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Impact of innovation on the performance of small and medium enterprises in Angola – The case of Huíla Province

Justino Lekwa Ekuva Somandjinga[1].

ABSTRACT

Innovation is identified as the key to differentiating SMEs, increasing customer loyalty, providing higher sales, market share and entry into new markets. The main objective of this study was to analyze the impact of innovation on the performance of Small and Medium Enterprises in Angola, specifically SMEs in the Province of Huíla, the results obtained allow us to conclude that SMEs in the City of Lubango are not innovative, which in a way shows that innovation is not well managed by the managers of SMEs in Lubango. The third objective was to describe the types of innovation used by SME managers in Huíla, the results showed that process innovation and organizational innovation are the most used by SME managers in Huíla. Finally, one of the objectives of our study was to analyze the effect of Innovation on the performance of SMEs in Lubango, through the application of the regression model and the correlation matrix, it was concluded that together, innovation in the process and organizational innovation contribute positively to the performance of SMEs in Huíla.

Keywords: Product innovation, Process innovation, Organizational innovation, Performance, SMEs, Linear regression.

INTRODUCTION

Innovation is identified as the key to differentiating SMEs[2], increasing customer loyalty, providing higher sales, market share and entry into new markets. According to Bessant and Tidd (2009), it is possible to see in the mission statements and strategies of companies the acceptance of this need for their customers, shareholders, business, future and even more important for the growth and survival of SMEs in Angola. The literature points out that good performance is achieved when SMEs focus on a range of innovation-driven activities (Piening and Salge, 2015). The theme is justified by the observation of the low use of innovation processes by SMEs in Angola. However, with this article, we intend to demonstrate the benefits of innovation in the performance of SMEs in Angola. Tavares (2000) states that SMEs are the biggest generators of new jobs, not large companies, but the positive effects of entrepreneurship also emerge from their contribution to the innovation of products, services, processes, methods, techniques and technologies. Still the same author states that innovation is much more than growing, trying to position oneself in the market. It is to introduce new products or processes or to break with existing ones in the market, because many times new entrepreneurial companies are based on something new and impose

[1] Mandume Ya Ndemufayo University, Faculty of Economics – Angola
[2] Small & Medium Businesses

standards of competition on already established companies, encouraging them to improve processes and products, and to be more efficient, effective, flexible in the adoption of new technologies and methods, contributing to the promotion of changes in business and society, It increases individual choices of achievement.

OBJECTIVE

The objective of this research was to analyze the impact of innovation on the performance of Small and Medium Enterprises in Angola, specifically SMEs in the Province of Huíla.

METHODOLOGY

The methodology used in this study was descriptive and exploratory in terms of objectives and quantitative in terms of approach. Descriptive research is about collecting and recording information about the problem to be investigated, without necessarily worrying about understanding the reasons for the information collected. The choice of methodology is based on the work of Lin (2007), who pointed out that, in three of the four phases of innovation studied, innovation capacity positively affects the performance of SMEs, confirming the importance of innovation management as an effective approach to improve innovation performance in SMEs. We applied as a research instrument a questionnaire to the Managers of Small and Medium Enterprises (SMEs) in Lubango, based on the questionnaires developed by (Hannachi, 2015) and (Camisón and Villar-López, 2014). The choice of the technique of the questionnaires is due to the fact that it is a descriptive and exploratory study, in order to obtain a better understanding of the impact of innovation on the performance of SMEs in the city of Lubango.

DEVELOPMENT

INNOVATION CONCEPTS

Innovation can be considered as an instrument of entrepreneurs, because they always want to go further, they seek to discover something new (Dornelas, 2003). The author continues, stating that innovation is an act of creating something new, genius ideas that become something unprecedented offered to a certain market, being one of the most difficult tasks for the entrepreneur, because they need to have the ability to create something that is successful and differentiates itself from the others, always standing out among competitors. And thus, gaining greater space in the market. In this way, innovation has become something strategic for SMEs. According to Sartori (2011), incremental innovation can be defined as the inclusion of something new or improved, but without changing the original basic characteristics of the product or service. The impact of this type of innovation is significant for the company and allows a medium and long-term advantage for the company within the market in which it

