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Innovation and SMEs: A Binom of Economic Growth Case of Albania

Megi Marku¹, Besa Shahini²

Abstract: Businesses are constantly seeking new, innovative methods to operate, strengthen their position, and obtain a competitive advantage in the present environment. Innovation entails more than just a new concept. Innovation is regarded as the major driver of growth in SMEs and the assurance of long-term sustainability. Innovation improves SMEs' ability to respond to market changes and increase their performance. The degree to which small and medium-sized businesses incorporate innovation into their strategies typically determines their success and survival. Several ways can be employed to accomplish this goal. One method is to re-engineer the existing business models using innovation practices. Through a thorough literature review, the primary goal of this study will be to examine innovation as a significant factor in the growth of SMEs, specifically its impact on their performance. Inferential statistics on innovation measures and key performance indicators will be interpreted as part of the analysis. In the case of Albania, the study includes a regression-type model that investigates the association between SMEs' performance and innovation. Using the built-in model, a positive relationship between innovation and performance is expected, implying that the commitment to the innovation metrics will increase SME performance and, as a result, economic growth.

Keywords: Innovation; Performance; Indicators; Growth; SME

JEL Classification: O30; O31; O32; O40

1. Introduction

In every competitive business climate, innovation is the main tactic and the engine for corporate growth and survival. Innovation includes components of creativity, Research and Development (R&D), new processes, new products or services, and technological advancement (Lumpkin & Dess, 2001) that affects directly the economic growth. Technology and R&D have been viewed as the most significant drivers of innovations (Hadhri et al, 2016), even though the most recent school of thought agrees that innovation is defined as creativity (via R&D and Technology) + value to customers + a business model. Both developed and developing economies require innovation to drive economic progress and competitiveness. Many governments are emphasizing innovation as a key component of their growth strategies. The launch of new products and services has been the main incentive behind the development of new SMEs and the growth of existing ones. On the other hand; the significance of SMEs in the expansion and development of a country's economy cannot be overstated. SMEs have proven to be

¹ PhD in progress, Faculty of Economy, University of Tirana, Albania, Address: Place, "Mother Tereza" Tirana, Albania, Corresponding author: mmarku@ubt.edu.al / markumegi5@gmail.com.

² Professor, Faculty of Economy, University of Tirana, Albania, Address: Place, "Mother Tereza" Tirana, Albania, E-mail: besashahini@feut.edu.al.

economic development stimulants for all countries in terms of job creation, forward integration with large-scale enterprises, and added value to the gross domestic product (GDP). Small and medium-sized enterprises (SMEs) make important contributions to economic growth and employment, particularly through their innovative activities, which are the primary explanation for competitive advantage and company success. Firms' innovativeness can be influenced by both internal and external influences. Internal factors include a company's inherited capacities, such as its workforce's skills, accumulated experience, and prior related knowledge (Webster, 2004), organizational structure, and R&D efforts, as well as the capacity to respond appropriately to its employees' intrinsic motivation (Jorna and Waalkens, 2017). (Jorn and Waalkens, 2017) External factors are predominantly concerned with a firm's interaction with its external environment. Three main categories of external factors can drive innovation: (i) the firm's market environment, (ii) public policies and regulations, and (iii) the social environment. Referring to SMEs in Albania, despite being vital to the country's economy, face numerous challenges, including insufficient and non-functional infrastructure, administrative obstacles, a lack of access to appropriate technology, a lack of R&D, high reliance on imported raw materials, and a lack of science. Innovation is a critical component in overcoming the majority of the issues that SMEs confront.

2. Literature Review

2.1. Drivers of Economic Growth: Innovation and SMEs Performance

Innovation

There are several definitions of innovation in the literature, however, the most relevant to this study is: "Innovation is the process of generating ideas, creating a novel concept, and bringing a new product, process, or service to market". Innovation is becoming increasingly important in globalization and competitiveness (Gorodnichenko et al., 2010). As globalization and international rivalry intensify, firms' performance in both domestic and global markets becomes increasingly crucial. It has been stated that the survival of organizations in the business environment is contingent on innovation. From this standpoint, innovation may be regarded as a broad phrase. To stay relevant, all businesses must analyze each of the following categories of innovation (Zaid, 2018).

Product innovation: Product innovation tends to be an important source of competitive advantage for businesses (Mohd & Syamsuriana, 2013). As observed by Hult et al. (2004), product innovation defends a corporation against dangers and competitors while simultaneously allowing the innovating firm to obtain a 'first mover' advantage. Product innovation and organizational success have a favorable and significant relationship, according to Bayus et al. (2003). According to Alegre et al. (2006), product innovation is significantly and positively connected with business performance.

