

INNOVATIONS AND ENTERPRISES PERFORMANCE IN TRANSITION COUNTRIES, WITH SPECIAL EMPHASIS ON KOSOVO: CDM MODEL APPROACH⁴

The main aim of this study is to analyze the impact of innovation and enterprise performance in the transition countries with special emphasis in the case of Kosovo. The innovations play a crucial impact on firm development, especially for small and medium-sized enterprises in countries in transition. This study uses primary data with a specific sample thus the enterprises that operate in Kosovo in order to analyze the relationship between innovations and firm performance. This study was conducted within a six-month period, specifically January 2022 – June 2022. The research sample consists of 400 Kosovar enterprises. These enterprises are from different economic sectors, such as production, services, and in terms of size, 80% of them are SMEs. The study used the CDM (Crépon, Duguet and Mairesse) model which includes the fourth phase. The first phase of this model is about the tendencies of enterprises to carry out innovative activities, the second phase is about the enterprises that invested in research and development, the third stage of the model, the conversion of inputs into outputs is analyzed. In the end, the impact of innovation outputs on the performance of the analyzed enterprises is investigated. The study concludes that enterprises that export to the EU and the Western Balkans region are significant, so this positively affects the tendencies of these enterprises for innovative activities, whereas enterprises that are oriented only to the local market, do not present significance and even have a negative relationship with the enterprises' tendencies for innovations. A large part of the enterprises think that innovations have high costs and are even unaffordable therefore this represents a big obstacle for the development of innovations. The lack of qualified personnel and the lack of knowledge about markets and technology represent a big obstacle to the development of innovations, and it even negatively affects the decisions of these enterprises about innovations.

Keywords: Innovations; performance; transition countries; CDM model; enterprises
JEL: L25; L26; M20

¹ PhD Gezim Jusufi, lecturer in Faculty of Law / "Kadri Zeka" University, Gjilan/Kosovo, email: gezim.jusufi@uni-gjilan.net.

² Donat Rexha, Prof.Ass.Dr, AAB College, Kosovo, e-mail: donat.rexha@universitetiaab.com.

³ Besime Ziberi, Prof.Ass.Dr, AAB College, Kosovo, e-mail: besime.ziberi@universitetiaab.com.

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1. Introduction

Innovation is widely regarded as one of the most important sources of sustainable competitive advantage in an increasingly changing environment, because it leads to product and process improvements, makes continuous advances that help firms to survive, allows firms to grow more quickly, be more efficient, and ultimately be more profitable than non-innovator (Atalaya, Sarvan, Anafarta, 2013). Anecdotal evidence suggests that innovation is closely linked to business performance. But how is innovation associated with superior performance? Geroski (1994, p. 130) suggests that there are two alternative views. The first view holds that the production of new products or processes strengthens a firm's competitive position in relation to its rivals. However, the profits and growth will be transitory and only last as long as the innovating firm can defend its position against rivals. The second view argues that the process of innovation transforms a firm fundamentally by enhancing its internal capabilities, making it more flexible and adaptable to market pressures than non-innovating firms (Neely, 1998). Open innovation is expressed through three different processes: the acquisition of external technology (inbound innovation); the external exploitation of technology (outbound innovation); and coupled innovation (Bigliardi, Ferraro, Galati, 2020).

The results of the BEEPS survey (Business Environment and Enterprise Performance Survey) reveal that firms that innovate by introducing one or more new products are more sensitive to the quality of the business environment compared with non-innovating firms. These differences in the perception of the business environment by firms that innovate and those that do not are particularly large when firms are asked to assess the importance of corruption, workforce skills and customs and trade regulations (BEEPS, 2014). The increasing pace of globalization, changing customer requirements, increasing competitiveness and rapid technological progress creates an environment in which a sustainable competitive advantage is difficult to achieve and maintain, therefore, it is necessary for all organizations to adapt to this pace (Stojanović, Stanković, 2021).

