The Innovations and Entrepreneurship – Evidence from Kosovo's SME Sector

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ARTICLE INFO

Article history:

Accepted April 2020

Available online May 2020

JEL Classification

O23, O31, L25, L26

Keywords:

Research & Development,
Innovation, SME, Entrepreneurship

ABSTRACT

The purpose of this research is to study the implication of R&D and Innovation in Entrepreneurship with particular meaning in the SME sector in Kosovo. The research is grounded on a review of the literature in this area and R&D applies and innovation actions of the SME development sector. This paper practices a variety of research methods to explore the development of Kosovo SMEs. In this research, we used a sample of BSCK (Business Support Centre Kosovo) last research, which tells us that most SME managers agreed that a number of activities undertaken are the result of efforts to apply R&D, or innovation occurs within the SME growth orientation. The results of the paper suggest that enterprise success and SME development are conditioned by SME ownership, financial sector conditions, internal and external business environments, and access to regional markets. The paper will also support most aspects of managers' needs to achieve business performance, as well as decision-makers at different levels in developing SME development procedures and regulations.

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1. Introduction

Based on the CBK (Central Bank of Kosovo) Annual Report, Kosovo's economy in 2018 recorded growth driven largely by consumption and investment. This growth was a consequence of the intensification in loans from the banking segment which had an important influence on the financing of private segment activities. Agreeing to this information, the inflation percentage (1.1 percent) sustained to remain at a very low level, while the fiscal point was constant with low stages of budget shortage and public debt. Thus, the banking sector continued to expand its activity, offering the economy a wider supply of financial products (CBK, 2019).

Preliminary statistics, prepared by Kosovo Agency of Statistics, related to quarterly GDP, indicate that Kosovo's economy marked an average increase of 3.9 percent during the four quarters of 2018. It is certain that remittances (€ 800.5 million) and FDI in the amount of € 213.7 million (16.3% less than in the previous year) have a significant impact on this increase (ASK, 2019). Kosovo's companies which have taken convinced actions leading to the design of modest benefits in the marketplace were minor. The research shows the ratio of initiatives in Kosovo that have commenced an R&D and other development actions as well as the considerable design or adjustment of their products, services or processes. The number of businesses that have undergone innovation is very small, i.e. only 14.6% of enterprises with an average of 8 new products.

2. Literature review

In this framework, altered authors highlight the strategy of R&D and innovation as an influential instrument for the growth of SMEs (Bolívar-Ramos, 2017). While other authors stated that the successful implementation of innovative strategies is conditioned with impact by recruiting well-prepared human resources that will be able to manage the entire process (Breagh, J 2009). The business management and managerial skills have an influence on the effects of SME's growth strategy (Diabate, et al 2019). Consequently, businesses in order to expand their business activity and to be successful in confronting market competition, it is essential to design and implement innovative, licensed strategies (Alexandru, I and Nicoleta, R 2015).

Research and Development (R&D) is the primary source of inventive firms (bringing something new to the existing one) and innovations (symbolizing bringing something new to use). Usually, the development part of R&D is more noticeable in large corporations. But the opposite is true, that many small enterprises are

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more focused on research than on their own development. This is how new or more radical innovations come more often from smaller enterprises than from large enterprises (Johan, S & Edward, S 2018). In successful firms, innovations do not exist for their own sake; but this is used as a critical component of the strategy and becomes very good expertise (Hitt, Ireland, and Hoskisson, 2001). A reflection of enterprise service remains the modernization that a business brings. Several revisions conducted by a large number of researchers support the notion that firms with greater levels of novelty have greater performance than businesses that consume low levels of novelty Wolfe, (1994), Dosi, (1988), and Mansfield, (1968).

