the nation's economic growth.

#### **1.4. Firm age, size, product change, sector change and downsizing**

Moreover, the present study examined how the firms' age, size, Product change, sector change and downsizing can affect SMEs' business recovery. It has been found that young firms have lower survival probabilities (Calvino et al., 2022; Chebeň et al., 2021). A firm's survival is not significantly impacted by the size or age alone but by the combined factors (Okwo et al., 2019). On the other hand, some researchers added, that the size (Kozubikova et al., 2015) and period of doing business (Belas & Sopkova, 2016) of enterprise pays an important role. Product innovation and adding features or bringing changes in them are essential to the success of businesses. Those managers and supervisors can increase the effectiveness as well as time efficiency of their product. They might be the ultimate winners as industries and companies restructure and "re-strategize" to cope with changing times – rapidly developing technologies, new and fierce competition, and radically shifting marketplaces (Cooper, 1994). For example, the recent pandemic made and forced firms to go full-on digitalization. The product change can be a significant factor in SMEs' business recovery. Another is sector change. Change itself is a challenge to be tackled wisely by the managers and owners. To adapt to the changes in business, all types of resources needed to construct the company must change. The setting in which businesses operate is continually changing and getting more unpredictable. Managing these developments is a challenge for all firms.

Because of how quickly business is evolving, there is an increasing need to manage these changes. Businesses must develop and use many management models to improve performance and keep themselves competitive in the market (Ramosaj et al., 2014). A recent report by Dua et al. (2020), stated that different sectors take different periods to recover and survive, and many small firms in the US need to make drastic changes. Studies show that a company's profitability and efficiency were increased due to downsizing (Espahbodi et al.,



2000; Yu & Park, 2006). The mentioned factors are taken into consideration based on the existing literature. Different articles covered these factors separately. It was also found that the presence of a crisis does not automatically imply the drive to launch a business. Similarly, it is possible that crisis motivates further firms to recover faster. The present study tried to combine and investigate the context of the Visegrad and Serbian regions.

In short, the discussed literature review above highlights the key factors critical to SMEs' business recovery, especially after COVID-19 havoc. The study checks under three broad categories, institutional constraints, internal resources, and entrepreneurs' motivations. Since COVID-19 affected the business of SMEs, it has become important how they can recover. To understand such a curiosity, it is important to understand constraints and significant and relevant factors. What motivates entrepreneurs for faster recovery etc. The paper contributes to the existing literature on business recovery. The authors believe this kind of study is not yet conducted in the central and eastern European nations post COVID-19 pandemic.

Based on the above review of existing literature, the following research question arises, which this study intends to answer. How do the institutional constraints and firms' and entrepreneurs' characteristics affect business recovery? Specifically, firm tenure (age), size, downsizing, product change, sector of activity, location, institutional constraints, internal resources, business stages, and entrepreneurs' motivation.

## 2. Methods and procedures

### 2.1. Data

The survey method was selected as a research strategy for this study because it allows testing a research model and hypotheses. Thus, primary data needed to be collected. Upon the development of the questionnaire in the English covering different aspects of the business activity, academics reviewed its content. Then, it was translated into Czech, Hungarian, and Serbian languages. The data was collected prior to the COVID-19 (February – June 2019). An online form of the questionnaire was sent to firms via emails (9072 emails: 3319 Czechia, 3225 Hungary and 2528 Serbia). The final sample consists of above three hundred questionnaires. Table 1 informs on the distribution of the data by different variables.

Table 1. Sample profile (source: authors)

Category	Sub-category	Czechia (n = 93)	Hungary (n = 100)	Serbia (n = 134)	Total (329)
Firm size at the moment of financial distress	Less than 5 employees	49.5%	51.0%	57.5%	53.2%
	More than 5 employees	50.5%	49.0%	42.5%	46.8%
Entrepreneurial experience	2 years or less	22.3%	17.5%	29.6%	23.4%
	More than 2 years and less than 10 years	28.7%	35.1%	40.7%	35.1%
	10 to 20 years	38.3%	37.1%	28.7%	34.4%
	More than 20 years	10.6%	10.3%	0.9%	7.0%

End of Table 1

Category	Sub-category	Czechia (n = 93)	Hungary (n = 100)	Serbia (n = 134)	Total (329)
Did you close your business?	I closed the business	53.7%	27.0%	48.1%	43.2%
	I changed the production with different products	32.6%	26.0%	14.7%	23.5%
	I started to develop new services	13.7%	47.0%	37.2%	33.3%
Business recovery	Not at all	16.1%	19.0%	37.3%	25.7%
	Not really	9.7%	9.0%	12.7%	10.7%
	Undecided	31.2%	22.0%	29.9%	27.8%
	Somewhat	20.4%	30.0%	11.9%	19.9%
	Completely	22.6%	20.0%	8.2%	15.9%
	Total	100%	100%	100%	100%

## 2.2. Measures

The measurement of the variables is summarized in Table 2. The dependent variable is business recovery, measured as an ordinal variable. The others are dichotomous, nominal, ordinal, and Likert-type of scale. The Likert scale is used to measure the items of institutional and internal constraints and entrepreneurial motivation. In order to lower the number of indicators, factor analysis was performed for these types of variables. Given that firm tenure and size, location, entrepreneurial experience, and business cycle are known as important factors for business performance and recovery, they are included in the analysis.