The CDM framework modeled the innovation process, which begins with the decision of whether to invest in research activities or not; and the degree to which a firm invests, which in turn creates innovation outputs (Le, 2020). Based on previous research dedicated to developed countries, the CDM framework was used in modelling the innovation process to identify potential innovation efforts and their effects on innovation outputs.

The main aim of this study is to measure the impact of innovation on the firm's performance in the case of Kosovo. The objective of the study is to measure the use of innovation and its impact on the enterprises in the Kosovo region. By analyzing the significant level of the enterprises that export to the EU and the Western Balkans region and enterprises that are oriented only to the local market, whether they have a positive or negative relationship with the enterprises' tendencies for innovations. A large part of the enterprises think that innovations have high costs and are even unaffordable. The lack of qualified personnel and lack of knowledge about markets and technology represents a big obstacle to the development of innovations, and it even negatively affects the decisions of these enterprises about innovations.

The research questions of this paper are:

1. What are the tendencies of Kosovar enterprises to carry out innovative activities?
2. What is the impact of market orientation and financial support on the development of innovations in Kosovo enterprises?
3. What are the factors that hamper the development of innovations and what is their impact on the innovative activities of these enterprises?
4. What is the impact of the internal capacity of the enterprise and of cooperation in the development of innovative activities of these enterprises?

2. Literature Review

According to Chen (2017), there are several views in the management literature regarding innovation. The first point of view is that innovation can directly affect the performance of enterprises, showing positive, no effect, or negative effect. The second point of view is that some moderating variables affect the relationship between innovation and business performance, and the main moderating variable is the industrial environment or market environment. The third view is that the mediating effect between innovation and enterprise performance, the main mediating variables include the change of industry, innovation output, IT investment, product matching and process matching, innovation, market position etc. The mechanism between innovation and enterprise performance can improve the performance of innovation.

Kijkasiwat et al. (2020) examine the moderating effect of firm size on the relationship between innovation and firm performance of small and medium enterprises in 29 countries in Eastern Europe and Central Asia. The study used partial least square structural equation modelling and indicated that firm size and financial capital both moderate and mediate the impact of innovation on firm performance, positively or negatively. Bach et al. (2019), conducted research based on research protocol systematization thus the study examined the Dissemination of knowledge in two stages: the summary of general corpus characteristics, and the content analysis performed according to the categories that emerged via the study's themes. The study concludes that initiatives for developing innovations have enhanced the performance of private companies.

Another study from (Ramadani, et al., 2019) has employed the CDM model using Business Environment Enterprise Performance Surveys (BEEPS) and provides a multistage empirical analysis of product innovation and firm performance in transition economies (TEs). The paper concludes that product innovation has a positive impact on firm performance in transition economies, complemented by a significant impact of specific control variables such as size, total labour cost and capital of the firm.

Firm performance for the empirical analysis of the study we employ Business Environment Enterprise Performance Surveys firm-level data conducted by the World Bank and the European Bank for Reconstruction and Development (EBRD) in 2002, 2005 and 2009. To examine the relationship between innovation activities, ownership structure and firm performance we apply the instrumental variable (IV) technique, which enables us to control

for the endogeneity between innovation activities undertaken by firms and their performance. Our findings suggest that the firm's size, R&D (Research and Development) intensity, foreign ownership, competition, skilled workers and export activity have a positive and significant impact on their incentive to undertake innovation activities.

Abazi-Alil (2014) evaluates innovation processes in developing countries, especially the relationship between innovation efforts and outcomes. Instead of capturing only investment in research and development as in Western firms, the innovation efforts of firms in developing countries include investments in in-house research and development, technology acquisition, and other informal innovation activities. A study from Exposito and Sanchis-Llopis (2018) measured the impact of product, process and organizational innovations on two alternative dimensions of business performance: finance and operations at SMEs (Small and medium-sized enterprises) in the case of Spain. The study concluded that the relationship between innovation choices in SMEs and business performance should be analyzed from a multi-dimensional approach thus it reveals significant implications for innovation policies and strategies for SMEs.

