Impact of Organisational Innovation on Sustainable Competitive Advantage of Manufacturing Firms in Lagos State, Nigeria

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ABSTRACT

The increased level of competition in the current business climate required the implementation of processes and systems to guarantee a sustainable organisational competitive advantage for the benefit of stakeholders. This research evaluates the association between product innovation and manufacturing firms' sustainable competitive advantage, determine the effect of process innovation on manufacturing firms' sustainable competitive advantage, examine the influence of administrative innovation on manufacturing firms' sustainable competitive advantage and ascertain the joint relationship between product, process, and administrative innovation on manufacturing firms' sustainable competitive advantage. Descriptive research design was adopted and a sample size of 131 manufacturing firms was used for the analysis. Data were collected using a questionnaire and analysed using regression analysis with the aid of SPSS Version 25. The findings showed that product innovation ($\beta = .524$, $p < .005$) process innovation ($\beta = .417$, $p < .005$) and administrative innovation ($\beta = .488$, $p < .005$) significantly influenced firm sustainable competitive advantage, individually and jointly. The research concludes that manufacturing organisations should prioritise innovation in their strategic plans. This study suggests ongoing product improvement through process and administrative adjustments and a culture of innovation and experimentation to find new sources of competitive advantage and create sustainable value.

KEYWORDS: *Administrative innovation, Organisational innovation, Product innovation, Sustainable competitive advantage.*

JEL CLASSIFICATION: *M1, O31.*

1. INTRODUCTION

In today's contemporary business environment, the pursuit of sustainable competitive advantage (SCA) has emerged as the central focus of organisational goals and activities, especially for firms in the manufacturing sector. As global marketplaces become increasingly competitive, firms must be able to build and maintain a competitive advantage to survive and grow. Long-term success, or sustained competitive advantage, requires outperforming rivals (Srivastava et al., 2013). A corporation with sustainable competitive advantage promotes market competitiveness via strong innovation and value creation.

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Gaining a continuous competitive advantage in industry requires a deep grasp of organisational dynamics and innovation (Banmairuroy et al., 2022). Business ecosystems depend on manufacturing enterprises for economic development, employment creation, and technological innovation. Their creative and innovation potential causes concern due to their significant contributions to national growth (Onyemaobi et al., 2023). These firms often face resource-constrained conditions that require agility, flexibility, and strategic vision. For manufacturing firms, achieving long-term competitive advantage requires a careful balance between resource management and the injection of innovation across organisational aspects (Urbanek, 2022).

The rise in the competition in business environment necessitated the introduction of processes and systems to ensure a remarkable and sustainable competitive advantage for the interest of stakeholders. Nigerian manufacturers may find it more difficult to maintain profitability and gain competitive edge due to the influx of lower-priced goods from other nations that can compress profits. As a result of this, many solutions have been marshaled to achieve organisational dream and results are usually met despite the commitment of different firms in various industries. One of such solution is innovation, and it has received tremendous acceptability in market investigation and study (Odumeru, 2013). Organisational innovation refers to the adoption of a novel approach to the business activities, workplace structure, or external interactions of a company.

Recently, Top Management Teams (TMTs) in both developed and developing economies have made organisational innovation a priority (Yang et al., 2012). Regardless of the industry, any prosperous company with well-established goods or services runs the risk of going out of business unless its top management comprehend the timing as well as how to continuously create a new business model. Innovative executives constantly evaluate their business models to be competitive while maximising organisational potential within their own organisations (Denicolai et al., 2018).

The confluence of the demands of environmental, social, and economic sustainability with competitive advantage (SCA) presents a complicated and multidimensional issue in today's production industry. Although it is often acknowledged that SCA is important for a company's survival and expansion, less emphasise has been paid to how competitive advantage and the sustainability triangle intersect (Makhloufi et al., 2021). The pressing question is: How can businesses strategically use organisational innovation in the areas of administrative, process, and product innovation to achieve and preserve a competitive edge in addition to achieving goals related to social, environmental, and economic sustainability?

Different opinion exists in literature on the types of innovation. Arifin et al. (2022) indicated that various classification of innovation subsist which are: administrative, product, process, incremental, marketing, technology, and radical innovation. Organisational innovation, a dynamic force with administrative, process, and product components, lies at the basis of this balance.

