International Journal of Advanced Studies in Business Strategies and Management | IJASBSM
p-ISSN: 2354-4236 | e-ISSN: 2354-4244
Volume 12, Number 1 February, 2026

Assessing the Impact of Entrepreneurial Innovation on the Competitive Advantage of Small and Medium Enterprises in Lagos, Nigeria

[1]Awesu, I. B., [2]Oduyoye, O. O., [3] Soetan, T. A., & [4]Bamidele, G. A.
[1,2,3,&4] Department of Business Administration and Marketing,
School of Management Sciences, Babcock University, Ilishan-Remo, Ogun state, Nigeria

Article DOI: 10.48028/iiprds/ijasbsm.v12.i1.04

Abstract

This study examines how entrepreneurial innovation influences the competitive advantage of SMEs in Lagos State, Nigeria. Although SMEs drive employment and economic growth, many face resource constraints, weak differentiation, and intense competition that limit performance. The study focuses on marketing, process, product, and business model innovation as drivers of competitive advantage in a resource constrained urban market. Using a positivist approach and cross-sectional survey design, data were collected from 495 SME owner managers drawn from a population of 42,067 registered firms, with 413 valid responses analyzed using SPSS and SmartPLS. The model demonstrated strong explanatory and predictive power. Results show that entrepreneurial innovation significantly improves competitive advantage ($R^2 = 0.842$, $Q^2 = 0.433$, $p < 0.05$). All innovation dimensions had positive effects, with process innovation ($\beta = 0.275$, $p < 0.05$) and business model innovation ($\beta = 0.283$, $p < 0.05$) showing the strongest influence, followed by marketing ($\beta = 0.215$, $p < 0.05$) and product innovation ($\beta = 0.210$, $p < 0.05$). The findings confirm that integrated innovation strategies strengthen SME differentiation, efficiency, and market position in Lagos. The study recommends that SMEs prioritize process and business model innovation, adopt digital tools, and build adaptive innovation capability to sustain competitive advantage.

Keywords: *Business model innovation, Competitive advantage, Entrepreneurial innovation, Marketing innovation, Process innovation, Product innovation*

Corresponding Author: **Awesu, I. B.**

Background to the Study

Small and Medium Enterprises (SME) are central to national economic development. They account for about 95 to 99 percent of firms globally and contribute between 30 and 53 percent of GDP in many economies (Distanont & Khongmalai, 2020). In Nigeria, SMEs contribute about 46.31 percent of GDP and 6.21 percent of exports and provide between 87.9 and 96.9 percent of employment (Abah et al., 2023; Okoli et al., 2024). Across regions, they generate more than 60 to 70 percent of global employment and play a key role in poverty reduction and income generation (Distanont & Khongmalai, 2020; Ledi, 2024). SMEs also support industrialisation and innovation, as many large firms originate from small enterprises and depend on SME networks for growth and supply chain development (Mutende & Mutua, 2024; Sulaimon et al., 2024). Their resilience during economic disruptions further confirms their role in stabilising economies and supporting recovery (Apriliyanto, 2023; Ledi, 2024).

Despite this importance, SMEs face persistent constraints in building and sustaining competitive advantage. Limited financial resources, weak access to credit, and shortages of skilled labour reduce investment in innovation, technology, and strategic capability (Fabrizio et al., 2021; Setyaningrum et al., 2023; Utomo et al., 2024;). In some contexts, up to 60 to 70 percent of SMEs lack access to bank financing due to weak financial systems and institutional barriers (Jatmiko et al., 2021). Technological adoption remains slow because of high costs, limited expertise, and integration challenges (Chabalala et al., 2024). Low research and development investment and weak technology transfer constrain productivity and product improvement (Jaaffar et al., 2024). SMEs also face intense competition from larger firms and imported products with stronger capital bases and advanced technology, which reduces margins and shortens the duration of competitive advantage (Mutende & Mutua, 2024; Sulaimon et al., 2024; Wati et al., 2024). Rapid imitation of products, weak differentiation, and low bargaining power within supply chains further weaken market positioning (Distanont & Khongmalai, 2020; Nimfa et al., 2021; Saeed et al., 2024). Internal capability gaps, weak strategic direction, and resistance to change also limit sustained innovation and long-term competitiveness (Jaaffar et al., 2024; Okoli et al., 2024).

These challenges intensify in resource constrained environments such as Lagos. SMEs in Lagos operate under high operating costs, infrastructure deficits, and intense market rivalry. Limited access to finance, unstable power supply, and weak logistics systems increase production and distribution costs, which reduces efficiency and competitiveness (Sulaimon et al., 2024). Intense competition and price sensitive consumers place pressure on margins and shorten product life cycles. Many firms lack strong differentiation and strategic positioning, which weakens their ability to retain customers and grow market share. Resource scarcity and environmental turbulence limit long term planning and constrain investment in innovation. These conditions make it difficult for SMEs to sustain competitive advantage despite their economic importance.

Entrepreneurial innovation offers a pathway for addressing these constraints. Innovation driven by entrepreneurial orientation improves differentiation, efficiency, and adaptability.

Product innovation allows SMEs to respond to changing customer needs and improve market positioning (Damanik & Aisyah, 2024; Saeed et al., 2024; Wati et al., 2024). Process and technological innovation improve efficiency and cost management, which supports sustained competitiveness (Mutende & Mutua, 2024; Sulaimon et al., 2024). Marketing and business model innovation strengthen value propositions, customer engagement, and market reach (Abah et al., 2023; Okoli et al., 2024). Dynamic capabilities enable firms to reconfigure limited resources and respond to environmental change, strengthening competitive outcomes (Fabrizio et al., 2021; Waseel et al., 2024). Digital innovation and frugal innovation strategies also allow SMEs to improve service delivery and value creation under resource constraints (Chabalala et al., 2024; Ledi, 2024). Empirical evidence shows that innovation capabilities and entrepreneurial orientation significantly influence competitive advantage and firm performance in SMEs (Apriliyanto, 2023; Kiyabo & Isaga, 2020; Sulistyo & Ayuni, 2020).

Although existing studies confirm the importance of entrepreneurial innovation for SME competitiveness, several gaps remain. Much of the evidence is drawn from contexts with stronger institutional support and less severe resource constraints. There is limited empirical integration of how multiple dimensions of entrepreneurial innovation jointly influence competitive advantage in dense and resource constrained urban economies. Research in Nigeria has often examined innovation or performance variables in isolation, with limited focus on their combined effect on competitive advantage within Lagos. The interaction of product, process, marketing, and business model innovation in shaping SME competitiveness in Lagos remains insufficiently explored. This gap necessitates an empirical investigation into how entrepreneurial innovation influences competitive advantage among SMEs operating in the highly competitive and resource constrained environment of Lagos State.

Literature Review

Competitive advantage in SMEs refers to the ability to consistently outperform competitors through superior value creation, efficiency, or sustained market positioning (Barney, 2020; Olawore et al., 2024; Rubio-Andrés et al., 2024; Teece, 2020). It reflects the effective use of unique resources, innovation, and adaptive capabilities that rivals cannot easily imitate, and is commonly assessed through profitability, market share, and customer satisfaction (Gomez-Trujillo et al., 2024; Pradnyani et al., 2024). For SMEs operating in volatile markets, sustaining competitive advantage remains essential for survival and growth (Mugoni et al., 2024). This advantage is dynamic and must be continually renewed through innovation across product, process, marketing, and environmental domains, supported by dynamic capabilities that allow firms to sense opportunities, seize them, and reconfigure resources (Fabrizio et al., 2021; Ferreira & Coelho, 2020; Lalaeng & Hongsakul, 2024; Teece, 2007;). Financial resources, knowledge, and social capital play central roles, while competitive intelligence strengthens proactive strategic responses (Ledi, 2024; Mahdi et al., 2019).

Competitive advantage strengthens profitability, growth, and sustainability by supporting differentiation, customer loyalty, and operational efficiency (Damanik & Aisyah, 2024;

Chabalala et al., 2024; Kiyabo & Isaga, 2020; Nimfa et al., 2021). It also improves resilience during disruptions and market shocks (Ledi, 2024). However, sustaining advantage remains difficult due to persistent resource limitations, high innovation costs, digitalization barriers, and intense competition that encourages rapid imitation (Abah et al., 2022; Fabrizio et al., 2021; Jaaffar et al., 2024; Jatmiko et al., 2021; Waseel et al., 2024). Internal challenges such as weak managerial capability, limited strategic direction, and governance gaps further constrain long-term gains (Utomo et al., 2024). Competitive advantage in this study is therefore defined as the capacity of SMEs to create and capture superior value through unique resources, innovation, and adaptability within resource-constrained and uncertain environments.