Bach et.al. (2019) measure the relationships between innovation and private company performance. The study employed the SLR (Systematic Literature Review) technique in order to map the studies conducted and concludes that the initiatives for developing innovations have enhanced the performance of private companies. The link between innovation practices and the SMEs' performance was analyzed also by Adam and Alarifi (2021). The study used an online questionnaire to collect the data from a sample of 259 randomly selected SME managers in Saudi Arabia, and the data was analyzed using the Smart PLS software. The study concludes Furth more than that the innovation practices adopted by SMEs to face the repercussions of COVID-19 had a positive impact on the performance and likelihood of business survival. A study from Hsueh and Tu (2004) investigates 1,047 enterprises in a random sample in order to find the relationship between firm performance and innovation. The study used logistic regression and found out that those three main areas of innovation which were grouped from the nine activities by principal component analysis all had a positive relationship with the operational performance of new enterprises.

As innovation is of great importance for firms' development a lot of studies are addressed in order to analyze the relationship and also to measure the impact of the innovation on the firm performance. Thus, the western Balkans countries in this regard are a part way as these countries deal with GDP growth below the average of EU countries. According to Rousseau et al. (2016), enterprises are often challenged to derive the anticipated performance benefits from innovative activities. Their results confirm a strong relationship between innovation and performance and reveal some contingencies. The discrepancy between performance outcomes is partly caused by stakeholder buy-in. Then hypercompetition is constant over time and across industries. Integrating product and process innovation yields stronger performance benefits than product innovation alone. Also, large enterprises reap greater performance benefits from innovation than small enterprises.

A study from Lm and Yy (2004) analyzes the innovation gap in EU countries and China and focuses on the problem of the innovation gap in the world economy, as there are in general countries with developed national innovation systems, playing the role of technology leaders,

and those with developing innovation systems, acting as innovation followers. (Le, 2019) measures the innovation processes in developing countries, especially the relationship between innovation efforts and outcomes the study includes the innovation efforts based on firms' characteristics, market features, and business environment. The study concludes that predicted innovation investment triggers innovation outcomes (jointly, product and process innovation outcomes) in the context of small and medium-sized enterprises.

Another study investigates innovation and firm performance using the structural equations model (SEM) for data analysis, specifically through the partial least square (PLS). The study finds out that digitization has positive and significant effects on innovation management and corporate performance and indicates that the barriers to digitalization as a moderating variable have been impeding development and digital transformation and reducing the results of innovation and corporate performance of Mexican SMEs (Valdez-Juárez., Ramos-Escobar, & Borboa-Álvarez, 2019). Another study has used the CDM model in order to establish the relationship between firm performance and innovation. The study reveals that R&D has a positive effect on process and product innovation (Henriquez, Crespo, Geldes, Ferreira, & Castillo-Vergara, 2023).

Another study investigates the impact of innovation on firms' performance, by taking into account the four innovation types (product, process, organizational, marketing) acknowledged by the Oslo Manual, as well as different aspects of performance (financial, product, innovative, market). The study used a survey of 50 firms operating in the Greek aluminium sector and employed the OLS (Ordinary least-squares model). The study concludes that all four innovation types are correlated with each other, revealing innovation's synergy effects on performance (Innovation and Firm Performance: The Case of the Greek Aluminium Industry, 2020).

The hypothesis that there is a U-shaped relationship between innovation and firm performance, in the short-term period was analyzed by (Hatzikian, 2015). In this study is applied the method for examining nonlinearities is the introduction of squared terms, using variables such as: the innovation intensity, the squared term of innovation intensity, the R&D personnel, the productivity, and the firm size as control variable. The study results are based on 372 questionnaires selected over a 2-year time period (2004-2006).

