VOL. 13 NO. 7,
AUGUST, 2026
E-ISSN 3026-9679
P-ISSN 3026-9423

African Scholar Publications & Research International
www.africanscholarpub.com

Journal of Business Dev. and Management Res. (JBDMR)

Effect of Innovation Strategies on SMEs Performance in Karu LGA, Nasarawa State, Nigeria

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DOI: https://doi.org/10.70382/ajbdmr.v13i7.089

Abstract

This study examines the effect of innovation strategies on small and medium enterprises performance in Karu Local Government Area, Nasarawa State. The objectives are to investigate how product and process innovation influence the performance of small and medium enterprises (SMEs) in Karu. This study is guided by the Resource-Based View (RBV) Theory proposed by Barney (1991), which emphasizes that unique internal resources and capabilities drive competitive advantage. This study adopts a survey research design, targeting 267 registered SMEs in Karu, from which a valid sample of 205 responses was obtained using a census sampling technique. Primary data were collected through a structured 5-point Likert scale questionnaire and analyzed using Partial Least Squares Structural Equation Modelling (PLS-SEM) via SmartPLS software. The findings reveal that both product innovation ($\beta = 0.123$, $p = 0.026$) and process innovation ($\beta = 0.678$, $p = 0.000$) have positive and statistically significant effects on SMEs performance, jointly explaining 54.7% of its variance. The study concludes that innovation strategies are critical drivers of SME growth, productivity, and competitiveness. It recommends that SMEs strengthen product innovation through continuous product development and differentiation while investing in process innovation through technology adoption and operational efficiency improvement. The study implies that SMEs that effectively leverage innovation as a strategic resource can enhance their adaptability, market relevance, and long-term sustainability.

Keywords: Innovation Strategies, Product Innovation, Process Innovation, SMEs Performance.

Introduction

Small and Medium-sized Enterprises (SMEs) play a pivotal role in driving employment creation, innovation, and economic growth in both developed and developing economies. Their performance is therefore of great interest to policymakers, researchers, and practitioners alike. SME performance generally encompasses outcomes such as profitability, productivity, market share, sales growth, and sustainable competitive advantage (Ramdan et al., 2022). Evidence from existing studies indicates that SMEs that adopt proactive and well-structured strategic approaches tend to achieve higher performance levels compared to those relying on ad-hoc or reactive management practices (Sus Biyani et al., 2021). In dynamic and uncertain business environments, the ability of SMEs to sustain or improve performance largely depends on their adaptability, innovativeness, and strategic resource utilization (Ramdan et al., 2022).

In Nigeria, SMEs represent the backbone of the economy, contributing about 48 % to the nation's Gross Domestic Product (GDP) and accounting for approximately 96 % of all registered businesses (SMEDAN & NBS, 2022). They also provide significant employment opportunities and contribute to poverty reduction across diverse sectors. Despite their importance, the performance of SMEs in Nigeria remains sub-optimal due to persistent challenges such as inadequate access to finance, weak infrastructure, limited innovation capacity, poor institutional support, and unstable macro-economic conditions. For example, one study found that Nigerian SMEs face major barriers in accessing formal credit due to strict collateral requirements, high transaction costs and perceived high risk by financial institutions (Musa et al., 2025). Moreover, another investigation into institutional constraints highlighted that government bureaucracy, regulatory complexity and infrastructural deficits significantly hamper productivity growth among SMEs (Oluseyi, et al. 2024). Nonetheless, recent policy and private-sector interventions such as entrepreneurship training, digital transformation programmes, and innovation funding have begun to create opportunities for SMEs to improve their performance and competitiveness (Ajayi & Adeyeye, 2023).

