THE ROLE OF TECHNOLOGICAL, TECHNICAL AND ADMINISTRATIVE INNOVATION IN THE PERFORMANCE OF THE SME'S IN ALBANIA

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ABSTRACT

The main purpose of this study is to investigate the relationship between innovation and performance of small and medium enterprises in Albania. Promoting the free spirit of enterprise and opening new businesses are very crucial for Albanian economy. Since SME's tend to be innovative, they may help in finding solution to different problems that this country is facing nowadays, such as: economic growth and innovation, higher standards in education system, more efficient in managing production and trade of products. Theories suggests that innovation has an important impact on business performance and the relationship depend on capital market, labour market, industry structure, property and copy rights, openness to trade, education system, government policies, national culture and other variables. This study was designed as descriptive and its data gathering method is questionnaire. The questionnaires were addressed to 100 (one-hundred) shareholders of the companies in various industries that are operating in Albania. These findings of the study will allow us to develop a model of business performance of SMEs and to test the hypotheses proposed. The results show that innovation has positive effect on business performance in Albania. The study will have a positive impact because will bring important contributions such as: determining the role of each attribute of innovation (technical, technological and administrative) towards business performance of SMEs in Albania.

Keywords: Innovation, technical innovation, administrative innovation, and business performance.

INTRODUCTION

There are more than 20 million SMEs operating in Europe. These businesses are employing more than 100 million persons, meaning 70% of the workforce are SMEs, and their business performance impacted directly the economy. (Organization, 2016) These businesses are generating new jobs and lead to new ideas in doing business. Europe aspire to be part of the new economy, and its success will depend only if their attention will be focus to small businesses. Innovation may help in the coming future the SMEs to be more innovate, develop, and successful. Improving policies, nationally and regionally programs for research & development is very fundamental. Operating in a global economy SMEs cannot be based only on the competitiveness of reducing costs; but they need to be competitive in the knowledge. However, competition in today's business is one of the biggest challenges in both markets domestic and internationally. Innovative businesses required a well-designed organizational culture and adaptive to extreme changes, but some of them fail due to costly and time-consuming of innovation process.

After the fall of communist regime in 90's, the economy changed from centralized economy to a market and trade liberalization. In three decades of transition Albanian economy is more

focus in the private sector particularly towards SMEs. However, the government intervention and their regulatory control continue to restrict the dynamic investments and economic efficiency in general. Despite recent reforms, inefficient business environment still obstructs the development of the economy. The government continues to control the price of electricity, water, telecommunication, agricultural, insurance, transport and tourism. Still property rights, freedom, corruption, informal labor activity remains sensitive issues.

This study is intended to identify and determine the impact of innovation in the business performance (SMEs) in Albania. Data collection was conducted through surveys to SMEs businesses operating in Albania. The main issue of this study is the importance of technical, technological and administrative innovation as success factor in the business competitiveness and performance. Combining empirical methods with theoretical definitions of innovation and will help to determine the impact of them in business performance. The study will bring an important contribution in determining the role of each attribute of innovation (technical, technological and administrative) towards the performance of SMEs in Albania. The paper is divided in 5 (five) sessions; session one is the introduction; session two is literature review; session three is methodology used in this; session four explain results and discussions and session five is referring to the conclusion of the study.

LITERATURE REVIEW

The Role of Innovation

One of the most important factors that affect directly the business performance is innovation. Numerous studies has been conduct in this field but still innovation is understood a little. Businesses are becoming rapidly more innovative due to globalization, changes in technology and competitive markets which visibly are reflected in business performance. Important is that the role of innovation can be proven in different sectors of businesses and their economic impact in developing a country.

The first pioneer was Joseph Schumpeter by defining economic innovation in "Theory of Economic Development" (Schumpeter, Theory of economic development, 1934). According to him innovation is divided in five types:

1. launch of a new product or a new species of already known product;
2. application of new methods of production or sales of a product (not yet proven in the industry);
3. opening of a new market (the market for which a branch of the industry was not yet represented);
4. acquiring of new sources of supply of raw materials or semi-finished goods;
5. new industry structure such as the creation or destruction of a monopoly position. (Schumpeter, Theory of economic development, 1934)

As we mention earlier there are numerous theories regarding innovation. For the purpose of this study was proposed Oslo Manual definition in 2005: "An innovation is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations ". (OECD/Eurostat, 2005)

Often the concepts of innovation and invention are confused by business people. But in reality the two concepts are different. The clear distinction was stated by Freeman in 1974: "An invention is an idea, a sketch or a model for a new or improved device, product, process

or system… An innovation in the economic sense is accomplished only with the first commercial transaction". (Freeman, 1974)

It exists a lot of literature in defining the typology of innovation. Two are the most known typologies of innovation: technical and administrative, which make the distinction between the products/services and the process of innovation. Firstly, technical and administrative innovation have been studied by Evan in 1966. Below is given a definition of technical and administrative innovation:

- "Technical innovation occurs in the technical system of an organization and is usually related to technology. It can be a new product, or service or process".
- "Administrative innovation occurs in the social system of an organization. It pertains to recruitment authority, rewards, and the structuring of tasks or allocation of resources". (Dubouloz, 2012)

In the questionnaire the technical innovation was divided in two subdivisions. The first one was technical innovation if a new product or services was presented and technological innovation based on the usage of internet and to the new technology.