operates. Whereas radical innovation is one that generates a major technological, operational, or structural transformation, creating or profoundly changing existing businesses. Organizations can generate or adopt innovation, and such innovation can be of lesser or greater importance to the economy. The author also points out that the idea behind this concept is not to prevent the consideration of current ideas in new markets or applications as innovation, but rather to require that an idea has been carried forward to the point of impact. Innovation is a complex process and the scale of activities required for innovation can vary considerably (Sartori, 2011). Radical innovations are associated with organizations that have an experimental culture, business climate, decentralized structure, flexible work processes, informal structures, heterogeneous human resource profiles, and strong technical skills. For incremental innovation to be successful, one must combine an analytic business strategy with a low level of dominance. Damanpour and Wischnevsky (2006) argue that radical and incremental innovation can be adopted or generated. According to Bes and Kotler (2011), there are four levels of innovation that vary according to the strategic to the most tactical levels, they are:

- ✓ Level 1: Business model innovation;
- ✓ Level 2: Process innovation;
- ✓ Level 3: Market innovation;
- ✓ Level 4: Product and service innovation.

Business model innovation identifies change in the way companies create value, so a restructuring of the organization or the creation of a new business unit is necessary. For Bes and Kotler (2011), process innovation means changes in logistics processes, sales or in the production process of companies. For the third level or level of market innovation, it aims to seek new customers or consumers of the products produced by the company, meeting new consumer needs or market requirements. Bes and Kotler (2011) state that product and service innovation is grounded and focused on technological innovation to meet customer needs.

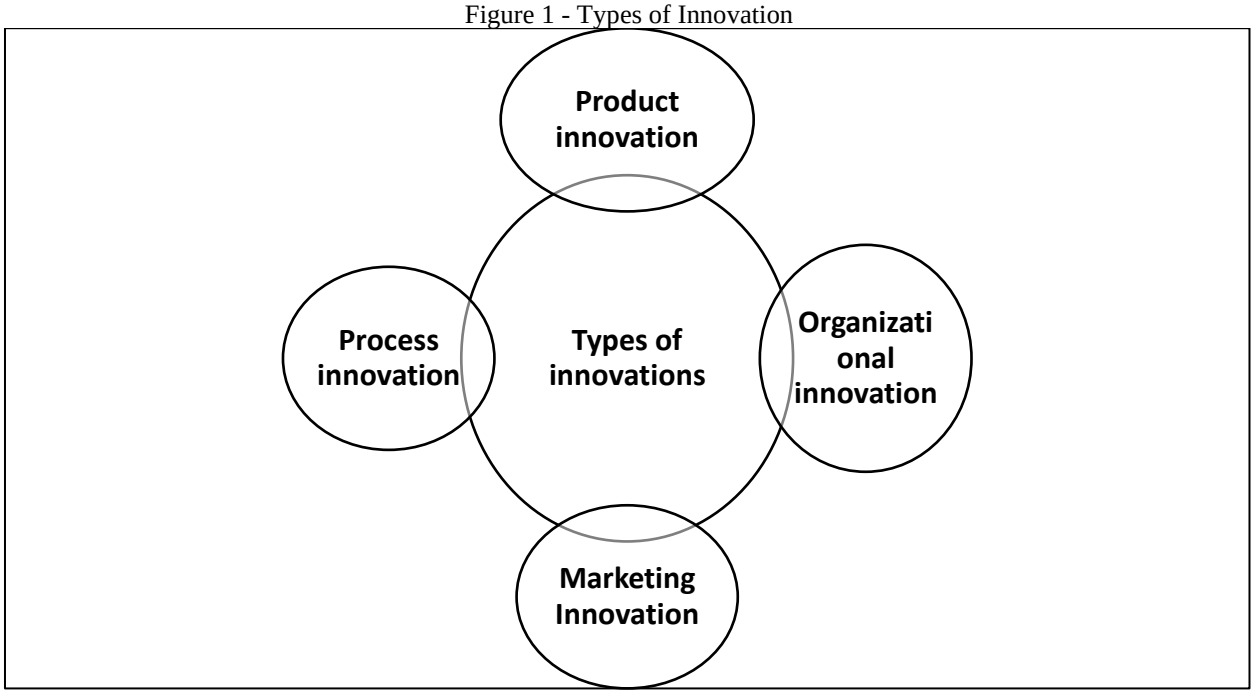
The focus of innovation must be defined so that the team involved can have a direction of the tasks they will perform, delimiting a more precise innovation framework. Table 1 presents the definitions of innovation from the perspective of several authors. We can observe that, for Reichert (2015), innovation is the result of the capacity of companies, considering the technological and market standards in each branch of activity. For this author, the technological standards adopted by companies are fundamental to achieve superior performance. For Tigre (2006), innovation is the effective practical application of an invention, which refers to the creation of an unprecedented process, technique or product. The two concepts presented show the role of innovation in companies. Finally, we speak of value innovation, called the