Innovation has emerged as a critical driver of SME success in today's rapidly changing business landscape. Innovation strategies refer to deliberate plans and coordinated actions that firms adopt to create, manage, and commercialize new or improved products, processes, markets, or organizational systems with the aim of enhancing competitiveness and performance (Bogetoft, Kroman, Smilgins, & Sørensen, 2024). Effective innovation strategies integrate various innovation types product, process, marketing, and organizational while leveraging both internal capabilities such as R&D and knowledge management and external collaborations with partners and customers (Cillo, Rialti, Bertoldi, & Ciampi, 2019). For SMEs, innovation effectiveness often depends on their absorptive capacity and open-innovation practices, which enable them to acquire, internalize, and apply external knowledge to create market value and operational improvements (Carrasco-Carvajal, García-Pérez-de-Lema, & Castillo-Vergara, 2023).

Given the growing recognition of innovation as a key performance driver, it becomes imperative to examine how innovation strategies influence SME performance in specific local contexts. Karu Local Government Area (LGA) of Nasarawa State represents one of the most vibrant SME clusters in North-Central Nigeria, with enterprises operating across trade, manufacturing, and service sectors. However, many of these SMEs still face challenges of competitiveness, limited technological adoption, and slow growth. Understanding the extent to which innovation strategies affect their performance can provide

insights for policy formulation, managerial decision-making, and sustainable economic development in the region. Therefore, this study seeks to investigate the effect of innovation strategies on the performance of SMEs in Karu Local Government Area of Nasarawa State. The secondary objectives are to:

i. investigate the effect of product innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State.
ii. examine the effect of process innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State.

Statement of Hypotheses

The hypotheses of this study include:

HO1: there is no significant effect of product innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State.

HO2: there is no effect of process innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State.

Innovation Strategy

Karanja, et al. (2018) defined Innovation as the process of translating an idea or invention into a good service that creates value for customers which allows an organization to a competitive advantage. As an innovation an idea has to be replicable at an economical cost whereas satisfying a need. Namusonge et al., (2016) asserted that, innovation is a fundamental tool for entrepreneurs and the means through which entrepreneurs exploit change as a best opportunity for different businesses or other services. They propounded that, innovativeness is the most significant tendency of a growing organization to engage in and support new idea generation, experimentation and creative processes which may result into new products or services.

According to Aragon-Correa, Garcia-Horales and Cordon-Pozo (2017) innovation is based on multiple and simultaneous influences of individual and collective determinants. These determinants are introduced to be Culture and leadership which are one of the relevant internal conditions of innovation. (Laforet, & Tann, 2016). Smith (2018) posits that culture relates to the values and the beliefs of the organization and how the effect of the ability to manage innovation, the motivation from a leadership supporting innovation, the willingness to exchange knowledge and the targeted promotion of innovators within the firm. The ability to lead, direct, and support the creation and sustaining of innovation behaviors is important for a firm (Bessant,2017). The importance of leadership style lies on the opportunities of the leader to directly decide on how to introduce new ideas into an organization, set specific goals, and encourage innovation initiatives to employees (Harborne & Johne 2017)

Innovations can manifest as a new service or product, a new technological process in production, a new organizational administration structure or system, a new program or plan. Product and process innovation types are the major focus of academic literature on innovation, although organizational innovation is also a newer type of innovation dimension being focused on by researchers (Braunerhjelm, Ding and Thulin, 2016). The innovative capability of the firm has been tied to the process of research and development (R&D) within the SME. R&D leads to the generation of newer knowledge which informs new innovations (Zimmerman, 2017). As such, SMEs which regularly do R&D activities are more likely to have newer knowledge and thus will be able to come up with new services or products or newer processes of production (Mika, 2020). Innovation strategies comprise a combination of product, process, marketing and organizational innovations that collectively enhance business growth

and competitiveness. Each dimension addresses a unique aspect of a firm's operations and development, ensuring that innovation extends beyond product creation to include the overall way a business functions and delivers value. In this study, attention is focused on product and process innovation as key determinants of SMEs' performance in the study area.