Entrepreneurial Innovation

Entrepreneurial innovation is a multidimensional capability that drives SME competitiveness, performance, and survival through the systematic application of new ideas across products, processes, services, and business models (Gabriel & Edenkwo, 2024; Okafor & Oluka, 2024; Thabethe et al., 2024). It is viewed as an organisational capability rather than a single outcome, reflecting the capacity to generate and implement ideas that improve productivity and long-term viability (Bhandari, 2023; Taleb et al., 2023; Sawaean et al., 2021). Product, process, marketing, and business model innovations reshape value creation, improve efficiency, strengthen differentiation, and enhance market performance, while innovative outcomes such as improved systems and prototypes support export growth and competitiveness (Abiodun, 2022; Aristana et al., 2024; Andreas et al., 2024; Kebede et al., 2024; Norena-Chavez & Thalassinos, 2023; Ramadan et al., 2024;). Entrepreneurial innovation is therefore strategic and adaptive, translating ideas into practical solutions that improve customer satisfaction, efficiency, and market responsiveness in resource-constrained environments (Ehiaguina et al., 2025; Kamran et al., 2023; Qureshi et al., 2024; Rubio-Andrés et al., 2024).

Despite its benefits, entrepreneurial innovation presents both opportunities and risks. It enhances profitability, market share, and cost efficiency, strengthens differentiation, expands digital reach, and supports international market entry (Abdul-Azeez et al., 2024; Christian et al., 2025; Nguyen et al., 2023; Olawore et al., 2024). However, SMEs often face financial constraints, skill shortages, and limited technological infrastructure that restrict investment in innovation and reduce its impact (Abdul-Azeez et al., 2024; Farida & Setiawan, 2022; Qureshi et al., 2024). Poorly managed innovation may create operational strain or fail to yield expected returns, while competition from larger firms and weak absorptive capacity further limit outcomes (Mokgadi, 2023; Olawore et al., 2024; Thomas et al., 2023). In this study, entrepreneurial innovation is defined as a multidimensional and adaptive capability that integrates product, process, marketing, managerial, and technological innovation to create value, strengthen competitive advantage, and sustain SME growth in turbulent environments.

Marketing Innovation

Marketing innovation refers to the implementation of new or significantly improved marketing methods involving changes in product design, pricing, promotion, or distribution

to strengthen competitiveness and deepen customer relationships (Sipos et al., 2025; Valdez-Juárez et al., 2025). It is a core dimension of firm innovation and a key driver of SME performance in competitive markets (Waziri et al., 2023). The concept is multidimensional and integrates entrepreneurial leadership, organisational culture, and digital capability to generate and execute new marketing strategies (Esubalew & Adebisi, 2024; Oniku & Abiodun, 2023). It reflects a firm's ability to reconfigure internal resources in response to market shifts and technological change, consistent with the Resource-Based View emphasis on competencies such as brand management, responsiveness, and digital agility (Sipos et al., 2025). Digital platforms, analytics, and online delivery systems have expanded the scope of marketing innovation by improving visibility, customer engagement, accessibility, and satisfaction, while strengthening differentiation and market reach (Jung & Shegai, 2023; Noer et al., 2025; Xue et al., 2024; Vuttichat & Patchara, 2023).

Despite its advantages, marketing innovation in SMEs is constrained by limited finance, weak infrastructure, and skill shortages that restrict effective digital adoption (Ullah et al., 2021; Vuttichat & Patchara, 2023). Empirical evidence shows mixed effects across contexts, with some studies reporting that marketing innovation plays a complementary role to product and process innovation rather than acting as a standalone driver of performance (Esubalew & Adebisi, 2024; Ehiaguina et al., 2025; Waziri et al., 2023). Regulatory pressures, intense competition, and increased task demands may also create operational strain and reduce efficiency (Valdez-Juárez et al., 2025). In this study, marketing innovation is defined as the capability of SMEs to apply new marketing methods and digital tools that create value through differentiation, adaptability, and improved customer interaction, thereby translating entrepreneurial intent into measurable performance outcomes.

Process Innovation

Process innovation refers to the implementation of new or significantly improved production and delivery methods that improve efficiency, reduce costs, and strengthen competitiveness (Jin et al., 2024; Keelson et al., 2024). It involves upgrading production systems, supply chains, and administrative procedures, making it central to organisational renewal and sustained advantage (Adnan et al., 2024). Such innovation often requires adjustments across equipment, workforce roles, materials, and information flows, reshaping how firms create and deliver value (Aliasghar et al., 2020). For SMEs, the primary aim is operational efficiency, though outcomes extend to productivity, profitability, and long-term competitiveness (Adnan et al., 2024; Nedić et al., 2022). Evidence shows that process innovation improves output quality, reduces operating costs, and enhances financial performance and operational management (Kortana et al., 2022; Jin et al., 2024; Ummi et al., 2024). Its scope spans production, logistics, sales, and administration, ranging from incremental improvements to large scale transformation (Maina et al., 2023; Naila et al., 2024; Varamezov & Panteleeva, 2021). Emerging forms such as green and digital process innovation extend its impact by improving energy efficiency, reducing waste, and integrating advanced technologies that support adaptability and competitiveness (Gräubig & Scharfe, 2024; Islam et al., 2024; Khalid, 2021; Li et al., 2024).

Despite its benefits, process innovation presents notable risks for SMEs. Implementation often requires high upfront investment, access to finance, and specialised skills that many firms lack (Adnan et al., 2024; Qiyamullaily et al., 2024). Returns may be uncertain or delayed, particularly for technology intensive or environmentally focused initiatives (Li et al., 2024). Weak infrastructure, limited absorptive capacity, and skill shortages further complicate adoption (Aliasghar et al., 2020; Qiyamullaily et al., 2024). Major transformation efforts can fail at high rates, and employee resistance may hinder execution (Adnan et al., 2024; Varamezov & Panteleeva, 2021). In this study, process innovation is defined as a dynamic managerial capability involving the implementation of new or significantly improved methods for producing, distributing, or supporting goods and services in order to improve efficiency, reduce costs, and enhance quality and competitiveness.

Product Innovation

Product innovation refers to the creation or significant improvement of goods and services to meet evolving customer needs and strengthen SME performance. Value emerges when ideas are converted into tangible offerings perceived by customers as new or improved (Arifin & Roosdani, 2021; Castillo-Vergara & García-Pérez-de-Lema, 2020; Damanik & Aisyah, 2024). It includes redesigns, enhancements, and entirely new products aligned with market demand and technological change (Adilfi & Yuldinawati, 2024; Christian et al., 2025; Kurniawan & Silitonga, 2024). Product innovation spans exploratory initiatives that generate radical offerings and exploitative efforts that refine existing ones (Shi et al., 2024). It is widely regarded as central to SME survival, differentiation, and growth because it supports market expansion and performance improvement in dynamic environments (Manalu et al., 2023; Munawar et al., 2023; Saeed et al., 2024; Setiyono et al., 2022).

Product innovation is multidimensional and involves novelty, improvement, and value creation. It ranges from incremental upgrades to new-to-the-world products that reshape customer expectations (Christian et al., 2025; Eichin, 2024; Hendayana & Wiludjeng, 2021; Sasaki, 2024). The process often combines structured development stages with agile and iterative methods that incorporate customer feedback (Castillo-Vergara & García-Pérez-de-Lema, 2020; Onesi-Ozigagun et al., 2025). Behavioural elements such as risk taking, proactiveness, and innovativeness shape successful outcomes (Manalu et al., 2023). Effective product innovation improves differentiation, market share, customer satisfaction, and financial performance (Castillo-Vergara & García-Pérez-de-Lema, 2020; Christian et al., 2025; Kurniawan & Silitonga, 2024; Saeed et al., 2025). However, it requires substantial investment and carries uncertainty, with high failure rates and rapid imitation by competitors reducing the duration of advantage (Castillo-Vergara & García-Pérez-de-Lema, 2020; Saeed et al., 2025). Resource constraints, skill shortages, and organisational resistance further limit implementation (Manalu et al., 2023; Nguyen & Phan, 2025; Onesi-Ozigagun et al., 2025). In this study, product innovation is defined as a strategic and continuous process of developing and implementing new or improved products perceived as novel by customers to enhance value, differentiation, and long-term competitiveness.

