DOI: 10.28934/ea.22.55.2.pp66-78 First Online: December 8, 2022

ORIGINAL SCIENTIFIC PAPER

Business Process Innovation of Serbian Entrepreneurial Firms

Mihailo Paunović[1] | Marija Lazarević-Moravčević[1] | Marija Mosurović Ružičić[1]*

[1] Institute of Economic Sciences, Belgrade, Serbia

ABSTRACT

Innovations are vital for improving living standards and can affect not only individuals but also institutions, economic sectors, and the whole country in many ways. This paper investigates the innovation performances of Serbian entrepreneurial firms. It focuses on business process innovations related to product and business process development. The sample consists of Serbian start-ups, which were founded in 2015, from five industries. The data about these entrepreneurial firms were collected via a questionnaire. The respondents assessed various statements about product and business process development innovations on a five-point Likert scale (1-strongly disagree; 5-strongly agree). The statements were derived from several indicators within the Balanced Scorecard's process perspective. They were modified to fit the new definition of business process innovation provided by the OECD/Eurostat (2018) and according to the context of Serbian entrepreneurial firms. The statistical analysis involved descriptive statistics, frequencies, reliability analysis, and One-way ANOVA. The results indicate that most of the entrepreneurial firms introduced innovations that enabled them to operate more efficiently, improve their processes, establish certain routines, respond to customer complaints faster than their competitors, and develop a product or a service more quickly than their competitors. No statistically significant differences were found regarding introducing business process innovations among entrepreneurial firms from different industries. This paper can help policymakers assess the contribution of innovation to economic goals and monitor and evaluate the effectiveness of their innovation policies.

Keywords: *innovation, entrepreneurship, business process innovation, Serbia*

JEL Classification: O31, O32

INTRODUCTION

There are different interpretations of the innovation phenomenon in the professional literature. Despite those differences, the expert community agrees that innovation is essential for the development of both the economy and society. Innovation is a driver of economic growth (Schumpeter, 1934); it affects employment growth and improves the quality of life (Atkinson & Ezell, 2014); and presents a condition for creating a competitive advantage (Porter, 1985). Innovation is important for all companies, regardless of their size or the activity they perform. Companies that do not possess the ability to innovate lose their established positions in the market and are "doomed to fail" (Drucker, 1996).

In both theory and practice, innovation has been identified as a factor of growth, structure, transformation and the survival of various industries (Barney et al., 1987; Malerba, 2006). The

* Corresponding author, e-mail: marija.mosurovic@ien.bg.ac.rs

differences in growth rates between individual industries are well-known and obvious, as well as the fact that growth rates in certain industries constantly decline, while the other industries record highly intensive growth. High growth rates can be associated with a greater share of technological innovation in new products and processes and a high rate of diffusion of these innovations in the global economy. On the other hand, industries with a negative growth rate are generally characterized by a low rate of research and development intensity and a low rate of technological changes. However, the connection between technological progress and the growth of an industry does not necessarily mean that only technological innovations can encourage growth (Freeman & Louçã, 2001). Similarly, it also does not always mean that the companies operating in low-tech sectors benefit less from their innovations. The results of innovation development in the market showed that a significant number of incremental improvements had better results in the market compared to the new technology itself (Freeman, 1989; Mosurović-Ruzičić & Kutlača, 2015). Innovations can result not only from scientific and technological knowledge, but also from the informal forms of knowledge and learning based on experience, increasingly depending, nowadays, on business process development as well. The strategic resource in the industrial society was capital, while in the post-industrial society (modern scientific and technological revolution), knowledge has become the basic productive force, i.e. leading to the creation of a "knowledge society" or "entrepreneurial society". By developing high technology, the factors of production, the structure of production, and business motives also keep changing. The problems of modern society can be solved and further developed on a new technological basis (Ilić, 2003).

Innovations are needed by every company regardless of its size. The question of the influence of the size of an organization on its innovative ability has been discussed in numerous studies, and the agreement of the expert community has yet to be reached. Some authors believe that larger firms are generally less efficient in introducing innovation compared to smaller ones (Cooke et al., 1997; Kamien & Schwartz, 1975). Dess et al. (2007) state that the larger the company is, the fewer innovative solutions there are. Drucker's opinion is that it is not the "size" that is an obstacle to entrepreneurship and innovation, but the way of operational management and functioning of a company (Drucker, 2020). Furthermore, certain research has shown that small companies invest less in research and development due to a lack of financial resources; still, they conduct these activities more efficiently than large systems and can faster launch new products (Burns, 2011). It is necessary to highlight the fact that the innovative activity of a company is not exclusively determined by financial capabilities, but this depends on the "stimulating organizational context in which such creative ideas arise and afterward get implemented (Mosurović Ružičić, 2012)".