Process Innovation: Process innovation refers to changes in manufacturing or product development approaches such as new leadership, novel raw materials, new production lines, new manufacturing processes/methods, and emerging technology. This type of invention cannot exist in separation. Product or organizational innovation typically leads to process innovation. New processes rely on the application of new technology to improve production efficiency and quality. The deployment of new or enhanced manufacturing processes, as well as the use of new tools, technology, or information in the creation of a product, are examples of process innovation (Langley et al., 2005).

Marketing innovation: Adoption of a new marketing strategy involves substantial modifications to product design or packaging, product positioning, product promotion, and pricing. (Mohd and Syamsuriana, 2013) Marketing innovation focuses on a market mix and selection to satisfy consumer

expectations. Innovation in marketing requires satisfying market demands and capitalizing on market opportunities. Creating a better way to meet consumer needs, entering a new market, or strategically positioning a company's product on the market to increase firm sales are examples of this type of innovation (Gunday et al., 2011).

In today's dynamic market, these three categories of innovation are viewed as a source of competitive advantage for businesses.

2.2. SMEs Performance

A firm's performance depends on its ability to gain profit and grow to achieve its overall strategic objectives. It is a consequence of the combination of activities made possible by competitive factors, that enable the firm to react to the outside environment, merging expertise and applicability. SMEs become extremely competitive in an emerging market when they prioritize creative operations that enhance their market reputation. Essentially, the main reason for organizations' innovativeness is their desire to improve their performance and gain a competitive advantage. Performance measurement and management strategies have become standard in all enterprises. Understanding the relationship between innovation and firm performance provides practical insights for effective firm management. Using this expertise, SME managers will be able to optimize their decision-making processes concerning various performance results. This knowledge will also help them allocate resources as efficiently as possible. Company performance is a multifaceted notion that includes indicators like production, finance, or marketing (Sohn et al., 2007), as well as consequences like growth and profit (Wolff & Pett, 2006). Several studies have described the firm's performance in terms of how well organizational objectives are met (Wood, 2006). According to Gerba and Viswanadham (2016), performance can be measured using both financial and non-financial criteria. Return on investment (ROI), sales volume, sales value, profitability, total assets, employment size, capital employed, market share, customer satisfaction, productivity, turnover, delivery time, staff turnover, and so on are examples.

Both empirical and theoretical studies have shown the link between innovation and corporate productivity.

3. Measuring Innovation at a Macro Level

Significant gains can be obtained through innovation. It can assist in rising productivity, profit generation, increasing market share, and edging out competition. Innovation is viewed as a daily issue for members of all types of organizations in identifying their issues, adjusting to unexpected occurrences, designing solutions, and creating new ways and procedures to organize work. So, it is converted into the production of an innovative product or service through the use of experience, skills, motivation, and knowledge. Despite this, as SMEs make up a significant number of organizations in Albania, the primary focus is on the incorporation of innovative methods in these businesses. Albania's SMEs continuously try to follow the latest developments in technology and innovation aspects. They try to differentiate their activity compared to other competitors in the dynamic market. The forms of innovation that they try to capture in their business activities include product innovation, process innovation, and marketing innovation. To characterize innovation dynamics and analyze the consequences of public policies promoting innovation, or, from a micro viewpoint, return on investment, including the establishment of conditions favorable to R&D activities, innovation indicators are required. Furthermore, the role of the various actors, whether companies, the primary drivers of

innovation, or other entities in the innovation system, must be considered. An index, specifically the Global Innovation Index, was designed to provide informative statistics on innovation and, as a result, aid economies in evaluating their innovation performance and making informed innovation policy decisions. The GII model incorporates 81 indicators and 132 economies, representing 94.3% of the global population and 99.0% of global GDP in monetary parity with actual international currencies.

3.1. GII Index Methodology

The GII is built around two sub-indices: The Innovation Input Sub-Index and the Innovation Output Sub-Index. With only two pillars, the Index has the same weight in determining total GII scores as the Input Sub-Index. The overall GII score is the median of the Input and Output Sub-Indices, which is then used to generate the GII economy rankings.

Five input pillars capture components of the national economy that permit and facilitate innovative activity in the Innovation Input Sub-Index. Innovation outputs are the results of economic innovation. Despite having only two pillars, the Output Sub-Index has the same weight in calculating overall GII scores as the Input Sub-Index. This index is created by averaging the scores of the innovation input and output indexes.

