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INNOVATIVENESS IN BOSNIAN SMALL AND MEDIUM SIZED ENTERPRISESZijad Dzafic¹, Admir Omerbasic²**ABSTRACT**

Small and medium-sized enterprises (SMEs) are one of the key development factors of the economy in many countries. They stimulate competitiveness and innovativeness, contribute to the growth of employment and also have an impact on improving the overall economic situation in the country. Bosnia and Herzegovina is a transition country that has still not adequately organized the development concept of small and medium-sized enterprises. In Bosnia and Herzegovina (BiH) there is an entrepreneurial initiative but without significant government support in the realization of business ideas of potential entrepreneurs or the implementation of innovative ideas, although their personal success generates and benefits the whole society. The central research hypothesis reads: Innovation has a positive impact on the growth and development of small and medium-sized manufacturing enterprises in BiH. The authors seek to present the current state of innovativeness in the SME sector in BiH with a review of the situation in the countries of the region and to propose certain measures to accelerate their development. This paper uses the Global Innovation Index Reports, followed by the World Bank Report on Business Ease, which measures the degree of national competitiveness and innovation of the economy, as well as the results of primary research on a sample of 200 manufacturing SMEs in BiH. The general objective of the research in this paper is to consider and review the effects of innovations in the operations of emerging SMEs and their impact on the growth of market share and increase of the total revenue.

Keywords: Innovation, Bosnia and Herzegovina, Small and Medium Enterprises, Legislation.

JEL: L26, O31

1. INTRODUCTION

Numerous studies show that small and medium-sized enterprises (SMEs) stimulate competitiveness, contribute to GDP growth and employment, and help improving the overall economic situation in the country. However, Bosnia and Herzegovina (BiH) is a transition country that has not yet adequately organized the development concept of these enterprises. There are huge obstacles to stable business operations, from institutional to access to new knowledge and innovations. The aggravating circumstance is that the policy of SME development in BiH is implemented at the entity level, and there is no single strategy that would direct and motivate SME companies to grow and develop.

The research questions are: Does innovation have an impact on the growth and development of SMEs in BiH? Is the existing legal and institutional framework stimulating for innovative SMEs or is the legal and administrative framework an obstacle to the development of innovative SMEs?

According to the latest UN report for 2017, the Global Innovation Index (GII), BiH occupies the 86th place in the world out of 127 countries covered by this survey. It is ranked better than Albania only if we analyze the surrounding countries (*Global Innovation Index*, 2017). If we look individually, the least ranking was for the category "easiness of starting a business" (place 122) and there are only five countries in the world with a more rigid business environment than BiH.

The problem of the lack of co-operation between universities and industry was particularly emphasized (105th place), followed by the area

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of knowledge acquired (120th), the ICT sector development (116th place), and the 90th place in business sophistication. Regarding the region, Slovenia is the most innovative country ranked 32nd, followed by Bulgaria in the 36th place, Croatia in the 41st place, Romania in the 42nd place, and Montenegro ranked 48th.

Being aware of the importance and role of SMEs, primarily as the main innovators and sources of employment, the European Union (EU) constantly promotes and highlights the policies that help the development of small and medium entrepreneurship. SMEs are the very heart of the economy because they are the main source of employment, innovation, dynamism, continuity, and growth in general.

The central research hypothesis is:

H0: Innovation has a positive impact on the growth and development of small and medium-sized manufacturing enterprises in BiH.

The main hypothesis is supported by the following hypotheses.

H1: Product innovation positively affects the growth and development of small and medium-sized manufacturing companies in BiH.

H2: Innovation impacts income increase and profitability of small and medium manufacturing companies in BiH.

H3: Product innovation positively affects the market share of SMEs in BiH.

The subject of the research is the theoretical, methodological and practical aspect of the application of innovation and its role in improving the business performance of SMEs in BiH. There are many examples of global companies that started out as small and today are large such as Starbucks, Apple, Dell, etc. These companies are now able to meet rapidly changing consumer demands. The main objectives of this research are: to summarize innovation impacts on the growth and development of SMEs, to determine the impact of innovation on the growth and development of SMEs in BiH and to explore the causes of weak development and innovation application in SMEs. The purpose is

to raise awareness of innovativeness in modern business, with a special focus on improving business performance of small and medium-sized manufacturing enterprises in BiH.

