

Impact of Business Process Innovation on Small and Medium Enterprises Performance in Abuja, Nigeria.

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Abstract

SME performance is widely recognized as a critical driver of economic growth and sustainable development, particularly in emerging economies. This study examines the impact of business process innovation (BPI) on the performance of small and medium enterprises (SMEs) in Abuja, Nigeria. Drawing on the Resource-Based View and Dynamic Capability Theory, BPI is conceptualized as a multidimensional construct comprising production process innovation, logistics and distribution innovation, ICT process innovation, administrative and management innovation, and marketing and sales innovation. A quantitative cross-sectional survey design was adopted. The study population consists of 22,861 registered SMEs across various sectors, as reported by SMEDAN (2021). Using the Krejcie and Morgan (1970) table, a sample size of 377 was determined, with data collected from 352 SME owner-managers through a structured questionnaire. Data were analysed using multiple regression techniques. The findings reveal that BPI significantly explains variations in SME performance, with administrative and management innovation, marketing and sales innovation, and production process innovation exerting positive and statistically significant effects. In contrast, logistics and distribution innovation and ICT process innovation exhibit positive but statistically insignificant relationships with performance. This study contributes to the existing literature by providing a multidimensional and context-specific analysis of BPI and by extending the application of RBV and DCT in explaining SME performance. It also offers practical implications for SME managers and policymakers seeking to enhance competitiveness through process-oriented innovation.

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1 INTRODUCTION

Small and Medium Enterprises (SMEs) play a pivotal role in economic development, particularly in developing economies, where they significantly contribute to employment generation, income creation, and poverty reduction (Maalouf et al., 2025; Fajarika et al., 2024). In Nigeria, SMEs account for a substantial proportion of business activities and serve as a catalyst for industrial and local economic growth. However, despite their economic relevance, many Nigerian SMEs face persistent challenges, including operational inefficiencies, limited technological capability, weak managerial practices, and intense market competition (PricewaterhouseCoopers [PwC], 2024; Small and Medium Enterprises Development Agency of Nigeria [SMEDAN] & National Bureau of Statistics [NBS], 2021). These constraints undermine sustainable performance and long-term competitiveness, often resulting in declining profitability and business failure. Consequently, there is growing emphasis on innovation-driven strategies that enhance operational efficiency and adaptability in turbulent business environments.

Innovation is widely recogni

zed as a critical driver of firm performance and competitiveness. The framework proposed by the Organisation for Economic Co-operation and Development and Eurostat (2018) identifies product innovation and business process innovation (BPI) as the two principal forms of innovation. While product innovation focuses on new or significantly improved goods and services, BPI involves the implementation of improved methods in production, logistics, information systems, marketing, and organizational processes (OECD & Eurostat, 2018). This study focuses on BPI, given the increasing recognition that firms can enhance performance not only through new products but also through improvements in internal processes and managerial systems (Qerimi et al., 2024). Such improvements reduce costs, enhance efficiency, and strengthen responsiveness to market demands (Bogetoft et al., 2024).

Theoretically, this study is anchored on the Resource-Based View (RBV) and Dynamic Capability Theory (DCT). The RBV posits that firm performance is driven by valuable, rare, inimitable, and non-substitutable resources, including organizational processes, technological systems, and managerial competencies. From this perspective, business process innovation represents a strategic internal resource that enhances efficiency and competitive advantage. However, RBV has a relatively static orientation. DCT extends this view by emphasizing a firm's ability to integrate, reconfigure, and renew internal and external competencies in response to environmental changes. Accordingly, the dimensions of BPI: production process innovation, logistics and distribution innovation, ICT process innovation, administrative and management innovation, and marketing and sales innovation can be viewed as dynamic capabilities that enable SMEs to adapt, innovate, and sustain superior performance in volatile markets.

Despite extensive research on the innovation–performance nexus, existing studies have predominantly focused on product innovation, with comparatively limited attention to business process innovation, especially within SMEs in developing economies (Okoli et al., 2024). In Nigeria, empirical studies have largely concentrated on innovation in manufacturing and technology sectors, often neglecting the internal operational processes that drive efficiency and productivity within SMEs (Ukoha et al., 2025). More importantly, prior studies rarely disaggregate business process innovation into its specific dimensions, thereby overlooking the distinct contributions of production, logistics, ICT, administrative, and marketing process innovations to firm performance. This limitation constrains theoretical clarity and empirical precision, particularly in emerging economies where SMEs rely more on process and managerial innovations than on resource-intensive product development (Woridigitere et al., 2025).