Two sub-indices are displayed. On the one hand, the Innovation Input Sub-Index consists of human capital and research inputs, infrastructure, market sophistication, business sophistication, and institutions. In contrast, the Innovation Output Sub-Index incorporates knowledge and technology outputs and creative outputs. Indicators measuring their contribution to the Overall Innovation Index are presented in the table below for each of them.

Table 1. Innovation Sub-Indexes and Indicators

GII Sub-Indices	Indicators
Innovation Input Sub-Index	
Human capital and research	Tertiary education, Education, Research & Development (R&D)
Infrastructure	Information and Communication Technologies, General Infrastructure
Market sophistication	Credit, Trade, Market scale, Investment
Business sophistication	Knowledge absorption, Knowledge workers, Innovation linkages
Institutions	The political environment, Regulatory environment, Business environment
Innovation Output Sub-Index	
Knowledge and technology outputs	Knowledge creation, Knowledge impact, Knowledge diffusion
Creative outputs	Intangible assets, Creative goods, and services, Online Creativity

Source: Global Innovation Index 2021

3.2 Albania's Rank

As we mentioned in the paper, Albanian SMEs face challenges including infrastructure, administrative obstacles, a lack of access to appropriate technology, a lack of R&D, high reliance on imported raw materials, and a lack of science. Referring to the GII value (2022), Albania is ranked 84th out of the 132 economies included, scoring an overall score of 24.4%. Albania is below the average of the innovation index when compared to the median value of 32.09%. This can even be considered in terms of the economic grouping to which Albania belongs.

Going one by one per each of the pillars in the case of Albania, we should mention that **Institutions:**

ranked 84th with a score of 51.4%; **Human Capital & Research**: ranked 89th with a score of 22.7%; **Infrastructure**: ranked 57th with a score of 46.3%; **Market Sophistication**: ranked 87th with a score of 25.4%; **Business Sophistication**: ranked 56th with a score of 30.4%; **Knowledge & Technology Outputs**: ranked 96th with a score of 12.6%; **Creative Outputs**: ranked 82nd with a score of 14.6%.

Albania's ranking for each pillar shows that Knowledge and Technology Outputs are the least favorable, followed by Human Capital and Research, categories that are expected based on the data linked with them. The most important drivers of innovation are ICT and R&D, where Albanian SMEs confront difficulties and obstacles, especially in selecting suitable technology and producing a considerable number of patents and publications as R&D measure indicators.

4. Measuring Innovation at a Micro Level

According to the previous issue's study, the Global Innovation Index measures innovation at a macro level, employing pillars for inputs and outputs and generating the situation in Albania for each of them. To measure innovation at a micro level, a regression-type model will be utilized, which will illustrate the relationship between the most relevant indicators that influence innovation and as a result, SMEs performance and Economic Growth. As the most important drivers of innovation, the variables that will be employed are Research and Development (R&D) and Information and Communication Technologies (ICT). On the one hand, R&D is measured in terms of the number of publications and patents, and ICT is measured in terms of ICT use in Albanian SMEs, the ability of SMEs to integrate new technologies, a main key to innovation.

Equation 1. The linkage is evaluated by estimating the regression relationship:

$$Performance = c + \alpha x Research\ and\ Development + \beta x ICT + \varepsilon$$

The dataset is provided by World Bank and United Nations Conference on Trade and Development (UNCTAD) for the period 2008-2019. The results are obtained using the SPSS statistical package.

Table 2. Regression Results - Albanian Case

Variable	Estimated B	Std. error	t	Sig
Constant	0.215	0.013	16.322	0.000
R&D	0.087	0.2	0.434	0.675
ICT	0.268	0.048	5.523	0.000*
F statistic	48.459			0.000*
Adj. R ²	0.896			

Source: Authors' calculations * statistically significant at 5% level.

Equation 2. The regression model:

$$Performance = 0.215 + 0.087 x R\&D + 0.268 x ICT + \varepsilon$$

In terms of performance, the results indicate that R&D and ICT are positively correlated. The greater the level of these variables, the more effective the performance. Moreover, the R² value indicates that the contribution of R&D and ICT to performance explanation is significant, so 89.6% of performance is explained by R&D and ICT, as the primary indicators of innovation.

5. Innovation and Economic Growth

The more advanced an economy, the greater its ability to innovate, and inversely. The GII chart below demonstrates a positive relationship between innovation and economic development. As a result of the level of income and the differences between the two subgroups; on the one hand, the developed countries and, on the other hand, the developing countries, some economies deviate from this tendency. These countries perform below or above expectations.