2. LITERATURE REVIEW

Innovation in SMEs as well as national competitiveness measurement in BiH, have not been sufficiently explored, and research is also focused on analyzing certain innovation determinants in order to increase the successfulness of SMEs. Innovations are commonly accepted as a key factor for increasing competitiveness of both companies and macro-level countries. Their importance is even more stressed thanks to modern processes such as increased global competitiveness, shorter product life cycle, increased technological capability, and fast-changing customer requirements. Compared to large enterprises, SMEs face a number of problems when it comes to innovations. The data from the 1970s indicate that SMEs can make a significant contribution to innovation and economic growth (Baković, Ledić-Purić, 2011)

Innovation can be manifested in the form of new products, new processes or new business systems and innovation, as well as in the case of the adoption of the existing technologies or products that may be new to the enterprise or new to the market (Crespell and Hansen, 2008). Different types of innovation can be found in the literature. Technical and administrative innovations differ in many ways. On the one hand, technical innovations tend to achieve improved or completely new products, services, and processes. On the other hand, administrative innovations relate to organizational structure and administrative processes and do not necessarily affect technical innovations (Afuah, 2003).

The ability of the organization to continuously innovate products/services and create an innovative business system is the foundation of its success, and the ability to stimulate innovation is dependent on "inventing" potential ideas and problem solutions available to "nourish" the innovation process (Jakovljević et al., 2012).

White et al. (1988) are the pioneer researchers in the field of innovation, providing clear evidence of the existence of a significant link between the degree of innovation and growth of the company. Kleinschmidt and Cooper (1991) state that enterprise innovation is one of the key factors in their success in the market. Along with the above-mentioned authors, Lumpkin and Dess (1996) agree that the capacity of organizational innovation has a positive impact on the growth of the company. Neely and Hii (1998) in their research show that the tendency of an enterprise to develop new products and services (high degree of innovation) leads to its faster adaptation in the context of market changes.

Innovation in its “nucleus” implies permanent development of new products and services, business processes and business models, as only such access to modern business leads to sustainable performance in today’s complex and dynamic environment (Cottam et al., 2001). In addition to the aforementioned authors, another researches (Leonidou, Katsikeas and Samiee 2002; Faco and Stars; 2010;) provide clear evidence of a significant link (between the degree of company preference and innovation; the growth and development of enterprises) which leads to an increase in microeconomic competitiveness.

In the context of future goals, the EU presents innovation as one of the goals of the Lisbon Strategy. Ismail et al. (2015), in their quantitative research conducted on a sample of 870 small and medium-sized manufacturing enterprises in Malaysia, made a conclusion that is reflected in the claim that innovation is the main factor for sustainable microeconomic competitiveness of the enterprise. Bi and Li (2015) in their study on a sample of 377 small and medium-sized industrial enterprises in China, provide insights suggesting a positive impact of innovation on growth and development of the enterprise.

Canes R. M. et al. argue that one of the aspects of innovation research studies the influence of regional enterprise dispersion on innovation potential. By expanding the scope of the enterprise, it is easier to come up with the ideas that increase the ability of innovation, i.e. introducing structural reforms and a favorable environment for innovation. However, there is

still no consensus describing the relationship between social capital and innovation in close-knit networks (Canes, Saez-Martinez and Ruiz Palomino, 2012).

The problem of funding research is particularly emphasized for SMEs because they do not normally have a base with a large number of successfully completed research projects that would serve as their collateral for their creditors (Rammer, Czarnitzki and Spielkamp, 2013). Subsequently, the emphasis on the development of external relations is argued to be stronger in SMEs than in large companies because they have limited internal knowledge and resources (Abrar-ul-haq, Mohd and Md Nurul, 2015). Piza et al. (2016) report that the World Bank has invested over \$ 40 billion in the SME sector from 2006 to 2012, which best describes the seriousness of the effort to improve it.

When talking about innovation, Božić and Rada (2005) argue that there is a statistically strong positive link between innovation and business performance of SMEs in Croatia. Dobbs and Hamilton (2006) set forth clear empirical evidence in their study, which argues that innovation is the basic “leverage” of growth and development of small manufacturing enterprises. A survey conducted by a group of authors (2013), on their sample of 300 SMEs, found that the main determinant of long-term microeconomic competitiveness of enterprises is their degree of innovation. Eggert, Thiesbrummel and Deutscher (2014), on a panel sample of 558 SMEs in Germany, found out that innovation is statistically positively associated with business performance.

Business entities must be able to evaluate the technology packages offered on the international market and to independently develop technologies that will be in line with their needs. Compared to developed European countries, the innovation potential of the private sector of the Western Balkan transition countries is in a worse position with regards to market access, sources of funding, and investment in research and development of new products.

While entrepreneurship and innovation are widely viewed as key drivers of economic growth, researchers have documented a robust relationship between entrepreneurial activity

and economic development across nations (Van Stel et al. 2005). For example, there are positive relationships between entrepreneurial activity and per capita GDP growth in rich nations but negative relationships in poor nations (Acs and Audretsch, 2005).