Product Innovation

Product innovation is a multidimensional concept that involves a range of strategies and actions aimed at improving a firm's product offerings. For SMEs in Nigeria, understanding the various elements of product innovation such as developing new products, upgrading existing ones, implementing product differentiation strategies, and integrating technology into product design is essential. Such understanding enables SMEs to evaluate how these different aspects of product innovation influence their overall business performance (Adekunle & Adejuwon, 2024). According to and Caputo, et al. (2016), product innovation is the introduction of products based on customer demands, expectations and needs in the market. Snihur and Wiklund (2019) indicated that product innovation is commercialisation of products to conform to the consumers' expectations and needs. Rousseau et al. (2016) asserted that product innovation makes it possible for dynamic businesses to take advantage of being first to satisfy the needs of consumers. Kassimu, et al. (2022) advanced that firms can derive their competitive advantage from product innovation. This is because through product innovation products quality can be enhanced, thereby contributing to firms' performance and competitive advantage, respectively. However, a meta-analysis study by Rousseau et al. (2016) on the innovation and firm performance concluded that combination of product and process innovation produces a positive performance gain than product innovation alone.

Process Innovation

This involves introducing new elements such as new methods of production, approaches of management and new technologies into organisations (Lendel et al., 2015; Milewski, et al., 2015) which can help firms take advantage and improve efficiency of production and reduced cost (Kahn, 2018). Accordingly, Cherrafi et al. (2018) asserted that implementing process innovation could increase firm's operational output, customer satisfaction and even firm's financial performance. According to researchers (Milewski, et al., 2015; Ashok, et al., 2016), process innovation comprises inter-linked factors that has an effect on different functions in the establishment. The researchers postulated that through process innovation, generation and implementation of unique production methods that are valuable to users are possible.

Marzi et al. (2017) asserted that process innovation scientifically could be seen as an organised and controlled episodes of actions where innovative ideas are processed and converted in a form of innovation. Marzi et al. (2017) again indicated that process innovation is an arrangement of actions that are intended to create and apply innovative ideas and include all activities from idea generation through to the outcome of the product. Creative idea is not an innovation unless it was commercialised or currency is gain on it (Kassimu, et al., 2022). According to Lendel et al. (2015), and Un and Asakawa (2015), process innovation is worth undertaking because it improves upon profits, the competitiveness of the company and improves performance by eliminating waste. To the authors, deployment of process innovation is a needful activity, as it enables firms attain greater efficiency, meet up with competition and grow quality products. Hence, considering innovation, an organization-wide task should be encouraged. Despite the increasing importance attached to process innovation, dearth information exists on it in literature (Caputo, et al., 2016).

Small and Medium Enterprises

Small and medium scale businesses are bedrock of development of economies of many nations of the world. The definitions in use depend on the purposes those definitions are required to serve and the policies which govern the micro and small businesses sector. However, the three parameters generally applied by most countries, singly or in combination are: capital investment on plant and machinery; the number of workers employed; and volume of production or turnover of the business. The Central bank of Nigeria in its 1990 credit Guidelines for financial institutions defined small-scale businesses as those whose annual turnover does not exceed N200,000,000 or capital expenditure does not exceed N200,000,000. However, the CBN recently puts the employment level of the small-scale businesses at less than 50 and medium scale businesses at less than 100. In terms of asset-based, the small scale has less than N 1 million while medium-scale has less than N150 million (Ogboru 2007). Small and Medium Scale Enterprises are enterprises that have the capacity to employ at most five hundred (500) employees at a time and it has been proved to be the back bone of every economy. According to Oyeyinka (2019), any business with a turnover of less than 100 million per annum and less than 300 employees are tagged as SME. Small and Medium Scale Enterprises is defined on the basis of employment, in micro/cottage industries (1-10 workers), small scale industries (11-100 workers), medium scale industries (101-300 workers) and large-scale industries with (301 and above) (Adeyemo & Olateju, 2022).