strategy that encompasses the entire system of activities of the company. Table No. 01 illustrates the different concepts of innovation.

INNOVATION CLASSIFICATION

Figure 01 illustrates the types of innovation presented by Oslo (2005), and the author presents 4 types of innovation that companies can use to achieve performance. This innovation can be product, process, marketing, and organizational. In this work, we will only focus on 3 types of innovation, excluding marketing innovation, because taking into account the defined objectives it will not be relevant to study this type of innovation.It's worth pointing out that there are other types of innovation. Thus, we will present below the 4 types of innovation that have the greatest presence in the business environment:

Figure 1 - Types of Innovation



Source: Prepared by the authors

Product Innovations

Product innovation can be subdivided into technologically new products and technologically enhanced products. A technologically new product is one whose technological characteristics differ from the products previously produced (Carvalho, 2011).

Technologically enhanced products are those whose performances have been significantly improved or elevated. A simple product can be improved (in terms of better performance or lower cost) through performance components or materials. Product innovations have a close relationship with consumers and are therefore related to marketing, socioeconomic and design aspects (Tidd and Pavitt, 2008), arguing that changes in the socio-economic area, particularly in the way people believe, expect,

desire and are remunerated and aspects of legislation create opportunities and restrictions for new products. Product innovation is the introduction of a good or service that is new or significantly improved while respecting its characteristics or functionalities. The most appropriate tools employed in product innovations are:

a) Decision-making process to ensure the characteristic performances of each product and the relationship with the organization's objectives;
b) Working group and management of interfaces for work in the organization and management of multidisciplinary teams, conflicts, interaction with different departments in the company and external (e.g. shareholders);
c) Shared vision of projects to supply the project groups with autonomy, resources and administration;
d) Appropriate project structures with models of structures for project management such as matrix structures, functional structures, among others;
e) Deployment of the quality function, structured methodology for optimization and performance in the product development process.

Process Innovations

Process innovations are the adoption of new or significantly improved production methods. These methods allow for improvements in productivity, cost reduction, increased productive life of equipment and processes, among others (Carvalho, 2011). The author goes on to state that, in the management of process innovations, success depends, among other things, on the ability to develop and implement the process of continuous incremental innovation. In this process, there may be occasional significant advances such as the installation of a new generation of equipment, automation and computerization of a process. However, success depends on the continuous evolution of changes. Process innovation is the implementation of a new or significantly improved production or distribution method.

Gossi (2004) differentiates product and process innovations based on the concept of "T" (uppercase) and "t" (lowercase). In the concept of the "t", the company is more focused on innovation driven by technology and operationalized knowledge. In the "T", innovation comes from various areas of the organization's operation and the focus is greater on processes than on products. Some aspects highlighted by Gossi (2004) are:

- ✓ The more standard and undifferentiated (commodity) the product is, the more there will be innovations in processes;
- ✓ The less standardized the product, the more the innovation will be in products;
- ✓ The slower the technological life cycle of the product, the higher the rate of process innovations;

- ✓ Product innovations are driven by technology;
- ✓ Process innovations are driven by ideas.

Innovation in Marketing

According to (Carvalho, 2011), innovation in marketing consists of the implementation of new marketing methods. marketing, involving significant improvements in the design of the product or packaging, price, distribution and promotion. Still to (Carvalho, 2011) , The innovation of marketing Its purpose is to orient towards the needs of the consumer, opening new markets or repositioning a company's product in the market, with the aim of increasing the company's sales. The distinguishing feature of a marketing, compared to other changes in the marketing of a company, is the implementation of a new concept or strategy of marketing which represents a break with the methods of marketing previously used (Carvalho, 2011).