Innovation is one of the most important strategies of competition, both for small and large firms. It is often argued that SMEs innovate in specific ways, different from the innovation process in large firms. While there are certain size-specific features, the heterogeneity of the SME sector prevents simple generalizations. Regarding innovative performance, the heterogeneity is caused by a mix of factors. The most important are:

1) *The technological level.* Higher-technology and “technology-driven” (Hassink, 1996) firms are more active in product innovation, especially as far as products which are new to the market are concerned. Lower-technology firms, on the contrary, focus more on process innovations and cost reduction.

2) *The market relations.* The more dependent a firm is on dominant customers, the more likely will it develop strategies of competition. Competition through improved quality and new functions favors innovation whereas price competition is less stimulating (Kaufmann, Todtling, 2002).

3. SME INNOVATIONS

3.1 Regional ranking

According to the latest UN Report for 2017, GII, BiH occupies the 86th place in the world, with

30.2 points, out of the 127 countries covered by this survey. Regarding the region, Slovenia is the most innovative and ranked 32nd, with 45.8 points, followed by Croatia in the 41st place with 39.8 points, Montenegro in the 48th place with 38.1 points, Macedonia ranked 61st with 35.4 points, and Serbia ranked 62nd with 35.3 points.

In most European Commission reports, it is emphasized that BiH has made significant progress over the last few years in the SME sector, but business environment continues to be massive and still lags behind the countries in the region especially in the segment of innovation. Poor cooperation between state and entity institutions leads to the creation of non-aligned policies and impedes their implementation. The state has made progress in promoting entrepreneurial skills by developing the strategy for learning entrepreneurship and also by introducing entrepreneurial learning lessons into curricula and programs.

BiH continues to face problems in the bureaucratic procedures such as company registration and obtaining business licenses, which are then duplicated twice for each entity (Džafić, 2015). Hence, decentralization of power and a huge bureaucratic problem concerning the issue of obtaining a business license in the area of SMEs are two burning issues. These subjects and start-ups would benefit from a strategic approach to innovation and financial resources that would facilitate the launch of a new business or business of the already existing companies. Access to financial resources remains a major obstacle to SME development. These challenges emphasize the need for co-ordination of policy between the state and the entity and the need for introducing

Table 3.1. Ranking of countries in the region (GII - 2017, 127 countries worldwide)

Country	Rang	Rating
Macedonia	61	35.4
Slovenia	32	45.8
Croatia	41	39.8
Montenegro	48	38.1
Serbia	62	35.3
BiH	86	30.2
Albania	93	28.9

Source: <https://www.globalinnovationindex.org/analysis-indicator> (05/12/2018)

the SME development strategy at the state level (SME policy index Western Balkans and Turkey, 2016). Intellectual property is not adequately protected, which is why copyright infringement is rather frequent. Such behavior jeopardizes the readiness of new entrepreneurs to legally launch their jobs based on innovative new knowledge and new products.

3.2. National framework of sme development

The current number of micro-enterprises in BiH is 23,183 or as much as 74.11% of the total number of enterprises, there are 5,891 small enterprises (18.83%), 1,907 medium enterprises or 6.1%, while the number of large enterprises in BiH is 300 or 0.9%. Therefore, it can be concluded that the economic structure in BiH is mostly made of microenterprises, and the SME sector covers about 99% of the total number of enterprises. The total number of employees in the SME sector is 380,204 persons, which is 61.5% of the total number of the employed, while large companies employ some 237,751 persons or 38.5%, and this is a sufficient indicator of the importance of investing and strengthening the SME sector (BHAS, 2017).

As a result of the commitment and preparation for the EU membership of BiH, the reform process is currently ongoing with the aim of aligning the legal framework with the European Small Business Act and the SME Act, ensuring conditions for the SME sector to be at the top of the economic development, regulating the legal framework for the establishment and operation of the enterprise, as well as the availability of financial resources (Džafić and Bejić, 2012).

The political and legal arrangement of BiH, one state, two entities and the Brčko District, ten cantons in the Federation of BiH and municipalities has created a very specific political and legal framework for the economy and entrepreneurship. At the state level, many laws are missing that would allow companies the same business conditions, irrespective of the place of registration (Džafić, 2006.) The previously adopted SME Business Strategies are the key to creating a favorable business environment for SME development and prosperity (SME policy index, Western Balkans and Turkey).

The government does still not have the strategy for entrepreneurship and SME development. There is no policy and there are no specific goals for SME development in BiH. There is also a lack of specific legislation, measures, instruments, and harmonized organizations to support SME development. The lack of coordination between state and entity institutions, and centralized tax system (used to cover high public costs) are major obstacles to the creation of a framework policy for SMEs. A limited government budget for export promotion programs limits the implementation and efficiency of export promotional activities. The following table introduces company size and innovativeness.