Business Performance (SMEs)

The SMEs performance has a multi-dimensional structure; based on the combination of quantitative and qualitative variables can be measured the success of the business. Some of these attributes that measures the success are:

1. Profitability of the business.
2. Quality of the products/ services.
3. Image of the company.
4. Customer satisfaction
5. Employee satisfaction/ motivation
6. Efforts to innovate.
7. Number of employees
8. Productivity of the company.

Factors that have positive impact in the performance are: motivation, education, partnership. Many authors had tried to explain the success of SMEs. One of these theories state that human capital, social capital and financial capital are essential factors in improving the performance of business. Performance is directly related to innovation. Increase business performance affects the expansion, competitiveness and chances of survival. Improved performance has an impact on the economy of the country or region. (Wolff & Pett, 2006) Competitive organizations, constantly supporting and implementing transformative changes. (Cohen, 1999)

METHODOLOGY

The Purpose of Study is to determine the relationship between innovation and business performance of small- and medium enterprise. Hypothesis of the study proposed are:

H1: *Technological innovation affect positively the business performance (SME's).*
H2: *Technical innovation affect positively the business performance (SME's).*
H3: *Administrative innovation affect positively the business performance (SME's).*

In this research was used the quantitative data collection methods. Data collection was conducted during the period April - June 2016. The collection process began with the

identification of potential candidates in Albanian business environmental. The number of valid questionnaires were 100 (one-hundred). The data collection was done by searching for information about the business and the collection of information through direct survey.
The questionnaire was segmented into two (two) core parts:

1. Types of innovation- is used to measure the innovation typology of the company (Items were rated on 5-point Likert type scale). Innovation is divided in three typologies as showed below:
   a. Administrative Innovation include- management innovation, strategic innovation and customer relationships.
   b. Technical Innovation include- product/ service innovation, process innovation.
   c. Technological innovation include- usage of internet and to the new technology.
2. Performance of the business within market- is measured by 8 factors (profitability of the business, quality of the products/ services, image of the company, customer satisfaction, employee satisfaction/ motivation, efforts to innovate, number of employees, productivity of the company) (Items were rated on 5-point Likert type scale).

In addition, the questionnaire was collected data for the type of industry, number of employees, number of years operating in the market and annual sales.

RESULTS AND DISCUSSION

The sample is limited to 100 surveys and in this study was used Multi- Regression Analysis to test proposed hypothesis. This approach is designed to develop a regression model with the fewest number of variables which are statistically independent. Analysis of Variance (ANOVA) was used to determine the differences between the models of leadership and performance. Was used the SPSS statistical program to analyze the data based on multiple regression analysis to test the proposed hypothesis. To measure the reliability of a model and significant that the components / questions is used Cronbach alpha level. If Cronbach Alpha values are greater than 0.70 are considered acceptable. In this study the level of reliable values are above 0.70.
Kaiser-Meyer-Test Olkin (KMO) measure the adequacy of the data collected, it should be greater than 0.5. This correlation indicates that the models are relatively compact and analysis factor should provide adequate and reliable factors the result is showed in table 1.

Table 1. Validity and Reliability (KMO and Bartlett's Test)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.709
Bartlett's Test of Sphericity	Approx. Chi-Square	388.765
	Df	45
	Sig.	.000

Factor analysis method is applied to determine the size of a scale. Factor analysis is a technique to identify groups or groups of variables and to understand the structure of any hidden variable. Factors will be presented in the form of linear equation (1) to explain the variables measured and their importance as factors.

$$Pkk = a + b1Itch + b2Itk + b3Ia \quad (1)$$

Note: Pkk= Business Performance
Itch= Technological Innovation
Itk= Technical Innovation

Ia= Administrative Innovation

The factor analysis method had identified three main dependent variables as it is showed in table 2, and other variables' items and statements as it is showed in table 3. Using SPSS regression model to test the correlation between each Innovation models and the business performance of SMEs in Albania. It was first investigated the relationship between the model of technological innovation and performance. In table 6 the output shows the results of regressive analysis performed with SPSS regression model where the dependent variable is as performance and as the independent variable is technological innovation.

Table 2. Total Variance/ Principal Component

	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.838	38.375	38.375	3.838	38.375	38.375	2.465	24.652	24.652
2	1.753	17.526	55.901	1.753	17.526	55.901	2.190	21.902	46.554
3	1.114	11.138	67.039	1.114	11.138	67.039	2.048	20.485	67.039
4	.826	8.262	75.301						
5	.678	6.782	82.083						
6	.523	5.230	87.313						
7	.446	4.461	91.774						
8	.402	4.017	95.791						
9	.257	2.566	98.358						
10	.164	1.642	100.000						

Extraction Method: Principal Component Analysis.

