

EFFECT OF INNOVATION ON ORGANIZATION PERFORMANCE IN JUHEL PHARMACEUTICAL COMPANY, ENUGU NIGERIA

Oluka, Kingsley Ugochukwu (Ph.D. in View)

Department of Business Administration, Enugu State University of Science and Technology, ESUT

Abstract: The study examined effect of innovation on organization performance in pharmaceutical company in Enugu State, Nigeria. The objectives of the study were to: examine the effect of process innovation on organization performance of pharmaceutical firms in Enugu State, Nigeria and determine the effect of product innovation on organizational performance of pharmaceutical firms in Enugu State, Nigeria. Descriptive survey was adopted. Statistical Package for Social Sciences (SPSS) versions 16.0 were used. To confirm the significance effect of the variables, regression analysis was performed. The study revealed that that process innovation had significant effect on performance of Juhel pharmaceutical company in Enugu State, Nigeria. And product innovation had significant affect on performance of Juhel pharmaceutical firms in Enugu State, Nigeria. The study concluded that process and product innovation had significant effect on performance of Juhel Pharmaceutical Company in Enugu State, Nigeria. It recommended that organizations should continue to ensure that process innovation serve as an increase in sales and sustained in order to maintain the firm's growth and product innovation should be carefully handled in order to intensified and allow for more product quality and diversification.

INTRODUCTION

Innovative performance is the combination of overall organizational achievements as a result of renewal and improvement efforts done considering various aspects of firm innovativeness, i.e. processes, products, organizational structure, etc (Gurhan, *et al*, 2011). Therefore, Hagedoorn and Cloudt, (2003) maintain that innovative performance is a composite construct based on various performance indicators pertaining, for instance, to the new patents, new processes, new product, announcements, new projects, and new organizational arrangements.

Innovation is broadly seen as an essential component of competitiveness, embedded in the organizational structures, processes, products, and services within a firm. Schumpeter (1934) described different types of innovation: new products, new methods of production, new sources of supply, the exploitation of new markets,

and new ways to organize business. Drucker (1985) defined innovation as the process of equipping in new, improved capabilities or increased utility.

Innovativeness is one of the fundamental instruments of growth strategies to enter new markets, to increase the existing market share and to provide the company with a competitive edge. Innovation as a term is not only related to products and processes, but is also related to marketing and organization. Motivated by the increasing competition in global markets, companies have started to grasp the importance of innovation, since swiftly changing technologies and severe global competition rapidly erode the value added of existing products and services (Gurhan, *et al*, 2011).

Actually, the key reason for innovativeness is the desire of firms to obtain increased business performance and increased competitive edge. Companies procure additional competitive advantage and market share according to the level of importance they give to innovations, which are vital factors for companies to build a reputation in the market place and therefore to increase their market share (Gurhan, Gunduz, Kemal , & Lutfihak; 2011). Product innovations can utilize new knowledge or technologies, or can be based on new uses or combinations of existing knowledge or technologies. The term product covers both goods and services. A process innovation is the implementation of a new or significantly improved production or delivery method.

This includes significant changes in techniques, equipment and/or software. Innovations cover a very wide range of activities from research and development to marketing activities, include both the innovation process itself and its result. In practice, there are four types of innovation: product, process, marketing and organization (Krasnov, Nikonorov & Yanenko; 2018).

Innovations are becoming an increasingly significant competition factor in the modern ever-changing world. Not just the old technologies quickly fade away, but the whole business models become obsolete and ineffective. In order to survive in the longer perspective, companies have to change their products and processes and, due to limited resources and high costs of innovation, they have to be able to innovate in an efficient way (Maksym & Katarzyna, 2021). Organizations innovation because organizational environments frequently change, organizations need to be innovative to survive and prosper.

Statement of Problem

Innovation gives companies an edge over their competitors, but lack of innovation in business can cause failure. A complete lack of innovation in business will likely kill a company. This will not happen overnight, but companies that fail to adopt innovative practices and adapt to new consumer demands will get left behind.