Given the dearth of study on how manufacturing organisations might integrate sustainable practices with competitive strategies, particularly via organisational innovation, further research is needed. Bridging this information gap will help organisations make better choices and advance the manufacturing industry's competitive sustainability discussion. Finally, the study's findings aim to inform policymakers, management practitioners, and academics on

how organisations might navigate long-term competitive advantage, encouraging an inclusive and well-rounded organisational success plan. It is on this ground that this research is conducted to add to existing knowledge by investigating the impact of organisational innovation on manufacturing firms' sustainable competitive advantage in Lagos metropolis.

The choice of manufacturing organisations was based on the observation that, unlike trade and service companies, manufacturing companies tend to be more inventive, competitive, standardised, and prioritise strategic approaches to production and service delivery (Kastalli & Van Looy, 2013). However, the selection of manufacturing enterprises in Lagos State, Nigeria, was influenced by the urban and cosmopolitan characteristics of the state. Furthermore, a large number of these enterprises are based in Lagos State (SMEDAN, 2021).
This study attempts to explain the link between innovation and manufacturing's competitive edge. Our research seeks to help firms survive and thrive in the competitive manufacturing landscape by:

a) examining the impact of product innovation and process innovation on sustainable competitive advantage.
b) assessing the effect of administrative innovation on long-term competitive advantage.
c) determining the joint effect of organisational innovation on sustainable competitive advantage

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Theoretical Review

Resource-Based View (RBV)
Barney (1991) introduced the RBV to highlight the strategic significance of a firm's internal resources and competencies in attaining a competitive edge. Businesses possessing valuable, rare, unique, and non-substitutable (VRIN) resources are better positioned to gain a sustained competitive advantage (Maket & Korir, 2017). The RBV paradigm has been expanded by more recent writers, like Pereira and Bamel (2021), Valaei et al. (2022) to include organisational innovation as a critical resource that can provide competitive advantage. This theory suggest that companies that engage in innovation are more likely to gain a stable competitive advantage by using their innovative strengths to add value for clients, cut expenses, and improve operational effectiveness.

Dynamic Capability Theory (DCT)
Built on the RBV, the DCT shows how firms may learn from experiences, adapt to changing conditions, and reorganise their resources and abilities. Teece's study underpins dynamic capacity theory and RBV theory, which are related. Teece (2018) suggests employing dynamic capabilities to handle changing contexts: leveraging internal and external firm-specific skills.
From an efficiency-based dynamic capabilities perspective, firm-specific talents can be leveraged to their full potential by describing their features and outlining the generation, deployment, and preservation of a combination of skills and resources. Research on manufacturing, human resources, organisational learning, technological transfer, intellectual property, development of goods and procedures, and research and development strategy are some of the areas it draws from and encompasses (Harleen & Deepti, 2017).

2.2 Sustainable Competitive Advantage

Strategic management literature has placed a strong emphasise on the idea of sustainable competitive advantage (SCA), which emphasise the need for businesses to have long-term skills that enable them to outperform rivals. A competitive edge must be created and maintained for a company to succeed, particularly in the fast-paced, cutthroat business world of today. The relevance of both tangible and intangible assets in generating SCA is emphasised in Barney (1991) work on company resources and capabilities. A company's competitive edge comes from technology, brand equity, and competent workers, but their longevity and uniqueness define its sustainability (Beigi et al., 2023).

Business responses to environmental concerns are revealing the link between environmental sustainability and economic advantage. Porter and van der Linde's (1995) study introduced green competitive advantage, which focused on the potential advantages of green practices. SCA requires economic sustainability, which is usually linked to financial stability and profitability. The global strategy shows how crucial economic sustainability is in the face of fierce worldwide competition. Cost management, resource allocation, and financial stability affect a business's competitiveness (Nureen et al., 2019).

2.3 Organisational Innovation

Organisational innovation involves modifications in the manner at which firms organise and manage their scarce resources: human, physical, and financial resources, which is geared towards increasing unique markets (Mendoza-Silva, 2021). It involves the implementation of a new organisational method in the firm’s business practices, workplace organisation, or external relations. This kind of innovation tends to reduce the cost of doing business, and thus improve employee and customer satisfaction. The introduction of organisational innovation has the tendency to improve the output of firm through the reduction of business expenditures leading to increase in employee satisfaction. However, the application of organisational innovation in business is visible in areas like improving models scheduling activities and introduction of unique processes for the day-to-day running of the business (Azeem et al., 2021).