3. Methodology

3.1. Sample and econometric model

This research was conducted within a six-month period, specifically January 2022 – June 2022. The research sample consists of 400 Kosovar enterprises. These enterprises are from different economic sectors, such as production, services, and in terms of size, 80% of them are SMEs. The managers of these enterprises were interviewed by the authors of the paper at the locations of these enterprises. The interview lasted about 45 minutes. Four types of questionnaires were used, initially, the first questionnaire was used for all these enterprises, while the second, third and fourth questionnaires were used only for those enterprises that declared that they performed innovative activities. The number of enterprises which have declared that they have carried out innovations during the last three years is 289.

The multi-stage innovation model was created by Crepon et al. in 1998. This model is otherwise known as the CDM model. The CDM model was created from the initials of the three authors of the model: Crepon, Duguet and Mairesse. This model is quite comprehensive because it investigates or analyzes innovation activity, the transformation from inputs to commercialized output, and finally the impact of innovation activities on enterprise performance. Many authors such as Castellacci (2011); Reçica (2016); Czarnitzki and Delanote (2017); Yuan and Xiang (2018); Younas and ul Husnain (2022) have used this model to examine the impact of innovations on enterprise performance.

The first phase of this model is about the tendencies of enterprises to carry out innovative activities, that is, to make positive or negative decisions about innovations. In this phase, all enterprises are included. In the second phase of this model, those enterprises that invest in research and development, that invest in innovations, are analyzed. In the third stage of the model, the conversion of inputs into outputs is analyzed. After that, the impact of innovation outputs on the performance of the analyzed enterprises is investigated. The 4 equations of this model in this research can be presented as follows:

$$\text{Stage 1: } i_i = x_{1i}\beta_{1i} + \varepsilon_{1i}$$

$$\text{Stage 2: } r_i = x_{2i}\beta_{2i} + \varepsilon_{2i}$$

$$\text{Stage 3: } k_i = x_{3i}\beta_{3i} + r_i\alpha_i + invmills_i\lambda_i + \varepsilon_{3i}$$

$$\text{Stage 4: } g_i = x_{4i}\beta_{4i} + k_i\alpha_i + \varepsilon_{4i}$$

Table 1. Variables and their categories of Stage 1 and Stage 2

Dependent variables	Stage 1	Stage 2
Innovation activities	✓	
Total innovations expenditures		✓
Independent variables	Stage 1	Stage 2
<i>Economic sector:</i>		
Manufacturing (base category – other sectors)	✓	✓
Service (base category – other sectors)	✓	✓
<i>Internal capacity of the enterprise:</i>		
1- In the last three years, enterprises have had innovative activity that has been abandoned or is still ongoing, 0- otherwise	✓	✓
1- enterprises have foreign capital, 0- otherwise	✓	✓
<i>Enterprise market orientation:</i>		
1- EU Market, 0- otherwise	✓	✓
1-Western Balkan market, 0- otherwise	✓	✓
1-Local market, 0- otherwise	✓	✓
<i>Enterprise innovation subsidies:</i>		
1-The firm has received financial support for innovations from the EU, 0- otherwise		✓
1-The firm has received financial support for innovations from the national government, 0- otherwise		✓
<i>Factor hampering innovations:</i>		
1-If enterprises think that cost innovation is a big obstacle, 0- otherwise	✓	✓
1-If enterprises think that the lack of knowledge about the market and technology is a big obstacle, 0- otherwise	✓	✓
1-If enterprises consider that lack of market demand for innovation is a big obstacle to innovation activities, 0- otherwise	✓	

Source: Authors, 2023.

The second phase concerns only those enterprises which within the analyzed sample have made investments, specifically carried out innovative activities during the 3-year period. Therefore, the value of r_i can be calculated for the forms that have expenses for innovative activities. So not all sample enterprises are innovative. The value of i_i in the first stage is a latent variable and can have the value 1 if the enterprise is innovative, while the value 0 if the enterprise is not innovative. X_{1i} and β_{1i} are the independent variable vectors, while ε_{1i} represents the error term. The same applies to the variables of equations three and four. Inverse Mills ratio estimates (λi) represents estimates of innovation input from Stage 2.