The Federal Bureau of Statistics of BiH for the first time (2016) published the data on innovative business activities of the Federation of BiH (FBiH) in the period 2012-2014. The target population of this survey consists of enterprises in FBiH. From the previous table, we can see that 38.8% of the enterprises carried out at least one of the innovative activities in the reporting period 2012-2014. In the same

Table 3.2. Enterprises according to innovation and size in BiH for the period 2012-2014

INNOVATION ENTERPRISES	OVERALL	INNOVATORS	UNINNOVATIVE ENTERPRISES	INNVENTORS SHARE %
OVERALL	3442	1335	2107	38.8
SMALL	2671	963	1708	36.1
MEDIUM	642	297	345	46.3
LARGE	129	74	55	57.1

Source: Federal Bureau of Statistics <http://fzs.ba/index.php/publikacije/saopcenjapriopcenja/istrazivanje-razvoj-i-inovacije/> (accessed 16/08/2017)

reporting period, 61.2% of the companies did not carry out innovative activities (*Federal Bureau of Statistics, 2016*).

Given that the paper deals only with innovative activities carried out by the SMEs in BiH, it is imperative to introduce technology-intensive enterprises in BiH. According to the data and reports of the Federal Bureau of Statistics we will see where SMEs in BiH are located. Technological advances lead to structural changes in the production process, leading to a higher mass production and savings in terms of shortening production time, lowering production cost, improving product quality, and saving raw materials. The following table shows technological innovation by type of innovation and size of enterprise for the period 2012-2014.

Out of the total number of enterprises, 26.1% are technologically innovative (companies introducing only technological innovations or simultaneously introducing both, technical and non-technical ones) while 30.7% are non-technologically innovative (these are the companies that introduced only non-technological innovations).

4. RESEARCH METHODOLOGY

The empirical research aimed at determining whether innovation has a positive impact on the growth and development of small and medium-sized manufacturing enterprises in BiH was conducted in 2017. The questionnaire

consisted of 34 questions. The questionnaire used was mostly based on a closed type of questions in which the respondent chose one of the alternatives of the answer, the one that best suits his/her specific position or opinion. The choice of "closed" type of questions was made from the experience of frequent skipping of open and partially open questions in the sense of non-compliance with this type of question in their own words.

During the survey, a sample method was used that contributes to the representativeness of the sample unit and reduces the time and cost of collecting data during the research. In order to fulfill the purpose of the research, a questionnaire was used with previously prepared questions defined in accordance with the aims and hypotheses of the research.

The research instruments included: "Innovation Measurement Scale (Sketch: Product Innovation, Innovation in Business Processes, and Innovative Organizational Culture)" (Wang, Ahmed, 2004) and "Growth Scale (Indicators: Growth, Growth in the number of employees, increase in employment of highly educated staff, profitability growth and growth of the market share of enterprises) and development (Ketokivi, Schroeder, 2004) (indicators: return on investments, value of sales)". The results obtained are shown in the tables.

The total number of completed questionnaires was 312, out of which 200 respondents participated in the sample. The research covered only the managers (representatives)

Table 4.1. Technologically innovative enterprises by type of innovation and enterprise size

SMEs	Technologically innovative enterprises									
	Overall		Product innovations		Process innovations		Product and process innovations		Unfinished and/or abandoned innovative activities	
	Number of enterprises	%	Number of enterprises	%	Number of enterprises	%	Number of enterprises	%	Number of enterprises	%
OVERALL	898	26.1	126	1.75	225	6.5	149	4.3	398	11.6
SMALL	604	22.6	95	3.6	173	6.5	69	2.6	266	10
MEDIUM	231	35.4	29	4.5	45	7	64	10	93	14.5
LARGE	63	48.8	2	1.6	7	5.4	15	11.6	39	30.2

Source: Federal Bureau of Statistics, (<http://fzs.ba/index.php/publikacije/saopcenja/>)

of the manufacturing companies with active headquarters in BiH, with fewer than 250 active employees and annual revenues less than BAM 50,000,000.00. The respondents were selected on the basis of a sample. In order to make the sample as representative as possible, the personal characteristics of the respondents were different as well as the characteristics of their companies. In a direct survey the respondents independently filled in the questionnaire by choosing one of the responses in line with their attitudes or opinions. The first part of the questionnaire covered the respondents' characteristics, the second part referred to the profile of the company where the respondents are employed, type of the market where they operate, seat, business activity, legal form of the company, number of employees, income, etc. The third part of the questionnaire referred to the measurement of the respondents' attitudes in the context of innovation implementation in their companies, while the fourth part covered the degree of innovativeness of BiH companies in the sample. In order to identify these indicators in their companies, a five-point Likert scale was used (with the answers from 1 – I completely disagree to 5 – I completely agree).