Consequently seeing the role of business plan in carrying out in terms of novelty in a recent study steered by the authors Ozer & Markoczy, (2010) find that strategic policy promotion is perceived by firms in selecting the use of novelty as a competitive advantage over other companies. Their findings suggest that companies that invest more in novelty strategies offer investment in business policy tactics to use more for favorable novelty. And the other issue, which is analyzed through regression, is the issue of productivity. The analyzed researches addressing the innovations of SMEs is extensive (Balios et al., 2015; Barchue and Aikaeli, 2016; Battese et al., 2001; Charoenrat and Harvie, 2013, 2014; Coll-Serrano and Blasco-Blasco, 2011; Hill and Kalirajan, 1993; Kotey and O'Donnell, 2002; Lundvall and Battese, 2000; Mini and Rodriguez, 2000; Mohamad et al., 2010; Yang, 2006).

3. Research Methodology

The research was conducted in the entire territory of Kosovo, including the sample of 500 questionnaires with SME's. In addition to this classification in this examination, all business activities are enclosed. The sample is stratified into three main sectors in order to differentiate between production trade and services. Also, the sample is stratified in terms of size which in itself remains small and medium enterprises. All firms included in the analysis are defined by the EU definition. The interviews were directed consuming the face-to-face method through the responsible persons in any enterprise mainly owners or general managers. In the period 2014-2017, were analyzed the importance of R&D and innovation in Kosovo SMEs. The main support for analyzing this phenomenon was mainly from the data provided by the BSCK, which were carried out during this period. The observed configuration of this revision includes the following sections: a scattering of firms and samples by size and sector expressed in percentage, explanatory statistics in step with Cronbach's alpha 0.92, the factorial analysis and OLS analysis.

Table 1: Distribution of companies and samples by size and sector (in %)

The sector size	Micro	Small Enter.	Medium Enter.	Total	% of part. in the population	% of part. in the sample
Production	95.2	2.4	2.4	100.0	10.1	23
Services	97.0	1.7	1.3	100.0	40.0	35
Trade	98.7	0.8	0.6	100.0	50.0	42
Distribution by population size	97.7	1.3	1.0	100.0	100.0	100
Participation in the sample	70	25	5	100	-	-

Source: KABR (Kosovo Agency for Business Registration in Ministry of Trade and Industry)/MTI; The sample of BSCK

After the statistical distribution by size, the final sample by sectors is reflected in Table 2 (production, services and trade).

Table 2: Total sample by sector and by size (number of enterprises)

The sector size	Micro	Small	Medium	Total
Production	34	24	6	115
Services	140	64	12	174
Trade	176	37	7	211
Total	350	125	25	500

Source: BSCK-SME Survey and author's calculations

The questionnaire is designed to collect general business information, which contains a total of 126 questions with several sub-questions that gather enough information to compare SME development at different times. After carrying out fieldwork, the questionnaires were subjected to quality control in order to identify eventual errors.

4. Findings and Results from Research & Developments and Innovations

Regarding the credibility of R&D and Innovation data it is adequate and appropriate (Cronbach's Alpha 0.792). Also, the average in descriptive statistics shows quite satisfactory results.

Table 3: Descriptive Statistics of R&D and Innovations

Factors	Mean	Standard Deviation
R & D for the last 3 Years; Yes=1, No=0;	.16	.371
The product Innovation; Yes=1, No=0;	.22	.413
Perception of the Importance of Innovation sources- Inf. from the market; 1-5	4.20	1.172
Information from Institution; 1-5	3.60	1.481
The importance of experienced staff to create products-services, new processes; 1-5	4.20	1.131
The Time devoted by staff dedicated to innovation; 1-5	4.25	1.537
New ideas created by staff; 1-5	4.14	1.657
Has the firm applied for any patent for products or services? Yes=1, No=0;	.06	.243
Has a company registered a patent for a product or service? Yes=1, No=0;	.03	.181
Importance of production flexibility and reduction of production cost in the application of new labor processes; 1-5	4.10	1.716

Source: Author's sources

The factor analysis shows the rankings of the factors listed according to respondents' responses as follows:

1. In the first group includes Research and Development (0.874) and Innovations in the last three years (0.833);
2. The second group includes "time devoted by staff dedicated to innovation" (0.849); "New ideas created by staff" (0.847); "The importance of production flexibility and reduction of production costs in the application of new labor processes" (0.814); "The importance of experienced staff to create new products/services or processes" (0.728); "Information sources from institutions" (0.722) and "information sources from the market" (0.700);
3. The third group includes answers to the question "Has the firm applied for a patent for products or services" (0.639),
4. And recently in the fourth group are the answers "has the firm registered any patent of products or commercial services" (0.553) see the table below.