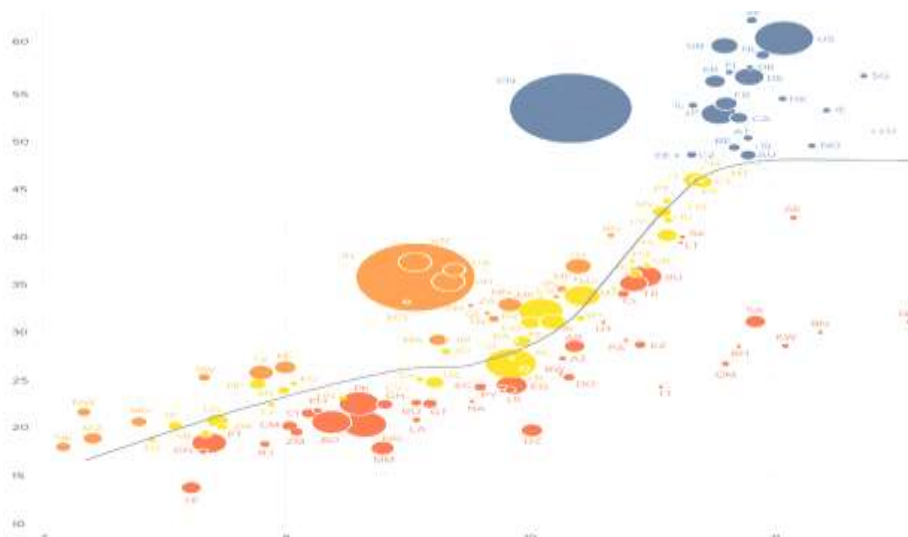


Figure 1. Relationship between Innovation and Economic Development

Source: Global Innovation Index, 2020

Referring to Figure 1, it's obvious that there is a positive relationship between innovation and economic development, as seen even in the GII score curve. As it is shown in the graph, the countries that lie above the curve are considered innovation leaders; the countries that perform at the level of expectations lie around the curve; and the countries that perform below the level of expectations lie below the trend of the GII index. As a result, the more inventive a country is, the more positive the growth of its economy. Various authors' empirical analyses also explain this relationship. According to the findings of (Tyxhari et al.) in the case of Albania, using different models and selecting variables for each of them, greater innovation results in greater economic development.

6. Conclusions

Innovation is the primary corporate strategy and propelling force for growth and survival.

Through innovation, significant enhancements are possible. It can aid in increased productivity, profit generation, market share expansion, and competitive advantage. Members of numerous types of organizations view innovation as a daily challenge in terms of detecting problems, adapting to unanticipated events, inventing solutions, and creating new methods and procedures for managing work. Indicators of innovation are required to characterize innovation dynamics and analyse the effects of innovation-promoting government policies or, from a micro perspective, return on investment, including the creation of conditions favourable to R&D activities. Innovation is one of the main pillars supporting the performance of small and medium-sized businesses and economic growth. According to the analysis, the most important innovation drivers are R&D and ICT, where R&D is measured by the number of publications and patents and ICT is measured by the integration and adaptation of novel technologies. These indicators affect the innovation performance of nations and even the rate of economic growth.

According to the Global Innovation Index ranking, Albania is ranked 84th in the world, with a very low score and position in the "Knowledge & Technology Outputs" and "Human Capital & Research" pillars. To catch up with other nations in this regard, the government and private sector must increase their investments in these pillars. The more developed countries rank first in the GII, and there is a positive relationship between innovation and economic growth.

In Albania, the analysis revealed a positive relationship between innovation and performance from 2008 to 2019. Also, referring to the graph that explained the relationship between innovation and economic growth, it can be affirmed that the more innovative a country is, the more positive the growth of its economy. Albania is suggested to join the ranks of those nations where more investment in R&D expenditures and human capital translates to higher economic growth.