Certain characteristics of small systems, such as simple organizational structure, effective communication and decision-making, strong organizational culture and employee commitment (Kamenković & Lazarević-Moravčević, 2018; Mosurović & Kutlača, 2011; Paunović et al., 2022) can encourage the innovative activity of these systems. Also, the pressures from the environment (technology development, intense competition, changes in consumer demands, etc.) impose the need to review the existing business models and introduce innovative solutions related to a process or product.

Due to the lack of financial resources, small companies primarily implement innovations that do not involve high investments in research and development. These are usually innovations in the field of marketing and service delivery. We are talking about the innovations related to the application of new marketing methods which mainly involve certain changes in design, product packaging, promotion, placement, as well as the methods of defining the prices of products/services. The goal of innovation in marketing is to provide a better response to customer needs, to open new markets, or to ensure different product positioning in the market. Small organizations are extremely innovative in the way how they manage customer relationships. Smaller systems can find new ways to connect with customers and suppliers that

enable them to reduce costs and time from ordering to the delivery of products. Smaller organizations have proven to be extremely innovative in the market communication segment, especially during the crisis caused by the global outbreak of the COVID-19 pandemic. Due to the changes in consumer habits and behavior, there was a need to apply new approaches in market communication, implying the use of various online marketing tools (Lazarević-Moravčević et al., 2021).

The authors of the paper investigate the innovation performance of entrepreneurial firms in Serbia while focusing on business process innovation related to product and process development in companies. The paper starts with two research questions: (1) What is the innovation performance of entrepreneurial firms in Serbia, and (2) Does belonging to a specific sector impact the innovative performance of entrepreneurs? The methodology of the Oslo Manual, a guide for measuring innovation developed by Eurostat and the OECD, will be used to define and analyze business process innovation.

Although there are different definitions in the literature, the term entrepreneurial firm is most often associated with start-ups not older than seven years. Van Praag and Versloot (2007) define an entrepreneurial firm as a company meeting one of the following three criteria: (1) employing less than 100 people, (2) being founded less than seven years ago, and (3) a company which is new in the market. For these authors, the terms "entrepreneur" and "entrepreneurial firm" have the same meaning. Accordingly, in this research, the term entrepreneurial firm means a start-up company in the Republic of Serbia, which was founded in 2015 and which has less than 100 employees. 203–218.

THEORETICAL BACKGROUND

The etymological meaning of the verb innovate can be found in the Latin language: *innovare* – to renew, to make something new again, and the noun *innovatio* means a new invention that improves a product or a method of work, a novelty, a change.

The term innovation can be interpreted in different ways. According to Schumpeter (1934), innovation represents conquering new markets, introducing new products and processes, using new raw materials, changing management and organization, etc. The same author points out that innovations are drivers of economic growth and that entrepreneurs, especially those who are inclined to take risks, are initiators of change and bearers of innovation. Innovation includes technical, design, production, management and commercial activities for the purpose of launching a new or improved product/process in the market (Freeman, 1982). The authors Hill and Jones (2007) interpret innovation as the improvement of a product, a production process, a management system, and the organizational structure of a company. Stošić (2007) believes that „innovation implies the transformation of new ideas into new products/processes". To put it differently, it can be understood as the process of turning an idea into a practical application - realization.

The definition of innovation generally refers to the development and successful conversion of an invention into a useful product (product innovation) or a technique (process innovation) considered worthy enough to be launched into the market, or to be used in a company. Therefore, first of all, a distinction needs to be made between an invention and an innovation. Innovation is the market realization of an invention. Not all inventions end up becoming innovations, only the ones that have met the three basic classification requirements for a standard patent: (1) an invention needs to be new; (2) useful; (3) and to justify the inventiveness phase, i.e. "it needs to be non-obvious to experienced practitioners in the technological field" (Semenčenko & Kutlača, 2018).

Peter Drucker believes that for the success of an innovation, it is necessary to perceive a need for it, and that innovation is not linked only to high-tech companies, but also to low-tech companies (Drucker, 2020).

The growing attention that the innovation phenomenon attracts is related to a large number of factors that are partly determined by the economic discipline, and partly related to the increase in the empirical perception of the importance of technological factors for competitiveness and growth. For example, the number of empirical studies that underline the importance of technological innovation for achieving a competitive advantage is constantly increasing (Castelli, 2012; Farny & Binder, 2021; Nelson, 1988). According to the Organization for Economic Co-operation and Development (OECD), an innovation is "a new or improved product/process (or their combination) that is significantly different from a previous product/process and that is made available to potential users (product), or put into use (process)" (OECD/Eurostat, 2018).