Organizational Innovation

According to (Carvalho, 2011), organizational innovation consists of the implementation of a new organizational method in business practice, work organization, or external relations. Towards Faria and Fonseca (2014), Organizational innovation can aim to increase a company's performance by reducing administrative or transaction costs, improving working conditions (and thus labor productivity) and reducing supply costs. The distinguishing features of an organizational innovation in a company consist in the implementation of an organizational method that has not been previously used by the company. For, an organizational innovation is the implementation of a new organizational method in the company's business practices, in the organization of its workplace, or in its external relations. Innovation activities are scientific, technological, organizational, financial and commercial steps that lead, or aim to lead, to the implementation of innovations. Some innovation activities are innovative in themselves, others are not new activities but are necessary for the implementation of innovations. (Carvalho, 2011) Nuchera et al. (2002), It describes the process of organizational innovation, as the set of technical, industrial and commercial steps that lead to the successful launch of new products and services or the commercial use of new technical processes in the market. Innovation can still be classified, through its nature, as incremental or disruptive.

CHARACTERIZATION OF SMALL AND MEDIUM ENTERPRISES IN ANGOLA

Small and Medium Enterprises (SMEs) have been one of the main instruments of support for modern economies, including those of the most developed countries, not only because they participate in the reduction of unemployment, but also because they adjust to the needs of communities and, therefore,

contribute significantly to the reduction of informality and poverty. Therefore, and with a view to promoting Micro, Small and Medium Enterprises, Law 30/11 of September was approved, which establishes the rules regarding the differentiated treatment that Micro, Small and Medium Enterprises (MSMEs) should deserve, as well as the conditions of access to the respective incentives and facilities. In addition to what is stipulated in Law 1/04 of 13 February Commercial Companies Law, MSMEs are distinguished by two criteria, namely, the number of permanent employees and the total annual turnover volume in their financial statements, signed by accountants regularly registered with the class representation body, the latter being the one that prevails, whenever it is necessary to decide on their classification.

For the purposes of Law 30/11 of 13 September, the following are considered:

- Micro enterprises, those that employ up to 10 workers and/or have an annual gross turnover of no more than USD 250,000 in Kz;
- Small companies, those that employ more than 10 and up to 100 workers and/or have an annual gross turnover in Kz greater than the equivalent of USD 250 thousand and equal to or less than USD 3 million;
- Medium-sized enterprises, those employing more than 100 to 200 workers and/or having a gross turnover in Kz greater than the equivalent of USD 3 million and equal to or less than USD 10 million.

For the purposes of framing the categories of MSMEs, the data to be considered for the calculation of employees and gross annual turnover limits are those of the last accounting year closed. An undertaking which, on the date of closure of the accounts, finds that it has exceeded or decreased the number of employees, or the stipulated turnover shall maintain the classification in the same category and shall amend it in the following tax year. MSMEs that have, in the financial year, exceeded the volume of invoicing or number of employees provided for in this article, shall be excluded, in the following financial year, from the differentiated regime provided for in this law. The following entities are not classified as MSMEs, or recipients of the differentiated treatment provided for in Law 30/11 of 13 September:

- And in which the State or other public entities, except universities and research centres, have a maximum of 25 % of the share capital, regardless of the percentage;
- In which a company other than an MSME, irrespective of the type of institution concerned, participates in the capital;
- (a) to participate in the capital of other enterprises which are not MSMEs, irrespective of the type of institution concerned;

- That is a subsidiary or branch, in the country, of a company with its head office outside the country;
- That operates in the banking and non-banking financial sector.

The National Institute for the Support of Micro, Small and Medium Enterprises, abbreviated INAPEM, is the indirect administration body of the Angolan State, which is generally responsible for the implementation of policies and strategies in the field of training and financing of micro, small and medium-sized enterprises.