The table below gives the definitions of the output stage variables (stage 3 and stage 4). It should be emphasized that some of the variables that were used in the input phase were also used in the output phase.

Table 2. Variables and their categories of Stage 3 and Stage 4

Dependent variables	Stage 3	Stage 4
The amount of sales of new products to the firm and for the market in 2021	✓	
Percentage of sales growth over the past three years		✓
Independent variables	Stage 3	Stage 4
<i>Enterprise innovation subsidies:</i>		
1-The firm has received financial support for innovations from the EU, 0- otherwise	✓	✓
1-The firm has received financial support for innovations from the national government, 0- otherwise	✓	✓
<i>Internal capacity of the enterprise:</i>		
1-Lack of qualified personnel was highly important in hampering their innovation activities, 0- otherwise	✓	
1-Enterprises use only their internal capacities to develop new products or processes, 0- otherwise	✓	
<i>Open innovation:</i>		
1- Enterprises have had any cooperation on innovation activities with universities, 0- otherwise	✓	
1- Enterprises have had any cooperation on innovation activities with consumers, 0- otherwise	✓	
1- Enterprises have had any cooperation on innovation activities with research laboratories, 0- otherwise	✓	
<i>Sources of information:</i>		
1-Information from competitors, suppliers, and customers are highly important factor in developing their innovation activities, 0- otherwise	✓	✓
1-Information sources from industrial and professional associations are highly important in developing their innovation activities, 0- otherwise	✓	✓
<i>Factor hampering innovations:</i>		
1-If enterprises think that cost innovation is a big obstacle, 0- otherwise		✓
1-If enterprises think that the lack of knowledge about the market and technology is a big obstacle, 0- otherwise		✓
1-If enterprises consider that lack of market demand for innovation is a big obstacle to innovation activities, 0- otherwise		✓

Source: Authors, 2023.

First, the diagnosis of the empirical evaluation of the CDM model will be presented. Then the main findings for each equation of the CDM model will be elaborated. Diagnostics of the collinearity of this model provide information that there is a very low correlation between the independent variables, specifically the average of the Variance Inflation Factor (VIF) is

about 1.6 for all independent variables of the first two stages of the work model. The Hansan-Sargan test was used for the validity of the instruments used in the research equations. The Hansan-Sargan test strongly supports the validity of each equation of this model. Meanwhile, the issue of heteroscedasticity was analyzed by adjusting the standard errors.

4. Results

4.1. Results of Stage 1

Based on the following table where the statistics of the variables of the first stage of the model are provided, the values of the variables, their significance, etc, will be elaborated. This phase studies the tendencies of enterprises to develop innovations. In this phase, all enterprises are included, specifically the 400 enterprises that make up our sample. The first research variable has to do with the economic sector to which the enterprises belong. The economic sector represents significance and this means that all enterprises belonging to these two economic sectors have a tendency to carry out innovations. Likewise, the internal capacity of enterprises shows significance in this phase of the model. In particular, if the enterprise is an enterprise that was founded with foreign capital, this has a positive effect on the enterprise's tendency to carry out innovations.

Table 3. Results of Stage 1

Variables of Stage 1	Results
<i>Economic sector:</i>	
Manufacturing (base category – other sectors)	0.137*** (0.018)
Service (base category – other sectors)	0.189*** (0.012)
<i>Internal capacity of the enterprise:</i>	
1- In the last three years, enterprises have had innovative activity that has been abandoned or is still ongoing, 0- otherwise	3.099*** (0.143)
1- enterprises have foreign capital, 0- otherwise	0.341*** (0.0462)
<i>Enterprise market orientation:</i>	
1- EU Market, 0- otherwise	0.147*** (0.0173)
1-Western Balkan market, 0- otherwise	0.255*** (0.0243)
1-Local market, 0- otherwise	-0.0231 (0.0366)
<i>Factor hampering innovations:</i>	
1-If enterprises think that cost innovation is a big obstacle, 0- otherwise	0.176*** (0.0052)
1-If enterprises think that the lack of knowledge about the market and technology is a big obstacle, 0- otherwise	-1.205*** (0.021)
1-If enterprises consider that lack of market demand for innovation is a big obstacle to innovation activities, 0- otherwise	-0.572*** (0.011)
<i>Constant</i>	0.497***
<i>Wald Test (rho=0) p-value</i>	0.02***
<i>N</i>	400

Robust standard errors in parentheses * p<0.1 ** p<0.5 *** p<0.01.