In the latest edition of the Oslo Manual, a manual for measuring innovation, it is said that innovation changes the characteristics of one or more products or a business process, and, accordingly, a distinction is made between two basic types of innovation: product innovation and process innovation. In addition to the distinction between the two basic types of innovation in literature and practice, there is also a classification of innovations according to the degree of change they entail: radical and incremental innovations. Radical innovations imply revolutionary changes and represent the abandonment of existing practices. On the other hand, incremental (gradual) innovations refer to the improvement of existing practices, i.e. products and services (Dess et al., 2007). Some authors make a difference between business model innovation, product process innovation, and marketing (Latifi et al., 2021). Different interpretations of the term business process innovation can be found in the literature. The author Gershon (2009) believes that business process innovation implies the systems and methods for improving the business performance of an organization, while Varela et al. (2020) state that a company implements business process innovation if it has introduced one or more business functions significantly different from previously introduced business processes. The Oslo Manual, whose methodology is mostly used in the paper, defines business process innovation in the following way: "A business process innovation is a new or improved business process for one or more business functions that differs significantly from the firm's previous business processes and which has been brought into use in the company" (OECD/Eurostat, 2018, p. 72). Business process innovations include improvements in various business activities such as producing goods and services, marketing and sales, information and communication technology, distribution and logistics, administration, etc.

Based on the above-mentioned, it can be concluded that the term innovation is broader compared to the development of new products, processes, or technology. Innovation implies the introduction or change to a new state (Johannessen et al., 2001). Although there are innovations that are the result of a spur-of-the-moment idea, the majority of successful innovations are the result of a diligent and targeted search for innovation opportunities that can be spotted on rare occasions.

The connection between entrepreneurship and innovation, as well as their impact on economic progress, has been proven in numerous studies. There is consensus that the entrepreneurial orientation of firms determines and improves their innovativeness (Khalili et al., 2013; Minafam, 2017; Zen et al., 2016). Most of those researches elaborate only on the technological dimension of innovation within the entrepreneurial framework (Acs & Gifford, 1996). There are some researches that observed just particular components of a business innovation process in terms of the relationship between corporate entrepreneurship and innovation performance (Minafam, 2017), the relationship between innovation in business and SMEs performance (Muparangi & Makudza, 2020), etc. However, there are only a handful of studies that integrate all the elements of business process innovation. One of the reasons could be that the definition of business process innovation that we used in this paper is from the latest Oslo Manuel edition from 2018.

Entrepreneurship can be described most simply as a process in which an individual or a group of people uses an organizational effort to seize valuable opportunities and create value (Drucker, 1996), and innovation is a specific tool of entrepreneurs, i.e. a means by which entrepreneurs use a change as an opportunity to perform various production or service activities (Drucker, 2020).

Entrepreneurship begins with innovation, i.e. innovation is one of the basic characteristics of entrepreneurship. When talking about an entrepreneur, Drucker notes that what successful entrepreneurs have in common are not certain personality traits, but a commitment to innovation. In fact, an entrepreneur is "an independent innovator, meaning that the activities of this individual include, but also go considerably beyond, technical inventions and their utilization" (Baumol, 2002).

Innovation is the way entrepreneurs use existing and create new business opportunities. There are four types of sources of such opportunities within a company or an industry: (1) unexpected events, (2) inconsistencies, (3) the need to perform a process, and (4) changes in the structure of an industry or market. Three additional sources also exist outside a company, i.e. in its environment: (1) demographic changes, (2) changes in perception, and (3) the emergence of new knowledge (Drucker, 2002).

It is necessary to emphasize the fact that entrepreneurship is present in different areas of human activities and implies different behaviors. The most significant are: taking the initiative, practical use of resources, and accepting risks (Čičovački & Kulić, 2022).

The authors Bolton and Thompson (2004) find a connection between invention, creativity, and entrepreneurship. Their opinion is that "creativity is the starting point, whether it is related to invention or finding new business opportunities. That creativity is transformed into a practical reality (a product or a service) by means of innovation. Afterward, an entrepreneur puts that innovation into the context of the company and thus creates a value recognizable in the market". There is a difference between creativity and innovation, i.e. creativity is a part of the process of creating innovations. Creativity contributes to the creation of innovations, but it can also be used for other things. On the other hand, to turn creativity and invention into a business reality, it is necessary to place them in an entrepreneurial context that primarily refers to identifying business opportunities. The relationship between creativity, invention, innovation, identifying business opportunities, and entrepreneurship is shown in Figure 1.