SMEs Performance

The term performance is not a new concept in the field of business study (Aminu & Shariff, 2015). Though many performance measurements exist, there has not been consensus among researchers with respect to its definition. SME performance is a measure that describes the health of an SME that may not only depend on the efficiency and effectiveness but also on the market where the SME operates according to Onyenma (2019). Onyenma (2019) defined performance as an ability of an object to produce results in a dimension determined priority, in relation to a target. Performance elements and standards should be measurable, understandable, verifiable, equitable, and achievable. Three factors that determined the performance of SMEs are marketing and entrepreneurship skills, working environment and materials and infrastructure availability (Adamu, 2023). SME performance is the total performance of the firm and is showed by the aggregate of performance of finance, marketing, and human resource functions of the organization in a given time. Firms formulate goals and objectives to be achieved within a given time frame. Performance measures the organizations' effectiveness against these set objectives. Thus, organizational performance refers to the ability of an organization to attain its goals such as high-profit margin, product quality, and larger market share, better financial results at a stipulated time and by applying the relevant strategy (Oyedele, et al., 2020).

Empirical Review

Ojenike (2024) examined innovation strategies on the performance of selected SMEs in Lagos State. The study adopted descriptive survey research design. The population of the study comprised of four hundred and sixty-one (461) selected SMEs operating in Lagos State. A sample size of two hundred and fourteen (214) was determined through Taro Yamane 1967. The respondents were selected using stratified sampling technique. With the aid of a five-point Likert scale questionnaire, the responses of the selected SMEs representatives in Lagos State were obtained and analyzed with the aid of both descriptive and inferential statistical tools. The stated hypotheses were tested using regression analyses. The study revealed that product innovation strategy has significant influence on product quality of selected representatives of SMEs in Lagos State. The study, recommended among others that SMEs

should focus on efforts of adopting innovativeness in order to enhance quality and increase organizational sale's volume to meet customers' demand

Ezekiel, et al. (2024) examine the effect of product innovation practices on the performance of manufacturing SMEs in food processing industry in Mbeya, Tanzania. The study used multi-dimensional analytical approach to examine the effect of product innovation on the performance of SME. With STATA 17 software, the ordered logistic regression analysis was performed using data from a sample of 400 owners and/or managers of manufacturing SMEs in food processing industry. Findings of the study revealed that new product development, product improvement and product line extension has significant and positive impact on SMEs performance in terms of growth of sales, customer satisfactions, profitability, return on equity, and production quality and delivery speeds. The study recommended that government authorities design supportive policies, such as tax frameworks and access to finance, to reduce the cost of innovation and encourage SMEs to engage in innovative activities.

Ede (2024) evaluated the effect of innovation process on the performance of SMEs in Abakiliki Metropolis, Ebonyi State. The study adopted survey research method. Two hundred and eighty-three (283) business owners and employees were selected for the study. Descriptive survey design was used. The primary source of data was administration of questionnaire. Two hundred and fifty-three (253) owners and employees returned their questionnaire and accurately filled. Data was analyzed by mean score and standard deviation. The hypotheses were analyzed using Z - test. The findings indicated that Value creation had significant positive effect on the output. Collaboration had significant positive effect on the effectiveness. The study concluded that Value creation and collaboration had significant positive effect on the output and effectiveness of SMEs in Ebonyi State. The study recommended that the most value for customers, companies should focus on developing products that are innovative, high quality, and of interest to their target market.

Adekunle and Adejuwon (2024) examined the effect of product innovation on the performance of small and medium sized enterprises (SMEs) in Ogun State, Nigeria, focusing on the roles of new product development, product enhancement, and differentiation strategies on organisational performance. A descriptive study methodology was employed to survey SMEs in the three senatorial districts of Ogun: Ogun Central, Ogun East, and Ogun West. SMEDAN (2021) reports that Ogun State is home to 31,133 SMEs, representing 4.6% of Nigeria's overall SME population. A sample size of 1,500 SMEs was determined using Krejcie and Morgan's (1970) table. Data were collected using structured questionnaires and analysed by hierarchical regression. The findings demonstrate that product enhancement and product differentiation strategies exert considerable, statistically significant influences on SME performance, while new product development exhibits a weaker, yet significant, effect. The results indicated that although all types of product innovation enhance SME performance, strategies focused on product enhancement and differentiation are especially impactful. The study suggested that SMEs must prioritise continuous product enhancements and focused differentiation strategies to promote competitiveness and foster long-term success.