The sample size is satisfactory for the purposes of this research and is consistent with the methodological requirements ($N > 200$). Data collection (polling) was conducted directly (via e-mail, fax, in person or by mail), over the period of 150 days. The average time for completing the questionnaire was about 20 minutes. In accordance with the aims and research hypotheses, the sample was chosen to include active managers (representatives) of SMEs active in BiH. A total of 200 respondents participated in the sample. In order to make the sample as representative as possible, the respondents were selected on the basis of different characteristics of the companies they came from. Below are detailed features of the survey sample.

In the sample, the largest number of companies were engaged in food production - 64 or 31.50%. Over 12% of the enterprises were engaged in the production of textiles, while 11.90% of the enterprises were engaged in the production of beverages. Among 200 companies in our sample,

the largest number (172 or 84.70%) operated as a limited liability company. Over 12% of the companies were organized as a joint stock company, while 6 companies had some other form of organization. In the sample, the largest number of the enterprises had 10 to 50 employees, 101 or 49.80% of them. Approximately 39% of the enterprises had between 51 and 250 employees, while 11.30% of the enterprises had less than 10 employees. In the sample, the largest number of the enterprises had 10% to 30% of highly educated employees (85 or 41%). Approximately 29% of the enterprises had less than 10% of highly educated employees, while 26.60% of the enterprises had between 30% and 60% of highly educated employees. In the sample, the largest number of companies has been operating over 20 years, 95 or 46.80%. Over 40% of the enterprises have operated from 10 to 20 years, with 12.80% that were active for less than 10 years.

In the case of testing the impact of innovation on the growth and development of small and medium-sized manufacturing enterprises in BiH, the regression analysis method was used and the following results were obtained.

4.1. Data analysis

The results obtained ($R^2 = 0.361$; $R^2 = 0.433$) indicate that innovation is explained by 36.1% of the changes occurring in sales revenues and 43.3% of the changes occurring in the profitability of small and medium-sized manufacturing enterprises in BiH. Specifically, with an increase in the level of innovation for 1, the sales revenues are increased by 0.361 and the profitability of SMEs in BiH increases by 0.725.

The obtained results ($R^2 = 0.243$) indicate that product innovation explains for 24.3% of the changes that are taking place in the growth of the market share of small and medium-sized manufacturing enterprises in BiH. Specifically, with the increase in the level of product innovations for 1, the growth of the market share of small and medium-sized manufacturing enterprises in BiH increases by 0.367.

The obtained results ($R^2 = 0.565$; $R^2 = 0.513$) indicate that innovation demonstrates for 56.5%

Table 4.2. Innovation measuring scale

Scale	Subscale	Items	Cronbah's alpha in case of deletion of an item
INNOVATION MEASURING SCALE ($\alpha = 0.946$) (K-S = 0.105, p = 0.000)	Product innovation ($\alpha = 0.865$) (K-S = 0.118, p = 0.000)	Your company always first "launches" new products and services to the market.	0.825
		Compared to your competitors, your approach has developed a lot more new products and services over the last five years.	0.758
		Your company constantly improves the quality of old products and services.	0.842
	Business process innovation ($\alpha = 0.859$) (K-S = 0.161, p = 0.000)	Your company is constantly developing processes and channels for creating new products and services.	0.735
		Compared to your competitors, your company is much better at managing innovation (creating new markets, creating new pricing models, creating new distribution channels, etc.).	0.850
		Your company constantly emphasizes the importance of education in the field of innovation management.	0.811
	Innovative organizational culture ($\alpha = 0.897$) (K-S = 0.137, p = 0.000)	Managing your company always requires new ideas from its employers.	0.856
		Employees in your company have a clear vision of how innovation will help you in the market competition.	0.856
		Your company's management has a clear vision of how your business will develop through innovation.	0.855
		All employees are involved in the innovation process.	0.901

Source: Authors' research

of the changes taking place in growth and 51.3% of the changes occurring in the development of small and medium-sized manufacturing enterprises in BiH. Specifically, with an increase in the level of innovation for 1, the growth is increased by 0.530 and the development of SMEs in BiH by 0.626.

Considering the results of the testing of the working hypothesis and regression analysis ($F = 261.199$; $p = 0.000 < 0.05$ and $F = 211.921$; $p = 0.000 < 0.05$) we accept the central hypothesis: Innovation has a positive impact on the growth and development of small and medium-sized manufacturing enterprises in BiH.

When it comes to the scales in our research, the Cronbach coefficient of alpha was used as an

indicator of reliability and internal homogeneity (ideally the Cronbach coefficient should be greater than 0.700), while the Kolmogorov-Smirnov test was used for testing the normality of distribution.