Table 2. Variable measurement (source: authors)

Variable	Type	Measure
Business recovery (dependent variable)	Ordinal	Please rate, in your opinion, the level on which you recovered from the financial distress [1] Not at all – [5] Completely
Country	Nominal	Where do you operate? [1] Czech Republic; [2] Hungary; [3] Serbia
Firm size	Dichotomous	The number of employees at the moment of financial distress was: [0] Less than 5 employees; [1] More than 5 employees.
Firm age financial distress	Ordinal	Firm age of the company in the time of financial distress: [1] Less than 3 years; [2] Between 3 and 5 years; [3] More than 5 years
Downsizing	Dichotomous	Reduce in the number of the staff/workers [0] No, [1] Yes
Product change	Dichotomous	Changed the product [0] No, [1] Yes
Sector change	Dichotomous	Changed the sector of the main activity [0] No, [1] Yes

End of Table 2

Variable	Type	Measure
Entrepreneurial experience	Ordinal	Number of years working for the firm at the time of financial crisis [1] 2 years or less, [2] More than 2 years and less than 10 years, [2] 10 to 20 years, [4] More than 20 years
Business cycle	Nominal	Business life cycle in the time of financial distress: [1] Establishment; [2] Growth; [3] Stagnation; [4] Decline
Institutional and internal constraints	Likert scale	To what extent the following statement (see Table 3) created difficulties for your business? [1] Lowest - [5] Highest
Entrepreneurial motivation	Likert scale	Motivation for entrepreneurship startup. Rate each statement (see Table 4) from: [1] Lowest - [5] Highest

The institutional and internal constraints are measured by 10 items (see Table 3), which are used in a prior study (Çera et al., 2019b) rooted in the institutional theory (North, 1990) and resource-based view (Barney, 1991). Factor analysis is performed to reduce the number of variables (Fabrigar & Wegener, 2011). Its output is shown in Table 3. Components that reflect eigenvalues bigger than 1, are kept in order to continue with the analysis. Three factors emerged from the principal component analysis, explaining 65% of the variance in the sample. The first and third factors deal with internal resources, while the second one is about institutional constraints.

Table 3. Rotated component matrix for institutional and internal constraints (source: authors)

Items	Component		
	1	2	3
The level of fixed assets free from any burden/inscription	.787		
The level of clearing/ barter transaction	.775		
Inability to find new potential shareholders/partner	.697		
Difficulties in acquisition of new technologies	.519		
Political issues		.729	
Economic issues		.714	
Social issues		.641	
Legislative issues		.559	
Delay in fulfilling bank obligations			.850
Management of receivables/ payables			.797
Eigenvalues	2.208	1.943	1.639
Cronbach's alpha	.740	.630	.710

Note: Extraction method: Principal Component Analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 6 iterations. Kaiser-Meyer-Olkin Measure of sampling adequacy = 0.769. Sig. Bartlett's test < 0.001. Correlation matrix's determinant = 0.030; Explained variance = 65%; Coefficient loading displayed >|0.5|.

The variable of motivation for entrepreneurship is measured using 7 items (see Table 4). Similarly, factor analysis is performed to reduce the number of items. Its output is shown in Table 4. Three factors emerged from the principal component analysis, explaining 72% of the variance in the sample. Since Cronbach's alpha resulted smaller than 0.50, then it was decided to remove the third component from the follow-up analysis.

Table 4. Rotated component matrix for motivation of entrepreneurship (source: authors)

Items	Component		
	1	2	3
Good networks	.790		
Access to additional financial resources	.783		
Employment creation	.764		
Self-fulfillment		.815	
Job satisfaction		.812	
Financial motives			.813
Desire to be independent			.716
Eigenvalues	1.981	1.710	1.366
Explained variance (%) (total = 72.2%)	28.30	24.43	19.51
Cronbach's alpha	.742	.682	.466

*Note:* Extraction method: Principal Component Analysis. Rotation method: Varimax with Kaiser normalization. Rotation converged in 7 iterations. Kaiser-Meyer-Olkin Measure of sampling adequacy = 0.669. Sig. Bartlett's test < 0.001. Correlation matrix's determinant = 0.169; Coefficient loading displayed >|0.5|.

### 2.3. Method

The dependent variable is measured as ordinal variable. Its type of measurement limits the use of statistical methods. Thus, ordinal logistic regression was performed to test the research model. The analyses were executed using SPSS, version 23. There are different types of ordinal regression based on the link function. According to (Norusis, 2012), logit type of link function is recommended to be applied in cases when is reported evenly distributed categories of the dependent variables (see Table 1). Logit link function can be written:

$$P(\gamma) = \frac{1}{1 + e^{-(\beta_0 + \beta_{1i} X_{1i})}}$$

and its invers form is:

$$\ln\left(\frac{\gamma}{1 - \gamma}\right) = \beta_0 + \beta_{1i} X_{1i}.$$

### 3. Results

To test the research model an ordinal regression is performed. In Table 5 are shown the model fit information. The results inform that the model is statistically significant,  $\chi^2(18, n = 296) = 138.852, p < 0.001$ . Additionally, the model reflects a good fit  $\chi^2(1158, n = 296) = 1216.358, p < 0.001$ . Moreover, it is found that there is no violation of the parallel lines assumption,  $\chi^2(54, n = 296) = 66.059, p > 0.10$ .

Table 5. Model fit, goodness-of-fit and test of parallel lines (source: authors)

	-2 Log likelihood	Chi-Square	df	Sig.
Model fitting	788.355	138.852	18	.000
Test of parallel lines	722.296	66.059	54	.126
Goodness-of-fit	Pearson	1216.358	1158	.114

Table 6 summarizes the results of the ordinal regression. It seems that firm tenure (age) and size do not influence on business recovery. However, downsizing (OR = 0.539, Wald = 6.303,  $p < 0.05$ ), changing the product (OR = 0.514, Wald = 7.282,  $p < 0.01$ ) and the sector of activity (OR = 0.298, Wald = 21.49,  $p < 0.001$ ) are statistically significant in determining business recovery. In addition, the analysis demonstrates that the above influences on business recovery is not positive. Thus, if a firm decrease in its size, change its products and sector of the business activity, lead to a situation where business recovery is harder to be materialized.

Regarding the effects of institutional and internal constraints on business recovery, the results of the ordinal regression show that institutional constraints (OR = 0.723, Wald = 6.967,  $p < 0.01$ ) and second factor about internal resources (OR = 0.568, Wald = 24.86,  $p < 0.001$ ) are statistically significant in determining business recovery. Moreover, the findings suggest that as these constraints increase, less prone is for a business to recover. Interestingly, the first factor dealing with internal resources resulted to be statistically insignificant for predicting business recovery (OR = 1.059, Wald = 0.216,  $p > 0.10$ ). Concerning the influence of motivation for entrepreneurship on business recovery, only the second factor was found to be significant (OR = 1.442, Wald = 10.32,  $p < 0.01$ ). This finding implies that as the motivation for entrepreneurship increases, it is more likely for businesses to recover.