Business Model Innovation

Business model innovation refers to the reconfiguration of how SMEs create, deliver, and capture value to improve competitiveness and long-term performance. It involves significant changes to core business elements, revenue logic, and stakeholder relationships, requiring firms to rethink value creation and market interaction (; Alake et al., 2024; Bhatti et al., 2021; Dung & Dung, 2024; Klos et al., 2021; Lamperti et al., 2023; Eichler et al., 2024Heidenreich et al., 2022). As a continuous and iterative process, it strengthens the link between organisational capability, efficiency, and sustainability and supports adaptation in dynamic markets (Hartono & Ardini, 2022; Latifi et al., 2021; Liu et al., 2024). Business model innovation may involve incremental adjustments or radical transformation of firm architecture, targeting specific components or entire systems while increasingly integrating environmental and social value with financial outcomes (Clauss et al., 2021; Ferlito & Faraci, 2022; Purusottama et al., 2022; Zheng et al., 2024).

Business model innovation strengthens competitive positioning and enables SMEs to outperform rivals through distinctive value creation and non-imitable design (Alake et al., 2024; Maharani & Yamit, 2022; Ramadan et al., 2024; You, 2022). It improves revenue growth, profitability, and efficiency while enhancing resilience during crises and supporting market expansion and alignment with customer needs (AlWadi et al., 2024; ; Burström et al., 2021; Heidenreich et al., 2022; Liu et al., 2024; Hartono & Ardini, 2022; Lamperti et al., 2023; Latifi et al., 2021; Mostaghel et al., 2022; Snihur & Bocken, 2022). However, implementation carries risks. Failure rates may exceed 60 percent, and outcomes are not always directly linked to financial gains (Hartono & Ardini, 2022; Latifi et al., 2021; Liu et al., 2024). Resource requirements, skill shortages, and time demands can exceed SME capacity, while customer resistance and supply chain disruption may reduce impact (Bachmann & Jodlbauer, 2023; Dung & Dung, 2024 Eichler et al., 2024; Heidenreich et al., 2022; Purusottama et al., 2022; Schaller & Vatananan-Thesenvitz, 2022; Snihur & Bocken, 2022). In this` study, business model innovation is defined as a deliberate and iterative process through which SMEs redesign value architecture to improve performance, resilience, and sustainability in constrained and uncertain environments.

Theoretical Framework

This study adopts an integrated framework combining Effectuation Theory and Upper Echelons Theory to explain how entrepreneurial leadership and innovation influence SME performance in Lagos State. The framework reflects conditions of market volatility, resource scarcity, and intense competition. Effectuation Theory provides the behavioural foundation by explaining how entrepreneurs act under uncertainty using available resources, networks, and adaptive decision making to pursue opportunities and manage risk. This logic aligns with Lagos SMEs where leaders operate with limited capital and unstable conditions but must remain flexible and innovative to sustain performance (Sarasvathy, 2001; Chohan et al., 2022; Madigoe & Pretorius, 2024; Gunawan & Hashim, 2025). Upper Echelons Theory adds a cognitive and structural lens by asserting that organisational outcomes reflect the experiences, values, and orientations of top leaders. In SMEs, where decision making is

concentrated in the owner manager, leadership traits such as risk tolerance, education, and prior experience shape innovation choices, resource allocation, and strategic direction (Hambrick & Mason, 1984; Nimfa et al., 2024; Saiyed et al., 2023). Integrating both theories provides a multi-level explanation. Effectuation explains how leaders respond to uncertainty, while Upper Echelons Theory explains why leaders make strategic choices based on their cognitive frames and experiences (Kabous et al., 2022; Nimfa et al., 2024). Other perspectives such as the Resource Based View, Dynamic Capabilities Theory, and Diffusion of Innovation were not adopted because they assume stable resources, formal routines, or structured diffusion processes that are often absent in Lagos SMEs. The integrated Effectuation and Upper Echelons framework better captures the adaptive reasoning, leadership cognition, and contextual constraints shaping innovation and performance in resource constrained and uncertain environments.

Methodology

The study adopted a positivist research philosophy and a deductive approach to test hypothesised relationships among entrepreneurial leadership, entrepreneurial innovation, organisational culture, and SME performance within the Lagos SME environment. The research context comprised registered SMEs in Lagos State, Nigeria, a dense and competitive commercial hub, with owner managers serving as the unit of analysis because they control strategy, innovation, and performance outcomes. A cross-sectional survey research design was used to collect quantitative data from a population of 42,067 registered SMEs. Using Cochran's formula and a non-response adjustment, a sample size of 495 owner managers was determined and selected through simple random sampling from SMEDAN records across manufacturing, retail, and service sectors. Primary data were collected through a structured questionnaire with validated scales measuring entrepreneurial leadership, innovation dimensions, organisational culture, entrepreneurial orientation, and SME performance. The instrument used a six-point Likert scale, was pilot tested with 50 SMEs to ensure clarity and reliability, and demonstrated acceptable validity and reliability through Cronbach's alpha, composite reliability, AVE, and factor analysis tests. Questionnaires were administered through face-to-face distribution by trained research assistants, with follow ups to improve response rates and ethical procedures to ensure confidentiality and consent. Data analysis combined descriptive statistics and inferential techniques using SPSS and SmartPLS. Multiple regression tested direct relationships, hierarchical regression examined moderating effects, and PLS SEM assessed the full structural model, including measurement and structural validity, enabling robust empirical testing of the study hypotheses.

Operationalisation of Variables

For this study, the independent variable is entrepreneurial Innovation (X), while the dependent variable (Y) is Competitive Advantage.

$Y = f(X)$
Y = Dependent Variable
X = Independent Variable

Y = Competitive Advantage (CMA)
X1 = Entrepreneurial Innovation (EI)

Y = Competitive Advantage

$X1 = (x_1, x_2, x_3, x_4)$

Where:

X1 = Entrepreneurial Innovation (EI)

x_1 = Marketing Innovation (MKI)

x_2 = Process Innovation (PRI)

x_3 = Product Innovation (PDI)

x_4 = Business Model Innovation (BMI)

Regression Model

The model formulated for each of the hypotheses are written as

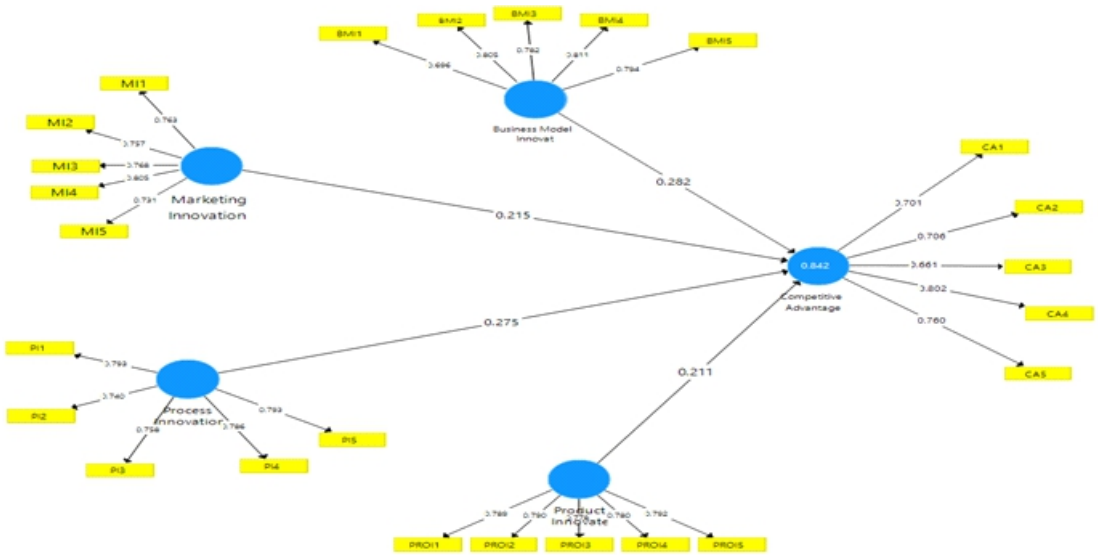
CMA = f(MKI, PRI, PDI, BMI) ... ... Function Equation 1

$CMA = a_0 + \beta_1 MKI + \beta_2 PRI + \beta_3 PDI + \beta_4 BMI + \mu_i$ ... ...Regression Equation 1