In the context of Abuja, Nigeria, SMEs continue to experience operational challenges, including inefficient production systems, inadequate digital integration, and weak organizational processes (Abdullahi et al., 2025; Ahmadu et al., 2025). Although business process innovation holds significant potential to address these inefficiencies, empirical evidence examining its multidimensional impact on SME performance in this context remains scarce and fragmented (Umaru & Adamu, 2024; Ehiaguina et al., 2025). This gap underscores the need for a more nuanced, context-specific, and theory-driven investigation linking the dimensions of BPI to SME performance outcomes.

Against this backdrop, this study examines the impact of business process innovation on SME performance in Abuja, Nigeria, drawing on the OECD and Eurostat (2018) framework and grounded in RBV and DCT. Specifically, BPI is conceptualized across five dimensions: production process innovation, logistics and distribution innovation, ICT process innovation, administrative and management innovation, and marketing and sales innovation. Based on this framework, the study proposes the following hypotheses:

H1: Production Process Innovation has a significant effect on SME Performance.

H2: Logistics and Distribution Innovation have a significant effect on SME Performance.

H3: ICT Process Innovation has a significant effect on SME Performance.

H4: Administrative and Management Innovation has a significant effect on SME Performance.

H5: Marketing and Sales Innovation has a significant effect on SME Performance.

This study contributes to the literature by providing a multidimensional and theory-driven assessment of business process innovation and its performance implications within SMEs in a developing economy perspective. The findings

are expected to offer practical insights for entrepreneurs, managers, and policymakers seeking to enhance SME competitiveness and sustainability through process-oriented innovation.

2 LITERATURE REVIEW

2.1 SME Performance

In the management and entrepreneurship literature, SME performance is commonly conceptualized as the extent to which a firm achieves its strategic and operational objectives in terms of growth, profitability, and market competitiveness (Saidu et al., 2024; Yahaya & Nadarajah, 2023). While early studies predominantly relied on financial indicators such as sales growth, profitability, and return on investment, more recent research adopts a multidimensional perspective, incorporating non-financial measures such as customer satisfaction, market expansion, operational efficiency, and innovation outcomes (Mahohoma, 2024; Wang et al., 2025). This shift reflects the recognition that SMEs often prioritize survival, growth, and market positioning rather than short-term financial returns alone (Ndlovu et al., 2025).

Despite this growing consensus, the literature reveals contradictory approaches to measuring SME performance. Some scholars maintain that financial indicators provide more objective and reliable assessments of firm success, particularly for evaluating economic viability (Mahohoma, 2024). In contrast, others argue that non-financial indicators better capture the strategic realities of SMEs, especially in dynamic and resource-constrained environments where formal financial reporting may be limited or unreliable (Salkić, 2024). This divergence suggests that reliance on a single performance dimension may lead to incomplete or biased conclusions.

Further complexity arises in developing economies, where the determinants and measurement of SME performance are shaped by institutional and environmental constraints. Studies such as Ajuwon et al. (2024) and Usman et al. (2025) emphasize that infrastructural deficits, regulatory uncertainty, and limited access to finance significantly influence SME outcomes. However, while some research highlights the dominant role of external constraints, other studies underscore the importance of internal strategic capabilities, including innovation capability, entrepreneurial orientation, and managerial competence, as key drivers of performance (Olaleye et al., 2024; Adenutsi et al., 2025). These contrasting perspectives indicate that SME performance is not solely determined by external conditions but also by the firm's ability to effectively utilize its internal resources.

Drawing on these insights, this study adopts a multidimensional view of SME performance, integrating both financial and non-financial indicators. This approach aligns with contemporary literature and provides a more comprehensive assessment of firm outcomes, particularly within the context of developing economies such as Nigeria, where both internal capabilities and external constraints jointly shape SME performance.