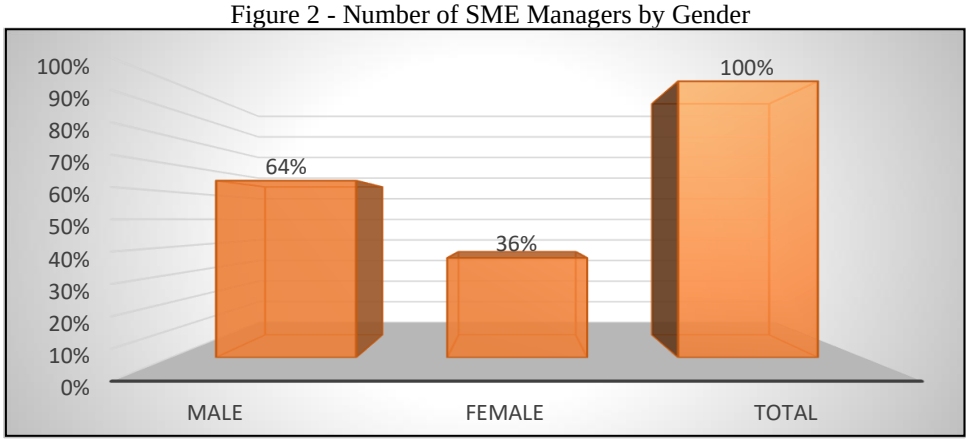
INAPEM is an entity governed by public law, endowed with personality and legal capacity and administrative and financial autonomy, whose basis is based on three axes:

- Mission - INAPEM's mission is to foster the development of national Micro, Small and Medium Enterprises, ensuring the necessary support.
- Vision - INAPEM has a fundamental role in supporting the implementation of policies to support the national business community, acting in the areas of training and capacity building of MSMEs, fostering entrepreneurship and monitoring the development of the national business community.
- Objective - INAPEM's performance is carried out at the national level with the support of the service centers located in the Provinces, and its objective is the interaction with the most diverse entities, which can contribute to the objective of fostering the development of MSMEs.

RESULTS

Figure number 2 illustrates the number of SME managers in Angola in terms of gender, it is observed that about 64% of SMEs in Angola are managed by men, and 36% are managed by women, which shows a certain diversity in the management of SMEs in Angola in terms of gender.

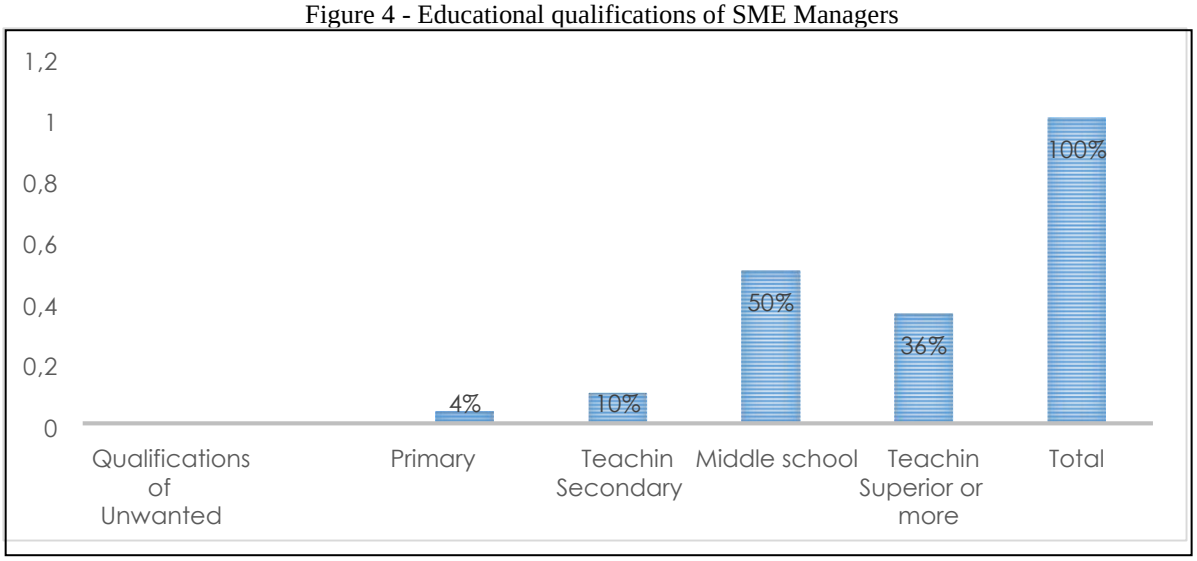
Figure 2 - Number of SME Managers by Gender