Source: SPSS regression outputs, 2023.

Interesting results have been achieved in the market orientation variable of these enterprises. A significant number of these enterprises are exporting enterprises, which export to EU countries and Western Balkan countries. Enterprises that export to the EU and the Western Balkans region are significant, so this positively affects the tendencies of these enterprises for innovative activities. Whereas enterprises that are oriented only to the local market, do not present significance and even have a negative relationship with the enterprises' tendencies for innovations.

Also, the factors that hinder innovations are significant in this paper. A large part of enterprises think that innovations have high costs and are even unaffordable therefore this represents a big obstacle to the development of innovations. The lack of knowledge about markets and technology represents a big obstacle to the development of innovations, and it even negatively affects the decisions of these enterprises about innovations. The lack of market demand for innovations represents a major obstacle to making innovation decisions. Also, this variable has a negative impact on the perceptions and decisions of these enterprises for innovations.

4.2. Results of Stage 2

Even in the second equation (phase 2), the economic sector has an important role in the innovations of these enterprises. So, enterprises, whether from the service sector or from the manufacturing sector, present a tendency and interest to invest in innovative activities. As for the internal capacity of the enterprises, the enterprises with foreign capital in this phase do not present significance, compared to the first phase where this category of enterprises presented significance. It does not matter at this stage whether the enterprises are foreign capital or local capital.

Results similar to the first stage were also achieved in the market orientation variable of these enterprises. Only enterprises oriented to the local market, or enterprises that are not exporters, do not present significance, while exporting enterprises present significance. Exporting enterprises invest in innovative activities because without investing they cannot reap results in the international market. A variable that was not addressed in the first phase is Enterprise innovation subsidies. Since at this stage only enterprises that have carried out innovations or invested in innovations have been analyzed, these enterprises have been asked whether they have had financial support for innovations from the EU or the national government. Both categories of the variable present significance in the second stage of this model. So, they positively affect the innovations of these enterprises. As for the factors that hamper innovations, all these factors negatively affect the innovations of these companies, but only the first category, which deals with the cost of innovations, is significant.

Table 4. Results of Stage 2

Variables of Stage 2	Results
<i>Economic sector:</i>	
Manufacturing (base category – other sectors)	0.203*** (0.0381)
Service (base category – other sectors)	0.324*** (0.0420)
<i>Internal capacity of the enterprise:</i>	
1- In the last three years, enterprises have had innovative activity that has been abandoned or is still ongoing, 0- otherwise	0.402*** (0.0531)
1- enterprises have foreign capital, 0- otherwise	0.0145 (0.0191)
<i>Enterprise market orientation:</i>	
1- EU Market, 0- otherwise	0.0821*** (0.0330)
1-Western Balkan market, 0- otherwise	0.118* (0.060)
1-Local market, 0- otherwise	0.0513 (0.067)
<i>Enterprise innovation subsidies:</i>	
1-The firm has received financial support for innovations from the EU, 0- otherwise	0.619*** (0.044)
1-The firm has received financial support for innovations from the national government, 0- otherwise	0.648*** (0.049)
<i>Factor hampering innovations:</i>	
1-If enterprises think that cost innovation is a big obstacle, 0- otherwise	-0.208*** (0.0510)
1-If enterprises think that the lack of knowledge about the market and technology is a big obstacle, 0- otherwise	-0.0881 (0.0723)
1-If enterprises consider that lack of market demand for innovation is a big obstacle to innovation activities, 0- otherwise	-0.0344 (0.0147)
<i>constant</i>	12.22***
<i>Wald Test (rho=0) p value</i>	0.01***
<i>N</i>	400

Robust standard errors in parentheses * p<0.1 ** p<0.5 *** p<0.01
Source: SPSS regression outputs, 2023.