Organisational innovation is a vital tool in determining competitiveness in the global market (Garrido & Camarero, 2010). The intensity in globalisation and competition in international market makes technology the centre of firms’ performance within domestic and international market. It is imperative to state that innovation contributes significantly to the continuous existence of an organisation in the business world. In line with this statement, Ukpabio et al. (2019) viewed innovation as the introduction of a new good, the introduction of a new production method, the opening of a new market, or the opening of a new source of supply. Furthermore, research on innovation has developed a variety of dimensions (Audrey & Jaraji, 2016). First, the output dimension (marketing, product, organisational, and process innovation) of innovation which is the focus of the study (Kafetzopoulos et al., 2020).

2.4 Organisational Innovation as a driver for Sustained Competitive Advantage

Sustainable competitive advantage (SCA) refers to a company's long-term ability to outperform its competitors in the marketplace. Organisational innovation, on the other hand, refers to the adoption, development, and implementation of novel ideas, processes, products, or business models within a company. According to Çağlıyan et al. (2022) and Damanpour & Aravind (2012), organisations can gain a competitive edge through innovation, which in turn helps them establish and maintain distinctive value propositions. Consequently, SCA is believed to be associated with organisational innovation. It becomes clear that organisational

innovation is essential to reaching SCA. The necessity of innovation in enhancing adaptability and promptness to evolving market circumstances has also been emphasise; as the ability to continuously innovate serves as a source of long-term competitive advantage (Randhawa et al., 2021). The link between the output dimensions of organisational innovation (marketing, product, organisational, and process innovation) and SCA of manufacturing firms in Nigeria is worth investigating.

2.4.1 Product Innovation

According to Hanaysha (2020), product innovation refers to any product or services that is perceived to be new to individuals and firms. It is a process by which novel goods and services are introduced to the market to prospective and existing customer. Product innovation is the output of new ideas which is the introduction and commercialisation of unique product/services or with modern product features. Product innovations are helpful to firms as they are able to outsmart and outperform competitors, whilst meeting the needs of their target market. Product innovation assist in the creation of competitive advantage to firms (Mensah & Acquah, 2015). Based on argument, hypothesis one states that:

H_1: Product innovation will have a significant influence on sustainable competitive advantage of manufacturing firms.

2.4.2 Process innovation

This refers to the modification of the procedures involved in the production of new products, like; new production chains, new basic supplies, emerging technologies, new production procedures/approaches, and new strategies (Bresciani et al., 2021). In several cases, this type of innovation is usually the result of organisational innovation. Process innovation basically depends on the production of modern, trending technologies to improve the effectiveness and productivity of a firm. This kind of innovation involves the application of novel or modern manufacturing process and introduction of unique methods, techniques, and strategy in the creation of good and service (Aslam et al., 2020). Studies have shown that process innovation is highly imperative in facilitating the production activities of an organisation as it accords firms' superiority over its rivals (Mohd & Syamsuriana, 2013; Sutrisno et al., 2023). Based on the argument, hypothesis two states that:

H_2: Process innovation will have a significant influence sustainable competitive advantage of manufacturing firms.

2.4.3 Administrative Innovation

Administrative innovation refers to the usage of modern management systems to govern an organisation by managers. The use of innovative methods, procedures, and organisational structures to improve administrative effectiveness, efficiency, and flexibility is known as administrative innovation. Although most discussions of innovation focus on new products and processes, administrative innovation is just as important to improve organisational performance and maintain competitive edge. New organisational structures, rules, and processes are examples of administrative innovation. The quest for new administrative systems, as well as the development of new organisational structures and relationships, are operational indications of administrative innovation (Abdi & Amatsenin, 2014).

Administrative innovation refers to a broad variety of organisational modifications intended to enhance administrative operations, including decision-making procedures, channels of communication, organisational structures, and management techniques. This involves the use of new technology, reorganising workflow procedures, implementing flexible work schedules,

and introducing performance management systems (Wongsansukcharoen & Thaweepaiboonwong, 2023). Based on this argument, hypotheses three and four state that:
H_3: Administrative innovation will have a significant influence sustainable competitive advantage of manufacturing firms.
H_4: The joint effect of product, process, and administrative innovations will have a significant influence sustainable competitive advantage of manufacturing firms.