The "Growth Scale" has a high level of reliability, i.e. Cronbach's Alpha has the value of 0.844, indicating that the internal homogeneity of items within the scale is satisfactory and that this measuring instrument is relevant to the measurement of the variable defined (growth of the enterprise) within the research hypothesis. When it comes to distribution normality, a statistically significant deviation ("Growth Scale" K-S = 0.164, $p = 0.000 < 0.05$) was registered in this case, indicating that nonlinear

methods of data processing should be used when testing hypotheses. The statement: "Sales growth in your company is much higher than the average of your competition" has the value of 0.798. The statement: "The growth in the number of employees in your company is much higher than the average of your competitor" has the value of 0.826. The statements: "Profitability for your company is much higher than the average of your competition" and "The growth of your company's market share is much higher than the average of your competition" have the values of 0.829 and 0.809.

The "Development Measurement Scale" has a high level of reliability, i.e. Cronbach's Alpha has the value of 0.842, indicating that the internal homogeneity of items within the scale is satisfactory and that this measuring instrument is relevant to the measurement of the variable defined (enterprise development) within the research hypothesis. When it comes to distribution normality, a statistically significant deviation ("K-S = 0.102, $p = 0.000 < 0.05$ ") was noted in this case, indicating that nonlinear methods of data processing should be used when testing hypotheses. The statements: "The return on your company's investment is at a satisfactory level" and "The sales revenue of your company is higher than in the period before the innovation" have the values of 0.804 and 0.764.

When it comes to the degree of innovation of SMES in BiH, the descriptive analysis of the data gives results on the attitudes of their managers (representatives) on a scale of 10 items where the respondents chose one of five responses: 1 = completely disagree, 2 = I do not agree, 3 = I do not have an opinion, 4 = I agree, 5 = I completely agree.

Table 5 shows the results of the arithmetic mean or degree of agreement (average response of 200 respondents based on the offered answers of 1 to 5) and standard deviation (average response deviation of 200 respondents from the arithmetic mean of their responses), in each of the three subclasses (Product Innovativeness - 3 items, Innovation of Business Processes - 3 items, and Innovative Organizational Culture - 4 items) and scale of the overall degree of innovation of small and medium-sized manufacturing enterprises in BiH.

The statement from the Innovation Level of Enterprise said "Your company first launches new products and services on the market" with the answers on a 1 to 5 scale. The results showed that most answers were under 3 (30%), 2 (26.10%), and 5 (6.40%). The statement "Your company constantly improves the quality of existing products and services" received most answers under 4 (37.90%), then 3 (28.60%), and the smallest percentage of the answers was under 1 (6.90%).

The statement "Compared to your competitors, your company has developed a lot more new products and services over the last five years", received most answers under 4 (30.00%), then 3 (26.10%), 2 (22.20%), 5 (16.70%), and the lowest percentage 4.90% of responses was registered for 1. When it comes to product innovation issues, the statement was "Your company constantly develops processes and channels for creating new products and services". Most responses were in the category 4 (39.90%), then 3 (27.60%), and the smallest and equal number of respondents opted for the answers 1 and 2 (7.90%).

The statement "Your company constantly emphasizes the importance of education in the field of innovation management" received responses as follows: 4 (41.40%), 3 (30.50%), and the least number of answers is for 5 (7.40%). The statement "Compared with competitors, your company is much better in managing innovation (creating new markets, creating new pricing models, creating new distribution channels, etc.)" received responses as follows 3 (44.30%) followed by 4 (1.50%), 2 (9.4%), 5 (8.40%), and the smallest number of answers was for 1 (6.40%).

When it comes to the innovativeness of business processes, the statement "Management of your company always requires new ideas from their employees" received the following responses: answer 4 (31.50%), then answer 3 (23.60%) and the smallest number for the answer 2 (9.90%). The statement "All employees are involved in the innovation process" is rated as follows: 29.10% (answer 3), 25.60% (answer 4), and 6.90% (answer 1).

The results for the statement "Employees in your company have a clear vision of how