4.3. Results of Stage 3

As mentioned above, in the third stage of the model, the transformation of inputs into outputs is analyzed. So here it will be analyzed how much the independent variables shown in the table below affect the increase in sales of these enterprises. Financial subsidies, either from the EU or from the national government, do not have a positive impact at this stage. Similar results are reached by Hashi and Stojcic (2013) who find that innovation subsidies do not efficiently translate into higher-quality product innovation. Tassey (2007), Jusufi and Gashi-Sadiku (2020); Jusufi et al. (2021) assert that tax-related incentives are more useful at this stage than financial support (innovation subsidies) for innovative activities.

Table 5. Results of Stage 3

Variables of stage 3	Results
<i>Enterprise innovation subsidies:</i>	
1-The enterprises have received financial support for innovations from the EU, 0- otherwise	-0.209** (0.074)
1-The enterprises have received financial support for innovations from the national government, 0- otherwise	-0.601*** (0.065)
<i>Internal capacity of the enterprise:</i>	
1-Lack of qualified personnel was highly important in hampering their innovation activities, 0- otherwise	-0.0058 (0.032)
1-Enterprises use only their internal capacities to develop new products or processes, 0- otherwise	0.138*** (0.0243)
<i>Open innovation:</i>	
1- Enterprises have had any cooperation on innovation activities with universities, 0- otherwise	0.0136 (0.0427)
1- Enterprises have had any cooperation on innovation activities with consumers, 0- otherwise	-0.157*** (0.0324)
1- Enterprises have had any cooperation on innovation activities with research laboratories, 0- otherwise	0.235*** (0.0426)
<i>Sources of information:</i>	
1-Information from competitors, suppliers, and customers are highly important factor in developing their innovation activities, 0- otherwise	0.144*** (0.0478)
1-Information sources from industrial and professional associations are highly important in developing their innovation activities, 0- otherwise	0.218* (0.123)
<i>constant</i>	0.564***
<i>Wald Test (rho=0) p value</i>	0.03***

Robust standard errors in parentheses * p<0.1 ** p<0.5 *** p<0.01

Source: SPSS regression outputs, 2023.

The lack of qualified personnel presents a negative relationship with the dependent variable, thus hindering innovative activities, while enterprises that use only their internal capacities to develop new products or even new processes present significance in the model. The use of the enterprises' internal resources increases the capacity to develop innovations and increase the enterprises' sales. Enterprises, that cooperate with universities and research laboratories, positively affect innovative activities. Even cooperation with research laboratories is significant in this model. Whereas cooperation with consumers presents a negative relationship and is significant. According to Reçica (2016), the multiplication of cooperation is more important than the individual types of cooperation. This is most important for the market success of innovative products. The sources of information are very important for the development of innovative activities and with this also for increasing the level of sales of enterprises. Both categories of this variable present significance in this model of this phase.

4.4. Results of Stage 4

The fourth stage is about the results of the enterprise performance equation. The percentage of sales growth is an indicator of the enterprise performance. Authors like Folkeringa, et al. (2005); Mahmutaj and Krasniqi (2020); Ramaj et al. (2022); Elezaj and Livoreka (2022) in their research on innovations have taken the increase in the level of sales as an indicator of

the good performance of the enterprise. Therefore, in this research, the percentage of sales growth during the three-year period was taken as an indicator of the company's performance. Therefore, all the variables and the impact they have on the performance of enterprises that are engaged in innovative activities, both in product innovations and in process innovations, will be elaborated below.