Data Analysis, Results and Interpretation

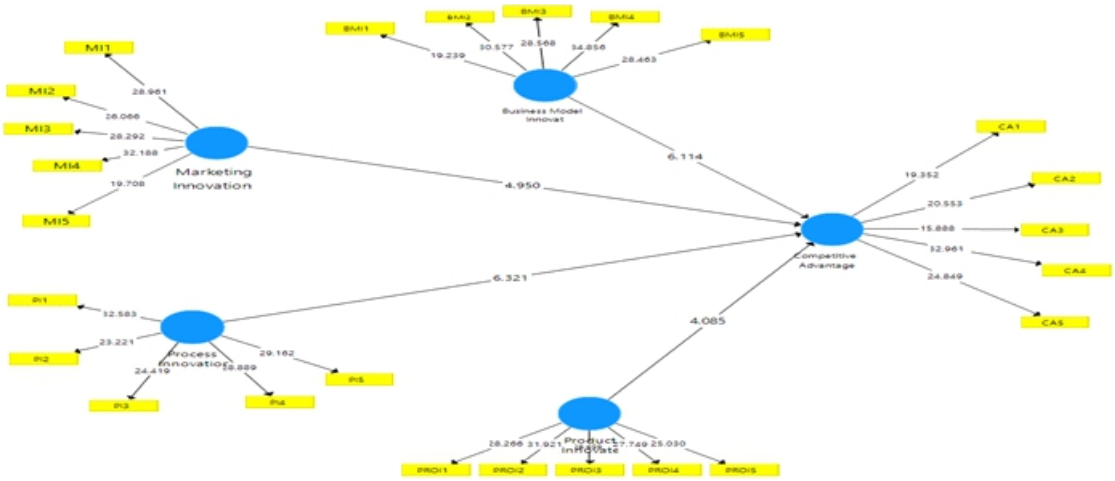
The section presents data analysis, results and interpretation using SPSS 27 and SmartPLS 3.5.2 at a 5 percent significance level. Out of 495 questionnaires administered to SME owner managers in Lagos, 413 usable responses were returned, yielding an 83.4 percent response rate suitable for analysis. Data screening confirmed that key regression assumptions were met. Normality tests using skewness and kurtosis indicated acceptable distributions across variables. Pearson correlation results showed significant positive and linear relationships among entrepreneurial leadership, innovation dimensions, organisational culture, and SME performance. Scatterplot analysis confirmed homoscedasticity, indicating stable residual variance, while multicollinearity tests using tolerance and VIF values showed no excessive correlation among predictors. Descriptive statistics were computed using means, percentages, and standard deviations based on a six-point Likert scale, and the cleaned dataset was then used for subsequent hypothesis testing and interpretation of findings.

Figure 1: Path Analysis Showi ng the Measurement and Structural model for Hypothesis Three



Source: Researchers' Result via SmartPLS Version 3.5.2.2 (2026)

Figure 2: T- Statistic for Hypothesis Three



Source: Researchers' Result via SmartPLS Version 3.5.2.2 (2026)

Table 1: Summary of the PLS – SEM for the Effect of Entrepreneurial Innovation dimensions on Competitive Advantage in SMEs, Nigeria.

Path Description	Original Sample (o) Unstandardized Beta (β)	T	Sig.	F^2	R	R^2	Adj. R^2	Q^2
Business Model Innovation -> Competitive Advantage	0.283	6.114	0.000	0.098	0.918	0.842	0.841	0.433
Marketing Innovation -> Competitive Advantage	0.215	4.95	0.000	0.071				
Process Innovation -> Competitive Advantage	0.275	6.321	0.000	0.117				
Product Innovate -> Competitive Advantage	0.21	4.085	0.000	0.059				

Source: Researchers' Result via SmartPLS Version 3.5.2.2 (2026)

Interpretation of PLS-SEM Results

The PLS-SEM results show that the four dimensions of entrepreneurial innovation jointly have strong explanatory and predictive power for competitive advantage among SMEs. The model explains 84.2 percent of the variance in competitive advantage with $R^2 = 0.842$ and Adjusted $R^2 = 0.841$, confirming model stability and parsimony. The Q^2 value of 0.433 indicates strong predictive relevance. All innovation dimensions have positive and significant effects on competitive advantage. Business model innovation has a significant effect with $\beta = 0.283$, $t = 6.114$, $p = 0.000$ and $f^2 = 0.098$. Marketing innovation also shows a significant effect with $\beta = 0.215$, $t = 4.950$, $p = 0.000$ and $f^2 = 0.071$. Process innovation has a strong effect with $\beta = 0.275$, $t = 6.321$, $p = 0.000$ and $f^2 = 0.117$, making it the most influential predictor. Product innovation remains significant with $\beta = 0.210$, $t = 4.085$, $p = 0.000$ and $f^2 = 0.059$. These results confirm that improvements across all innovation dimensions increase SME competitive advantage, with process and business model innovations contributing the most.

Table 2: Structural Path Results

Path	Coefficient (β)	t-value	p-value	Effect Size (f^2)
Business Model Innovation → Competitive Advantage	0.283	6.114	0.000	0.098
Marketing Innovation → Competitive Advantage	0.215	4.950	0.000	0.071
Process Innovation → Competitive Advantage	0.275	6.321	0.000	0.117
Product Innovation → Competitive Advantage	0.210	4.085	0.000	0.059

Model statistics: $R^2 = 0.842$; Adjusted $R^2 = 0.841$; $Q^2 = 0.433$.

Model Fit

Table 3: Model Fit Indices

Fit Index	Saturated Model	Estimated Model
SRMR	0.064	0.064
d_ULS	1.327	1.327
d_G	0.672	0.672
Chi-Square	1433.087	1433.087
NFI	0.785	0.785

The SRMR value of 0.064 indicates acceptable fit. The NFI of 0.785 shows moderate fit but remains acceptable for PLS-SEM. The consistency between saturated and estimated models confirms that the structural model does not reduce measurement model fit.

Structural Model

Predictive model:

$CMA = \alpha_0 + 0.283MKI + 0.215PRI + 0.275PDI + 0.210BMI + u$

Prescriptive model:

$CMA = \alpha_0 + 0.283MKI + 0.215PRI + 0.275PDI + 0.210BMI + u$

Where:

CMA = Competitive Advantage
MKI = Marketing Innovation
PRI = Process Innovation
PDI = Product Innovation
BMI = Business Model Innovation

The coefficients show that a one-unit increase in each innovation dimension leads to increases of 0.283, 0.215, 0.275 and 0.210 units in competitive advantage respectively. Process innovation has the strongest effect, followed by business model innovation, then marketing and product innovation. The close values of R^2 and Adjusted R^2 confirm that model strength is

not inflated by predictor count. The strong Q^2 value confirms high predictive relevance. The findings show that entrepreneurial innovation is a major determinant of competitive advantage among SMEs. The null hypothesis that innovation dimensions have no effect on competitive advantage is rejected.

Discussion of Findings

Empirical results show that entrepreneurial innovation has a strong and significant effect on SME competitive advantage. The model explains 84.1 percent of the variation in competitive advantage with strong predictive relevance, confirming that marketing, process, product, and business model innovations jointly strengthen competitive performance. Process and business model innovations contribute the most, while marketing and product innovation provide additional gains. These findings support effectuation theory by showing that SMEs build advantage through resource recombination, experimentation, and adaptive decision making rather than predictive planning. Prior studies also confirm that innovation improves differentiation, customer satisfaction, revenue growth, and market share when supported by collaboration, digital capability, and dynamic resources (Christian et al., 2025; Gabriel & Edenkwo, 2024; Mutende & Mutua, 2024; Sulaimon et al., 2024; Widyani & Suardhika, 2024).

The results also align with Upper Echelons Theory, which holds that leadership cognition and strategic orientation shape innovation choices and outcomes. Entrepreneurial leaders who support experimentation and learning enable innovation to translate into sustained competitive performance (Amoa-Gyarteng & Dhliwayo, 2024; Lertpiromsuk et al., 2024). Entrepreneurial innovation mediates the link between leadership, knowledge resources, and performance by converting vision and intellectual capital into market advantage (Al-Sharif et al., 2023; Bhandari, 2023; Norena-Chavez & Thalassinos, 2023; Waseel et al., 2024). However, innovation carries risks related to cost, uncertainty, and absorptive capacity constraints, which can weaken outcomes if poorly managed (Al-Sharif et al., 2023; Boateng Dankwah et al., 2024; Jaaffar et al., 2024; Ključnikov et al., 2022). Overall, the evidence shows that entrepreneurial innovation is a multidimensional capability that converts effectual decision making and leadership cognition into durable competitive advantage for SMEs operating in uncertain and resource constrained environments.