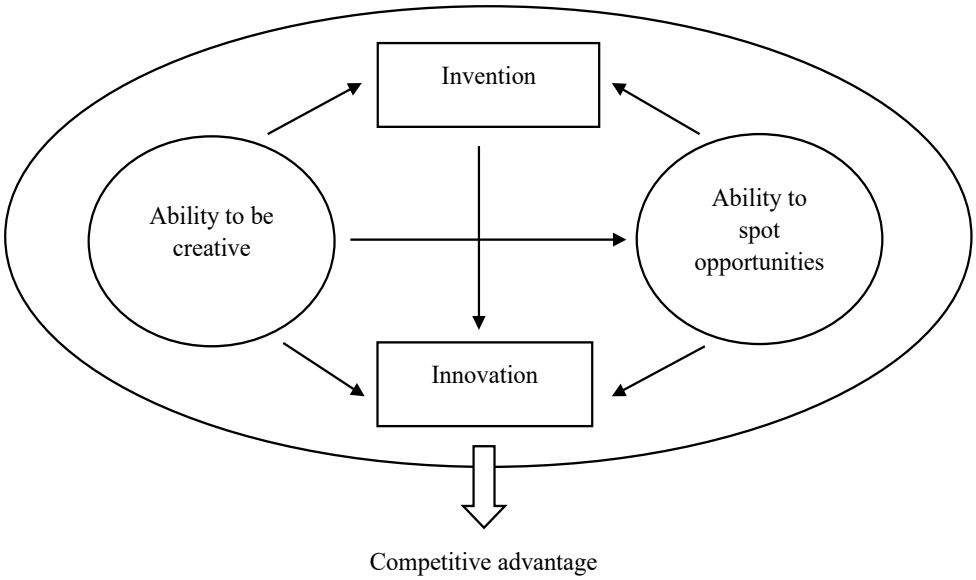

Figure 1. Creativity, invention, innovation, business opportunities, and entrepreneurship
Source: the authors based on Burns (2011).

Based on what has been said, it can be concluded that innovation and entrepreneurship are closely related and that, together, they can determine the development of an economy and society. Innovation is a way how entrepreneurs exploit existing or create new business opportunities, and this does not happen by accident. The key role in their creation is played by entrepreneurs who are characterized by focus, persistence, and dedication.

DATA AND METHODOLOGY

The data on the entrepreneurial firms were obtained based on an online questionnaire that was sent to them via email. Along with the questionnaire, the respondents were also sent a cover letter in which they were informed of the purpose of the research and the time needed to complete the questionnaire in order to motivate them to give their answers. Within the first thematic unit, there were general questions describing the structure of the sample (Table 1). In addition, the respondents evaluated various statements related to the implementation of innovations regarding product and process development in the company, using a five-point Likert scale (1-absolutely disagree, 2-disagree, 3-partially agree, 4-agree, 5-absolutely agree).

The questionnaire method of data collection was chosen since the research subject could best be approached in that way. Having finished the data collection phase, the statistical data processing phase began in which the IBM SPSS (Statistical Package for the Social Sciences) software was used, enabling high-quality and analytically correct data processing. The research was conducted in compliance with the procedures characteristic of empirical research. The indicators of business process innovation were systematized at a general level based on several indicators in the Alignment list in the Process Perspective section. They were further modified in order to fit the new definition of business process innovation given by the (OECD/Eurostat, 2018), and the business context of the entrepreneurial firms in Serbia. The statistical analysis included descriptive statistics, frequencies, reliability analysis, and the comparison of the arithmetic means of several samples (One-way ANOVA).

The sample included start-up companies established in 2015 from five different sectors from the territory of the Republic of Serbia. The initial database consisting of 1,131 companies was obtained from the Ministry of Economy of the Republic of Serbia. The founders of those companies were sent a questionnaire via email. Between December 2018-April 2019, 140 valid answers were collected, indicating that the response rate was 12.38%. This study uses the definition of a start-up company provided by the Global Entrepreneurial Monitor (GEM, 2018), according to which an entrepreneurial firm or a start-up is a company old less than 42 months. When the survey was conducted, all companies participating in the research were less than 42 months old.

Table 1 shows the sectoral structure of the companies that participated in the research and that constituted the final sample. The structure of the sample showed that the majority of the companies from the Wholesale and Retail sector participated in the research, while the smallest number of the companies was from Transport and Storage.

Table 1. Number of the companies that participated in the research

Sectors included in the sample	Number of the companies	Percentage in the sample
1. Manufacturing industry	40	29%
2. Wholesale and Retail	46	33%
3. Transport and Storage	12	9%
4. Information and Communications	16	11%
5. Professional, Scientific, Innovative and Technical Activities	26	18%
In total	140	100%

Source: the authors

Regarding the size of the companies participating in the research, 130 are micro-enterprises, and only 10 of them are small enterprises. It can also be noticed that 56 companies have their headquarters in Belgrade, 10 in Novi Sad, while the other companies have their headquarters in other towns in Serbia. Table 2 displays the descriptive performance indicators of the companies in the sample at the end of 2017.