Regarding innovation in pharmaceutical sector, improving performance through innovation is rarely straightforward. In these firms, resistance to change is high and firms often experience difficulty in implementing new methods and processes. Awareness of a new idea (process) or method creates uncertainty about how the innovation will actually function for an individual or other adopting unit in a system.

A change in one part of a system often initiates a chain reaction of indirect consequences stemming from the direct consequences of an innovation. Direct consequences are the changes to an individual or a social system that occur in immediate response to adoption of an innovation. Indirect consequences are the changes to an individual or a social system that occur as a result of the direct consequences of an innovation. With the forgoing, it is pertinent to examine the effect of innovation on organization performance in Juhel pharmaceutical company in Enugu State Nigeria and finding solution would be rewarding.

Objectives of the Study

The broad objective of the study was to examine the effect of innovation on organization performance of Juhel pharmaceutical company in Enugu State, Nigeria. The specific objectives were to:

- i. Examine the effect of process innovation on organization performance of pharmaceutical firms in Enugu State, Nigeria.
- ii. Determine the effect of product innovation on organizational performance of pharmaceutical firms in Enugu State, Nigeria.

Literature Review

Innovation

The concept of innovation is variously defined by consecutive authors, which indicates that it is a complex phenomenon, and that its parameters change over time. 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 helps firms to survive, allows firms to grow more quickly, be more efficient, and ultimately be more profitable than non-innovators. Therrien, Birian & Taylor (2011) opine that innovation is a complex process related to changes in production functions and processes whereby firms seek to acquire and build upon their distinctive technological competence, understood as the set of resources a firm possesses and the way in which these are transformed by innovative capabilities.

In the business context innovation includes new or improved products or processes that enrich existing products and how they are offered, thus enhancing their value (OECD/Eurostat 2018, Kropp, Fredric, & Zolin, Roxanne. 2008). In the small business context innovation is understood as a specific tool of entrepreneurs, with the help of which they gain an opportunity for creating a different business, product or service (Drucker, 2014, Sahut, & Peris. 2013). The intent literature concludes that innovation is not only an idea, but also its realization and successful usage (Cormican, and O'Sullivan. 2004, Albury, 2005, Łobacz, and Głodek 2020). Thus, innovation includes the technical, design, manufacturing, management and commercial activities involved in the marketing of a new (or improved) product or the first commercial use of a new (or improved) process or equipment (Tidd, Joe, Bessant John, & Pavitt Keith; 2005). Drucker (1985) defined innovation as the process of equipping in new, improved capabilities or increased utility.

Formally, innovation is considered as developments and new applications, with the purpose of launching newness into the economic area. It can be conceived as the transformation of knowledge to commercial value. Innovation has great commercial importance due to its potential for increasing the efficiency and the profitability of companies. Actually, the key reason for innovativeness is the desire of firms to obtain increased business performance and increased competitive edge. Companies procure additional competitive advantage and market share according to the level of importance they give to innovations, which are vital factors for companies to build a reputation in the marketplace and therefore to increase their market share.

Types of Innovation

Innovations cover a very wide range of activities – from research and development to marketing activities, include both the innovation process itself and its result. In practice, there are four types of innovation: product, process, marketing and organization (Krasnov, Nikonorov & Yanenko; 2018). Innovation as a term is not only related to products and processes, but is also related to marketing and organization. Schumpeter (1934) described different types of innovation: new products, new methods of production, new sources of supply, the exploitation

of new markets, and new ways to organize business. In the OECD Oslo Manual (2005), four different innovation types are introduced. These are product innovation, process innovation, marketing innovation and organizational

Product Innovation: Product innovation is the introduction of a good or service that is new or significantly improved regarding its characteristics or intended uses; including significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics (OECD Oslo Manual, 2005). Product innovations can utilize new knowledge or technologies, or can be based on new uses or combinations of existing knowledge or technologies. The term product covers both goods and services. Product innovation is a difficult process driven by advancing technologies, changing customer needs, shortening product life cycles, and increasing global competition. For success, it must involve strong interaction within the firm and further between the firm and its customers and suppliers (Akova, 1998).