It is of interest interpreting the results based on countries. The ordinal regression found that businesses operating in Czechia and Hungary are more prone to recover from a financial distress as compared from those businesses operating in Serbia. Hence, location does matter for the organizational behavior in general, and for business recovery, in particularly. In addition, the analysis suggests that, comparing to businesses in decline, those that are in growth stage of the business cycle are more likely to recover (OR = 2.596, Wald = 7.189,  $p < 0.01$ ), whereas this finding is not demonstrated for those in establishment (OR = 0.939, Wald = 0.022,  $p > 0.10$ ) and stagnation stages (OR = 1.380, Wald = 1.026,  $p > 0.10$ ). Lastly, the ordinal regression did not find any statistical significance of entrepreneurial experience in determining business recovery. The summary of the findings can be seen in Table 7 consolidated key findings.

Table 6. Results of the ordinal regression (source: authors)

Variable	B	SE	OR	95% CI	Wald	p
Business recovery = 1	-1.019	0.612	0.361	[-2.22; 0.18]	2.771	0.096
Business recovery = 2	-0.262	0.608	0.770	[-1.45; 0.93]	0.186	0.666
Business recovery = 3	1.184	0.611	3.267	[-0.01; 2.38]	3.756	0.053
Business recovery = 4	2.542	0.626	12.71	[1.31; 3.77]	16.46	0.000
Firm age	0.009	0.357	1.009	[-0.69; 0.71]	0.001	0.980
Firm size	0.150	0.246	1.162	[-0.33; 0.63]	0.372	0.542
Downsizing	-0.618	0.246	0.539	[-1.1; -0.14]	6.303	0.012
Product change	-0.666	0.247	0.514	[-1.15; -0.18]	7.282	0.007
Sector change	-1.210	0.261	0.298	[-1.72; -0.7]	21.49	0.000
Constraint resources_1	0.057	0.123	1.059	[-0.19; 0.3]	0.216	0.642
Constraint institutions_2	-0.324	0.123	0.723	[-0.56; -0.08]	6.967	0.008
Constraint resources_3	-0.566	0.114	0.568	[-0.79; -0.34]	24.86	0.000
Motivation for entrep_1	0.049	0.125	1.050	[-0.2; 0.29]	0.151	0.697
Motivation for entrep_2	0.366	0.114	1.442	[0.14; 0.59]	10.32	0.001
Czechia	1.691	0.342	5.425	[1.02; 2.36]	24.44	0.000
Hungary	1.191	0.291	3.290	[0.62; 1.76]	16.73	0.000
Serbia	0 <sup>a</sup>	.			.	.
Business cycle = 1	-0.063	0.428	0.939	[-0.9; 0.78]	0.022	0.883
Business cycle = 2	0.954	0.356	2.596	[0.26; 1.65]	7.189	0.007
Business cycle = 3	0.322	0.317	1.380	[-0.3; 0.94]	1.026	0.311
Business cycle = 4	0 <sup>a</sup>	.			.	.
Entrepreneurial experience = 1	0.319	0.534	1.376	[-0.73; 1.37]	0.357	0.550
Entrepreneurial experience = 2	0.058	0.466	1.060	[-0.86; 0.97]	0.015	0.902
Entrepreneurial experience = 3	0.256	0.456	1.292	[-0.64; 1.15]	0.314	0.575
Entrepreneurial experience = 4	0 <sup>a</sup>	.			.	.

Note: Link function: Logit. a. This parameter is set to zero because it is redundant.

Table 7. Consolidated key findings (source: authors)

Firm tenure (Age)	Statistically insignificant and do not influence business recovery
Size of the firm	Statistically insignificant and do not influence business recovery
Downsizing	Found statistically significant in determining business recovery
Changing the product	Found statistically significant in determining business recovery
The sector of the activity	Found statistically significant in determining business recovery
Institutional constraints	Found statistically significant in determining business recovery
Internal resources	Found mixed effects, second factor found statistically significant in determining business recovery

*End of Table 7*

Motivation for entrepreneurship	Found mixed effect, found second factor statistically significant in determining business recovery
Location	Effects business recovery
Business stages	Effects business recovery

**4. Discussion**

The current article has provided new insights into the relationships between institutional constraints and business recovery. According to the study’s goal to investigate the role institutional constraints play in business recovery, some findings were inconsistent when compared to the existing literature. The information showed that various institutional elements significantly impacted business recovery. These should be examined, though, as not all cases showed a significant link, but being insignificant also reflects an effect. The key findings of this study are given in the following paragraphs, with respect to each specific institutional element.

The study first examines the impact of downsizing on business recovery. Unlike many existing studies supporting downsizing, reducing costs, and bringing efficiency to business, the present study’s result goes against it. The study outcomes reveal that downsizing does not affect business recovery positively. Hence, using a downsizing strategy is ineffective for business recovery. Though on the one hand, many existing studies support that downsizing positively affects cost reduction and performance improvement (Espahbodi et al., 2000; Goesaert et al., 2015; Yu & Park, 2006). On the other hand, there are also studies which found the insignificant effect of downsizing on business performance improvement, Companies that decrease do not significantly perform differently from those that do not afterwards (Muñoz-Bullón & Sánchez-Bueno, 2011) or sometimes it even deteriorate or brings some other negative effects, for instance, Yu and Park (2006) found that downsizing enterprises typically experienced greater financial challenges than their peers. Another study that supports the present study states that downsizing is linked to a decline in subsequent profitability. These adverse impacts are especially prominent in sectors with low capital intensity (Guthrie & Datta, 2008).

The second examination examined the association between product change and business recovery. How does the change of product lead to business recovery? And the study found it insignificant. There is no impact of change of product on business recovery. To support this finding, it has been found in the past that there is evidence that companies focusing on cost-cutting are less productive than those focusing on product innovation. It might mean changing products or bringing change in products is an effective strategy for productivity. Still, there is no proof that these two contrasting strategies impact profitability (Su & Tang, 2016). It indirectly supports the present study that change of product does not significantly help business recovery. The study also investigated how changing the sector affects business recovery and was found insignificant. Changing the sector does not help in business recovery. Investigation into the existing literature failed to find strong support for changing the sector effect on business recovery. In fact, to the extent of the author’s knowledge, the present study might be the first to examine the impact of changing sectors on business recovery. The investigation believes it is a new addition to the literature in the concerned field.