Table 4.3. Degree of innovation of the enterprise

Variables	1 – I completely disagree	2 – I do not agree	3 – I do not have an opinion	4 – I agree	5 – I completely agree	AS	SD
Your company always first “launches” new products and services to the market.	25 (12.30%)	53 (26.10%)	61 (30.00%)	51 (25.10%)	13 (6.40%)	2.87	1.118
Compared to your competitors, your company has developed more new products and services over the last five years.	10 (4.90%)	45 (22.20%)	53 (26.10%)	61 (30.00%)	34 (16.70%)	3.31	1.138
Your company constantly improves the quality of existing products and services.	14 (6.90%)	10 (4.90%)	58 (28.60%)	77 (37.90%)	44 (21.70%)	3.63	1.089
PRODUCT INNOVATION						3.27	0.989
Your company constantly develops processes and channels for creating new products and services.	16 (7.90%)	16 (7.90%)	56 (27.60%)	81 (39.90%)	34 (16.70%)	3.50	1.105
Compared to your competitors, your company is much better at managing innovation (creating new markets, creating new pricing models, creating new distribution channels, etc.).	13 (6.40%)	19 (9.40%)	90 (44.30%)	64 (31.50%)	17 (8.40%)	3.26	0.967
Your company constantly emphasizes the importance of education in the field of innovation management.	25 (12.30%)	17 (8.40%)	62 (30.50%)	84 (41.40%)	15 (7.40%)	3.23	1.113
BUSINESS PROCESS INNOVATION						3.33	0.939
Your company’s management always requires new ideas from their employees.	25 (12.30%)	20 (9.90%)	48 (23.60%)	64 (31.50%)	46 (22.70%)	3.42	1.281
Employees in your company have a clear vision of how innovation will help the company in the market competition.	16 (7.90%)	29 (14.30%)	62 (30.50%)	73 (36.00%)	23 (11.30%)	3.29	1.093
Your company’s management has a clear vision of how business will develop through innovation.	15 (7.40%)	11 (5.40%)	68 (33.50%)	78 (38.40%)	31 (15.30%)	3.49	1.055
All employees are involved in the innovation process.	14 (6.90%)	44 (21.70%)	59 (29.10%)	52 (25.60%)	34 (16.70%)	3.24	1.170
AN INNOVATIVE ORGANIZATIONAL CULTURE						3.36	1.006
INNOVATION OVERALL						3.32	0.913

Source: Author’s research

innovation will help the company in the market competition” are: 1 (7.90%), 2 (14.30%), 3 (30.50%), 4 (36.00%), and 5 (11.30%). The results for the statement “Your company’s management has a clear vision of how business will develop through innovation” were: 1 (6.90%), 2 (21.70%), 3 (29.10%), 4 (25.60%) and 5 – (16.70%) .

5. DISCUSSION

Based on our respondents’ responses, the first hypothesis is accepted, where increasing the degree of product innovation for one unit directly increases growth by 0.447 and SME development in BiH by 0.582. The second hypothesis is accepted, in particular with the increase in the degree of innovation by 1, the sales revenues by 0.361 and the profitability of SMEs in BiH by 0.725. The third hypothesis is also accepted, as with the increase of the level of product innovations by 1, the growth of market share of small and medium-sized manufacturing enterprises in BiH increases by 0.367. The central hypothesis: The impact of innovation on the growth of SMEs in BiH is also accepted. This research has confirmed that by increasing the degree of innovation by 1 and the growth by 0.530 the development of small and medium-sized manufacturing enterprises in BiH is increased by 0.626.

By reviewing the results of the empirical research and on the basis of the analysis of the defined hypotheses, it is evident that innovation has a significant influence on the growth and development of small and medium-sized manufacturing enterprises in BiH. Currently, SMEs in BiH are very important for the development of the economy, as they make up 99% of the total number of enterprises, which make about 60% of GDP. The mitigating circumstance for SMEs is the inadequate role of the state, lack of strategically oriented state aid, passivity and the unreliability of the institutions, resulting in a bad business environment that is reflected in the small SME development potential. Past experience and practice of SME development show that business performance and development of this economic segment directly depend on the support provided by the state.

The business environment is still burdened by various administrative barriers at different levels of government. This is one of the reasons for insufficient domestic and foreign investment. Since SMEs are more flexible and dynamic than large companies, their flexibility allows them to meet the requirements of their clients, which boosts development and affirmation. BiH can also use the experience of a range of incentive measures for establishing SMEs, such as those from the EU, Japan, Italy, Ireland, Slovenia, etc.

6. CONCLUSION

The strengthening of entrepreneurship in BiH has already been established as a prerequisite for the rapid development of the private sector, especially for SME growth. In comparison with other transition countries, BiH has the smallest number of enterprises per 1000 inhabitants. In addition, the establishment of the company is the most expensive in the region, more expensive than in any EU country, and much more expensive than in the United States and Russia. This is a strong sign for the BiH government to accelerate the necessary reforms to achieve a business environment that would be more suitable for SME development.

Nevertheless, despite all the obstacles described above, the number of newly founded companies is relatively high every year. Once again, it needs to be pointed out that one of the biggest problems is the inconsistency of economic policy and legal measures at BiH level, as the strategic approach, legal frameworks and other instruments of development of SMEs have only been established in the entities without the proper coordination and harmonization at the state level.

This article might serve as a theoretical and empirical basis for future researches in the field of innovations in order to create “healthy entrepreneurships” in less development countries. More attention needs to be paid to this topic since, as we can see from a few positive examples, the development of the SME sector may be a way out of the current crisis in BiH.