The financial support from the EU does not positively affect the increase in the level of sales and is insignificant, while the financial support from the national government has a positive effect and is significant in the fourth phase. According to Jusufi et al. (2020), very few Kosovar enterprises have received funds from the EU, while the number of enterprises that have received funds from the national government is greater. Kosovar enterprises lack the absorption capacities for the benefit of funds from the EU, in particular IPA funds. In particular, according to Ajdarpašić and Qorraj (2020), Kosovar enterprises lack adequate and competent human resources to benefit from IPA I and II funds.

Table 6. Results of Stage 4

Variables of Stage 4	Results
<i>Enterprise innovation subsidies:</i>	
1-The firm has received financial support for innovations from the EU, 0- otherwise	-0.0177 (0.0319)
1-The firm has received financial support for innovations from the national government, 0- otherwise	0.0518** (0.0124)
<i>Sources of information:</i>	
1-Information from competitors, suppliers, and customers are highly important factor in developing their innovation activities, 0- otherwise	0.0007 (0.0110)
1-Information sources from industrial and professional associations are highly important in developing their innovation activities, 0- otherwise	0.0271* (0.0163)
<i>Factor hampering innovations:</i>	
1-If enterprises think that cost innovation is a big obstacle, 0- otherwise	-0.0785*** (0.0108)
1-If enterprises think that the lack of knowledge about the market and technology is a big obstacle, 0- otherwise	-0.0157 (0.0139)
1-If enterprises consider that lack of market demand for innovation is a big obstacle for innovation activities, 0- otherwise	-0.0213 (0.0055)
<i>constant</i>	0.676**
<i>Wald Test (rho=0) p-value</i>	0.09**

Robust standard errors in parentheses * p<0.1 ** p<0.05 *** p<0.01

Source: SPSS regression outputs, 2023.

Information sources have a positive impact on increasing the level of sales of these enterprises, but only the second category Information sources from industrial and professional associations are highly important in developing their innovation activities is significant. So only information sources from industrial and professional associations have a significant impact on the performance of Kosovar enterprises that carry out innovative activities. All categories of this variable have a negative impact on the performance of the researched enterprises. Even the first category or the cost of innovations is significant. So taking the cost of innovations, the percentage of sales growth decreases.

5. Conclusion

The study concludes that enterprises that export to the EU and the Western Balkans region have a significant relationship, so this positively affects the tendencies of these enterprises for innovative activities, whereas enterprises that are oriented only to the local market, do not present significance and even have a negative relationship with the enterprises' tendencies for innovations. A large part of the enterprises think that innovations have high costs and are even unaffordable therefore this represents a big obstacle for the development of innovations.

The lack of knowledge about markets and technology represents a big obstacle to the development of innovations, and it even negatively affects the decisions of these enterprises about innovations. The lack of qualified personnel presents a negative relationship with the dependent variable, thus hindering innovative activities, while enterprises that use only their internal capacities to develop new products or even new processes present significance in the model. The use of the enterprises' internal resources increases the capacity to develop innovations and increase the enterprises' sales. Even cooperation with research laboratories is significant in this model.

Therefore, based on our findings, we conclude that enterprises that are more into innovation are better linked to the international market. So, local enterprises need to invest more in innovation in order to increase their market and profit. The lack of qualified personnel presents a negative impact and enterprises need to invest more in research and development, and this can be solved by cooperating with universities and research laboratories, that positively affect innovative activities. A large part of enterprises think that innovations have high costs and are even unaffordable therefore this represents a big obstacle to the development of innovations and the Government of Kosovo needs to support enterprises to overcome this obstacle.

The main contribution of this paper is the research of such a topic through the CDM econometric model. In order to increase the level of their exports, Kosovar enterprises must develop innovations, in particular product/service innovations as well as process innovations. Exports can only be increased through innovative products. Kosovar enterprises cannot benefit from the trade preferences offered by the EU through the Stabilization Association Agreement (SAA) as long as they do not have innovative and competitive products. Due to many restrictions of various natures, Kosovar enterprises have not managed to develop enough innovative activities, therefore Kosovar products cannot compete with the products of regional countries in the international market.

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