Furthermore, a recent study found the positive effect of corruption on business growth (Xheneti & Bartlett, 2012) which provided a base to check further if there is a possibility of a positive impact of institutional constraints on business recovery. The present study finds that institutional constraints negatively influence business recovery, which aligns with the existing studies. This finding is similar to the current studies, which explain naturally that higher constraints and stricter constraints affect business performance and growth negatively (Çera et al., 2019b; Çera et al., 2019d; Du & Nguyen, 2021). Another relationship the present study investigated is between business recovery and internal resources. The study found a negative association between internal resources and business recovery. Based on this result, external resources are major factors affecting business recovery. External factors affect the business environment as both internal and external resources are critical for the SMEs' performance and growth (Amoah-Mensah, 2013). The present study focused only on external resources. External resources, since they are uncontrollable by the firms. Because of this, it might significantly impact business recovery and make it hard for the firms to recover. Based on this, the study can conclude that the present study might have a much higher influence of external resources on business performance and recovery.

It has also been found that location does affect differently in business recovery. The studies found that business performance is influenced by location (Denicolai et al., 2015; Minai & Lucky, 2011). It reflects the location's characteristics which play key support for business recovery. The last investigation associate was between motivation for Entrepreneurship startup and business recovery, and the outcome was positive. There is a positive linkage between motivation to entrepreneurship and business recovery. This result is supported by the current study, which has similar findings, that entrepreneurial motivation significantly influences SMEs' business performance (Machmud & Sidharta, 2016).

## Conclusions

The current examination attempts to examine the relationships between the factors which are now imperative, especially post COVID-19 and found these aspects are less investigated in the existing literature. The present study's contribution is motivated by the gap in existing studies which stated that, particularly concerning the highly representative group of small-scale firms, the post-pandemic recovery strategies remain understudied. The investigated association contributes to the existing literature. It can help give direction to policymakers and entities involved in SMEs functioning to think from a different perspective and new approach. However, the most significant contribution of the study comes from the fact that it covered business recovery, which is the current focus of the government and entrepreneurs for the post-COVID-19 recovery. Hence, the study adds to the existing literature on how downsizing, change of product, sector change, internal resources, institutional constraints, location and motivation to entrepreneurship affect business recovery. The outcomes further speak about the mindset of the entrepreneurs. Since business recovery is the utmost important task of the government and entrepreneurs, they seek information and similar kind of research at a higher level to help them understand factors critical for fast business recovery.



The authors also recommend a more substantial stage inquiry in the area utilizing a more robust approach as that can help overcome the limitations of inquiries-based survey data. Moreover, since the examination was conducted before the COVID-19 pandemic, it makes sense to examine whether the proposed and tested factors stand when the pandemic curve is flat.

The first and foremost limitation of the present examination is the limited sample size. Secondly, the present study is only a first inference. Based on the results, further assumptions need to be tested, including SMEs from different nationalities from emerging economies, which are required to make better generalizations. Future research should primarily explore the study themes among micro, small, and medium-scale firms. Moreover, the authors recommend a more substantial stage inquiry in the area utilizing a more robust approach as that can help overcome the study's limitations. Future research should consider other internal and external factors.

### **Managerial implications**

The study highlights the importance of product change, downsizing, entrepreneurs' motivation, location, firm size, tenure etc, in business recovery. It shows managers and owners how these factors can also be a constraint or beneficial in business recovery. This output provides further insight into business recovery, specifically of SMEs. Factors such as entrepreneurs' motivation finding implies that businesses will likely recover as the motivation for entrepreneurship increases. It highlights that not only the internal resources are important, but the entrepreneurs' behavioural aspects can also play a significant role in business recovery. It could be useful information for top-level business strategists and managers. Other findings related to product change, downsizing and sector can be useful for managers since they found significance in business recovery. Managers can think of these for business recovery.

### **Guidelines to policymakers**

The present study findings can be considered by the policymakers in framing the SMEs and entrepreneurial policies in the guidelines. The outcomes offer some practical implications for the policymakers who can use the study's results in design planning, the key factors affecting business recovery. Policymakers can consider these factors in developing various financial and non-financial policies and a framework for SMEs' faster recovery. Policymakers interested in removing institutional limitations and promoting a quicker business recovery for SMEs are drawn to the research. The findings help lawmakers frame policies concerning entrepreneurs' motivation since this could help in business recovery, ultimately boosting confidence among the country's SME entrepreneurs. Since product change, downsizing and sector are found significant, it has been recommended as a key guideline to policymakers to make the policies flexible and suitable so that managers and owners can find it easy to implement in their business for business recovery.

## Funding

This paper was supported by the project number RO 4/2023 Sustainable internationalisation of SMEs in the post-Covid era.

## Author contributions

GÇ proposed the research idea, wrote the first draft of the paper, and took care of Methodology, Results and Discussion. KAK contributed to shaping Introduction, Literature review and Conclusion. JO and ZM were responsible for data collection and contributed to the revision of the paper.

## Disclosure statement

The authors declare no conflict of interest.