Process Innovation: Process innovation is the introduction of a new or significantly improved way for product production or delivery. A process innovation is the implementation of a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. Process innovations can be intended to decrease unit costs of production or delivery, to increase quality, or to produce or deliver new or significantly improved products (OECD Oslo Manual, 2005).

Marketing Innovation: Marketing innovation is the introduction of a new marketing method including significant changes in the product design or packaging, its placement, promotion to the market, or in setting prices (OECD Oslo Manual, 2005). Marketing innovations target at addressing customer needs better, opening up new markets, or newly positioning a firm's product on the market with the intention of increasing firm's sales. Marketing innovations are strongly related to pricing strategies, product package design properties, product placement and promotion activities along the lines of four P's of marketing (Kotler, 1991).

Organizational Innovation: Organizational innovation can be defined as the introduction of something new (an idea, product, service, technology, process, and strategy) to an organization. Lam (2006) defines organizational innovation as the creation or adoption of an idea or behavior new to the organization. Organizational innovations have a tendency to increase firm performance by reducing administrative and transaction costs, improving workplace satisfaction (and thus labor productivity), gaining access to non-tradable assets (such as non-codified external knowledge) or reducing costs of supplies (OECD Oslo Manual, 2005).

Firm Performance

Firm Performance is an ability (both physical & psychological) to perform a particular task in a specific method that can be evaluated as excellent, average or low in scale. The idea of organizational performance is the evaluation of an organization's dreams and objectives with its actual performance in three distinct regions-economic performance, marketplace performance and shareholder cost. Financial performance refers to an organization result with regard to return on investment and return on assets. The market performance refers to a business enterprise's capacity to set a rate that returns an inexpensive amount to providers. In addition, marketplace overall performance refers to the potential to make and distribute their outputs in the maximum cost powerful manner and to set a fee that returns an affordable amount. Team performance focuses on aspects of work that are best accomplished by teams of individuals working together.

Product Quality: Product quality refers to how well a product satisfies customer needs, serves its purpose and meets industry standards. Generally, it can be said that product is of satisfactory quality, if it satisfies the consumers/user. The consumer will buy a product or service only if it suits his requirements (Minakash; 2022).

Quality is also the performance of the product as per the commitment made by the producer to the consumer. When evaluating product quality, businesses consider several key factors, including whether a product solves a problem, works efficiently or suits customers' purposes. Companies may also evaluate product quality based on various perspectives that show how different groups perceive the usefulness of a product. Using these perspectives, you can define product quality according to: Performance and intended function; Reliability of the product within a specific time frame; Conformity to product specifications; Product durability and lifespan; Product serviceability; Physical feature of the product and Customers' perception of the product.

Product quality helps companies earn customer loyalty, establish brand recognition and manage their costs. Customers often buy more from companies they know and trust, and businesses can reduce costs regarding product returns, defects and losses. Product quality is important because it affects the success of the company and helps establish its reputation in customer markets. When companies can create high-quality products that continue to meet customer demands, it can lead to fewer production costs, higher investment returns and increases in revenue.

Business Growth: Business Growth is a stage where the business reaches the point for expansion and seeks additional options to generate more profit. Business growth is a function of the business lifecycle, industry growth trends, and the owners desire for equity value creation. Growth means increasing sales, assets, net profits and a chance to take advantage of the experience curve to reduce the per unit cost of products sold and thereby increasing profits (Sumari; 2013). Growth is the goal of most businesses and is the reason behind many decisions that affect the daily workings of a company both internally and externally. Growth is crucial to the long-term survival of a business. It helps to acquire assets, attract new talent and fund investments. It also drives business performance and profit.