Table 3. Variables and Statements

Statement	Components/ Variables		
	Technological	Technical	Administrative
ITCH9 Competitive companies use information technology and / or dominate the communication over company.	.806		
TEK7 In the last five years, the technology, equipment and / or machines that I used are dominating compared to my competition.	.795		
IA2 In my company are introduced new and innovative management practices (eg Icon of Management, Six Sigma,).	.706		
ITCH6 In the last five years, my company has been purchasing new equipment or machines with modern technology.	.616		
ITCH2 In the last five years my company has developed new products or services.		.769	
ITEK1 In the last five years my company has made changes, or significant improvements in existing products or services.		.748	.405
IA3 In my company there are clear and defined strategic innovation processes.		.655	
ITEK12 The company is using information and communication technology, to collecte data and generates reports from them.			.861
IA6 Innovative processes have been implemented in my company to reduce the response time to customers.		.469	.659

IA1 Management and management of my company give great importance to research development (R & D) for new products or services	.450		.645

Table 4. Model of Technological Innovation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.205[a]	.042	.032	4.703

Predictors: (Constant), Technological Innovation

Table 5. Correlation Analysis (ANOVA) regarding Dependent Variable Performance and independent variable Technological Innovation.

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	94.905	1	94.905	4.291	.041[b]
	Residual	2167.535	98	22.118		
	Total	2262.440	99			

a. Dependent Variable: Performance; b. Predictors: (Constant), Technological Innovation.

Table 6. Regression Analysis Regarding Technological Innovation.

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	26.103	1.780		14.663	.000
	ITCH	.268	.129	.205	2.071	.041

Dependent Variable: Performance

From the ANOVA table 5, as p = .024 <α = .05, we can say that: "There is a significant correlation between the model of technological innovation and performance of SMEs businesses in Albania.

Moreover, it was investigated the relationship between the model of technical innovation and performance. Output in table 9 shows the results of regressive analysis performed with SPSS regression model where the dependent variable is as performance and as the independent variable is technical innovation.
From the ANOVA table 8, as p = .024 <α = .05, we can say that: "There is a significant correlation between the model of technical innovation and performance of SMEs businesses in Albania".

To conclude, it was investigated the relationship between the model administrative innovation and performance. Output in table 12 shows the results of regressive analysis performed with SPSS regression model where the dependent variable is as performance and as the independent variable is administrative innovation.

Table 7. Model of Technical Innovation.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.532[a]	.283	.276	4.067

Predictors: (Constant), Technical Innovation.

Table 8. Correlation Analysis (ANOVA) regarding Dependent Variable Performance and independent variable Technical Innovation.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	641.104	1	641.104	38.751	.000[b]
	Residual	1621.336	98	16.544		
	Total	2262.440	99			

a. Dependent Variable: Performance; b. Predictors: (Constant), Technical Innovation.

Table 9. Regression Analysis Regarding Technical Innovation.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.854	1.783		10.574	.000
	ITK	1.006	.162	.532	6.225	.000

Dependent Variable: Performance

Table 10. Model of Administrative Innovation.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.360[a]	.129	.121	4.483

Predictors: (Constant), Administrative Innovation.

Table 11. Correlation Analysis (ANOVA) regarding Dependent Variable Performance and independent variable Administrative Innovation.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	292.929	1	292.929	14.576	.000[b]
	Residual	1969.511	98	20.097		
	Total	2262.440	99			

a. Dependent Variable: Performance; b. Predictors: (Constant), Administrative Innovation.

Table 12. Regression Analysis Regarding Administrative Innovation.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	22.542	1.917		11.757	.000
	IA	.653	.171	.360	3.818	.000

Dependent Variable: Performance

From the ANOVA table 11, as $p = .024 < \alpha = .05$, we can say that: "There is significant correlation between the model of administrative innovation and performance of SMEs businesses in Albania".

The examination of innovation was done by evaluating separately the dimensions of: technological, technical and administrative. The result showed that 3 (three) dimensions were positively related to business performance. Innovation helps business to create new idea, products and services and same time makes them being more competitive in the market.

CONCLUSIONS

In this study concepts like technological, technical and administrative innovation are very important regarding the performance of the business. Analysis was conducted on three types of innovation models as technological, technical and administrative. In this research was reflected the literature debate regarding the dimensions of innovation and how it is understood.

During this long transition period (27 years) Albania economy growth was based on remittances from emigration, foreign investment, different donations from developed countries, which cannot maintain the macro- economic balances and not being self-sufficient. Identification of these factors that brings to the new economic growth for Albania and turning to competitive advantages as is a key point. In additional, this study can help the policymaker to look for new approaches or update the old ones so SMEs can improve more their performance and being competitive.

In conclusion, there is a lack of information in this specific area in Albania, so these findings can be used as guidelines in practice by business owners, managers, directors in improving the performance of the company and being more competitive in the market.

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