Table 2. Descriptive indicators for the companies in the sample at the end of 2017

	Arithmetic mean	Median	Standard deviation	The minimum	The maximum
Sales revenue (in thousands of dinars)	36,059	21,337	42,184	361	224,387
Operating profit (in thousands of dinars)	1,707	518	5,590	-19,589	33,745
Net profit (in thousands of dinars)	1,368	335	4,838	-19,856	28,706
Number of employees	7	5	7	3	49

Source: the authors

The entrepreneurial firms participating in the research have an average of seven employees. The smallest number of employees is three, and the largest is 49. As for profitability, only 15 entrepreneurial firms have reported a net loss, while the remaining 125 have reported a positive net result.

RESULTS AND DISCUSSION

On a five-point Likert scale (1-absolutely disagree, 2-disagree, 3-partially agree, 4-agree, 5-absolutely agree), the respondents rated six statements related to the introduction of business process innovations regarding product and process development in their companies. Table 3 shows the results of the research. It shows the descriptive statistical indicators for each of the six statements based on which the innovative activity of the entrepreneurial firms in Serbia was measured.

Table 3. Descriptive indicators for the statements based on which the innovative activity of the entrepreneurial firms was measured

Product and process development	Number of responses	Arithmetic mean	Standard deviation
1. Our enterprise introduced numerous innovations that resulted in more efficient operations.	140	3.61	1.04
2. Majority of employees are committed to introducing innovations that lead to the continuous improvement of the processes performed in the company.	137	3.69	0.94
3. Certain routines have been established in our company, which has led to more efficient operations.	140	3.88	0.83
4. The innovations we introduced allowed us to respond to customer complaints more efficiently than our competitors.	136	3.96	0.93
5. The innovations we introduced allowed us to develop a product/service faster than our competitors (a shorter period from creating an idea to the market launch).	133	3.53	1.07
6. Customer suggestions lead to the improvement of the processes that take place in the company.	140	3.46	0.98

Source: the authors

Bearing in mind that the entrepreneurs rated their innovative activities on a five-point Likert scale and that the mean values of all their answers were greater than three, it can be concluded that the majority of the entrepreneurial firms in the sample implemented business process innovations related to product and process development in the company. To be precise, 55% of the respondents cited that their company implemented numerous innovations that led to more efficient operations, 62% that most of their employees were committed to introducing the innovations leading to the continuous improvement of the processes they performed, 70% that the established routines in their company led to more efficient operations, 70% that their company introduced the innovations that enabled them to respond to customer complaints more efficiently than their competitors, 51% that their company introduced the innovations that enabled them to develop a product/service faster than their competitors, and 53% that certain customer suggestions led to the improvement of the processes taking place in their company.

The research results indicated that entrepreneurial firms that participated in the study introduced numerous business process innovations that enabled them to operate more efficiently, improve the processes, establish certain routines, respond more quickly to customer complaints compared to the competition, and develop products/services faster than the competition. What is interesting is that more than two-thirds of the companies established routines that enabled more efficient operations and introduced innovations that enabled them to respond faster to customer complaints compared to the competition. Furthermore, more than half of the surveyed companies paid attention to customer feedback and improved their processes accordingly.

In order to determine whether there are statistically significant differences regarding the introduction of business process innovations among the entrepreneurial firms belonging to different sectors, a statistical technique was used to compare the arithmetic means of several samples (One-way ANOVA). For this purpose, the companies belonging to Transport and Storage, Information and Communications, and Professional, Scientific, Innovative and Technical Activities are classified as service companies in order to make their number similar to the number of the companies belonging to the sectors Manufacturing Industry (manufacturing enterprises) and Wholesale and Retail (trading companies). Table 5 shows the results of a one-way ANOVA test for business process innovations related to product and process development in the companies. Since homogeneity of variance is a necessary assumption for using a one-way

ANOVA test, Levene's test for equality of variances was conducted, whose results are displayed in Table 4.

Table 4. The Test of Homogeneity of Variances

Development of products and processes	Levene Statistic	Sig.
Item 1	0.85	0.43
Item 2	1.71	0.19
Item 3	0.38	0.69
Item 4	0.58	0.56
Item 5	0.18	0.83
Item 6	0.06	0.94

The results are significant at the 0.05 level

Source: the authors

The results of Levene's test for equality of variances are not statistically significant for any of the six statements that the respondents stated in the questionnaire, which indicates that the decision to use a one-way ANOVA test is justified.