2.5 Conceptual Framework

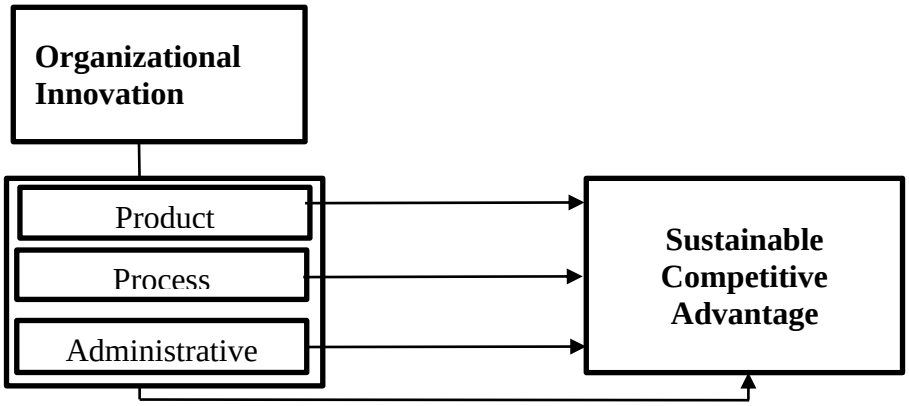

Figure 1: Conceptual model of organisational innovation and sustainable competitive advantage of manufacturing firms.
Source: Researcher, 2024.

2.5 Empirical Review

Garrido and Camarero (2010) evaluated the association that exist between innovativeness and learning orientation and they discovered that there is a significant influence on both innovativeness and firms' output. Furthermore, Varis and Littunen (2010) observed that the introduction of creativity in products of firms is positively related with its output. In addition, Tuan et al., (2016) reported that organisational innovation positively influence the output of organisations. The product of their study reveals that as programs of innovation are rolled out, organisations improve in their output.

Kuncoro and Suriani (2018) investigated and presented empirical data on product innovation and sustainable competitive advantage, product innovation and market driving, and the relationship between market driving and sustainable competitive advantage. The study's population consists of 110 respondents who work as rabbit meat sellers in the region of Naglak Magelang. Methods of collecting data include administering questionnaires and creating documentation or records of the sources of the information needed. This study used the Partial Least Squares (PLS) program in conjunction with the Structural Equation Model (SEM) for analysis .The study's findings indicate that there is a positive, significant relationship between product innovation (PI), market driving (MD), and sustainable competitive advantage (SCA). This study's conclusion is that market drive and product innovation have a great impact on long-term competitive advantage.

Sukaatmadja et al. (2021) examined 100 SMEs in the woodcraft sector in Badung and discovered that the tightening of competition makes it difficult for SMEs to improve their marketing performance. The results also show that product innovation positively and significantly affects the competitiveness and internationalisation of firms. Further findings

reveal that competitive advantage can mediate the influence of product innovation on internationalisation and the effect of product innovation on marketing performance.

Ukpabio et al. (2019) investigated how innovation affects Nigerian SMEs in manufacturing sector. The analysis reveals that all the four innovation dimensions - product, process, market, and organisational have a positive link with business performance, according to their findings. Organisational innovation and procedure were shown to be the most impactful components. This means that small and medium-sized enterprises (SMEs) in developing countries need to focus on making their manufacturing more efficient and creating a culture of innovation if they want to thrive. An analysis of the effects of various innovations on the long-term viability of SMEs is carried out by Hanaysha et al. (2022). A total of 171 employees from small and medium-sized enterprises (SMEs) in Saudi Arabia contributed to the research. An analysis of the data was conducted using the partial least squares technique (PLS-SEM). The findings reveal that Innovation in both services and products greatly increases a company's longevity. In addition, the findings show that marketing innovation is critical to a company's long-term viability, that inventive capacities are vital for SMB owners, and that process innovation is critical to achieving corporate sustainability.