Table 4: The factorial Analysis of R&D and Innovations

Factors	Component			
	1	2	3	4
R & D for the last 3 Years; Yes=1, No=0;		.874		
The product Innovation; Yes=1, No=0;		.833		
The Time devoted by staff dedicated to innovation; 1-5	.849			
New ideas created by staff; 1-5	.847			
Importance of production flexibility and reduction of production cost in the application of new labor processes; 1-5	.814			
The importance of experienced staff to create products / services, new processes; 1-5	.728			
Information from Institution; 1-5	.722			
Perception of the Importance of Innovation sources- Inf. from the market; 1-5	.700			
Has the firm applied for any patent for products or services? Yes=1, No=0;			.639	
Has a company registered a patent for a product or service? Yes=1, No=0;				.553
Extraction Method: The principal component analyses				

Source: Author's calculations

The regression analysis of R&D and Innovation shows that the level of earning of firms (SMEs) significantly affects only the answer to the question "Has the firm registered the trade product patent (significance 0.025), respectively the probability of acceptance error is only 2.5%. Other factors did not show significant levels of influence; respectively they were above the level of significance of 0.05. Our outcomes stay in a straight link by the authors (Hagen et al, 2005) analyzed the results of perceptions of managers/owners concerning R&D and Innovation.

Table 5: Regression Analysis of variables for the level of profit.

Model	Unstd. Coeff.		St. Coeff.	t	Sig.
	B	Std. Error	B		
1(Constant)	.350	.139		2.519	.013
R & D for the last 3 Years; Yes=1, No=0;	-.012	.128	-.009	-.093	.926
The product Innovation; Yes=1, No=0;	-.003	.113	-.003	-.031	.976
Has the firm applied for any patent for products or services? Yes=1, No=0;	-.212	.146	-.109	-1.454	.148
Has a company registered a patent for a product or service? Yes=1, No=0;	.453	.200	.173	2.259	.025
Perception of the Importance of Innovation sources- Inf. from the market; 1-5	-.007	.044	-.018	-.166	.868
Information from Institution; 1-5	-.007	.030	-.021	-.221	.825
The importance of experienced staff to create products / services, new processes; 1-5	-.037	.048	-.088	-.762	.447
New ideas created by staff; 1-5	.054	.041	.174	1.300	.195
The Time devoted by staff dedicated to innovation; 1-5	-.022	.041	-.076	-.522	.602
Importance of production flexibility and reduction of production cost in the application of new labor processes; 1-5	.014	.033	.052	.438	.662

a. The profit level: Dependent variable

Source: Author's calculations

Significance was more satisfactory (sig. 0.013) when analyzing linear regression data for the business application of innovations in the last three years. At this point, SMEs that have made inventions in the last three years are more likely to raise their income levels because the impact of the invention is longer than the one-year period (see table below).

Table 6: Regression Analysis of variables for profit level for the last 24 months

Model	Unstd. Coeff.		St. Coeff.	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.344	.166		2.073	.041
R & D for the last 3 Years; Yes=1, No=0;	.167	.159	.138	1.052	.295
The product Innovation; Yes=1, No=0;	-.335	.133	-.310	-2.519	.013
Has the firm applied for any patent for products or services? Yes=1, No=0;	-.189	.229	-.082	-.824	.412
Has a company registered a patent for a product or service? Yes=1, No=0;	.256	.218	.120	1.173	.243
Perception of the Importance of Innovation sources- Inf. from the market; 1-5	.043	.053	.116	.815	.417
Information from Institution; 1-5	.009	.038	.028	.235	.814
The importance of experienced staff to create products/services, new processes; 1-5	-.023	.059	-.057	-.387	.700
New ideas created by staff; 1-5	.047	.051	.171	.934	.352
The Time devoted by staff dedicated to innovation; 1-5	-.026	.053	-.100	-.492	.624
Import. of pr. flexibility and reduction of production cost in the application of new labor processes; 1-5	.018	.040	.074	.461	.646