Conclusion and Recommendations

The study examined the effect of entrepreneurial innovation on the competitive advantage of SMEs in Lagos State. Results show that entrepreneurial innovation is a strong and significant predictor of competitive advantage. The model explains a large share of variation in competitive advantage, with all innovation dimensions showing positive and significant effects. Process innovation and business model innovation have the strongest influence, followed by marketing and product innovation. This confirms that SMEs strengthen competitive positioning when they improve operational efficiency, redesign value delivery, and respond to customer needs through continuous innovation.

The findings show that innovation is not a single activity but a multidimensional capability that combines product, process, marketing, and business model improvements. SMEs that integrate these forms of innovation are better able to differentiate their offerings, improve customer satisfaction, and respond to market pressure. The results support the view that SMEs in resource constrained and uncertain environments rely on adaptive decision making, experimentation, and resource recombination to build competitive advantage. Leadership orientation and strategic choices also shape innovation outcomes, since owner managers control resource allocation and strategic direction in SMEs.

The study confirms that entrepreneurial innovation converts limited resources into competitive outcomes. Firms that invest in process efficiency, digital tools, market positioning, and flexible business models achieve stronger performance and greater resilience in competitive urban markets. In Lagos, where SMEs face high operating costs, infrastructure challenges, and intense competition, innovation remains a key mechanism for sustaining advantage and improving long term survival. SME owner managers should adopt a structured and continuous approach to innovation. Priority should be given to process improvement and business model redesign because these dimensions show the strongest effect on competitive advantage. Firms should invest in cost-saving technologies, digital platforms, and efficient delivery systems to improve productivity and service quality. Marketing innovation should focus on stronger branding, digital engagement, and customer retention strategies to improve market positioning.

SMEs should build internal innovation capability through training, collaboration, and knowledge sharing. Partnerships with technology providers, universities, and industry associations can improve access to skills, finance, and innovation support. Owner managers should encourage experimentation, learning, and adaptive decision making to sustain innovation under uncertainty. Policy makers and support agencies should expand access to finance, digital infrastructure, and innovation training for SMEs. Targeted programmes that support technology adoption, process improvement, and business model development will strengthen SME competitiveness. Regulatory support and improved infrastructure will also reduce operating costs and allow firms to scale innovation activities. Future research should examine the moderating roles of organisational culture, leadership orientation, and environmental factors in shaping the innovation–performance relationship. Longitudinal studies and sector specific analysis will provide deeper insight into how innovation capability evolves and influences competitive advantage over time.

References

Abah, N. U., Sule, J. G., & Zakariya, N. Y. (2023). Innovativeness and competitive advantage of small and medium enterprise in Kogi State, EuroEconomica, 41(2), 99–112.

Abdul-Azeez, O., Ihechere, A. O., & Idemudia, C. (2024). SMEs as catalysts for economic development: Navigating challenges and seizing opportunities in emerging markets. GSC Advanced Research and Reviews, 19(3), 325–335. https://doi.org/10.30574/gscarr.2024.19.3.0230.

Adilfi, N., & Yuldinawati, L. (2024). The influence of innovation and product quality on the competitive advantage of Compass products. Eduvest, *Journal of Universal Studies, 4*(9), 7983–7995.

Adnan, M. N. A., Yaacob, M., Mukhtar, A., & Abdullah, S. (2024). Implementation barriers to process innovation among SMEs. *Journal of Entrepreneurship and Business, 12*(2), 91–98. https://doi.org/10.17687/jeb.v12i2.1215.

Al-Sharif, A. M., Ali, M. H., Jaharuddin, N. S., & Abdulsamad, A. (2023). Effects of innovation capability and environmental dynamism on the relationship between entrepreneurial leadership and innovative performance in the SMEs service industry. *International Journal of Academic Research in Business and Social Sciences, 13(10)*, 1547–1569. https://doi.org/10.6007/IJARBSS/v13-i10/19011.

Alake, O. R., Adegbuyi, O., Babajide, A. A., Salau, O. P., Onayemi, O. O., Joel, O. O., & Adesanya, O. D. (2024). Business model innovation and SMEs' resilience: Technological roadmap in Nigeria. Verslas Teorija ir Praktika *(Business: Theory & Practice), 25*(2), 614–624. https://doi.org/10.3846/btp.2024.18978.

Aliasghar, O., Sadeghi, A., & Rose, E. L. (2020). Process innovation in small- and medium-sized enterprises: The critical roles of external knowledge sourcing and absorptive capacity, *Journal of Small Business Management*. https://doi.org/10.1080/00472778.2020.1844491.

AlWadi, B. M., Aravamudhan, V., Mohanasundaram, K., Al-Ramahi, N., & Alghizzawi, M. (2024). Analyzing the role of business model innovation (BMI) on performance of digital startups. In A. Hamdan & U. Braendle (Eds.), *Harnessing AI, machine learning, and IoT for intelligent business* (Chap. 27). Springer Nature Switzerland AG. https://doi.org/10.1007/978-3-031-66218-8_27.

Amoa-Gyarteng, K., & Dhliwayo, S. (2024). Cultivating success: Organisational culture's influence on innovation and performance in SMEs. *Cogent Business & Management, 11*(1), 2397070. https://doi.org/10.1080/23311975.2024.2397070.

Andreas, E. S., Diyanto, V., & Rahman, R. A. (2024). *Relation between e-commerce implementation, product innovation, financial knowledge and risk taking on the performance of SMEs.* Nanotechnology Perceptions, 20(S13), 1669–1691.

Aristana, I. N., Wardana, I. M. A., & Putra, I. D. M. A. P. (2024). Entrepreneurial leadership and organisational innovation: The role of mediating analysis, *Jurnal Ekonomi dan Bisnis, 27*(1), 71–100. https://doi.org/10.24914/jeb.v27i1.8978.

Arifin, S., & Roosdani, M. R. (2021). The influence of product innovation and export performance in SME furniture industry in Jepara regency Indonesia, *Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12*(11), 7146–7152.

Bachmann, N., & Jodlbauer, H. (2023). Iterative business model innovation: A conceptual process model and tools for incumbents, *Journal of Business Research, 16*8, 114177. https://doi.org/10.1016/j.jbusres.2023.114177.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108.

Bhandari, P. (2023). Impact of entrepreneurial leadership on SMEs performance: The mediating role of innovation capability and TQM practices. *Nimit Mai Review, 6(*2), 16–32.

Bhatti, S. H., Santoro, G., & Rizzato, F. (2021). Antecedents and consequences of business model innovation in the IT industry, *Journal of Business Research, 123,* 389–400. https://doi.org/10.1016/j.jbusres.2020.10.003.

Boateng Dankwah, J., Osei, J., & Dankwah, E. A. (2024). Entrepreneurial leadership, learning orientation, and SMEs' performance: The mediating role of process innovation, *Cogent Business & Management, 11*(1), 2306266. https://doi.org/10.1080/23311975.2024.2306266.

Castillo-Vergara, M., & García-Pérez-de-Lema, D. (2020). Product innovation and performance in SME's: The role of the creative process and risk taking, *Innovation: Organisation & Management.* https://doi.org/10.1080/14479338.2020.1811097.

Chabalala, K., Boyana, S., Kolisi, L., Thango, B. A., & Matshaka, L. (2024). Digital technologies and channels for competitive advantage in SMEs: A systematic review. https://doi.org/10.20944/preprints202410.0020.v1.

Chohan, A., Sandhu, M. R. S., & Zaheer, M. (2022). Does effectuation theory explain the startup behaviors of entrepreneurs in Pakistan? *Abasyn Journal of Social Sciences, 15*(1), 29–45. https://doi.org/10.34091/AJSS.15.1.03.

Christian, A., Taneo, S. Y. M., & Widyaningrum, S. (2025). The effect of product innovation on the performance of food SMEs: The moderator effect of Quadruple Helix, *Journal of Economics, Finance and Management Studies, 8*(1), 350–357. https://doi.org/10.47191/jefms/v8-i1-32.

Clauss, T., Breier, M., Kraus, S., Durst, S., & Mahto, R. V. (2022). Temporary business model innovation – SMEs' innovation response to the Covid-19 crisis, *R&D Management, 52*(2), 294–312. https://doi.org/10.1111/radm.12498.

Damanik, M. J. R., & Aisyah, N. (2024). The effect of product innovation and entrepreneurial marketing on SME competitive advantage. Golden Ratio: Data in Summary, *Accounting, Management, Business, Economic, 4*(2), 1010–1016. https://doi.org/10.52970/grdis.v4i2.739.

Distanont, A. (2020). The role of innovation in creating a competitive advantage in the digital age. *Journal of Innovation and Knowledge, 5*(4), 289–296. https://doi.org/10.1016/j.jik.2019.12.003.