Organisational innovation has helped some industrial organisations gain a competitive advantage that has lasted. The implementation of lean manufacturing by Toyota has greatly improved efficiency and cut down on waste, creating a model that competitors find challenging to replicate (Al-Shawi & Manhal, 2020). Improved performance and better decisions were the outcomes of GE's digital transformation, which the company achieved by integrating data analytics and the IoT into its business processes (Ghosh et al., 2022). Due to its focus on sustainability, the use of eco-friendly packaging and sustainable sources in Unilever has strengthened its market position by aligning with consumer demand for ecologically friendly products (Patel, 2023). According to Dai et al. (2023), Tesla is known for its efficient production processes and groundbreaking electric vehicle technology. The company also regularly sets new standards for product and process innovation. The rapid growth and sustained dominance of the consumer goods market are both attributable to Procter & Gamble's open innovation strategy, which welcomes input from outside sources. However, due to challenges such as inadequate infrastructure, limited access to cutting-edge technology, and a lack of investment in R&D, the majority of Nigerian manufacturing enterprises are not able to replicate this pattern. These obstacles have impeded their capacity to fully adopt organisational innovation and achieve comparable long-term competitive benefits.

3. METHODOLOGY

This study adopts a descriptive research design, the purpose is to get data that describes the features of the subject matter. The principal aim of descriptive research is to put forward a detailed account of people, conditions, and/or happenings (Saunders et al. 2016). The population of the research is made up of 194 registered manufacturing firms in two selected subsector namely: food, beverages and tobacco (109 firms) and chemical and pharmaceutical products (85 firms) (Manufacturers Association of Nigeria (MAN), 2021). The sampling frame for the study consists of manufacturing firms of the two selected sub-sector in Lagos State and are members of MAN. The choice of organisations from the manufacturing industry is motivated by the need to examine the firms' innovation strategy. From the study population, a sample size of one hundred and thirty one (131) is drawn using Yamane (1967) sample size formula, as stated below:

$$n = \frac{N}{1+N(e)2} \quad (1)$$

n = sample size

N = population of study

e = significant level (a constant) 0.05

$n = \frac{194}{1+194(0.05)2}$= $n = \frac{194}{1+194(0.0025)}$= 131

The instrument for data collection is structured questionnaire and items measuring the study's variables are adopted from the literature. Organisational innovation scale is adopted from Gunday et al. (2011). Sustainability competitive advantage scale is adopted from de Guimarães et al. (2018). With the aid of SPSS version 25, the reliability test was analysed to ascertain how accurately each scale item measures the same idea or notion, and consider how accurately the assessment items correspond internally (Tavakol & Dennick, 2011). Cronbach's alpha coefficients were determined, and the results of all constructs are greater than .7, which falls within the satisfactory threshold (Burns & Burns, 2008).

The study administered one hundred and fifty (150) copies of questionnaire to the study participants. However, one hundred and seventeen (117) were returned out of which one hundred and nine (109) were found useful. The data analysis is carried out using inferential statistics (correlation and regression techniques) from Statistical Package for Social Sciences (SPSS) version 25.

4. DESCRIPTIVE STATISTICS

Table 1. Mean, Standard Deviation and Correlation Matrix

Variables	Mean	Standard Deviation	1	2	3	4
Sustainable Competitive Advantage (1)	4.61	.3505	1			
Product Innovation (2)	4.60	.3442	.524**	1		
Process Innovation (3)	4.66	.2805	.417**	.738**	1	
Administrative Innovation (4)	4.67	.2934	.488**	.339**	.717**	1

****P<0.01 level (2-tailed)**

Source: Field survey, 2024.

Table 1 shows the mean, standard deviations, and correlation coefficients for three categories of innovation (product, process, and administrative) as well as sustainable competitive advantage (SCA) for manufacturing SMEs. There appears to be a generally good view of competitive advantage based on the mean score of SCA (4.61). The average ratings (about 4.6) for every category of innovation point to a concentration on diverse innovation approaches. The standard deviations which range from .28 to .35, indicate that the data points are in close proximity to their respective means. All variables have positive associations that are statistically significant ($p < .01$). Product innovation and SCA have a moderately positive correlation ($r = .524$), indicating that companies with more innovative products typically have a better competitive advantage. Similar trends for SCA on process innovation ($r = .417$) and SCA on administrative innovation ($r = .488$).