Relationship Between Innovation and Firms' Performance

Since Schumpeter (1934) put forward the important role of innovation in economic development, innovation has been widely regarded as the key factor affecting enterprise performance. In fact, many companies seek ways to achieve greater profits through innovations of different types or ways. In this rapidly evolving and dynamic environment, one of the effective factors for the success of organizations, enhanced organizational performance and surviving the competition, includes concentration on innovation. Many studies have underscored that innovation often leads to competitive advantage (Amarakoon, Weerawardena, & Verreynne, 2018; Aziz & Samad, 2016; Naranjo-Valencia, Jiménez-Jiménez, & Sanz-Valle, 2016; Nishitani & Itoh, 2016; Salunke, Weerawardena, & McColl-Kennedy, 2019).

An innovative culture in the organization is a key success factor for the development of new products, new services and improved processes. Many authors have considered innovation as a leading strategy to improve and create new products or services, develop new approaches to production, distribution and supply, modify management processes and deliver ideas that bring about the attainment of high performance and competitive advantage (Aziz & Samad, 2016; ElKassar & Singh, 2019; Nishitani & Itoh, 2016; Porter, 1996; Salunke et al., 2019; Wang & Ahmed, 2004). Hence, innovative strategies have been considered as playing a vital role in boosting performance (Sandvik, Duhan, & Sandvik, 2014).

Organizations have adopted innovation to enhance and improve services delivered to their citizens and users to improve their quality of life. Organizations are concerned with innovation to improve performance (Light, 1998; Pihl-Thingvad & Klausen, 2016; Walker, 2008). Several studies have indicated a positive relationship between

innovation and performance, but the findings of these studies are mixed, and no consensus has been reached (Light, 1998; Osborne, 1998; Walker & Damanpour, 2009).

Theoretical Framework

Resource-Based View Theory: Resource Based Theory was propounded by Barney, Jay in 1991. The resource-based view (RBV) is a managerial framework used to determine the strategic resources a firm can exploit to achieve sustainable competitive advantage (Barney, 1991). RBV focuses attention on an organization's internal resources as a means of organizing processes and obtaining a competitive advantage. Barney (1991) stated that for resources to hold potential as sources of sustainable competitive advantage, they should be valuable, rare, imperfectly imitable and not substitutable (Barney, 1991). The resource-based view suggests that organizations must develop unique, firm-specific core competencies that will allow them to outperform competitors by doing things differently. The RBV points out that organization can develop sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate (e.g. Barney, 1991, Foss, 1997). Although traditional sources of competitive advantage can create value, the RBV argument is that bundles of resources, rather than the product market combinations chosen for their deployment, lie at the heart of an organization's competitive advantages. This approach requires that organization be seen, not through its activities in the product market, but as a unique bundle of resources that are complex, intangible and dynamic.

Empirical Review

Nadeem, Naveed, Muhammad & Komal (2013) explored the role of innovation on the growth of organization in Pakistan. For data analysis, correlation coefficient was used through SPSS. There are two determinants of innovation which are empowerment and proper training. Results show there is Positive relationship between empowerment and organization growth and also there is Positive relationship between employee's proper training and organization growth

Brian (2016) studied the effect of organizational innovation on product and process innovation endogeneity was controlled by using a Poisson estimator that accommodates a binary endogenous regressor. They tested 10 potential instruments using a battery of test criteria and settle on five. It was found that organizational innovation does impact technical innovation positively. With the 2009 data we find that the mean of the average treatment effect for product innovation is roughly 1.7 times that of process innovation. For the 2009–2012 data we find that the impact on product innovation is roughly 1.5 times that of process innovation.

Abraham, Shao, William & Solomon (2016) examined product innovation and SMEs Performance in the Manufacturing Sector of Ghana Using firm level data and the structural equation model. Product innovation was grouped into three (Development of new product, Introduction of new product and Improvement of existing product), while performance indicators were the growth in number of employees and total sales of the firm. The results indicated a positive growth path between all the three variables and the firm's performance with the introduction of new products having the highest, indicating that, firms can improve their performance by adopting product innovative practices with much concentration on the introduction of new products.