References

- *** (2022). Global Innovation Index (GII). Global Innovation Index (GII). https://www.wipo.int/global_innovation_index/en/index.html.
- Agustina, T. S. & Arganata, M. E. P. (2023). Determining Factors in SMEs Innovation Performance: An Empirical Study in Indonesia. *INOBIIS: Jurnal Inovasi Bisnis Dan Manajemen Indonesia*, 6(2), pp. 149–162. <https://doi.org/10.31842/jurnalinobis.v6i2.265>.
- Alegre, J.; Lapiedra, R. & Chiva, R. (2006). A measurement scale for product innovation performance. *European Journal of Innovation Management*, 9(4), pp. 333–346. <https://doi.org/10.1108/14601060610707812>.
- Anggadwita, G. & Mustafid, Q. Y. (2014). Identification of Factors Influencing the Performance of Small Medium Enterprises (SMEs). *Procedia - Social and Behavioral Sciences*, 115, pp. 415–423. <https://doi.org/10.1016/j.sbspro.2014>.
- Bayus, B. L., Erickson, G., & Jacobson, R. (2003). The Financial Rewards of New Product Introductions in the Personal Computer Industry. *Management Science*, 49(2), <https://doi.org/10.1287/mnsc.49.2.197.12741>.
- Gorodnichenko, Y.; Svejnar, J. & Terrell, K. (2010). Globalization and Innovation in Emerging Markets. *American Economic Journal: Macroeconomics*, 2(2), pp. 194–226. <https://doi.org/10.1257/mac.2.2.194>.
- Gunday, G.; Ulusoy, G.; Kilic, K. & Alpkan, L. (2011). Effects of Innovation Types on Firm Performance. *International Journal of Production Economics*, 133(2), pp. 662–676.
- Hadhri, W.; Arvanitis, R. & M'Henni, H. (2016). Determinants of innovation activities in small and open economies: the Lebanese business sector. *Journal of Innovation Economics & Management*, no. 21(3), pp. 77–107. <https://doi.org/10.3917/jie.021.0077>.
- Hult, G. M.; Hurley, R. F. & Knight, G. A. (2004). Innovativeness: Its antecedents and impact on business performance. *Industrial Marketing Management*, 33(5), pp. 429–438. <https://doi.org/10.1016/j.indmarman.2003.08.015>.
- Langley, D. J.; Pals, N. & Ortt, J. R. (2005). Adoption of behavior: predicting success for major innovations. *European Journal of Innovation Management*, 8(1), pp. 56–78. <https://doi.org/10.1108/14601060510578574>.
- Lumpkin, G. & Dess, G. G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance. *Journal of Business Venturing*, 16(5), pp. 429–451. [https://doi.org/10.1016/s0883-9026\(00\)00048-3](https://doi.org/10.1016/s0883-9026(00)00048-3).
- Nehete, R.; Narkhede, B. E. & Raut, R. D. (2016). Manufacturing performance and relevance of operational performance to small and medium scale enterprises – a literature review. *International Journal of Business Excellence*, 10(3), pp. 354. <https://doi.org/10.1504/ijbex.2016.10000152>.
- Rosli, M. M. & Sidek, S. (2013). The Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia. *Journal of Innovation Management in Small & Medium Enterprise*, pp. 1–16. <https://doi.org/10.5171/2013.885666>.
- Sohn, S.; Gyu Joo, Y. & Kyu Han, H. (2007). Structural equation model for the evaluation of national funding on R&D projects of SMEs in consideration with MBNQA criteria. *Evaluation and Program Planning*, 30(1), pp. 10–20. <https://doi.org/10.1016/j.evalproplan.2006.10.002>.

Statistics. (2023). *UNCTAD*. <https://unctad.org/statistics>.

Thornhill, S. (2006). Knowledge, innovation and firm performance in high- and low-technology regimes. *Journal of Business Venturing*, 21(5), pp. 687–703. <https://doi.org/10.1016/j.jbusvent.2005.06.001>.

Tyxhari, G.; Shahini, B. & Sala, E., (July, 2021). Measuring Innovation in a business context. *Proceedings of Scientific Challenges for Sustainable Development*, p. 196, Struga.

Waalkens, J. & Jorna, R., (2017). *Innovation: The Organisational, Human and Knowledge Dimension*. DOI: 10.4324/9781351280365-2.

Webster, E. (2004). Firms' decisions to innovate and innovation routines. *Economics of Innovation and New Technology*, 13(8), pp. 733–745. <https://doi.org/10.1080/10438590410001686824>.

Wolff, J. A. & Pett, T. L. (2006). Small-Firm Performance: Modeling the Role of Product and Process Improvements*. *Journal of Small Business Management*, 44(2), pp. 268–284. <https://doi.org/10.1111/j.1540-627x.2006.00167.x>.

Wood, E. H. (2006). The internal predictors of business performance in small firms. *Journal of Small Business and Enterprise Development*, 13(3), pp. 441–453. <https://doi.org/10.1108/14626000610680299>.

World Bank Open Data. (2023). *World Bank Open Data* | Data. <https://data.worldbank.org>.

Zaidi, A. (2018). Three Types of Innovation - Product, Process, and Business Model - Management Insights. *Management Insights*. <https://mdi.com.pk/management/2018/05/three-types-innovation/>.