Further analyses also reveal strong and positive links between the various forms of innovation. There is a strong positive correlation between product and process innovation

(r =.738), which means that businesses which focus on product development also tend to improve their processes. Significant overlap and potential synergy exist between administrative innovation and product innovation (r =.339), process innovation and administrative innovation (r = 717), suggesting that both types of innovation are strongly related. The positive relationships between various forms of innovation and sustainable competitive advantage are supported by these findings. A competitive advantage is expected to accrue to manufacturing SMEs that proactively strive to optimise their processes, create new products, and expand administrative capabilities. The positive correlations, which range from modest to strong, highlight the potential benefits of a holistic approach to innovation. This strategy would include organisations using many types of innovation to achieve a competitive advantage that would be strengthened by each other.

Presentation of Data Analysis

Test of Hypotheses

4.3.1 Hypothesis One: Product innovation will have a significant influence on sustainable competitive advantage of manufacturing firms in Lagos State, Nigeria.

Table 2. Results of Regression Analysis for Hypothesis One

Model	R	R^2	Adj.R^2	ANOVA		Unstandardised Coefficient		Standard Coefficient	T	Sig
				F	Sig	B	Std. error	Beta		
1	.524[a]	.275	.268	40.571	0.000[b]	2.151 .534	.387 .084	.524	5.554 6.370	.000 .000

a. Predictors: (Constant), Product Innovation
b. Dependent Variable: Sustainable Competitive Advantage
Source: Field survey, 2024.

The results of the regression analysis depicted as Table 2 show that product innovation (B = 0.534, p <.005) has statistical significant positive influence on sustainable competitive advantage of manufacturing SMEs in Lagos State, Nigeria. An R-squared value of 275 suggests that product innovation accounts for almost 28% of the variance in sustainable competitive advantage. This implies that an improvement in the sustainable competitive advantage among manufacturing SMEs in Lagos State, Nigeria the sustainable competitive advantage can be driven by product innovation.

In addition, the regression model's statistical significance (F = 40.571, p <.005) is shown by the ANOVA results. This model includes product innovation as a forecast variable. All of this points to product innovation as a key factor in maintaining a competitive edge in the long term. In light of these results, hypothesis one is accepted. Product innovation and sustainable competitive advantage in manufacturing SMEs are positively correlated. Thus, product innovation contributes significantly to the enhancement of sustainable competitive advantage.

4.3.2 Hypothesis Two: Process innovation will have a significant influence on the sustainable competitive advantage of manufacturing firms in Lagos State, Nigeria.

Table 3. Results of Regression Analysis for Hypothesis Two

Model	R	R^2	Adj.R^2	ANOVA	Unstandardised Coefficient	Standard Coefficient	T	Sig

				F	Sig	B	Std. error	Beta		
1	.417[a]	.174	.166	22.544	0.000[b]	2.179 .521	.513 .110	.417	4.247 4.748	.000 .000

a. Predictors: (Constant), Process Innovation
b. Dependent Variable: Sustainable Competitive Advantage
Source: Field Survey (2024).

The regression analysis presented in Table 3 explores the relationship between the predictor variable (process innovation) and the criterion variable (sustainable competitive advantage) within the context of the given model. The results from the analysis show that process innovation (B = 0.521, p <.005) has statistical significant positive influence on sustainable competitive advantage of manufacturing SMEs in Lagos State, Nigeria. An R-squared value of .174 suggests that process innovation accounts for almost 17% of the variance in sustainable competitive advantage. This implies that an improvement in the sustainable competitive advantage among manufacturing firms in Lagos State, Nigeria sustainable competitive advantage can be driven by process innovation. In addition, the ANOVA findings show that the regression model, which uses process innovation as a predictor variable, is statistically significant (F = 22.544, p <.005). Accordingly, process innovation is to be a strong predictor of long-term competitive advantage. In light of these results, hypothesis two is accepted. Process innovation and sustainable competitive advantage in manufacturing SMEs are positively correlated. Thus, process innovation contributes significantly to the enhancement of sustainable competitive advantage.

Hypothesis Three: Administrative innovation will have a significant influence on sustainable competitive advantage of manufacturing SMEs in Lagos State, Nigeria.

Table 4. Results of Regression Analysis for Hypothesis Three

Model	R	R^2	Adj.R^2	ANOVA		Unstandardised Coefficient		Standard Coefficient	T	Sig
				F	Sig	B	Std. error	Beta		
1	.488[a]	.238	.231	33.509	0.000[b]	1.885 .583	.472 .101	.488	3.993 5.789	.000 .000

a. Predictors: (Constant), Administrative innovation
b. Dependent Variable: Sustainable Competitive Advantage
Source: Field Survey (2024).