Adamu & Bello (2017) investigated the nature of the relationship between innovation and organizational competitiveness, and determine the relationship between innovation and increase market share. The data collected from the questionnaire in the course of this study were subjected to descriptive statistical analysis. The study found that innovation in firms depend on the enabling environment which the firm set to allow and encourage innovative employees come up with new and better product/process.

Sidik, Anik, & Nur (2021) examined and analyzed product innovation and process innovation as an indicator of innovation that affects the performance of small and medium enterprises (SMEs) in Indonesia. The result of loading factor correlation between indicator and latent construct is significant. Hypothesis which explored the linear relationship between the construct variables was tested. Structural Equation Modeling (SEM) was used. The results of this study indicate that there is a positive relationship between innovation and business performance, and government policies have an important role as a full moderator in this relationship.

Liangxing, Xiangyu, Hongyi, & Zhen (2016) investigated the impact of TIP on product quality, considering the moderating effect of firm size. A conceptual model linking product innovation practice, process innovation practice, normal quality (NQ), attractive quality (AQ) and product market performance is proposed. The model is tested using survey data from 201 innovative Chinese manufacturing companies. The results reveal that TIP does indeed positively influence both AQ and NQ. Firm size moderates the relationship between TIP and AQ.

Hojin, Sangyoon, & Heejun, (2016) investigated the effect of technology-exploration, including outsourcing R&D, external networking, customer involvement, and inward IP licensing, on product innovation in Korean. The results showed that technology-exploration are crucial determining factors as to whether low or higher degree of novelty is achieved in product innovation. The positive impact of higher degree of innovation novelty comes from customer involvement and outsourcing R&D. In addition, customer involvement has positive impact only on low degree of innovation.

Syapsan (2019) determined the effect of service quality and innovation on competitive advantage and sustainable local economy, with marketing mix strategy as the mediating variable (Study in small and medium enterprise (MSME) in Java and Sumatera Findings revealed that service quality has an influence on marketing mix strategies; the quality of service has a direct influence on creating a sustainable local economy, and that the marketing mix strategy has a positive influence on the sustainable local economy.

Adioka, Moeljadi & Mintarti (2021) investigated the effect of Product Innovation and Service Quality on Competitive Advantage mediated by Corporate Image in MALANG RAYA. Data analysis was carried out using the Partial Least Square (PLS) method. The results showed that Service Quality could not affect Competitive Advantage directly and Product Innovation could affect Competitive Advantage directly. This study also finds that corporate image can mediate the effect of product innovation and service quality on competitive advantage.

Hintama1, Maulida & Bustaman (2021) examined the effect of capability in enhancing product innovation performance in Indonesia. Structural Equation Method (SEM) was used. The study showed that innovation capability enhances product innovation performance better through R&D performance; rather than direct relation.

METHODOLOGY

The descriptive survey design was utilized for the study. Descriptive research is concerned with the description of data and characteristics about a population. The goal is the acquisition of factual, accurate and systematic data and to describe the data and characteristics about what is being studied. The data for the study were two kinds; primary and secondary data. The population for the study included all staff of Juhel Pharmaceutical Company. The total population was six hundred and sixty comprise senior and other staff of pharmaceutical companies in Enugu. To obtain the sample size from population statistical sampling formula was applied. Therefore, two hundred and fifty (250) becomes the sample size. Stratified sampling techniques were adopted in order to select the opinions of the respondents at a go. The structured questionnaire was used to collect data. The tool was structured in five point-Likert type, with responses ranging from Agree (SA)-(SD). Qualitative data were analyzed

descriptively. Statistical Package for Social Sciences (SPSS) versions 16.0 were used. To confirm the significance of the correlation between variables, Pearson correlation analysis was performed at 0,5% significance.

DATA PRESENTATION AND ANALYSIS

The data collected with regards to each of the questions were analyzed using in tables, frequencies, percentages, mean, standard deviation and Pearson Correlation coefficient.