Dung, L. T., & Dung, T. T. H. (2024). Business model innovation: A key role in the internationalisation of SMEs in the era of digitalisation. *Journal of Innovation and Entrepreneurship, 13*(1), Article 48. https://doi.org/10.1186/s13731-024-00391-7.

Ehiaguina, J. A., Sijibomi, O., Yakubu, F. S., & Ediuku, E. (2025). Impact of innovation on market share of small and medium enterprises (SMEs) in Abuja. *British Journal of Marketing Studies, 13*(2), 47–61. https://doi.org/10.37745/bjms.2013/vol13n24761.

Eichin, R. (2024). *Research-driven product innovation,* ResearchGate. https://doi.org/10.13140/RG.2.2.13335.59043.

Eichler, K., Meyer, D., & Meyer, R. (2024). Barriers to business model innovation: Insights from SMEs in Switzerland. In A. H. Verkuil et al. (Eds.), *Core values and decision-making for sustainable business* (Chap. 8). Springer. https://doi.org/10.1007/978-3-031-78361-6_8.

Esubalew, A. A., & Adebisi, S. A. (2024). Entrepreneurs' competency, marketing innovation, and enterprise growth: Uncovering the mediating role of marketing innovation. *Future Business Journal, 10*(67). https://doi.org/10.1186/s43093-024-00358-w.

Fabrizio, C. M., Kaczam, F., de Moura, G. L., da Silva, L. S. C. V., da Silva, W. V., & da Veiga, C. P. (2021). Competitive advantage and dynamic capability in small and medium-sized enterprises: A systematic literature review and future research directions, *Review of Managerial Science.* https://doi.org/10.1007/s11846-021-00459-8.

Farida, I., & Setiawan, D. (2022). Business strategies and competitive advantage: The role of performance and innovation, *Journal of Open Innovation: Technology, Market, and Complexity,* 8(3), 163. https://doi.org/10.3390/joitmc8030163.

Ferlito, R., & Faraci, R. (2022). Business model innovation for sustainability: A new framework, *Innovation & Management Review, 19*(3), 222–236. https://doi.org/10.1108/INMR-07-2021-0125.

Gabriel, P. D. I., & Edenkwo, C. (2024). Entrepreneurial innovations and organisational performance of telecommunication firms in Port Harcourt, Nigeria, *Academia Networks Journal of Management Research,* 8(7), 91–103. https://doi.org/10.2611-2656-1878.

Gomez-Trujillo, A. M., Gonzalez-Perez, M. A., & Baena-Rojas, J. J. (2024). Sustainable strategy as a lever for corporate legitimacy and long-term competitive advantage: An examination of an emerging multinational market. *European Business Review, 36*(1), 112–139. https://doi.org/10.1108/ebr-01-2023-0003.

Gräubig, D. M., & Scharfe, P. (2024). *Innovation capabilities for product- and process-oriented digital business model innovation of industrial firms – A configurational approach to multiplicity*. In Forty-Fifth International Conference on Information Systems.

Gunawan, I., & Hashim, N. (2025). Effectuation principles as an entrepreneurial strategy during a crisis in the hotel industry in Indonesia, *Journal of Ecohumanism, 4*(1), 220–229. https://doi.org/10.62754/joe.v4i1.4655.

Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organisation as a reflection of its top managers. *Academy of Management Review, 9*(2), 193–206. https://doi.org/10.5465/amr.1984.4277628.

Hartono, H., & Ardini, R. (2022). The effect of opportunity recognition and organisation capability on SME performance in Indonesia moderated by business model innovation. The Winners, 23(1), 35–41. https://doi.org/10.21512/tw.v23i1.6932.

Heidenreich, S., Freisinger, E., & Landau, C. (2022). The dark side of business model innovation: An empirical investigation into the evolvement of customer resistance and the effectiveness of potential countermeasures, Journal of Product Innovation Management, 39(6), 824–846. https://doi.org/10.1111/jpim.12627.

Hendayana, Y., & Purwaningdyah, S. W. S. (2021). The effect of entrepreneurial orientation on firm performance: The mediating role of innovation. *Journal of Asian Finance, Economics and Business, 8*(6), 123–134. https://doi.org/10.13106/jafeb.2021.vol8.no6.123.

Islam, M. J., Som, H. M., Hashim, R. A., & Rahman, M. S. (2024). Impact of green product innovation, green process innovation, and green competitive advantage on the sustainable performance of garment firms in Bangladesh: A conceptual framework. *International Journal of Academic Research in Business and Social Sciences, 14*(11). https://doi.org/10.6007/IJARBSS/v14-i11/23443.

Jaaffar, A. H., Abd Majid, N., Kasavan, S., Isa, A., Alwi, M. N. R., & Zahari, A. R. (2024). The effect of innovative mindset and behavior on innovative performance and competitive advantage: A case of halal SMEs owner/managers from Malaysian energy-intensive industry, *Journal of Innovation and Entrepreneurship, 13*(1). https://doi.org/10.1186/s13731-023-00359-z.

Jatmiko, B., Udin, U., Raharti, R., Laras, T., & Ardhi, K. F. (2021). Strategies for MSMEs to achieve sustainable competitive advantage: The SWOT analysis method. *Journal of Asian Finance, Economics and Business, 8*(3), 505–0515. https://doi.org/10.13106/jafeb.2021.vol8.no3.0505.

Jin, Y., Yao, X., & Huang, M. (2024). *Impact of stakeholder pressure on digital process innovation: An empirical analysis. PLoS ONE, 19*(7), e0307528. https://doi.org/10.1371/journal.pone.0307528.

Jung, S.U., & Shegai, V. (2023). The impact of digital marketing innovation on firm performance: The mediating role of marketing capability and the moderating role of firm size, *Sustainability, 15*(7), 5711. https://doi.org/10.3390/su15075711.

Kabous, L., Hinz, A., & Philippi, S. (2022). Linking effectuation logic with business model innovation. *Journal of Business Models, 10*(3), 87–104. https://doi.org/10.5278/jbm.v10i3.7890.

Kamran, M., Saeed, R., & Iqbal, Z. (2023). Product innovation in resource-constrained markets: Lessons from emerging economies. *International Journal of Entrepreneurial Development, 11*(1), 29–50.

Kebede, A. G., Terefe, S. D., & Ijigu, A. W. (2024). Linking entrepreneurial leadership to quality performance of micro and small-scale enterprises in service sector: The mediating role of service innovation, *Cogent Social Sciences, 10*(1), 2339526. https://doi.org/10.1080/23311886.2024.2339526.

Keelson, S. A., Cúg, J., Amoah, J., Petráková, Z., Addo, J. O., & Jibril, A. B. (2024). The influence of market competition on SMEs' performance in emerging economies: Does process innovation moderate the relationship? *Economies, 12*(11), 282. https://doi.org/10.3390/economies12110282.

Khalid, F. (2021). Achieving long-term sustainability through green process innovation: A study on small packaging companies in the UK, *International Business Research,* 14(12), 15–29. https://doi.org/10.5539/ibr.v14n12p15.

Kiyabo, K., & Isaga, N. (2020). Entrepreneurial orientation, competitive advantage, and SMEs' performance: Application of firm growth and personal wealth measures. *Journal of Innovation and Entrepreneurship, 9*(12).

Ključnikov, A., Civelek, M., Červinka, M., Vozňáková, I., & Vincúrová, Z. (2022). The role of SMEs' innovativeness and competitiveness in their financial risk management concerns, *Journal of Competitiveness, 14*(4), 97–116. https://doi.org/10.7441/joc.2022.04.06.

Klos, C., Spieth, P., Clauss, T., & Klusmann, C. (2021). Digital transformation of incumbent firms: A business model innovation perspective. *IEEE Transactions on Engineering Management*.

Kortana, T., Suwandej, N., Wongjunya, N., & Kerdpitak, N. (2022). Effect of product and process innovation in interactive management control system on financial performance of SME in Thailand. *International Journal of Health Sciences, 6*(S4). https://doi.org/10.53730/ijhs.v6nS4.5457.

Kurniawan, A., & Silitonga, P. (2024). The effect of product innovation and entrepreneurial orientation on SME performance, *Journal of Asian Finance, Economics and Business, 11*(4), 123–134. https://doi.org/10.13106/jafeb.2024.vol11.no4.123.

Lalaeng, C., & Hongsakul, B. (2024). Creative economy, dynamic capabilities, and competitive advantage affecting the business performance of SMEs in the textile manufacturing industry of Thailand. *Asian Administration and Management Review,* 7(2), 115–129. https://doi.org/10.14456/aamr.2024.28.