Table 5. Descriptive statistics and one-way ANOVA

Development of products and processes		N	Mean	Std. Dev.	One-way ANOVA	
					F	Sig.
Item 1	Manufacturing	40	3.58	1.13	0.41	0.67
	Trade	46	3.52	1.05		
	Services	54	3.70	0.96		
Item 2	Manufacturing	40	3.53	1.01	1.74	0.18
	Trade	44	3.61	0.95		
	Services	53	3.87	0.86		
Item 3	Manufacturing	40	3.90	0.84	0.48	0.62
	Trade	46	3.96	0.82		
	Services	54	3.80	0.83		
Item 4	Manufacturing	38	3.87	0.91	0.24	0.79
	Trade	46	4.00	0.99		
	Services	52	3.98	0.90		
Item 5	Manufacturing	37	3.59	1.04	0.56	0.57
	Trade	44	3.39	1.15		
	Services	52	3.60	1.03		
Item 6	Manufacturing	40	3.68	1.02	1.72	0.18
	Trade	46	3.48	0.96		
	Services	54	3.30	0.96		

The results are significant at the 0.05 level

Source: the authors

The results of the one-way ANOVA test are not statistically significant for any of the six statements that the respondents rated in the questionnaire, which indicates that there are no significant differences regarding the introduction of business process innovations among entrepreneurial firms belonging to different sectors. Manufacturing companies (Manufacturing Industry), trade companies (Wholesale and Retail), and service companies (Transport and

Storage, Information and Communications, as well as Professional, Scientific, Innovative and Technical Activities), on average, introduced an equal number of business process innovations related to product and process development in their companies.

Cronbach's Alpha coefficient was used to determine the reliability of the measuring instruments. It measures the internal consistency and indicates how closely related the questions in the questionnaire are which measure the same type of influence. Reliability means that the respondent should get the same result if he/she completes the questionnaire under exactly the same conditions at two different points in time, and two respondents who are identical in everything should get the same result (Paunović, 2021). The general rule is when the value of this coefficient is above 0.7, it is considered acceptable. Due to the fact that the value of Cronbach's Alpha coefficient is 0.775 for the instruments based on which the innovative activity of the entrepreneurial firms was measured, it can be concluded that they have adequate reliability.

CONCLUSION

Entrepreneurship and innovation represent the basic factor of technological progress, economic and social growth and development. More precisely, "innovativeness, entrepreneurship and economic development are inextricably linked, interdependent, and in continuous correlation" (Šormaz, 2021).

Innovativeness represents one of the basic dimensions of entrepreneurial orientation. It implies the willingness of a company to permanently introduce new or improve the existing products and processes, and to find new markets and new ways of serving them. Innovation is vital for every individual, organization, economic sector and economy as a whole. In dynamic business conditions, innovation represents a basic condition for the survival, growth and development of an organization and presents a source of competitive advantage.

To the best of the authors' knowledge, based on the review of the available literature, no similar research has ever been conducted in Serbia, having entrepreneurial firms as its subject. Some aspects of business process innovations of family businesses were analyzed (Paunović et al., 2022); however, a comprehensive review of entrepreneurial firms has not been done.

The paper analyzes the innovative ability of entrepreneurial firms in Serbia. Based on the research, it can be concluded that most of the surveyed entrepreneurial firms introduced innovations in business processes related to product and process development in the company. More precisely, most of the entrepreneurial firms introduced innovations that enabled them to operate more efficiently, improve processes, establish certain routines, respond faster to customer complaints compared to competitors, and develop products/services faster than competitors. In the paper, no statistically significant differences were found regarding the introduction of business process innovations among entrepreneurial firms from different sectors.

This research indicates the importance of analyzing business process innovation in entrepreneurially-oriented companies, and represents only one perspective of the research topic. There are certain limitations of the analysis that can serve as a good basis for conducting further research. The geographical aspect of the research, which results from the fact that the research was conducted only in the entrepreneurial firms in Serbia, is one of the shortcomings. Companies from other countries were not included, which did facilitate data collection, but, at the same time, limited the use value of the collected data.

The results of this research are valuable for decision-makers at all levels. The managers of entrepreneurial firms should pay attention to business process innovation elements in their strategies. On the other hand, the conclusions of this research could be useful for the policymakers at the governmental level to stimulate the entrepreneurial behavior of companies. The importance of entrepreneurship for economic development is essential, especially in the era

of the digital economy when business process functions should be aligned with digital technology development (Wang et al., 2022).

The authors analyzed only one of the six types of business process innovations from the Oslo Manual, that is, only business process innovations related to product and process development in the company. Future research could include all six types of business process innovation. Additionally, the presented methodology could be applied outside the national borders and could be used in research that includes other companies, not only entrepreneurially-oriented companies.