2.2 Business Process Innovation

Business Process Innovation (BPI) is conceptualized in contemporary innovation literature as a fundamental and multidimensional form of firm-level innovation, focusing on the implementation of new or significantly improved methods for production, delivery, and organizational routines. The Oslo Manual 2018 redefines innovation to include business process innovation as distinct from product innovation, emphasizing changes in internal operations and support activities that enhance efficiency and value creation. This comprises production process, distribution and logistics, information and communication systems, administration and management, marketing and sales support, as well as product and business process development (OECD & Eurostat, 2018). This reconceptualization shifts attention from purely market-facing innovations to process-oriented transformations, where firms redesign workflows, integrate digital technologies, and optimize resource utilization. Recent studies align with this perspective by highlighting that

BPI encompasses both incremental improvements and radical redesigns, often driven by digitalization and the need for operational agility in increasingly competitive environments (Szelągowski et al., 2024; Prawira & Alijoyo, 2024).

Empirical literature further demonstrates that BPI plays a critical role in enhancing organizational performance through efficiency gains, cost reduction, and improved service delivery. For example, the study of Giovanny and Ciptomulyono (2025) on Business Process Reengineering show that restructuring workflows and eliminating redundant processes can significantly improve operational outcomes and responsiveness. Similarly, digital-driven process innovations such as automation, data integration, and platform-based operations have been found to strengthen organizational performance by enabling real-time decision-making and improved coordination across functional units (Zulfikri et al., 2024). However, the effectiveness of BPI is often contingent on contextual factors, including organizational readiness, technological infrastructure, and institutional support systems, which shape the extent to which process innovations translate into measurable performance gains (Qiyamullaily et al., 2024).

Despite its benefits, the implementation of BPI is associated with significant challenges, particularly in developing and emerging economies where firms encounter structural and institutional constraints. Evidence suggests that barriers such as limited financial resources, weak technological capabilities, and resistance to change can hinder the successful adoption of process innovations (Qiyamullaily et al., 2024). This is especially relevant for SMEs, where managerial capacity and organizational flexibility are critical for driving process transformation. Consequently, recent literature emphasizes that successful BPI requires not only technological investment but also complementary organizational capabilities, including managerial innovation, learning orientation, and adaptive culture. In line with insights from the Oslo Manual 2018, this perspective underscores that strengthening internal processes through innovation is central to improving firm performance and long-term sustainability, particularly in dynamic and resource-constrained environments.

2.3 Business Process Innovation and SME Performance BPI has emerged as a central construct in contemporary innovation research, particularly following its formal recognition in the Oslo Manual (OECD & Eurostat, 2018). Within the SME context, where resource constraints limit the capacity for large-scale product innovation, BPI is increasingly viewed as a strategic alternative for achieving performance gains through operational improvements and organizational adaptability.

Studies on the relationship between BPI and SME performance, however, presents mixed and context-dependent findings. A substantial body of literature reports a positive and significant relationship between process innovation and firm performance. For instance, studies such as Szelągowski et al. (2024) and Bogetoft et al. (2024) demonstrate that process reengineering, workflow optimization, and digital integration significantly enhance operational efficiency, reduce costs, and improve organizational responsiveness. Similarly, Giovanny and Ciptomulyono (2025) find that business process reengineering contributes to improved agility and performance outcomes by eliminating inefficiencies and streamlining internal operations. These findings align with the RBV, which posits that internally developed capabilities, such as efficient processes, can serve as valuable and inimitable resources that drive competitive advantage.

In contrast, other studies reveal insignificant effects of certain dimensions of BPI on SME performance, suggesting that the benefits of process innovation are not universally realized. For example, Qiyamullaily et al. (2024) argue that technological and process innovations often fail to yield significant performance improvements in environments characterized by infrastructural deficiencies, limited digital readiness, and weak institutional support. Similarly, Dada et al. (2025) highlights that SMEs in developing economies frequently encounter structural barriers such as inadequate financing, poor logistics systems, and low technological capability, which constrain the effective implementation of process innovations. These findings challenge the assumption of a uniformly positive innovation–performance relationship and underscore the importance of contextual factors in shaping outcomes.

Further complexity arises from studies that adopt a multidimensional perspective of BPI, emphasizing that different process innovation components may exert uneven effects on performance. While technological and logistics innovations may depend heavily on external infrastructure and investment capacity, managerial and administrative innovations are often internally driven and more readily implementable within SMEs. Research by Prawira and Alijoyo (2024) and Damanpour et al. (2023) suggests that organizational and managerial innovations tend to have stronger and more consistent effects on performance because they directly influence decision-making efficiency, coordination, and resource utilization. In contrast, ICT-related innovations may produce delayed or insignificant outcomes in contexts where digital infrastructure and skills are underdeveloped. This divergence indicates that treating BPI as a unidimensional construct may conceal the differential contributions of its components.