Data Presentation

Table 4.1: Distribution and Return Rate of Respondents

Category	Copies of questionnaire sent out	Copies of questionnaire returned	Copies of questionnaire not returned	Percentage of returned and verified copies
Senior employees	58	51	7	20
Other employees	192	173	19	69
Total	250	224	26	89

Source: Field Survey, 2023

In table 4.1 it was shown that out of the total number two hundred and fifty (250) copies of the questionnaire administered to the respondents, two hundred and twenty-four (224) of them were returned giving a percentage of 89% while twenty-six (26) of them were not returned giving a percentage of 11%.

Data Analysis

Table 4.2: Process Innovation Affect Growth of Pharmaceutical Firms in South East Nigeria.

Statements	SA (5)	A (4)	UD (3)	SD (2)	D (1)	mean	St. dev
Innovation and implementation of improved method	141	53	2	20	8	2.823	1.049
Instruments of growth strategies to enter new markets	109	96	1	11	7	2.782	1.334
Provide the company with a competitive edge	112	98	3	9	2	2.225	1.865
increased business performance	124	80	2	8	10	2.311	1.873

Source: field survey, 2023

Table 4.3: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Process innovation	244	1.00	5.00	3.4206	.83031
Product innovation	244	1.25	6.83	3.3250	.76444

Table 4.3 shows the mean and standard deviation scores of dependent variable as well as the independent variables that were adopted. To answer the criterion questions, the respondents were asked to rate each of the five dimensions (variables) on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5).

Test of Hypotheses

Regression Analysis

Table 4.4

Model Summary

Model	R	R square	Adjusted R Square	Std. Error of the Estimate
1	.645a	.416	.402	.59265

Predictors: (Constant), process innovation, product innovation

The above shown Model summary table shows that R, the multiple correlation coefficient using the predictors process innovation, product innovation simultaneously is .645 while R Square is .416, showing that the variance in innovation can be easily predicted from the combination of factors process innovation, product innovation.

Table 4.5

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	51.967	5	10.393	29.591	.000b
Residual	73.057	208	.351		
Total	25.025	213			

a. Dependent Variable: innovation

b. Predictors: (Constant), process innovation, product innovation

In table 4.10, F = 29.951 showing that the predictors or independent process innovation, product innovation together to predict the innovation. Also, the value of Significance lies between 0% and 5%, showing that the model is a good fit. As we can see from the table, the value of significance is 0.000, showing that all the predictor variables combine to predict the innovation very well. As the relationship between independent and dependent variables is highly significant, we can say that the model is a good fit.

Table 4.6

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.645	.300		2.150	.330
Process innovation	.525	.061	.515	8.590	.000
Product innovation	.205	.704	.190	2.779	.006

a. Dependent Variable: innovation

process innovation, product innovation

The table 4.7 shows as well as signifies that the regression coefficient, i.e. β of process innovation is .525 with significance value of 0.000 which shows that there is a significant relationship between process and innovation. The β value of growth is 0.205 with significance of .006 showing a positive and also significant relationship between product innovation with product quality. The β value of networks is .549 with significance of .3546

which shows that there is a very strong relationship between process innovation and growth. Regression coefficients i.e. β quality IT is 0.432 with significance of .00 which shows significant relation between product innovation and product quality.

Summary of Findings

- i. The study revealed that process innovation had significant effect on performance of Juhel pharmaceutical company in Enugu State, Nigeria.
- ii. The study also found out that product innovation had significant affect on performance of Juhel pharmaceutical firms in Enugu State, Nigeria.

Conclusion

Innovation cut across all levels in organizations and ignoring it by firms is a costly mistake that cannot be afforded. Innovation is the capacity to turn an idea into a successful service, product or venture. Individuals are the driving force of innovation, irrespective of whether they are self-employed, business founders, or employees. Innovation is regarded as the key agent in developing a business idea, marshalling resources, and creating an enterprise to bring a new product or service to the market. Finally, the study conclude that process and product innovation had significant effect on performance of Juhel Pharmaceutical Company in Enugu State, Nigeria.

Recommendations

The following recommendations were made.