The results of the regression analysis are shown in Table 4. show that administrative innovation (B = 0.583, p <.005) has statistical significant positive influence on sustainable competitive advantage of manufacturing firms in Lagos State, Nigeria. An R-squared value of .238 suggests that administrative innovation accounts for almost 24% of the variance in sustainable competitive advantage. This implies that an improvement in the sustainable competitive advantage among manufacturing firms in Lagos State, Nigeria, the sustainable competitive advantage can be driven by administrative innovation.
Moreover, accounting for administrative innovation as a predictor variable, the ANOVA results show that the regression model is statistically significant (F = 33.509, p <.005). The

results show that administrative innovation, the predictor, significantly affects sustained competitive advantage over time. In light of these results, hypothesis three is accepted. Administrative innovation and sustainable competitive advantage among manufacturing firms are positively correlated. Thus, administrative innovation contributes significantly to the enhancement of sustainable competitive advantage.

Hypothesis Four: The joint effect of product, process and administrative innovations will have a significant influence on sustainable competitive advantage of manufacturing firms in Lagos State, Nigeria.

Table 5. Results of Regression Analysis for Hypothesis Four

Model	R	R^2	Adj.R^2	ANOVA		Unstandardised Coefficient		Standard Coefficient	T	Sig
				F	Sig	B	Std. error	Beta		
1	.685[a]	.470	.454	30.994	0.000[b]					
Constant						.915	.452		2.024	.046
Product Innovation						.778	.117	.764	6.628	.000
Process Innovation						.800	.194	.640	4.117	.000
Administrative Innovation						.823	.133	.689	6.117	.000

a. Predictors: (Constant), Product, Process, Administrative Innovation

b. Dependent Variable: Sustainable Competitive Advantage

Source: Field Survey (2024)

The findings of the regression analysis, which are presented in Table 5 show that the R-square is .470, implying that the regression model exhibits strong explanatory power, accounting for about 47% of the variance in sustainable competitive advantage. This also suggests that a substantial amount of the heterogeneity in sustained competitive advantage among manufacturing firms in Lagos State, Nigeria can be attributed to the combined influence of product, process and administrative innovations.

The regression model's statistical significance ($F = 30.994$, $p < .005$) is supported by the ANOVA results, which show that organisational innovation through it's the joint effects of its three dimensions considerably contribute to the prediction of sustainable competitive advantage. In light of these results, hypothesis four is accepted. These results highlight the importance of organisational innovation in driving long-term competitive advantage for manufacturing companies, and they show how different types of innovation may enhance the competitiveness and long-term success of businesses.

4.4 Discussion of Findings

The study shows that SCA is positively associated with product development. With the introduction of new or improved products, manufacturers could gain a competitive edge. This is consistent with Kuncoro and Suriani (2018) and Sukaatmadja et al. (2021), which show how product innovation boosts internationalisation and competitiveness. The claim made by Mensah and Acquah (2015) that product innovation can help gain a competitive advantage is further supported by this research. The results corroborate those of Varis and Littunen (2010), who also found a positive relationship between product innovation and business production. Like product innovation, process innovation also has a significant positive link to SCA. Companies may boost output while decreasing costs by reducing the number of steps involved in making a product. The importance of process innovation for small and medium-

sized manufacturing enterprises (SMEs) has been highlighted by Gunday et al. (2011), Mohd and Syamsuriana (2013), and Ukpabio et al. (2019), all of which support this idea. Possible benefits of this intervention include reduced waste, shorter manufacturing cycles, and lower production costs in the long run. By giving customers lower prices, the company can gain even more of a competitive edge.

There is a favourable correlation between administrative innovation and SCA, according to the research. A sustainable competitive advantage may be achieved by using state-of-the-art administrative approaches, such as digitising processes. This agrees with the findings of Tuan et al. (2016), who found that innovative practices inside organisations positively affect financial performance. An organisation may streamline its ordering and tracking processes with the aid of a cloud-based inventory management system. These innovation has the potential to improve inventory management, lead to fewer errors, and ultimately increase operational performance. Such improvements would greatly enhance a company's competitive position.