Theoretically, these divergent findings can be better understood through the lens of the DCT, which emphasizes not only the possession of capabilities but also the ability to effectively deploy and reconfigure them in response to environmental conditions. From this perspective, the impact of BPI on SME performance is contingent upon a firm's capacity to align process innovations with its internal competencies and external environment. SMEs operating in resource-constrained and institutionally weak settings may possess certain innovative processes but lack the complementary capabilities required to fully realize their benefits. Consequently, the effectiveness of BPI is likely to vary across contexts, industries, and levels of organizational readiness.

Despite the growing body of literature, there remains a notable gap in integrative and context-specific analyses, particularly in developing economies. Many existing studies either treat BPI as a single aggregate construct or focus narrowly on specific dimensions, thereby limiting a comprehensive understanding of how different process innovations interact to influence SME performance. Moreover, limited attention has been given to sub-national contexts, such as Abuja, where infrastructural conditions, market dynamics, and institutional support systems may uniquely shape the innovation–performance relationship.

Against this backdrop, this study adopts a multidimensional and context-sensitive approach to examining the relationship between BPI and SME performance. By disaggregating BPI into production process innovation, logistics and distribution innovation, ICT process innovation, administrative and management innovation, and marketing and sales innovation, the study provides a more nuanced understanding of how different innovation components contribute to performance outcomes within SMEs in Abuja, Nigeria. This approach not only addresses the inconsistencies in prior empirical findings but also advances theoretical insight by integrating RBV and DCT in explaining the differential effects of process innovation across varying contextual conditions.

2.4 Conceptual and Theoretical Framework

Business Process Innovation (BPI) Proxies (Independent Variables)



Figure 1: Conceptual Framework

The conceptual framework posits that BPI comprises improvements in production, logistics, ICT systems, marketing and administrative processes positively influences SME performance by enhancing efficiency, reducing operational costs, and improving responsiveness to market demands. This relationship operates through the optimization of internal processes, which strengthens both financial and non-financial performance outcomes. The framework is grounded in the RBV, which argues that firm-specific capabilities such as innovative processes can generate sustained competitive advantage when they are valuable, rare, and inimitable (Barney, 1991). In addition, DCT explains how SMEs continuously reconfigure these process innovations to adapt to changing environments, thereby sustaining

performance over time (Teece et al., 1997). Thus, the framework establishes a clear causal pathway in which BPI strengthens internal capabilities, which in turn drive superior SME performance.

3 RESEARCH METHODOLOGY

This study adopts a quantitative cross-sectional survey design. Data were collected in January 2026 from owner-managers of SMEs in Abuja. The target population comprises 22,861 registered SMEs across various sectors, as reported by SMEDAN (2021). Using the Krejcie and Morgan (1970) table, a sample size of 377 was determined and increased by 10% to 415 to account for potential non-response bias. A stratified random sampling technique was employed to group firms into sectoral strata, followed by simple random sampling to select representative respondents. Of the 415 questionnaires administered, 352 were validly returned, yielding a response rate of 85%. Data were analyzed using descriptive and inferential statistics, with multiple regression conducted in IBM SPSS Statistics to test the study hypotheses.

3.1 Instruments and Measurement

Data were collected using a structured questionnaire adapted from validated scales in previous studies. The independent variables included production process innovation (PPI) with 4 items, logistics and distribution innovation (LDI) with 5 items, and ICT process innovation (IPI) with 4 items, all adapted from Stundziene et al. (2024). Administrative and management innovation (AMI) was measured using 8 items from the same source, while marketing and sales innovation (MSI) was measured with a 5-item scale adapted from Cirera and Muzi (2016). The dependent variable, SME performance (SP), was assessed using 5 items adapted from Wiklund and Shepherd (2003). All items were rated on a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The validity of the instrument was confirmed to ensure that items accurately represented their intended constructs (Hair et al., 2019). Reliability analysis indicated satisfactory internal consistency, with Cronbach's alpha coefficients of 0.81 for PPI, 0.91 for LDI, 0.78 for IPI, 0.84 for AMI, 0.81 for MSI, and 0.76 for SP, exceeding the acceptable threshold of 0.70. Questionnaires were distributed via email, online platforms, and in person with the assistance of research assistants, facilitating direct access to respondents and improving response rates. Of the 415 questionnaires distributed, 352 were returned and deemed usable for analysis. Ethical standards were strictly adhered to, participation was voluntary, respondents were informed of the study's purpose, and confidentiality and anonymity were assured. Collected data were analyzed using descriptive and inferential statistics. To examine the hypothesized relationships, multiple regression was conducted using SPSS version 27, with statistical significance evaluated at the 0.05 level based on the coefficient of determination (R^2), standardized beta coefficients, and p-values.