REFERENCES

1. Abrar-ul-haq M., Mohd Jali M.R. and Md Nurul I. G., (2015) *Factors Affecting Small and Medium Enterprises (SMES) Development in Pakistan*, School of Economics, Finance and Banking Universiti Utara Malaysia.
2. Acs, Z.J., Audretsch, D.B. (2005) Entrepreneurship and innovation. Discussion Papers on Entrepreneurship, Growth and Public Policy 2005-21, Max Planck Institute of Economics, Group for Entrepreneurship, Growth and Public Policy.
3. Asheim, B.T. (1996) *Learning regions in a globalised world economy: towards new competitive advantages of industrial districts*, European Urban and Regional Studies Conference.
4. Baković, T., Ledić-Purić, D. (2011) *Uloga inovacija u poslovanju malih i srednjih poduzeća*. Poslovna izvrsnost : znanstveni časopis za promicanje kulture kvalitete i poslovne izvrsnosti, 5(2), 27-42, <http://hrcak.srce.hr/75460>.
5. Bi, X. and Li, X. (2015) *Research on the Technology Innovation with SEM model Based on Data Model Analysis*, International Conference on Education Technology.
6. BIH Directorate for economic planning, Council of Ministers of Bosnia and Herzegovina (2015),
7. http://www.vijeceministara.gov.ba/stalna_tijela/dep/default.aspx?id=14333&langTag=en-US
8. BHAS, Country statistics, www.bhas.ba, 2017.
9. Božić, Lj., Radas, S. (2005), The Effects of Innovation Activities in SMEs in the Republic of Croatia, Croatian Economic Survey.
10. Canes R. M., Saez-Martinez F.J. and Ruiz Palomino P. (2015) *Knowledge acquisition's mediation of social capital-firm Innovation*, Journal of Knowledge Management, Vol. 16 2012., p. 62.
11. Džafić Z., Bejić J. (2012) *Preduzetništvo i tržište rada*, Synopsis, Zagreb – Sarajevo.
12. Džafić Z. (2006) *Preduzetnička ekonomija (mala i srednja preduzeća u funkciji restrukturiranja tranzicijskih privreda)*, Tuzla.
13. Džafić Z. (2015). Patterns of growth and development of the BiH economy - small and medium versus large companies, International Conference, Fojnica, BiH
14. Federalni zavod za statistiku, (2016) *Inovativne aktivnosti preduzeća u periodu 2012-2014*, Sarajevo, available from http://fzs.ba/index.php/publikacije/saopcenjapriopcenja_istrazivanje-razvoj-i-inovacije/, accessed: 16/082017.
15. Jakovljević M., Radman-Peša A., Čovo P. (2012) *Integrativni organizacijski model kreativnosti i inovativnosti-primjenljivost na srednja i mala preduzeća u Republici Hrvatskoj*, Ekonomska misao i praksa, 2012.
16. Kaufmann, A., Todtling, E. (2002) *How effective is innovation support for SMEs?, An analysis of the region of Upper Austria*, Pergamon, Technovation 22 pp. 147-159, www.elsevier.com/locate/technovation
17. Ketokivi, M. A., Schroeder, R. G. (2004) *Perceptual Measures of Performance: Fact or Fiction*, Journal of Operations Management, 22(3) pp. 247-264.
18. Piza et al. (2016) *The Impact of Business Support Services for Small and Medium Enterprises on Firm Performance in Low- and Middle-Income Countries: A Systematic Review*, Campbell Collaboration, https://campbellcollaboration.org/media/k2/attachments/Piza_Business_Support_Review.pdf
19. Rammer Ch., Czarnitzki D. and Spielkamp A. (2009) *Innovation Success of Non-R&D-Performers Substituting Technology by Management in SMEs*, ZEW Centre for European Economic Research, Discussion Paper No. 08-092, p. 13, <ftp://ftp.zew.de/pub/zew-docs/dp/dp08092.pdf>
20. *SME policy index Western Balkans and Turkey* (2016) http://www.keepeek.com/Digital-Asset-Management/oecd/development/sme-policy-index-western-balkans-and-turkey-2016_9789264254473-en#p.231. accessed: 17/05/2016)
21. Van Stel, A., Carree, M., Thurik, R., (2005) The effect of entrepreneurship on national economic growth. Papers on Entrepreneurship, Growth and Public Policy.
22. Wang, C. L., Ahmed, P. K. (2004) *The development and validation of the organisational innovativeness construct using confirmatory factor analysis*, European Journal of Innovation Management, 7(4), pp. 303-313.
23. World Economic Forum 2017, *The Global Competitiveness Report 2017-2018*, Geneva: WEF.