- i. Organizations should continue to ensure that process innovation serve as an increase in sales and sustained in order to maintain the firm's growth.
- ii. Product innovation should be carefully handled in order to intensified and allow for more product quality and diversification.

REFERENCES

- Abraham, O.; Shao, Y. & William, A. A. and Solomon, K. F. (2016). Product Innovation and SMEs Performance in the Manufacturing Sector of Ghana, *British Journal of Economics, Management & Trade*, 15(3): 1-14
- Adamu, B. D. And Bello, A.D. (2017). Implications Of Innovation On Organizational Growth Of Selected Manufacturing Firms In Kano State Nigeria Retrieved From https://www.researchgate.net/publication/348836305_Implications_Of_Innovation_On_Organizational_Growth_Of_Selected_Manufacturing_Firms_In_Kano_State_Nigeria
- Adioka, P. V.; Moeljadi & Mintarti, R. (2021). The Effect Of Product Innovation And Service Quality On Competitive Advantage Mediated By Company Image (Study At Pt. Toyota Astra Motor In Malang Raya), *International Journal of Business, Economics and Law*, 24(4), 148-154.
- Brian, P. C. (2016). Impact of organizational innovation on product and process innovation, *Economics of Innovation and New Technology*, 26(5), 1-13
- Calantone, R.J., Cavusgil, T., Zhao, Y., 2002. Learning orientation, firm innovation capability, and firm performance. *Industrial Marketing Management*, 31, 515–524.

- Gurhan, G.; Gunduz, U.; Kemal, K. & Lutfihak, A. (2011). Effects of innovation types on firm performance, *International Journal of Production Economics*, 133(2), 662-676.
- Hintama, A., Maulida, M., & Bustaman, Y. (2021). The Impact of Innovation Capability on Product Innovation Performance (Case Study of Manufacturing Industry in Indonesia). Conference Series, 3(1), 616-629. <https://doi.org/10.34306/conferenceseries.v3i1.397>
- Hojin, L.; Sangyoon, C. & Heejun, P. (2016). The effect of technology-exploration on product innovation: an analysis based on Korean manufacturing SMEs, *International Journal of Quality Innovation*. 2-15.
- Ja-Shen, C. & Eldon, L. (2010) The Effect of Information Technology Adoption and Design Customisation on the Success of New Product Development, *International Journal of Electronic Business* 8(6):550-578
- Krasnov, A.; Nikonorov, V. & Yanenko, M. (2018). Digital platforms based marketing innovations: new development trends, SHS Web of Conferences 44, 00049 <https://doi.org/10.1051/shsconf/20184400049>
- Liangxing, S.; Xiangyu, W.; Hongyi, S. & Zhen, H. (2016). The impact of technological innovation on product quality: the moderating role of firm size, *Total Quality Management and Business Excellence*, 29(1):1-16
- Maksym. Z.; Katarzyna. Ł. (2021). Digitalizing and visualizing innovation process: comparative analysis of digital tools supporting innovation process in SMEs, *Procedia Computer Science*, 192; 3805–3814
- Minakash, J. (2022). Product Quality: Definition, Characteristics and Importance retrieved from <https://www.yourarticlelibrary.com/products/quality/product-quality-definition-characteristics-and-importance/90711>
- Nadeem, I.; Naveed, A.; Muhammad, A.; & Komal, J. (2013). Role of Innovation On Organizational Growth: Evidences From Pakistan, *Arabian Journal of Business and Management Review (OMAN Chapter)*, 3(4), 12-21.
- Sidik, I. Anik, K. & Nur, I. R. (2021), The Effects of Product Innovation, Process Innovation and Government Policy on SMEs Performance: Evidence from Indonesia, *Journal of Asian Finance, Economics and Business*, 12, 0305–0311.
- Syapsan (2019). The effect of service quality, innovation towards competitive advantages and sustainable economic growth: Marketing mix strategy as mediating variable, *Benchmarking: An International Journal*, 6 (1), 1336-1356