Prasetyo (2023) examined the direct effect of product innovation on SME's performance and consider the moderating role of market orientation and organizational learning. Using the quantitative method, the researchers conducted a survey of 170 SME owners in DKI Jakarta Province who were selected using a purposive sampling method. The survey was conducted online by distributing questionnaires through an online platform. The data was analyzed using Structural Equation Model with AMOS and Process by Hayes. The results of hypothesis testing showed that product innovation has a positive effect on the performance of SMEs. The study recommended that SME need to innovate products and form a

conducive climate in market-oriented organizations, as well as a climate that allows them to carry out organizational learning.

Hari et al. (2020) examined the relationship between process innovation, market innovation and firm financial performance of Indonesian pharmaceutical firms and moderating role of disruptive technology on the relationship of process innovation and market innovation with Indonesian pharmaceutical firms' financial performance. The study collected the data from managers of pharmaceutical firms in Indonesia by using survey questionnaire. PLS statistical software was employed to analyse the data. The result of the study highlighted that there is a positive relationship between process innovation, market innovation and financial performance of firms. While, results indicated that disruptive technology moderate the relationship of process innovation with financial performance, but it has no moderating role on the relationship of market innovation with financial performance. The findings of the study have shown that innovation capabilities are capable of influencing the performance of firms.

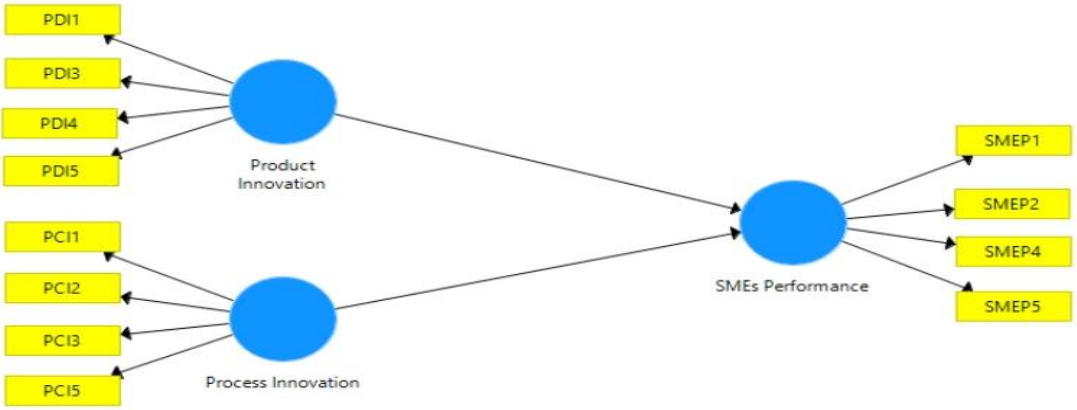
Theoretical Framework

The Resource-Based View (RBV) Theory, proposed by Barney (1991), emphasizes that an organization's ability to achieve and sustain a competitive advantage is largely dependent on its possession and effective utilization of unique resources and capabilities. According to the theory, resources that are valuable, rare, inimitable, and non-substitutable (VRIN) enable firms to outperform competitors and achieve superior performance. These resources may include physical assets, human skills, technological know-how, innovative capabilities, and organizational processes that collectively enhance a firm's efficiency and market position (Wernerfelt, 1984; Barney, 1991). The RBV thus shifts focus from external market positioning to the internal strengths that firms can leverage to create and sustain value. In relation to this study, RBV provides a relevant theoretical foundation by linking innovation strategy such as product and process innovations to firm performance. For SMEs, innovation serves as a strategic internal resource that can enhance competitiveness, productivity, and profitability. SMEs that develop and effectively utilize innovative capabilities in product development and process improvement are better positioned to adapt to market dynamics, reduce costs, and achieve sustainable growth. Therefore, the RBV explains how leveraging innovation as an internal capability can significantly influence the overall performance of SMEs in the study area.