4 RESULTS AND DISCUSSION

4.1 Presentation of Results

Table 1: *Descriptive Statistics*

Variables	Mean	Std. Deviation	N
Production Process Innovation (PPI)	3.1221	.84243	352
Logistics and Distribution Innovation (LDI)	3.0842	.79211	352
ICT Process Innovation (IPI)	3.0534	.82423	352
Administrative and Management Innovation (AMI)	3.3431	.76341	352
Marketing and Sales Innovation (MSI)	3.2742	.81431	352
SME Performance (SP)	3.2907	.71434	352

Table 1 presents the descriptive statistics for the study variables. The descriptive statistics indicate that all study variables have mean scores above the midpoint of the 5-point Likert scale, suggesting a generally moderate to high level of business process innovation and SME performance among respondents. Specifically, administrative and

management innovation recorded the highest mean ($M = 3.34$), indicating that SMEs tend to adopt managerial and administrative improvements more actively compared to other innovation dimensions. This is followed by marketing and sales innovation ($M = 3.27$) and production process innovation ($M = 3.12$). Conversely, ICT process innovation (IPI) ($M = 3.05$) and logistics and distribution innovation ($M = 3.08$) recorded relatively lower mean values, suggesting comparatively lower levels of adoption. The standard deviation values, which range from 0.71 to 0.84, indicate moderate variability in responses, implying reasonable consistency among respondents' perceptions.

Table 2: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.797 ^a	.635	.630	.502	2.265

a. Predictors: (Constant), PPI, LDI, IPI, AMI, MSI

b. Dependent Variable: SP

Table 2 presents the model summary for the regression analysis. The results indicate a strong positive relationship between the predictors and the dependent variable, as reflected by the correlation coefficient ($R = 0.797$). This suggests that the combined effect of production process innovation (PPI), logistics and distribution innovation (LDI), ICT process innovation (IPI), administrative and management innovation (AMI), and marketing and sales innovation (MSI) is substantially associated with SME performance. The coefficient of determination ($R^2 = 0.635$) shows that approximately 63.5% of the variation in SME performance is explained by the five independent variables included in the model. The adjusted R^2 value of 0.630 further confirms the robustness of the model, indicating only a minimal reduction after adjusting for the number of predictors, and suggesting good explanatory power. The standard error of the estimate (0.502) indicates a relatively low level of prediction error, implying that the model provides a reasonably accurate fit to the data. Additionally, the Durbin–Watson statistic of 2.265 falls within the acceptable range (approximately 1.5 to 2.5), suggesting the absence of autocorrelation in the residuals.

Table 3: ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	152.011	5	30.402	120.579	<.001 ^b
	Residual	87.238	346	.252		
	Total	239.249	351			

a. Dependent Variable: SP

b. Predictors: (Constant), PPI, LDI, IPI, AMI, MSI

Table 3 presents the ANOVA results for the regression model. The results show that the overall model is statistically significant, as indicated by the F-statistic ($F = 120.579$) with a corresponding p-value less than 0.001. This implies that the set of independent variables; PPI, LDI, IPI, AMI, and MSI jointly have a significant effect on SME performance. The regression sum of squares (152.011) compared to the residual sum of squares (87.238) suggests that a substantial proportion of the total variation in SME performance (239.249) is explained by the model. The mean square for regression (30.402) is considerably higher than the mean square for residuals (0.252), further reinforcing the strength of the model.