Lamperti, S., Cavallo, A., & Sassanelli, C. (2023). Digital servitization and business model innovation in SMEs: A model to escape from market disruption. *IEEE Transactions on Engineering Management, 71,* 4619–4633. https://doi.org/10.1109/TEM.2022.3233132.

Latifi, M. A., Nikou, S., & Bouwman, H. (2021). Business model innovation and firm performance: The role of digital transformation. *Journal of Business Research, 133,* 1–12. https://doi.org/10.1016/j.jbusres.2021.04.023.

Ledi, K. K. (2024). Surviving black swan: Competitive intelligence and frugal innovation as panaceas to SME value creation during crisis, *Cogent Business & Management, 1*1(1), 2405056. https://doi.org/10.1080/23311975.2024.2405056.

Lertpiromsuk, S., Ueasangkomsate, P., Laohavichien, T., & Wanarat, S. (2024). The influence of innovative organisational culture on innovativeness in Thai SMEs: The mediating effects of human resource management and innovative skills. Journal of Infrastructure, *Policy and Development, 8*(10), 5931. https://doi.org/10.24294/jipd.v8i10.5931.

Li, L., Patwary, A. K., & Mengxiang, L. (2024). *Measuring green performance in hotel industry through management environmental concern: Mediated by green product and process innovation*, SAGE Open. https://doi.org/10.1177/21582440241255278.

Liu, J., Yu, Y., Qi, W., Ma, X., & Han, Y. (2024). Innovation and entrepreneurship of Chinese returning migrant workers in their home region. *Heliyon, 10*(9), Article e30296. https://doi.org/10.1016/j.heliyon.2024.e30296.

Madigoe, T., & Pretorius, M. (2024). Exploring the applicability of effectuation theory in distressed venture environments. *Acta Commercii, 24*(1), Article a1298. https://doi.org/10.4102/ac.v24i1.1298.

Maharani, S. F., & Yamit, Z. (2022). The effect of business model innovation, customer trust and commitment on SME business growth. *Jurnal Indonesia Sosial Sains, 3*(7), 1039–1051.

Mahdi, O. R., Nassar, I. A., & Almsafir, M. K. (2019). Knowledge management processes and sustainable competitive advantage: An empirical examination in private universities, *Journal of Business Research, 94*, 320–334. https://doi.org/10.1016/j.jbusres.2018.02.013.

Maina, K. J., Wanjau, K. L., & Kyalo, T. N. (2023). Relationship between process innovation, entrepreneurial passion and performance of pharmaceutical manufacturing firms in Kenya. *International Journal of Research in Business and Social Science, 12*(6), 11–22. https://doi.org/10.20525/ijrbs.v12i6.2862.

Manalu, V. G., Rahimi, F., & Akbar, I. (2023). Entrepreneurial orientation and product innovative performance of MSMEs in West Java: Foresight capabilities as a mediating variable. *Khazanah Sosial, 5*(3), 508–519. https://doi.org/10.15575/ks.v5i3.29485.

Mugoni, E., Kanyepe, J., & Tukuta, M. (2024). Sustainable supply chain management practices (SSCMPS) and environmental performance: A systematic review, *Sustainable Technology and Entrepreneurship, 3*(1), 100050. https://doi.org/10.1016/j.stae.2023.100050.

Munawar, M. M., Hurriyati, R., Disman, D., & Gaffar, V. (2023). Improving business performance through entrepreneurial orientation, product innovation, and co-creation value, *International Journal of Innovative Research and Scientific Studies, 6*(3), 618–625. https://doi.org/10.53894/ijirss.v6i3.1694.

Mutende, S., & Mutua, J. (2024). Innovation strategies and competitive advantage of ceramic manufacturers in Kenya*, East African Scholars Journal of Economics Business and Management,* 7(4), 118–126. https://doi.org/10.36349/easjebm.2024.v07i04.004.

Naila, D. L., Nandonde, F. A., & Makindara, J. R. (2024). Review of empirical studies on food process innovation: Status quo and future research agenda. *Sustainable Technology and Entrepreneurship, 3,* 100073. https://doi.org/10.1016/j.stae.2024.100073.

Nedić, V., Mišković, A., Atanasijević, S., & Banković, N. (2022). *Impact analysis of QMSD implementation in a business process innovation in SMEs – A case study (Preprint).* ResearchGate. https://doi.org/10.13140/RG.2.2.22560.87042.

Nguyen, V. D., & Phan, T. T. A. (2025). Cultural values, business ties, and artisan product innovation: Mediation analysis of market orientation, *Journal of Entrepreneurship in Emerging Economies*. https://doi.org/10.1108/JEEE-03-2024-0110.

Nimfa, D. T., Latiff, A. S. A., & Wahab, S. A. (2024). Upper echelon theory versus dynamic capabilities theory for current sustainability entrepreneurs, *World Review of Entrepreneurship, Management and Sustainable Development, 20*(6), 755–787. https://doi.org/10.1504/WREMSD.2024.10066198.

Nimfa, D. T., Uzir, M. U. H., Maimako, L. N., Eneizan, B., Latiff, A. S. A., & Wahab, S. A. (2021). The impact of innovation competitive advantage on product quality for sustainable growth among SMEs: An empirical analysis*, International Journal of Business Science and Applied Management, 16*(3). https://hdl.handle.net/10419/261658.

Noer, M. Y., Chan, A., Tresna, P. W., & Purbasari, R. (2025). Digital marketing and sustainable innovation in SMEs through bibliometric and systematic review. *Cogent Business & Management,* 12(1), 2548953.

Norena-Chavez, D., & Thalassinos, E. (2023). Fueling innovative performance through entrepreneurial leadership: Assessing the neglected mediating role of intellectual capital. *Journal of Infrastructure, Policy and Development, 7*(1), 2020. https://doi.org/10.24294/jipd.v7i1.2020.

Okafor, O. C., & Oluka, K. U. (2024). Impact of strategic management of innovation on the performance of SMEs in Nigeria, *Contemporary Journal of Management*. https://doi.org/10.5281/zenodo.7646191.

Okoli, I. E. N., Moneme, C. P., & Adani, N. I. (2024). Innovative practices and competitive advantage among SMEs: An empirical review, *World Journal of Advanced Research and Reviews, 23*(3), 2041–2050. https://doi.org/10.30574/wjarr.2024.23.3.2827.

Olawore, O. P., Oyelade, K. A., Tairu, O. A., Oduwole, W. K., & Awofala, H. T. (2024). Entrepreneurial innovation and market share of small and medium enterprises in Lagos State, Nigeria. *IRJEMS International Research Journal of Economics and Management Studies, 3*(10), 65–75. https://doi.org/10.56472/25835238/IRJEMS-V3I10P108.

Onesi-Ozigagun, O., Ololade, Y. J., Eyo-Udo, N. L., & Ogundipe, D. O. (2024). Agile product management as a catalyst for technological innovation. *International Journal of Scientific Research Updates, 7*(2), 009–023. https://doi.org/10.53430/ijsru.2024.7.2.0033.

Oniku, A., & Abiodun, O. (2023). Marketing innovation and the performance of small and medium enterprises (SMEs) in developing economies: A perspective of SMEs in the retail sector in Nigeria. *International Journal of Economics, Commerce and Management, 11*(11).

Pradnyani, N. L. P. N. A., Abdi, I. N., & Mega, N. M. (2024). Small and medium-sized enterprises (SMEs) in Bali: Corporate social responsibility, competitive advantage and its impact on financial performance. *International Journal of Research in Business and Social Science, 13*(7), 66–78. https://doi.org/10.20525/ijrbs.v13i7.3603.

Purusottama, A., Ardianto, A., & Kadarusman, Y. B. (2022). A different magnitude of SME business model innovation: A lesson from the pandemic. *Indonesian Journal of Business and Entrepreneurship (IJBE), 8*(2), 182–182. https://doi.org/10.17358/ijbe.8.2.182.

Qiyamullaily, A., Susanto, T. D., & Mahendrawathi, E. R. (2024). Barriers to business process innovation in public service organisation s. *Journal of Information Systems and Informatics, 6*(3), 1973–1984. https://doi.org/10.51519/journalisi.v6i3.858.

Qureshi, M., Ikram, S. H., & Bashir, U. (2024). Role of financial innovation in enhancing the Meezan Bank's market share: Evaluating the perception of regional versus branch level employees. *Bulletin of Business and Economics, 13*(2), 647–655. https://doi.org/10.61506/01.00374.

Ramadan, J., Alzubi, A., & Khadem, A. (2024). The impact of strategic entrepreneurship behaviors on business performance in Turkish SMEs: The role of business model innovation and competitive intensity, *Sustainability, 16*(18), 8035. https://doi.org/10.3390/su16188035.