Finally, the fundamental discovery is the cumulative impact of the three forms of innovation. Taking a comprehensive approach to innovation, which includes product invention, process optimisation, and administrative advancements, increases the likelihood that manufacturing SMEs will achieve a substantial and enduring competitive advantage. This aligns with the suggestions put out by Hanaysha et al. (2022) and Ukpabio et al. (2019), who advocate for a groundbreaking, multi-dimensional approach. Benefits of this collaborative creative endeavour include a better product, more efficient manufacturing, and the capacity to attract and retain top personnel, all of which contribute to a significant competitive advantage and long-term success. Manufacturing companies that are always looking for new ways to innovate have a better chance of succeeding in today's fast-paced, cutthroat business environment. It is particularly challenging for manufacturing companies to execute changes to their products, processes, and administration. The limited access to contemporary technology and high implementation costs put a burden on the finances of SMEs. Both cultural resistance and staff support for new methods may be obstacles. Problems such as a lack of skilled workers and appropriate technology, as well as obstacles such as regulations, unclear markets, and limited supply chains, all make innovation integration more difficult. Administrative innovations pose cyber-security concerns, and sustaining them is difficult. To maximise innovation for competitive advantage, companies must deliberately overcome these constraints.

5. CONCLUSIONS

This study evaluated the influence of organisational innovation on sustainable competitive advantage of selected manufacturing firms in Lagos State, Nigeria. The research sampled 109 firms from two selected manufacturing sub-sector located within Lagos metropolis. Data was analysed utilising regression analysis. The results offer strong evidence that innovation is a vital factor in this industry's long-term competitive performance. Product, process, and administrative innovation are the three types of innovation that were studied, and all three show strong and favourable correlations with SCA. Through innovation initiatives, product development, and process automation, companies can build the skills needed to continuously improve their offerings and internal operations. The findings highlight the need for various types of innovation for manufacturing enterprises in Lagos State to establish and maintain a competitive edge. Failure to invest in these areas might leave a company vulnerable in today's globalised and fiercely competitive market.

5.1 Recommendations

In order for manufacturing organisations to achieve sustainable competitive advantage (SCA), this research highlights the significance of organisational innovation. Managers in companies should encourage a culture of innovation by rewarding good invention that might result in PI, PI, and AI, as well as by giving resources and funding research. An environment that encourages people to think creatively and openly about new ideas should be promoted. This may include design thinking and other related activities, such as workshops and trainings. Managers and policymakers in the industrial sector must pay close attention to the findings. In order to keep their competitive edge, managers should push for improvements in products, processes, and administration. Managers should put emphasis on efforts to improve productivity, decrease operational costs, and enhance market responsiveness since innovations are the key to success in the long run. According to the findings, policymakers ought to encourage innovation by providing incentives like grants, tax breaks, and educational opportunities. Policy initiatives promoting technology adoption, research and development, and industry-academic partnerships have the potential to increase innovation within organisations and fill skill shortages. These insights inform strategic choices, keeping enterprises and the economy competitive in a global market.

5.2 Contributions to Knowledge

This study contributes to the existing body of knowledge on organisational innovation and sustainable competitive advantage (SCA). It provides strong evidence, in the context of manufacturing companies, for the substantial and positive connections between SCA, administrative innovation, process innovation, and product innovation. The research considers a wide range of innovations, which stresses the fact that innovation requires a comprehensive plan. As the study demonstrates the strong explanatory power of the combined effect of product, process, and administrative innovation on SCA, it presents helpful information for manufacturing organisations seeking to develop an all-encompassing innovation strategy.

5.3 Limitation and Suggestion for Future Research

The results of this research contribute to our knowledge of the connection between organisational innovation and SCA in the context of manufacturing enterprises. The capacity of manufacturing organisations to attain sustainable competitive advantage was examined in this research via an exhaustive empirical review of the effects of several forms of organisational innovation, including process, product, and administrative innovation. However, despite the strength of the results, longitudinal studies could shed light on the dynamic nature of the relationship between organisational innovation and sustainable competitive advantage. Furthermore, future research should examine other companies (i.e., large, non-profit organisations), subsectors, industries, and other states in Nigeria and other countries. A comparative study between various industries and geographical areas could clarify the contextual factors that influence this relationship.

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