Source: Data extracted from SPSS version 21

As for the educational qualifications of the managers of SMEs in Angola, we can see from figure 4 that about 36% of the managers of SMEs in Angola have Higher Education, 50% of managers have High School, 10% have Secondary Education and 4% have Basic Education. It should be noted that the managers of SMEs with Secondary Education have other professional training related to the area of activity, and a lot of experience. Thus, it can be stated that about 50% of our sample has a high school education, as shown in the figure below:

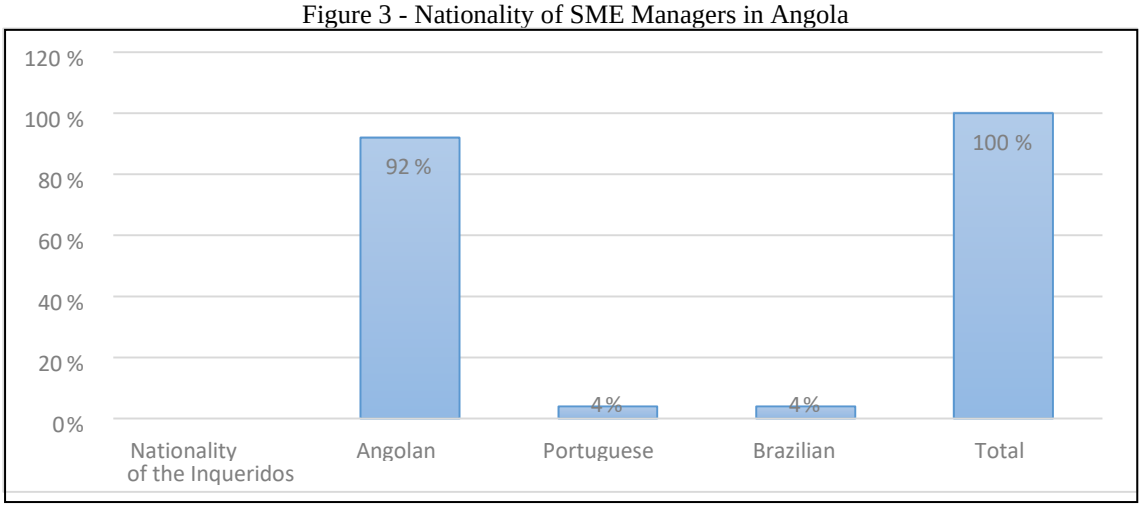
Figure 4 - Educational qualifications of SME Managers



Source: Data extracted from SPSS version 21

Regarding the nationality of the managers of the SMEs in Angola, we can see from figure 05 that about 92% of the managers of the SMEs are of Angolan nationality, while 4% are of Portuguese and Brazilian nationalities respectively. This demonstrates a greater participation of Angolans in the management of SMEs.

Figure 3 - Nationality of SME Managers in Angola



Source: Data extracted from SPSS version 21

Table 1 below shows the descriptive statistics of the variables under study. It is observed that the average gender value of the managers of the city's SMEs was approximately (1.36), this value means that a good part of the managers of the SMEs in Angola are male. We can also observe the average value of the ages of the managers of the SMEs was approximately (39.76) which conveys the idea that a good part of the managers of the SMEs are Young. We can also observe that the average value of organizational innovation is higher compared to the average values of product and process innovation. Which, in a way, makes us say that SMEs invest more in organizational innovation. On the other hand, it is observed that the average value of market performance is higher, comparing as technical, customer, market and strategic performance.

Table No. 1 - Descriptive Statistics

Variables	Average	Median	Fashion	Detour Pattern
Gender	1,36	1,00	1,00	0,485
Age	39,76	40,00	45,00	45,00
Academic Qualifications	3,18	3,00	3,00	0,77
Number of employees	1,12	1,00	1,00	0,44
Business	1,84	2,00	1,00	0,792
Type of legal organization of the company	1,7	2,00	1,00	0,707
Product Innovation	4,16	4,00	4,00	0,681
Innovation_process	3,51	3,40	3,00	,503
Inovação_organizacional	4,20	4,00	4,00	,407
Financial Performance	2,85	3,00	3,00	1,013
Market Performance	7,44	7,00	7,00	,801
Technical Performance	2,74	2,00	2,00	1,379