Table 4: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	-0.050	0.127			-0.391	0.696
PPI	.135	0.055	0.118		2.455	0.015
LDI	.058	0.050	0.055		1.167	0.244
IPI	.063	0.051	0.058		1.233	0.218
AMI	.425	0.060	0.401		7.107	0.000
MSI	.300	0.046	0.339		6.522	0.000

Table 4 presents the coefficients table of the individual contributions of business process innovation dimensions to SME performance. The constant term is not statistically significant ($B = -0.050$, $p = 0.696$), indicating that when all predictors are held at zero, SME performance does not significantly differ from zero. Among the independent variables, production process innovation (PPI) has a positive and statistically significant effect on SME performance ($B = 0.135$, $\beta = 0.118$, $t = 2.455$, $p < 0.05$). This implies that improvements in production processes contribute significantly to enhancing SME performance. Therefore, H1 is accepted. In contrast, logistics and distribution innovation (LDI) ($B = 0.058$, $\beta = 0.055$, $t = 1.167$, $p > 0.05$) and ICT process innovation (IPI) ($B = 0.063$, $\beta = 0.058$, $t = 1.233$, $p > 0.05$) exhibit positive but statistically insignificant effects, suggesting that their contributions to SME performance are not strong enough to be considered meaningful within this model. Thus, H2 and H3 are rejected. Furthermore, administrative and management innovation (AMI) demonstrates a strong positive and highly significant effect ($B = 0.425$, $\beta = 0.401$, $t = 7.107$, $p < 0.001$), indicating that improvements in managerial and administrative practices play a critical role in driving SME performance. Therefore, H4 is accepted. Similarly, marketing and sales innovation (MSI) shows a positive and significant effect ($B = 0.300$, $\beta = 0.339$, $t = 6.522$, $p < 0.001$), suggesting that innovations in marketing strategies and sales approaches significantly enhance firm performance. Accordingly, H5 is accepted.

4.2 Discussion of Findings

This study examined the impact of business process innovation dimensions on SME performance in Abuja, Nigeria, in line with the stated objectives. The regression results revealed that BPI significantly explains variations in SME performance, indicating that improvements in internal processes are critical drivers of firm outcomes. This finding strongly aligns with the proposition of the RBV, which posits that firm-specific capabilities such as efficient processes and managerial systems constitute strategic resources that enhance competitive advantage. Similarly, the result supports the DCT, as SMEs that effectively reconfigure their production, administrative, and marketing processes appear better positioned to adapt to environmental changes and improve performance.

At the dimensional level, the findings show that production process innovation has a positive and significant effect on SME performance. This indicates that improvements in production efficiency, workflow optimization, and cost reduction directly enhance firm outcomes. This result is consistent with prior studies (e.g., Giovanni & Ciptomulyono, 2025; Bogetoft et al., 2024), which found that process reengineering and operational improvements significantly boost organizational performance. The finding also reinforces RBV, as efficient production processes represent valuable and inimitable internal resources that contribute to superior performance.

However, logistics and distribution innovation and ICT process innovation were found to have positive but statistically insignificant effects. This implies that although these dimensions contribute to performance, their effects are not sufficiently strong within the studied context. This may be attributed to infrastructural limitations, inadequate digital

integration, and resource constraints commonly faced by SMEs in developing economies like Nigeria. This finding corroborates studies such as Qiyamullaily et al. (2024) and Dada et al. (2025), which highlight that the effectiveness of technological and logistics innovations is often constrained by contextual and institutional challenges. From a theoretical perspective, this partially supports DCT by suggesting that while firms may possess certain capabilities, their ability to effectively deploy and reconfigure them is contingent on environmental readiness.

Furthermore, administrative and management innovation emerged as the strongest predictor of SME performance. This indicates that improvements in managerial practices, organizational structures, and decision-making processes play a critical role in driving firm success. This finding is consistent with the study of Prawira & Alijoyo (2024) and Olaleye et al. (2024), which emphasizes the importance of managerial innovation in enhancing organizational efficiency and adaptability. The result provides strong support for both RBV and DCT, as managerial capabilities not only represent strategic internal resources but also enable firms to continuously adapt and reconfigure their operations.

Similarly, marketing and sales innovation was found to have a positive and significant effect on SME performance. This implies that innovative marketing strategies, customer engagement approaches, and sales techniques significantly enhance firm competitiveness and market performance. This finding aligns with studies such as Ehiaguina et al. (2025) and Szelągowski et al. (2024), which report that market-oriented innovations improve customer satisfaction, market share, and overall business performance. The result further underscores the relevance of DCT, as SMEs that adapt their marketing approaches to dynamic market conditions are more likely to achieve superior outcomes.