Rubio-Andrés, M., Linuesa-Langreo, J., Gutiérrez-Broncano, S., & Sastre-Castillo, M. Á. (2024). How to improve market performance through competitive strategy and innovation in entrepreneurial SMEs. *International Entrepreneurship and Management Journal, 20*(3), 1677–1706. https://doi.org/10.1007/s11365-024-00947-9.

Saeed, S. A., Mohammed, H. O., Muhamed, R. A., & Othman, R. F. (2024). The importance of product innovation in maintaining a competitive advantage. *Journal of Innovative Business and Management, 16*(2), 1–15. https://doi.org/10.32015/JIBM.2024.16.2.4.

Saiyed, A. A., Tatoglu, E., & Dutta, D. K. (2023). Entrepreneurial orientation, CEO power and firm performance: An upper echelons theory perspective, *Management Decision, 61*(6), 1777–1797. https://doi.org/10.1108/MD-05-2022-0641.

Sarasvathy, S. D. (2001). Causation and effectuation: Toward a theoretical shift from economic inevitability to entrepreneurial contingency. *Academy of Management Review, 26*(2), 243–263. https://doi.org/10.5465/amr.2001.4378020.

Sasaki, H. (2024). *Effects of product and process innovation on growth and unemployment*, SN Business & Economics, 4(140). https://doi.org/10.1007/s43546-024-00733-3.

Sawaean, F. A. A., Ali, K. A. M., & Alenezi, A. A. S. (2021). Entrepreneurial leadership and organisational performance of SMEs in Kuwait: The intermediate mechanisms of innovation management and learning orientation. Interdisciplinary Journal of Information, *Knowledge, and Management, 16,* 459–489. https://doi.org/10.28945/4887.

Setiyono, W. P., Iqbal, M., Alfisyahr, R., Pebrianggara, A., & Shofyan, M. (2022). Determinants of SMEs performance: The role of knowledge management, market orientation, and product innovation. *JEMA: Jurnal Ilmiah Bidang Akuntansi dan Manajemen, 19*(1), 22–40. https://doi.org/10.31106/jema.v19i1.15036.

Setyaningrum, R. P., Kholid, M. N., & Susilo, P. (2023). Sustainable SMEs performance and green competitive advantage: The role of green creativity, business independence and green IT empowerment, Sustainability, 15(15), 12096. https://doi.org/10.3390/su151512096.

Shi, Y., Liu, Y.-x., Fong, V. H. I., & Lan, Y. (2024). Fueling SMEs' product innovation through entrepreneurial passion during COVID-19: The role of dynamic capability and environmental opportunities, *Journal of Management & Organisation, 1*–21. https://doi.org/10.1017/jmo.2023.66.

Sipos, N., Rideg, A., Al Najjar, A. S., & Lukovszki, L. (2025). Resource-based view of marketing innovation in SMEs: A multi-country empirical analysis based on the global competitiveness project, *Journal of Innovation and Entrepreneurship, 14*(94). https://doi.org/10.1186/s13731-025-00573-x.

Snihur, Y., & Bocken, N. (2022*). A call for action: The impact of business model innovation on business ecosystems, society and planet. Long Range Planning*, 55, 102182. https://doi.org/10.1016/j.lrp.2022.102182.

Sulaimon, A.-H. A., Onyemaobi, C. A., Ebegbetale, C. I., Gbadamosi, T. O., & Fajimolu, O. C. (2024). Impact of organisational innovation on sustainable competitive advantage of manufacturing firms in Lagos State, Nigeria, *Management and Economics Review,* 9(3), 507–524. https://doi.org/10.24818/mer/2024.03-07.

Sulistyo, H., & Ayuni, S. (2020). Competitive advantages of SMEs: The roles of entrepreneurial orientation and market orientation. *Journal of Asian Finance, Economics and Business*, 7(5), 155–164. https://doi.org/10.13106/jafeb.2020.vol7.no5.155.

Taleb, T. S. T., Hashim, N., & Zakaria, N. (2023). Entrepreneurial leadership and entrepreneurial success: The mediating role of entrepreneurial opportunity recognition and innovation capability. Sustainability, 15(7), 5776. https://doi.org/10.3390/su15075776.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350. https://doi.org/10.1002/smj.640.

Thabethe, M. M., Chebo, A. K., & Dhliwayo, S. (2024). The influence of entrepreneurial culture, management support, and work discretion on innovation: Examining the conditional role of organisational tolerance and positional level. Cogent Business & Management, 11(1), 2315692. https://doi.org/10.1080/23311975.2024.2315692.

Thomas, E. O., Gbadeyan, R. O., & Waheed, I. (2023). Effect of information technology on the market share of small and medium scale enterprises (SMEs) in Lagos State, Nigeria. *African Journal of Management and Business Research, 12*(1), 82–97. https://orcid.org/0000-0001-7656-8805.

Ullah, F., Degong, M., Anwar, M., Hussain, S., & Ullah, R. (2021). Supportive tactics for innovative and sustainability performance in emerging SMEs. *Financial Innovation, 7*(80). https://doi.org/10.1186/s41018-021-00331-4.

Ummi, N., Munajat, & Sari, Y. (2024). The influence of product innovation, process innovation and service innovation on the marketing performance of culinary MSMEs in OKU District, *Nomico Journal, 1*(4), 117–121. https://doi.org/10.62872/s1advm86.

Utomo, B. P. C., Sentosa, I., & Osman, S. (2024). Model sustainability competitive advantage for manufacturing SMEs: A structural equation modelling approach. *paperASIA, 40(*5b), 295–306. https://doi.org/10.59953/paperasia.v40i5b.252.

Valdez-Juárez, L. E., Ramos-Escobar, E. A., Rui-Zamora, J. A., & Borboa-Álvarez, E. P. (2025). Drivers and pressures of Industry 4.0 that generate marketing innovation and affect the innovative performance of Mexican SMEs: From the perspective of open innovation. *Journal of Open Innovation: Technology, Market, and Complexity, 11*(100541).

Varamezov, L., & Panteleeva, I. (2021*). Process as an innovation. In R. Romanowski (Ed.), Sustainable development: Innovations in business* (61–76). Poznań University of Economics and Business. https://doi.org/10.18559/978-83-8211-084-5/4.

Vuttichat, S., & Patchara, P. (2023*). Causal relationship model of marketing innovation and competitiveness of small and medium enterprises (SMEs) with digital technologies in Thailand*. F1000Research, 12(1040). https://doi.org/10.12688/f1000research.138941.2.

Waseel, A. H., Zhang, J., Shehzad, M. U., Sarki, I. H., & Kamran, M. W. (2024). Navigating the innovation frontier: Ambidextrous strategies, knowledge creation, and organisational agility in the pursuit of competitive excellence. *Business Process Management Journal*. https://doi.org/10.1108/BPMJ-02-2024-0081.

Wati, S. S., Joansyah, D., & Saori, S. (2024). Analysis of market orientation and product innovation on competitive advantage. *Dinasti International Journal of Economics, Finance & Accounting (DIJEFA)*, 5(4), 1025–1032. https://doi.org/10.38035/dijefa.v5i4.

Waziri, M. S., Ayuba, A., & Muhammad, M. B. (2023). Influence of innovation on the SMEs performance: Evidence from Yobe State, Nigeria. *Yobe Journal of Economics (YOJE), 8*(1), 126–147.

Widyani, A. A. D., & Suardhika, I. N. (2024). The role of dynamic capability and product innovation to increase competitive advantage. *Jurnal Ekonomi & Bisnis JAGADITHA, 11*(2), 172–183. https://doi.org/10.22225/jj.11.2.2024.172-183.

World Bank. (2023). Small and medium enterprises (SMEs) finance: Improving SMEs' access to finance. https://www.worldbank.org.

Xue, K., Ma, H., Liu, F., & Li, R. (2024). Marketing innovation's dual influence on competitive advantage in the digital transformation of manufacturing firms. *Journal of Business Research, 173*, 114407. https://doi.org/10.1016/j.jbusres.2024.114407.

You, X. (2022). Applying design thinking for business model innovation. *Journal of Innovation and Entrepreneurship, 11*(1), 59. https://doi.org/10.1186/s13731-022-00251-2.

Zheng, L., Lai, X., Lu, Y., & Dong, Y. (2024). The relationship between corporate social responsibility and co-benefit business model innovation. *SAGE Open, 14*(4), 21582440241304936. https://doi.org/10.1177/21582440241304936.