ACKNOWLEDGEMENTS

This paper is a result of the research financed by the Ministry of Science, Technological Development, and Innovation of the Republic of Serbia.

REFERENCES

Acs, Z. J., & Gifford, S. (1996). Innovation of Entrepreneurial Firms. *Small Business Economics*, *8*(3), 203–218. http://www.jstor.org/stable/40228715

Atkinson, R., & Ezell, S. (2014). *Ekonomika inovacija – utrka za globalnu prednost*. Zagreb: Mate d.o.o.

Barney, J. B., Nelson, R. R., & Winter, S. G. (1987). An Evolutionary Theory of Economic Change. *Administrative Science Quarterly*, *32*(2), 315. https://doi.org/10.2307/2393143

Baumol, W. J. (2002). Entrepreneurship, Innovation and Growth: The David-Goliath Symbiosis. *The Journal of Entrepreneurial Finance*, *7*(2), 1–10. https://doi.org/10.57229/2373-1761.1087

Bolton, B., & Thompson, J. (2004). *Entrepreneurs: Talent, temperament, technique* (2nd ed.). Elsevier Butterworth.

Burns, P. (2011). *Entrepreneurship and small business:Start-up, growth and maturity* (3rd ed.). London: Palgrave Macmillan.

Castelli, C. (2012). Innovation. In *The Global Governance of Knowledge Creation and Diffusion*. https://doi.org/10.4324/9780203813683-14

Čičovački, T., & Kulić, Š. (2022). Inovacije i preduzetništvo. *Zbornik Radova - XXVIII Skup Trendovi Razvoja: Univerzitetsko Obrazovanje Za Privredu*, 398–401. http://www.trend.uns.ac.rs/stskup/trend_2022/TREND2022-ZBORNIK-RADOVA.pdf

Cooke, P., Uranga, M. G., & Etxebarria, G. (1997). Regional innovation systems: Institutional and organisational dimensions. *Research Policy*. https://doi.org/10.1016/s0048-7333(97)00025-5

Dess, G., Lumpkin, G., & Eisner, A. (2007). *Strategijski menadžment*. Beograd:Data Status.

Drucker, P. (1996). *Inovacije i preduzetništvo, praksa i principi*. Beograd: Grmeč.

Drucker, P. (2002). The discipline of innovation. *Harvard Business Review*, *80*(8), 95–103.

Drucker, P. (2020). *The Essential Drucker*. Routledge. https://doi.org/10.4324/9780429347979

Farny, S., & Binder, J. (2021). Sustainable Entrepreneurship. In L. Dana (Ed.), *World encyclopedia of entrepreneurship* (2nd ed., pp. 605–611). Edward Elgar Publishing, UK.

Freeman, C. (1982). *The Economics of Industrial Innovation*. London: Frances Printer Publishers.

Freeman, C. (1989). *Technology Policy and Economic Performance. Lessons from Japan*. London: Frances Printer Publishers.

Freeman, C., & Louçã, F. (2001). Conclusions To Part II: Recurrent Phenomena of the Long Waves of Capitalist Development. In *As Time Goes By : From the Industrial Revolutions to the Information Revolution* (Issue January).

Gershon, R. A. (2009). Intelligent Networking and Business Process Innovation. In *Handbook of Research on Telecommunications Planning and Management for Business* (pp. 461–473). https://doi.org/10.4018/978-1-60566-194-0.ch029

Global Entrepreneurship Monitor (GEM). (2018). *Global report 2017/18*. https://www.gemconsortium.org/report

Hill, W., & Jones, G. (2007). *Strategic Management - An integrated approach*. Boston:Hougnton Mifflin.

Ilić, B. (2003). *Informatičko duštvo i nova ekonomija*. Beograd: SD Publik.

Johannessen, J., Olsen, B., & Lumpkin, G. T. (2001). Innovation as newness: what is new, how new, and new to whom? *European Journal of Innovation Management*, *4*(1), 20–31. https://doi.org/10.1108/14601060110365547

Kamenković, S., & Lazarević-Moravčević, M. (2018). *Ocena kvaliteta okruženja i njegov uticaj na poslovanje sektora MSPP u Srbiji*. Beograd: Institut ekonomskih nauka.

Kamien, M., & Schwartz, N. (1975). Market structure and innovation: A survey. *Journal of Economic Literature*, *13*(1), 1–37.