a. The profit level for 24 month: Dependent variable

While conducting a R&D and Innovation regression analysis for the last 36 months, the results showed that only firms that had registered their patent had significance (0.019), and the probability of

acceptance of this hypothesis is only 1.9 %. The results were approximately the same as those when we did the regression analysis for the profit level for a year 2014 (see table below).

Table7. Regression Analysis of variables for the profit level for the last 36 months

Model	Unstd. Coeff.		St. Coeff.	t	Sig.
	B	St. Err	Beta		
1 (Constant)	.431	.173		2.496	.014
R & D for the last 3 Years; Yes=1, No=0;	-.022	.161	-.019	-.138	.890
The product Innovation; Yes=1, No=0;	-.119	.136	-.112	-.880	.381
Has the firm applied for any patent for products or services? Yes=1, No=0;	-.039	.234	-.017	-.168	.867
Has a company registered a patent for a product or service? Yes=1, No=0;	.532	.223	.255	2.389	.019
Perception of the Importance of Innovation sources- Inf. from the market; 1-5	.004	.056	.011	.073	.942
Information from Institution; 1-5	.004	.038	.013	.109	.913
The importance of experienced staff to create products/services, new processes; 1-5	-.004	.062	-.010	-.061	.952
New ideas created by staff; 1-5	.001	.052	.003	.016	.987
The Time devoted by staff dedicated to innovation; 1-5	.030	.055	.110	.548	.585
Import. of pr. flexibility and reduction of production cost in the application of new labor processes; 1-5	.002	.043	.009	.056	.955

a. The profit level for 36 month: Dependent variable

5. Conclusions

A high percentage of reliability scale for the year of 2014 was for R&D and Innovation (Alpha Cronbach 0.792) because business managers or owners considered this mechanism as a critical component of the strategy, which would guide the firm's ability to compete with rivals. It is challenging to forecast the upcoming achievement of the invention since the outcomes can be seen in the next two or three year period. Nevertheless, we can determine that R&D and Innovation are the significant resources for generating prosperity or increasing the revenue of SMEs. The Factor analysis of R & D and Innovations according to the opinions of business managers or owners was on average 0.706, ranging from 0.874 for R & D and 0.849 for "The staff dedication to innovations" to a lower level of 0.639 "for patent applications from the firm" as well as 0.553 "for patent registration". Regarding the regression analysis and the impact of R & D and Innovation on the growth of firms' turnover (SMEs), the data shows that "the perception of the importance of information on innovations coming from institutions" was statistically significant (Sig "0.007) and "the perception of the importance of experienced staff to create new products, services or processes" (Sig. 0.010).

The first step is to encourage SMEs to enter the formal sector. By introducing regulatory procedures for businesses, a greater number of SMEs will be encouraged to enter the formal economy. This should provide SMEs with greater access to credit and financing resources and to solve commercial problems while on the other hand to contribute to the overall development of the market economy and the creation of sustainable jobs in the SME sector. The second accepted step is that firms should provide training and education to empower their employees in order to help employee's engagement in the area of Innovations and change management. The third step may be the development of core, dynamic competencies so that businesses can effectively respond to any unexpected change or difficulties. In addition, firms cannot respond to timely changes without having qualified human resources. The revision will create a solid base for opening discussions on policy-making and academics, not abstracting the restrictions that this revision may possibly have, including the even more comprehensive sample. On behalf of future studies and for other investigators, it is suggested that they include other topics related to innovation.

Acknowledgements

We sincerely acknowledge all the businesses that cooperated in the implementation of this questionnaire, in particular the staff of the Business Support Centre of Kosovo, central Bank of Kosovo and Kosovo Statistical Agency, who were very professional and cooperative.

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