5 CONCLUSION AND RECOMMENDATION

This study provides empirical evidence that business process innovation is a significant driver of SME performance in Abuja, Nigeria, with the model explaining a substantial proportion of performance variation. Specifically, the findings demonstrate that production process innovation, administrative and management innovation, and marketing and sales innovation are critical determinants of SME success, while logistics and distribution innovation and ICT process innovation, although positive, do not exert statistically significant effects within the studied context. This indicates that SMEs derive greater performance benefits from internally driven, managerially embedded, and market-oriented innovations than from infrastructure-dependent process innovations.

The study reinforces the relevance of the RBV and DCT by showing that internally developed capabilities particularly managerial competence and process efficiency serve as strategic resources that enhance competitiveness and adaptability. However, the limited impact of ICT and logistics innovations highlights the role of contextual constraints, suggesting that the effectiveness of certain innovation dimensions is contingent on external support systems and environmental readiness.

Based on the findings, SME owners and managers should place greater emphasis on strengthening administrative and managerial capabilities, as these emerged as the most critical drivers of performance. This can be achieved through the adoption of structured decision-making systems, improved organizational processes, and continuous managerial training aimed at enhancing efficiency and strategic responsiveness. In addition, firms should prioritize production process innovation by embracing process optimization techniques, workflow redesign, and cost-efficiency practices that directly improve operational output and competitiveness.

Furthermore, SMEs are encouraged to intensify their focus on marketing and sales innovation by adopting more customer-oriented and data-driven strategies. Leveraging digital platforms, enhancing customer engagement, and refining market segmentation approaches can significantly improve market share and overall performance. While ICT

and logistics innovations showed positive but insignificant effects, SMEs should not disregard these areas; rather, they should adopt them gradually and strategically, ensuring alignment with their financial and operational capacities to avoid resource strain.

At the policy level, there is a need for stronger institutional support to address the infrastructural and technological constraints limiting the effectiveness of ICT and logistics innovations. Government agencies and stakeholders should invest in improving digital infrastructure, facilitating access to affordable technologies, and strengthening logistics networks. Additionally, targeted capacity-building programs and innovation support initiatives should be implemented to equip SME operators with the necessary skills and knowledge to effectively integrate and leverage business process innovations for sustained performance improvement.

5.1 Limitations and Suggestions for Further Study

This study is subject to several limitations. First, the use of a cross-sectional research design limits the ability to establish causal relationships among the variables. Second, the study relied on self-reported data obtained from SME owner-managers, which may be prone to response bias. This could affect the accuracy of the measures of both innovation practices and performance outcomes. Third, the study was geographically restricted to SMEs operating in Abuja, which may limit the generalizability of the findings to other regions in Nigeria or other developing economies with different institutional and infrastructural conditions. Additionally, the study focused exclusively on business process innovation dimensions without incorporating other relevant organizational or environmental factors such as firm size, industry type, innovation culture, or access to finance, which may also influence SME performance. Finally, the measurement of SME performance, although multidimensional, was perceptual rather than based on objective financial data, which may limit the robustness of performance assessment.

Future studies should consider adopting longitudinal research designs to better capture the dynamic and evolving nature of business process innovation and its long-term impact on SME performance. Such approaches would provide deeper insights into causality and the sustainability of innovation outcomes over time. Further research could also expand the geographical scope beyond Abuja to include multiple regions or a nationwide sample, thereby enhancing the generalizability of findings across diverse economic and institutional contexts. In addition, future studies should incorporate objective performance indicators, such as financial records or archival data, to complement perceptual measures and improve the validity of results. Moreover, there is a need to examine the moderating and mediating roles of contextual and organizational variables, such as innovation culture, leadership style, technological readiness, and environmental turbulence, in shaping the BPI–performance relationship. This would provide a more comprehensive understanding of the mechanisms through which process innovation influences SME outcomes. Finally, future research could explore comparative analyses across sectors or firm sizes, as well as investigate the integration of business process innovation with other forms of innovation, such as product and organizational innovation, to provide a more holistic perspective on innovation-driven performance in SMEs.

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