Methodology

This study adopted a survey research design, deemed appropriate for collecting data within a specific geographical area; Karu Local Government Area using structured questionnaires. The study population comprised 267 registered SMEs, and given the manageable size, a census sampling technique was employed. Primary data were obtained through a structured questionnaire designed on a 5-point Likert scale, focusing on product innovation and process innovation. The measurement items were adapted from previously validated instruments. Of the 267 questionnaires distributed to SME owners and managers in Karu LGA, 205 were properly completed and returned, representing the valid sample for analysis. The reliability of the constructs was evaluated using Cronbach's Alpha and composite reliability, while validity was assessed through Average Variance Extracted (AVE), Fornell-Larcker Criterion, cross-loadings, and Heterotrait-Monotrait (HTMT) ratio. Data analysis was conducted using Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine the casual relationship between product innovation, process innovation and SMEs performance. All exogenous variables were hypothesized to exert a positive influence on business performance.

Figure 1: Theoretical Model on Financial Sources and SMEs Growth

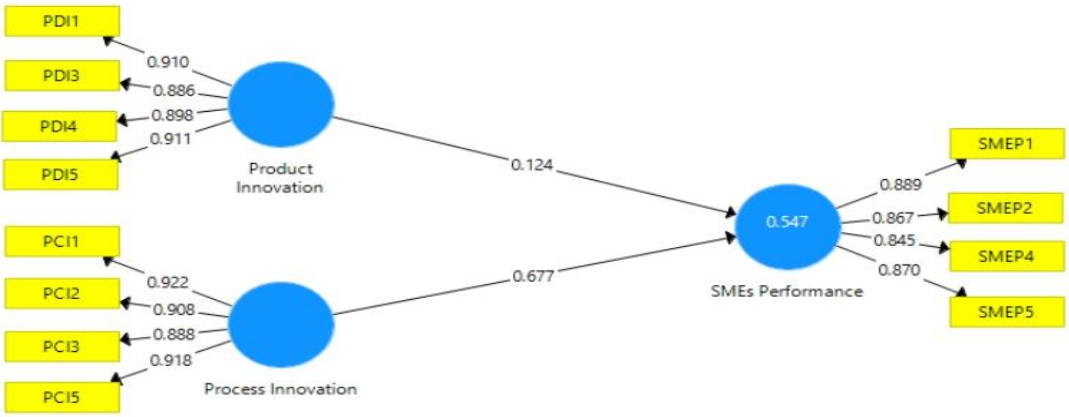


Source: SmartPLS Output 2025

The Measurement Model

In assessing the measurement model, the outer loadings are assessed first and a s a rule loading above 0.70 are accepted as they indicate the construct explains more than 50% of the indicator's variance, thus providing acceptable item reliability (Hair, et al., 2019).

Figure 2: Indicator Outer Loadings



Source: SmartPLS Output 2025

Table 1: Construct of Reliability Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Process Innovation	**0.930**	**0.931**	**0.850**	**0.827**
Product Innovation	**0.823**	**0.927**	**0.845**	**0.812**
SMEs Performance	**0.891**	**0.892**	**0.924**	**0.753**

Source: SmartPLS Output 2025

Table 1 presents the construct reliability results derived from the SmartPLS output. The table shows that all constructs; Process Innovation, Product Innovation, and SMEs Performance demonstrate excellent internal consistency and convergent validity. Specifically, Cronbach's Alpha values (ranging

from 0.823 to 0.930) and rho_A coefficients (0.892 to 0.931) exceed the 0.70 benchmark, indicating high internal reliability among the measurement items. Similarly, the Composite Reliability (CR) values (0.845 to 0.924) are well above the acceptable threshold of 0.70, confirming the consistency of the constructs. Furthermore, the Average Variance Extracted (AVE) values (0.753 to 0.827) are all greater than 0.50, signifying that the constructs explain more than 75% of the variance in their indicators. Collectively, these results confirm that the measurement model possesses strong reliability and convergent validity, making it suitable for further structural analysis.