## References

- Adam, N. A., & Alarifi, G. (2021). Innovation practices for survival of small and medium enterprises (SMEs) in the COVID-19 times: The role of external support. *Journal of Innovation and Entrepreneurship*, 10(1). <https://doi.org/10.1186/s13731-021-00156-6>
- Amoah-Mensah, D. (2013). Strategic resources and performance of rural SMEs. *International Journal of Business and Social Research*, 3(4), 106–119.
- Aničić, Z., & Paunović, B. (2022). The Covid-19 crisis and small and medium-sized enterprises (SMEs) in Serbia: responsive strategies and significance of the government measures. *Journal of East European Management Studies*, 27(3), 404–433. <https://doi.org/10.5771/0949-6181-2022-3-404>
- Arnold, J., Silvester, J., Patterson, F., Robertson, I., Cooper, C., & Burnes, B. (1991). *Work psychology*. Prentice Hall.
- Ballesteros, L., Useem, M., & Wry, T. (2017). Masters of disasters? An empirical analysis of how societies benefit from corporate disaster aid. *Academy of Management Journal*, 60(5), 1682–1708. <https://doi.org/10.5465/amj.2015.0765>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Bazić, J. (2020). Relations of Serbia and European Union: Socio-Historical determinants and the contemporary political issues. *Politeja*, 16(3(60)), 303–322. <https://doi.org/10.12797/Politeja.16.2019.60.20>
- Belas, J., Dvorský, J., Strnad, Z., Valaskova, K., & Cera, G. (2019a). Improvement of the quality of business environment model: Case of the SME segment. *Engineering Economics*, 30(5), 601–611. <https://doi.org/10.5755/j01.ee.30.5.24490>
- Belas, J., Gavurova, B., Cepel, M., & Kubak, M. (2020). Evaluation of economic potential of business environment development by comparing sector differences: Perspective of SMEs in the Czech Republic and Slovakia. *Oeconomia Copernicana*, 11(1), 135–159. <https://doi.org/10.24136/oc.2020.006>
- Belas, J., Škare, M., Gavurova, B., Dvorsky, J., & Kotaskova, A. (2022). The impact of ethical and CSR factors on engineers' attitudes towards SMEs sustainability. *Journal of Business Research*, 149, 589–598. <https://doi.org/10.1016/j.jbusres.2022.05.056>
- Belas, J., & Sopkova, G. (2016). A model of entrepreneurial orientation. *Transformations in Business and Economics*, 15(2B), 630–644.

- Belas, J., Strnad, Z., Gavurova, B., & Cepel, M. (2019b). Business environment quality factors research-sme management's platform. *Polish Journal of Management Studies*, 20(1), 64–77. <https://doi.org/10.17512/pjms.2019.20.1.06>
- Belitski, M., Guenther, C., Kritikos, A. S., & Thurik, R. (2022). Economic effects of the COVID-19 pandemic on entrepreneurship and small businesses. *Small Business Economics*, 58(2), 593–609. <https://doi.org/10.1007/s11187-021-00544-y>
- Blume, L. (2006). Local economic policies as determinants of the local business climate: Empirical results from a cross-section analysis among East German municipalities. *Regional Studies*, 40(4), 321–333. <https://doi.org/10.1080/00343400600725178>
- Calvino, F., Giachini, D., & Guerini, M. (2022). The age distribution of business firms. *Journal of Evolutionary Economics*, 32, 205–245. <https://doi.org/10.1007/s00191-021-00747-2>
- Carsrud, A., & Brännback, M. (2011). Entrepreneurial motivations: What do we still need to know? *Journal of Small Business Management*, 49(1), 9–26. <https://doi.org/10.1111/j.1540-627X.2010.00312.x>
- Cepel, M., Dvorsky, J., Gregova, E., & Vrbka, J. (2020). Business environment quality model in the SME segment. *Transformations in Business and Economics*, 19(1), 262–283.
- Çera, G., Belas, J., Martin, C., & Zoltan, R. (2019a). Linking firm characteristics to perceived important social factors for entrepreneurial activity. *Economics and Sociology*, 12(4). <https://doi.org/10.14254/2071-789X.2019/12-4/6>
- Çera, G., Belas, J., & Zapletalikova, E. (2019b). Explaining business failure through determinist and voluntarist perspectives. *Serbian Journal of Management*, 14(2), 257–275. <https://doi.org/10.5937/sjm14-23348>
- Çera, G., Breckova, P., Çera, E., & Rozsa, Z. (2019c). The effect of business enabling policies, tax treatment, corruption and political connections on business climate. *Acta Polytechnica Hungarica*, 16(4), 113–132. <https://doi.org/10.12700/APH.16.4.2019.4.6>
- Çera, G., Meço, M., Çera, E., & Maloku, S. (2019d). The effect of institutional constraints and business network on trust in government: An institutional perspective. *Administratie Si Management Public*, 2019(33), 6–19. <https://doi.org/10.24818/amp/2019.33-01>
- Chang, S. E., Brown, C., Handmer, J., Helgeson, J., Kajitani, Y., Keating, A., Noy, I., Watson, M., Derakhshan, S., Kim, J., & Roa-Henriquez, A. (2022). Business recovery from disasters: Lessons from natural hazards and the COVID-19 pandemic. *International Journal of Disaster Risk Reduction*, 80(May), Article 103191. <https://doi.org/10.1016/j.ijdr.2022.103191>
- Chebeň, J., Krajčirová, R., Vaňová, A. F., & Munk, M. (2021). The effect of corporate income tax of agricultural companies on national budget - the case of the Slovak Republic. *Amfiteatru Economic*, 23(57), 466–482. <https://doi.org/10.24818/EA/2021/57/466>
- Chen, J., Wang, H., & Zhong, R. Y. (2021). A supply chain disruption recovery strategy considering product change under COVID-19. *Journal of Manufacturing Systems*, 60, 920–927. <https://doi.org/10.1016/j.jmsy.2021.04.004>
- Cheraghalizadeh, R., Olya, H., & Tumer, M. (2021). The effects of external and internal factors on competitive advantage – Moderation of market dynamism and mediation of customer relationship building. *Sustainability*, 13(7), Article 4066. <https://doi.org/10.3390/su13074066>
- Chit, M. M., Croucher, R., & Rizov, M. (2023). Surviving the COVID-19 pandemic: The antecedents of success among European SMEs. *European Management Review*, 20(1), 113–127. <https://doi.org/10.1111/emre.12525>
- Chittithaworn, C., Islam, M. A., Keawchana, T., & Muhd Yusuf, D. H. (2011). Factors affecting business success of Small & Medium Enterprises (SMEs) in Thailand. *Asian Social Science*, 7(5), 180–190. <https://doi.org/10.5539/ass.v7n5p180>
- Coad, A., Holm, J. R., Krafft, J., & Quattraro, F. (2018). Firm age and performance. *Journal of Evolutionary Economics*, 28, 1–11. <https://doi.org/10.1007/s00191-017-0532-6>