Source: Data extracted from SPSS version 21

Table No. 2 shows the correlation coefficients of the main variables used in our model. We can observe from the correlation matrix that the variable product innovation is positively correlated with the variables, financial performance, market performance, technical performance and customer performance; Only for the strategic performance variable, it is negatively correlated. Statistically, the coefficients of these variables are not significant at the level of 5% and 10%. For process innovation, we see a negative correlation with financial performance, and a positive correlation with market performance, technical performance, customer performance, and strategic performance. Statistically, the coefficients of innovation in the process are only significant when correlated with the variables market performance and technical performance at a level of 5% and 10% as the table illustrates, the coefficients of the remaining variables are not statistically significant. The organizational innovation variable is positively correlated with financial performance, market performance, technical performance, customer performance, and strategic performance. Statistically, organizational innovation coefficients are significant when correlated with financial performance, market performance, and customer performance at a significance level of 5%.

For technical performance and strategic performance, it is not statistically significant at the level of 5% and 10%.

Table 2 - Correlation Matrix

VARIABLES		Inov.product	Inovação_proccio	Organizational Innovation	Financial Performance	Market Performance	Technical Performance	Customer Performance	Strategic Performance
Product Innovation	Pearson's correlation	1	-,059	,157	,055	,175	,172	,073	-,138
	Sig. (bilateral)		,686	,275	,702	,223	,233	,612	,339
	N	50	50	50	50	50	50	50	50
Process Innovation	Pearson's correlation	-,059	1	-,079	-,039	,301*	,306*	,132	,020
	Sig. (bilateral)	,686		,587	,789	,034	,031	,363	,892
	N	50	50	50	50	50	50	50	50
Organizational Innovation	Pearson's correlation	,157	-,079	1	,283*	,298*	,123	,309*	,190
	Sig. (bilateral)	,275	,587		,046	,035	,393	,029	,185
	N	50	50	50	50	50	50	50	50
Financial Performance	Pearson's correlation	,055	-,039	,283*	1	,689**	,502**	,359*	-,043
	Sig. (bilateral)	,702	,789	,046		,000	,000	,010	,769
	N	50	50	50	50	50	50	50	50
Market Performance	Pearson's correlation	,175	,301*	,298*	,689**	1	,867**	,495**	-,248
	Sig. (bilateral)	,223	,034	,035	,000		,000	,000	,082
	N	50	50	50	50	50	50	50	50
Technical Performance	Pearson's correlation	,172	,306*	,123	,502**	,867**	1	,573**	-,316*
	Sig. (bilateral)	,233	,031	,393	,000	,000		,000	,025
	N	50	50	50	50	50	50	50	50
Customer Performance	Pearson's correlation	,073	,132	,309*	,359*	,495**	,573**	1	,347*
	Sig. (bilateral)	,612	,363	,029	,010	,000	,000		,013
	N	50	50	50	50	50	50	50	50
Strategic Performance	Pearson's correlation	-,138	,020	,190	-,043	-,248	-,316*	,347*	1
	Sig. (bilateral)	,339	,892	,185	,769	,082	,025	,013	
*. The correlation is significant at the 0.05 (bilateral) level.									
**. The correlation is significant at the 0.01 (bilateral) level.									

Source: Data extracted from SPSS version 21

FINAL THOUGHTS

With this article, we seek to analyze the impact of innovation on the financial, market, strategic, technical and customer performance of SMEs in Angola, specifically in the city of Huíla. Notwithstanding the fact that the literature includes several studies on the relationship between innovation and performance, the research identified the effect of the correlation of these on the performance of SMEs in Angola, raising research propositions that will be presented in the discussion. In this way, the main points revealed in the results of the work are highlighted by the arguments of their hypotheses and the comparisons between the results of the research. According to the correlation matrix presented, we observed that the product innovation variable is positively correlated with the variables financial performance, market performance, technical performance and customer performance, only for the strategic performance variable it is negatively correlated. This result is in line with the results found in the research of Hult (2004), where the author observed that innovation positively influenced the performance of companies by creating an environment conducive to the development of innovative activities. It is noteworthy that the levels of significance found statistically are not significant. The results obtained in this research allow us to conclude that SMEs in the province of Huíla are not innovative, which in a way shows that innovation is not well managed by managers of SMEs in the Province of Huíla. We see that

innovation is identified as the key to the differentiation of SMEs, increasing customer loyalty, providing higher sales, market share and entry into new markets.

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