Table 2: Heterotrait-Monotrait Ratio (HTMT)

	Process Innovation	Product Innovation	SMEs Performance
Process Innovation			
Product Innovation	**0.769**		
SMEs Performance	**0.802**	**0.759**	

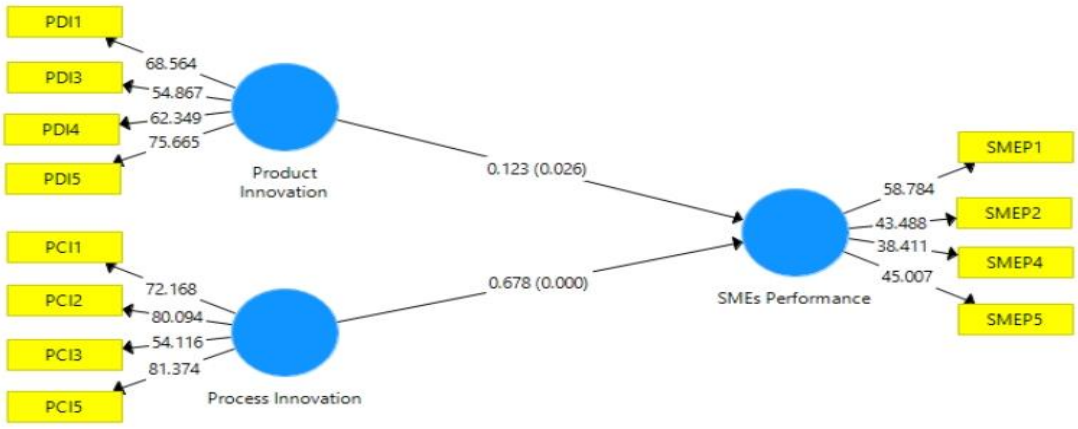
Source: SmartPLS Output 2025

Table 2 presents the Heterotrait-Monotrait Ratio (HTMT) results used to assess discriminant validity among the study constructs. The HTMT values between Process Innovation and Product Innovation (0.769), Process Innovation and SMEs Performance (0.802), and Product Innovation and SMEs Performance (0.759) are all below the acceptable threshold of 0.90, indicating that each construct is empirically distinct. Although the relationships between the constructs are moderately strong; particularly between Process Innovation and SMEs Performance (0.802), they remain within acceptable limits, confirming that no issues of multicollinearity or construct overlap exist. Hence, the results demonstrate that discriminant validity is achieved, meaning each construct measures a unique aspect of the research model.

The Structural Model

In assessing the structural model, the standard assessment criteria were considered which include the path coefficient, t-values, p-values and coefficient of determination (R^2), the bootstrapping procedure was conducted using a resample of 5000.

Figure 3: Path Coefficient of the Regression Model



Source: SmartPLS Output 2025

Table 3: R Square

	R Square	R Square Adjusted
SMEs Performance	0.547	0.543

Source: SmartPLS Output 2025

Table 3 shows the coefficient of determination (R Square) results for the dependent variable, SMEs Performance. The R Square value of 0.547 indicates that Process Innovation and Product Innovation jointly explain approximately 54.7% of the variance in SMEs Performance, while the adjusted R Square value of 0.543 accounts for sample size and predictor adjustments, confirming the model's stability. This level of explanatory power suggests a moderate predictive accuracy, implying that more than half of the changes in SMEs Performance can be attributed to variations in Process Innovation and Product Innovation. Overall, the results demonstrate that the model has a satisfactory level of goodness-of-fit and provides meaningful insights into the determinants of SMEs performance.