- Cockalo, D., Djordjevic, D., Nikolic, M., Stanislavljev, S., & Terek, E. (2017). Analysis of possibilities for improving entrepreneurial behaviour of young people: Research results in Central Banat district. *Journal of Engineering Management and Competitiveness*, 7(2), 97–108. <https://doi.org/10.5937/jemc1702097C>
- Ćockalo, D., Đorđević, D., Bogetić, S., & Bakator, M. (2020). Youth entrepreneurship development: A review of literature and ten-year research results. *Journal of Engineering Management and Competitiveness*, 10(2), 151–161. <https://doi.org/10.5937/jemc2002151Q>
- Coleman, S., Cotei, C., & Farhat, J. (2013). A resource-based view of new firm survival: new perspectives on the role of industry and exit route. *Journal of Developmental Entrepreneurship*, 18(01), Article 1350002. <https://doi.org/10.1142/S1084946713500027>
- Cooper, R. G. (1994). New products: The factors that drive success. *International Marketing Review*, 11(1), 60–76. <https://doi.org/10.1108/02651339410057527>
- Corey, C. M., & Deitch, E. A. (2011). Factors affecting business recovery immediately after hurricane Katrina. *Journal of Contingencies and Crisis Management*, 19(3), 169–181. <https://doi.org/10.1111/j.1468-5973.2011.00642.x>
- Dang, C., Frank, Z., & Yang, C. (2018). Measuring firm size in empirical corporate finance. *Journal of Banking and Finance*, 86, 159–176. <https://doi.org/10.1016/j.jbankfin.2017.09.006>
- Denicolai, S., Cotta Ramusino, E., & Sotti, F. (2015). The impact of intangibles on firm growth. *Technology Analysis and Strategic Management*, 27(2), 219–236. <https://doi.org/10.1080/09537325.2014.959484>
- Djordjevic, D., Cockalo, D., Bogetic, S., & Bakator, M. (2021a). Predicting entrepreneurial intentions among the youth in Serbia with a classification decision tree model with the QUEST algorithm. *Mathematics*, 9(13), Article 1487. <https://doi.org/10.3390/math9131487>
- Djordjevic, D., Cockalo, D., Bogetic, S., & Bakator, M. (2021b). Modelling youth entrepreneurship intentions: A ten-year research. *Journal of East European Management Studies*, 26(4), 617–638. <https://doi.org/10.5771/0949-6181-2021-4-617>
- Du, J., & Nguyen, B. (2022). Cognitive financial constraints and firm growth. *Small Business Economics*, 58, 2109–2137. <https://doi.org/10.1007/s11187-021-00503-7>
- Dua, A., Mahajan, D., Oyer, L., & Ramaswamy, S. (2020). *US small-business recovery after the COVID-19 crisis* (Issue July).
- Durana, P., Ginevicius, R., Urbanski, M., Podhorska, I., & Tumpach, M. (2021). Parallels and differences in earnings management of the Visegrad four and the Baltics. *Journal of Competitiveness*, 13(3), 39–55. <https://doi.org/10.7441/joc.2021.03.03>
- Dvorsky, J., Gavurova, B., Čepel, M., & Červinka, M. (2020). Impact of selected economic factors on the business environment: The case of selected east european countries. *Polish Journal of Management Studies*, 22(2), 96–110. <https://doi.org/10.17512/pjms.2020.22.2.07>
- Dvorský, J., Belás, Jr., J., Čera, G., & Bilan, S. (2021). Disparities in the perception of business risks in connection with the achieved education of the owner/manager and doing business. *International Journal of Entrepreneurial Knowledge*, 9(1), 25–40. <https://doi.org/10.37335/ijek.v9i1.123>
- EIB. (2021). *Serbia: Team Europe - EIB provides €200 million to Development Fund of Serbia to support faster COVID-19 recovery of Serbian SMEs and mid-caps*. <https://www.eib.org/en/press/all/2021-238-team-europe-eib-provides-eur200-million-to-development-fund-of-serbia-to-support-faster-covid-19-recovery-of-serbian-smes-and-mid-caps>
- Espahbodi, R., John, T. A., & Vasudevan, G. (2000). The effects of downsizing on operating performance. *Review of Quantitative Finance and Accounting*, 15, 107–126. <https://doi.org/10.1023/A:1008321929083>
- Fabrigar, L. R., & Wegener, D. T. (2011). *Exploratory factor analysis*. Oxford University Press. <https://doi.org/10.1093/acprof:osobl/9780199734177.001.0001>