Khalili, H., Nejadhussein, S., & Fazel, A. (2013). The influence of entrepreneurial orientation on innovative performance. *Journal of Knowledge-Based Innovation in China*, *5*(3), 262–278. https://doi.org/10.1108/JKIC-09-2013-0017

Latifi, M.-A., Nikou, S., & Bouwman, H. (2021). Business model innovation and firm performance: Exploring causal mechanisms in SMEs. *Technovation*, *107*, 102274. https://doi.org/10.1016/j.technovation.2021.102274

Lazarević-Moravčević, M., Domazet, I., & Lazić, M. (2021). Characteristics of Market Communication in Modern Business. *Proceedings of the 26th International Scientific Conference Strategic Management and Decision Support Systems in Strategic Management*, 142–149.

Malerba, F. (2006). Innovation, Industrial Dynamics and Industry Evolution: Progress and the Research Agendas. *Revue de l'OFCE*, *no 97 bis*(5), 21–46. https://doi.org/10.3917/reof.073.46

Minafam, Z. (2017). Corporate Entrepreneurship and Innovation Performance of Established Ventures: Case of Iranian Vanguard Companies. *Economic Analysis*, *50*(1/2), 62-76. https://www.library.ien.bg.ac.rs/index.php/ea/article/view/345/340

Mosurović-Ruzičić, M., & Kutlača, D. (2015). Organizational dimensions ratings innovation capacity of enterprise: Knowledge factors. *Business Economics*, *9*(1), 245–262. https://doi.org/10.5937/PosEko1501245M

Mosurović, M., & Kutlača, D. (2011). Organizational design as a driver for firm innovativeness in Serbia. *Innovation*. https://doi.org/10.1080/13511610.2011.633432

Mosurović Ružičić, M. (2012). *Organizacije i inovacije*. Beograd: Institut Mihajlo Pupin.

Muparangi, S., & Makudza, F. (2020). Innovation: The Driving Force for Entrepreneurial Performance among Small Informal Businesses. *Sustainable Business and Society in Emerging Economies*, *2*(2), 1–11. https://doi.org/10.26710/sbsee.v2i2.1543

Nelson, R. R. (1988). Institutional supporting technical change in the United States. In G. Dosi (Ed.), *Technical Change and Economic Theory* (First, pp. 312–330). Pinter Publishers Limited.

OECD/Eurostat. (2018). Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation. In *Handbook of Innovation Indicators and Measurement*. https://doi.org/10.1787/9789264304604-en

Paunović, M. (2021). *Uticaj intelektualnog kapitala na performanse poslovanja preduzetničkih firmi u Srbiji*. Ekonomski fakultet, Univerzitet u Beogradu.

Paunović, M., Mosurović Ružičić, M., & Lazarević Moravčević, M. (2022). Business process innovations in family firms: evidence from Serbia. *Journal of Family Business Management*. https://doi.org/10.1108/JFBM-03-2022-0044

Porter, M. (1985). *Competitive Advantage: Creating and Sustaining Superior Performance*. New York: Free Press.

Schumpeter, J. (1934). *The theory of economic development.* Harvard University Press, Cambridge.

Semenčenko, D., & Kutlača, D. (2018). *Shaping of National innovation system in small, transitional economy-case of Serbia*. Belgrade: Institute Mihajlo Pupin.

Šormaz, G. (2021). Značaj preduzetništva i inovativnosti za ekonomski razvoj Republike Srbije. *Trendovi u Poslovanju*, *18*(2), 30–39. https://scindeks-clanci.ceon.rs/data/pdf/2334-816X/2021/2334-816X2102030Q.pdf

Stošić, B. (2007). *Menadžment inovacija: ekspertni sistemi, modeli i metodi*. Beograd: Fakultet organizacionih nauka.

Van Praag, C. M., & Versloot, P. H. (2007). What is the value of entrepreneurship? A review of recent research. *Small Business Economics*, *29*(4), 351–382. https://doi.org/10.1007/s11187-007-9074-x

Varela, S. C., Santamaría, J. L., & Pilamunga, M. (2020). Cultural Identity in the Productive Matrix. In *Management and Inter/Intra Organizational Relationships in the Textile and Apparel Industry* (pp. 200–218). https://doi.org/10.4018/978-1-7998-1859-5.ch009

Wang, Y., Zhou, H., Zhang, Y., & Sun, X. (2022). Role of Entrepreneurial Behavior in Achieving Sustainable Digital Economy. *Frontiers in Public Health*, *10*. https://doi.org/10.3389/fpubh.2022.829289

Zen, A., Ferrari Dambros, Â. M., & Ignez dos Santos Rhoden, M. (2016). Innovative Entrepreneurship and Competitive Performance: The Prime/Brazil Case. *Revista de Negócios*, *20*(2), 40. https://doi.org/10.7867/1980-4431.2015v20n2p40-56

Article history:	Received: 23.11.2022
	Revised: 6.12.2022
	Accepted: 8.12.2022