Table 4: Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Process Innovation -> SMEs Performance	0.678	0.679	0.043	15.928	**0.000**
Product Innovation -> SMEs Performance	0.123	0.125	0.055	2.227	**0.026**

Source: SmartPLS Output 2025

The result in Table 4 provides evidence to test the first hypothesis (H_{01}), which states that there is no significant effect of product innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State. The path coefficient for Product Innovation → SMEs Performance is 0.123 with a *t*-value of 2.227 and a *p*-value of 0.026, which is less than the 0.05 significance level. This indicates that product innovation has a positive and statistically significant effect on SMEs performance. Therefore, the null hypothesis (H_{01}) is rejected, and the alternative hypothesis is accepted, confirming that improvements in product innovation significantly enhance the performance of SMEs in the study area.

Regarding the second hypothesis (H_{02}), which states that there is no effect of process innovation on the performance of SMEs in Karu Local Government Area of Nasarawa State, the path coefficient result shows a value of 0.678 with a *t*-value of 15.928 and a *p*-value of 0.000. Since the *p*-value is far below the 0.05 threshold, the null hypothesis is rejected. This implies that process innovation has a strong, positive, and statistically significant effect on SMEs performance. Consequently, the finding suggests that enhancing process innovation practices such as improving operational efficiency, adopting modern technologies, and optimizing workflows plays a critical role in driving better performance outcomes among SMEs in Karu.

Discussion of Findings

The findings of this study reveal that process and product innovation jointly explain 54.7% of the variance in SMEs performance, signifying a substantial level of predictive power. This implies that

firms that actively implement innovative practices in their operations are more likely to achieve improved productivity, profitability, and competitiveness. The result aligns with the work of Ojenike (2024), who found that product innovation significantly enhances product quality and sales growth among SMEs in Lagos State. Similarly, Ezekiel et al. (2024) confirmed that product improvement and product line extension positively and significantly influence SMEs' performance in the food processing industry in Tanzania. These studies collectively reinforce the current finding that innovation practices particularly those that focus on product quality and process efficiency are essential drivers of performance outcomes among SMEs.

Moreover, the positive and significant effect of process innovation observed in this study is consistent with the findings of Ede (2024), who reported that value creation and collaboration in innovation processes significantly enhance SME effectiveness and output in Ebonyi State. Adekunle and Adejuwon (2024) further emphasized that product differentiation and enhancement strategies exert strong and statistically significant impacts on SME performance, underscoring the need for firms to continually adapt and refine their offerings to remain competitive. In the same vein, Prasetyo (2023) and Hari et al. (2020) demonstrated that product and process innovation positively affect firm performance across different industries and contexts. Consequently, the current findings corroborate the broader empirical consensus that sustained investment in innovation capabilities both in product design and process improvement serves as a catalyst for growth and long-term sustainability among small and medium-sized enterprises.

Conclusion and Recommendations

This study examines the effect of innovation strategies on the performance of small and medium enterprises in Karu Local Government Area, Nasarawa State reveals that innovation strategies, particularly product and process innovation, have a significant positive effect on the performance of small and medium enterprises in Karu Local Government Area, Nasarawa State. The results demonstrate that SMEs that engage in innovative practices are more likely to experience improved productivity, profitability, and competitiveness. The findings confirm that innovation serves as a critical driver of business success, enabling firms to adapt to changing market conditions, meet customer needs more effectively, and achieve sustainable growth. Based on the finding from the tested hypotheses this study recommends that:

i. SMEs in Karu Local Government Area should strengthen their product innovation strategies by continuously developing new products, improving existing ones, and differentiating their offerings to meet changing customer preferences and market trends. This will help enhance customer satisfaction, increase sales, and boost overall competitiveness.

ii. SMEs should invest more in process innovation, particularly in adopting modern technologies, automating production processes, and enhancing operational efficiency. By improving internal processes and resource utilization, SMEs can reduce costs, improve product quality, and achieve higher levels of productivity and profitability.

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