- Ferreira de Araújo Lima, P., Crema, M., & Verbano, C. (2020). Risk management in SMEs: A systematic literature review and future directions. *European Management Journal*, 38(1), 78–94. <https://doi.org/10.1016/j.emj.2019.06.005>
- Fidrmuc, J., Fidrmuc, J., & Horvath, J. (2002). *Visegrad economies: growth experience and prospects* (Issue April).
- Ganau, R., & Rodríguez-pose, A. (2022). Credit constraints in European SMEs: Does regional institutional quality matter? *Applied Economics Letters*, 29(15), 1388–1392. <https://doi.org/10.1080/13504851.2021.1934385>
- Goesaert, T., Heinz, M., & Vanormelingen, S. (2015). Downsizing and firm performance: Evidence from German firm data. *Industrial and Corporate Change*, 24(6), 1443–1472. <https://doi.org/10.1093/icc/dtv007>
- Guthrie, J. P., & Datta, D. K. (2008). Dumb and dumber: The impact of downsizing on firm performance as moderated by industry conditions. *Organization Science*, 19(1), 108–123. <https://doi.org/10.1287/orsc.1070.0298>
- Hossain, M. R., Akhter, F., & Sultana, M. M. (2022). SMEs in Covid-19 Crisis and combating strategies: A Systematic Literature Review (SLR) and a case from emerging economy. *Operations Research Perspectives*, 9(January), Article 100222. <https://doi.org/10.1016/j.orp.2022.100222>
- Huang, L., Wang, L., & Song, J. (2018). Post-disaster business recovery and sustainable development: A study of 2008 Wenchuan Earthquake. *Sustainability*, 10(3), Article 651. <https://doi.org/10.3390/su10030651>
- Hussain, H. I., Kot, S., Kamarudin, F., & Yee, L. H. (2021). Impact of rule of law and government size to the microfinance efficiency. *Economic Research-Ekonomska Istrazivanja*, 34(1), 1870–1895. <https://doi.org/10.1080/1331677X.2020.1858921>
- Istipliler, B., Bort, S., & Woywode, M. (2023). Flowers of adversity: Institutional constraints and innovative SMEs in transition economies. *Journal of Business Research*, 154, Article 113306. <https://doi.org/10.1016/j.jbusres.2022.113306>
- Ivanović-Djukić, M., Lepojević, V., Stefanović, S., van Stel, A., & Petrović, J. (2018). Contribution of entrepreneurship to economic growth: A comparative analysis of south-east transition and developed European Countries. *International Review of Entrepreneurship*, 16(2), 257–276. <http://ezproxy.hwr-berlin.de:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=ent&AN=130879502&lang=de&site=eds-live&scope=site>
- Juergensen, J., Guimón, J., & Narula, R. (2020). European SMEs amidst the COVID-19 crisis: Assessing impact and policy responses. *Journal of Industrial and Business Economics*, 47(3), 499–510. <https://doi.org/10.1007/s40812-020-00169-4>
- Khan, K. A., Dankiewicz, R., Kliuchnikava, Y., & Oláh, J. (2020). How do entrepreneurs feel bankruptcy? *International Journal of Entrepreneurial Knowledge*, 8(1), 89–101. <https://doi.org/10.37335/ijek.v8i1.103>
- Khan, K. A., Çera, G., & Netek, V. (2019). Perception of the Selected business environment aspects by service firms. *Journal of Tourism and Services*, 10(19), 111–127. <https://doi.org/10.29036/jots.v10i19.115>
- Kotic, L. (2012). Recovery strategies in Serbian mature companies. *African Journal of Business Management*, 6(36), 9906–9913. <https://doi.org/10.5897/AJBM10.1621>
- Kozubikova, L., Belas, J., Kljucnikov, A., & Virglerova, Z. (2015). Differences in approach to selected constructs of entrepreneurial orientation in SME segment regarding the selected socio-demographic factors. *Transformations in Business and Economics*, 14(3C), 333–355.
- Kreiner, J., Sajfert, D., Anđelić, S., Jančev, N., & Živković, M. (2021). Influence of entrepreneurs on job satisfaction and organizational commitment of employees. *Journal of Engineering Management and Competitiveness*, 11(2), 96–105. <https://doi.org/10.5937/jemc2102096K>

- Le, H. B. H., Nguyen, T. L., Ngo, C. T., Pham, T. B. T., & Le, T. B. (2020). Policy related factors affecting the survival and development of SMEs in the context of Covid 19 pandemic. *Management Science Letters*, 10(15), 3683–3692. <https://doi.org/10.5267/j.msl.2020.6.025>
- Li, C., Wan, J., Xu, Z., & Lin, T. (2021). Impacts of green innovation, institutional constraints and their interactions on high-quality economic development across China. *Sustainability*, 13(9), Article 5277. <https://doi.org/10.3390/su13095277>
- Pejin Stokic, L. (2020). *COVID-19: impact on the Serbian economy and the government recovery package*.
- Lu, Y., Wu, J., Peng, J., & Lu, L. (2020). The perceived impact of the Covid-19 epidemic: Evidence from a sample of 4807 SMEs in Sichuan Province, China. *Environmental Hazards*, 19(4), 323–340. <https://doi.org/10.1080/17477891.2020.1763902>
- Machmud, S., & Sidharta, I. (2016). Entrepreneurial motivation and business performance of SMEs in the SUCI Clothing Center, Bandung, Indonesia. *DLSU Business & Economics Review*, 25(2), 63–78.
- Metzker, Z., Maroušek, J., Hlawiczka, R., Belás Jr, J., & Khan, K. A. (2021). The Perception of the market and operational area of business by service sector and tourism companies in terms of CSR implementation. *Journal of Tourism and Services*, 12(23), 217–236. <https://doi.org/10.29036/jots.v12i23.328>
- Meyer, D. F. (2020). The impact of globalisation on economic growth: The case of Visegrad countries. *Forum Scientiae Oeconomia*, 8(2), 25–36.
- Meyer, Na., & Krüger, N. (2021). South African female entrepreneurs' motivational factors: differences between young and established business owners. *Forum Scientiae Oeconomia*, 9(1), 75–90. <https://doi.org/10.1080/15228916.2022.2069430>
- Michalkova, L., Cepel, M., Valaskova, K. & Vincurova, Z. (2022). Earnings quality and corporate life cycle before the crisis. A study of transport companies across Europe. *Amfiteatru Economic*, 24(61), 782–796. <https://doi.org/10.24818/EA/2022/61/782>
- Minaei, M. S., & Lucky, E. O. I. (2011). The conceptual framework of the effect of location on performance of small firms. *Asian Social Science*, 7(12), 110–118. <https://doi.org/10.5539/ass.v7n12p110>
- Morrish, S. C., & Jones, R. (2020). Post-disaster business recovery: An entrepreneurial marketing perspective. *Journal of Business Research*, 113, 83–92. <https://doi.org/10.1016/j.jbusres.2019.03.041>
- Muñoz-Bullón, F., & Sánchez-Bueno, M. J. (2011). Does downsizing improve organisational performance? An analysis of Spanish manufacturing firms. *International Journal of Human Resource Management*, 22(14), 2924–2945. <https://doi.org/10.1080/09585192.2011.599955>
- Murnieks, C. Y., Klotz, A. C., & Shepherd, D. A. (2020). Entrepreneurial motivation: A review of the literature and an agenda for future research. *Journal of Organizational Behaviour*, 41, 115–143. <https://doi.org/10.1002/job.2374>
- National Bank of Serbia. (2020). *Macroeconomic Developments in Serbia*.
- Nikolić, N., Jovanović, I., Nikolić, Đ., Mihajlović, I., & Schulte, P. (2019). Investigation of the factors influencing SME failure as a function of its prevention and fast recovery after failure. *Entrepreneurship Research Journal*, 9(3), 22. <https://doi.org/10.1515/erj-2017-0030>
- North, D. C. (1990). *Institutions, institutional change, and economic performance*. Cambridge University Press. <https://doi.org/10.1017/CBO9780511808678>
- Norusis, M. J. (2012). *IBM SPSS statistics 19 statistical procedures companion*. Prentice Hall.
- Okwo, H., Ezenwakwelu, C., Igwe, A., & Imhanrenialena, B. (2019). Firm size and age mediating the firm survival-hedging effect: Hayes' 3-way parallel approach. *Sustainability*, 11, Article 887. <https://doi.org/10.3390/su11030887>
- Oláh, J., Kovács, S., Virglerova, Z., Lakner, Z., Kovacova, M., & Popp, J. (2019a). Analysis and comparison of economic and financial risk sources in SMEs of the Visegrad Group and Serbia. *Sustainability*, 11(7), Article 1853. <https://doi.org/10.3390/su11071853>

- Olah, J., Tiron Tudor, A., Pashkus, V., & Alpatov, G. (2021). Preferences of Central European consumers in circular economy. *Ekonomicko-Manazerske Spektrum*, 15(2), 99–110. <https://doi.org/10.26552/ems.2021.2.99-110>
- Oláh, J., Virglerova, Z., Popp, J., Kliestikova, J., & Kovács, S. (2019b). The assessment of non-financial risk sources of SMES in the V4 countries and Serbia. *Sustainability*, 11(17), Article 4806. <https://doi.org/10.3390/su11174806>
- Panda, S., & Dash, S. (2014). Constraints faced by entrepreneurs in developing countries: A review and assessment. *World Review of Entrepreneurship, Management and Sustainable Development*, 10(4), 405–421. <https://doi.org/10.1504/WREMSD.2014.064951>
- Rahman, A., Belas, J., Kliestik, T., & Tyll, L. (2017). Collateral requirements for SME loans: Empirical evidence from the Visegrad countries. *Journal of Business Economics and Management*, 18(4), 650–675. <https://doi.org/10.3846/16111699.2017.1357050>
- Ramosaj, B., Karaxha, H., & Karaxha, H. (2014). Change management and its influence in the business environment. *Iliria International Review*, 4(2), 9–30. <https://doi.org/10.21113/iir.v4i2.43>
- Rozsa, Z., Belas, J., Khan, K. A., & Zvarikova, K. (2021). Corporate social responsibility and essential factors of personnel risk management in smes. *Polish Journal of Management Studies*, 23(2), 449–463. <https://doi.org/10.17512/pjms.2021.23.2.27>
- Seah, Y. Z. (2021). COVID-19 and Its effects on attitudes toward opportunity-motivated entrepreneurship: Before and after lockdown. *Sustainability*, 13, Article 8689. <https://doi.org/10.3390/su13168689>
- Smallbone, D., & Welter, F. (2012). The role of government in SME development in transition economies. *International Small Business Journal*, 19(4), 63–77. <https://doi.org/10.1177/0266242601194004>
- Smekalova, L., Hajek, O., Belas, J., & Machacek, J. (2014). Perception of small and medium entrepreneurship in the Czech Republic. *Journal of Competitiveness*, 6(4), 41–49. <https://doi.org/10.7441/joc.2014.04.03>
- Son, J. (2012). Institutional constraints and economic development. In *Social Capital and Institutional Constraints* (Vol. 2, Issue 1, pp. 39–61). Routledge. <https://doi.org/10.4324/9780203104743-10>
- Soomro, B. A., Abdelhamed, N., & Abdelwahed, A. (2019). The influence of demographic factors on the business success of entrepreneurs: An empirical study from the small and medium-sized enterprises context of Pakistan. *International Journal of Entrepreneurship*, 23(2), 13.
- Stevenson, J. R., Brown, C., Seville, E., & Vargo, J. (2018). Business recovery: An assessment framework. *Disasters*, 42(3), 519–540. <https://doi.org/10.1111/disa.12261>
- Stoica, O., Roman, A., & Rusu, V. D. (2020). The nexus between entrepreneurship and economic growth: A comparative analysis on groups of countries. *Sustainability*, 12(3), Article 1186. <https://doi.org/10.3390/su12031186>
- Su, Z., & Tang, J. (2016). Product innovation, cost-cutting and firm economic performance in the post-crisis context: Canadian micro evidence. *Journal of Centrum Cathedra*, 9(1), 4–26. <https://doi.org/10.1108/JCC-08-2016-0009>
- Trail, G., & McCullough, B. (2018). Differential effects of internal and external constraints on sustainability intentions: A hierarchical regression analysis of running event participants by market segment. *Journal of Management for Global Sustainability*, 6(2). <https://doi.org/10.13185/JM2018.06206>
- Verbano, C., & Venturini, K. (2013). Managing risks in SMEs: A literature review and research agenda. *Journal of Technology Management and Innovation*, 8(3), 186–197. <https://doi.org/10.4067/S0718-27242013000400017>
- Williams, R. I., Smith, A., Aaron, J. R., Manley, S. C., & McDowell, W. C. (2019). Small business strategic management practices and performance: A configurational approach. *Economic Research-Ekonomska Istrazivanja*, 33(1), 2378–2396. <https://doi.org/10.1080/1331677X.2019.1677488>

- World Bank Group. (2022). *Western Balkans regular economic report – Steering through crises* (Issue 21).
- Xheneti, M., & Bartlett, W. (2012). Institutional constraints and SME growth in post-communist Albania. *Journal of Small Business and Enterprise Development*, 19(4), 607–626.  
<https://doi.org/10.1108/14626001211277424>
- Zarnadze, G., Dika, I., Çera, G., & Ribeiro, H. N. R. (2022). Personality traits and business environment for entrepreneurial motivation. *Administrative Sciences*, 12(4), Article 176.  
<https://doi.org/10.3390/admsci12040176>
- Yoshino, N. (2016). *Major challenges facing small and medium-sized enterprises in Asia and solutions for mitigating them*. SSRN. <https://doi.org/10.2139/ssrn.2766242>
- Yu, G.-C., & Park, J.-S. (2006). The effect of downsizing on the financial performance and employee productivity of Korean firms. *International Journal of Manpower*, 27(3), 230–250.  
<https://doi.org/10.1108/01437720610672158>