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Leading for Innovation and Growth: The Role of Entrepreneurial Leadership in SME Innovative Performance in Lagos State

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Abstract

This study examines the effect of entrepreneurial leadership on the innovative performance of small and medium enterprises in Lagos State, Nigeria, where firms face resource constraints and intense competition. Using a positivist and deductive design, the study surveyed 495 SME owner managers from a population of 42,067 registered firms and obtained 413 valid responses, representing an 83.4 percent response rate. Structural modelling results show strong explanatory and predictive power ($R^2 = 0.725$, Adj. $R^2 = 0.722$, $Q^2 = 0.383$, $p < 0.05$). Visionary leadership, opportunity recognition, proactiveness, and risk taking all have positive and significant effects on innovative performance, with visionary leadership showing the strongest influence. The findings confirm that leadership behaviour and adaptive decision-making shape innovation outcomes in SMEs and support effectuation and upper echelons perspectives. The study concludes that strengthening entrepreneurial leadership capability is essential for improving SME innovation, competitiveness, and growth in Lagos State.

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Background to the Study

Small and Medium Enterprises play a central role in economic development, employment creation, and innovation across both developed and developing economies. They account for about 90 percent of global firms and contribute more than 40 percent of global GDP, while in many developing countries they constitute over 90 percent of non-agricultural enterprises (Le et al., 2023; Mabenge et al., 2020; Ullah et al., 2021;). In Nigeria, SMEs represent about 97 percent of businesses and contribute roughly half of national GDP (Olawore et al., 2024). They generate between 60 and 70 percent of global employment and support inclusive growth by providing opportunities for entrepreneurship, skill development, and income generation (Bhandari, 2023; Olawore et al., 2024). SMEs also drive innovation and technological diffusion by introducing new products, services, and business models, and by supporting supply chains and local production systems (Antony, 2015). Their flexibility and proximity to markets enable rapid adaptation to changing customer needs, making them critical actors in national innovation systems and economic resilience.

Despite this importance, many SMEs struggle to achieve strong innovative performance. Limited access to finance, high technology costs, and weak infrastructure restrict investment in innovation activities and digital transformation (Ullah et al., 2021; Valdez-Juárez et al., 2025). Skill shortages and weak knowledge management systems reduce the capacity of firms to adopt new technologies or translate ideas into marketable innovations (Korcsmaros et al., 2024; Sipols et al., 2025). SMEs often lack absorptive capacity and technical expertise required for advanced innovation, and many operate with informal structures that hinder structured innovation processes (Olawore et al., 2024). Managerial resistance to change and weak strategic planning further limit experimentation and innovative output (Kamran et al., 2024). External pressures such as intense competition, regulatory constraints, and market volatility also strain limited resources and reduce the ability of SMEs to sustain innovation (Keelson et al., 2024).

These challenges are more pronounced in resource constrained environments such as Lagos State. SMEs in Lagos operate within conditions of infrastructure deficits, unstable power supply, high operating costs, and limited access to finance, all of which restrict investment in research, technology, and capability development. Many firms rely on outdated equipment and lack access to Industry 4.0 technologies, which weakens their innovative performance and market competitiveness (Valdez-Juárez et al., 2025). Skill shortages, limited digital capacity, and weak institutional support further constrain innovation adoption. SMEs often focus on incremental improvements rather than radical innovation because of cost and risk considerations (Le et al., 2023). Bureaucratic pressures, policy uncertainty, and intense competition from larger firms and imported products also reduce incentives to invest in innovation. These constraints limit the ability of SMEs in Lagos to develop sustained innovative performance despite operating in a dynamic commercial hub.

Entrepreneurial leadership provides a mechanism for addressing these innovation constraints. Entrepreneurial leaders create environments that support experimentation, opportunity recognition, and innovation capability development. They mobilise resources, encourage risk taking, and promote learning processes that strengthen innovation outcomes (Bhandari, 2023; Sawaean et al., 2021). Evidence shows that entrepreneurial leadership enhances innovation performance by building innovation capability, knowledge sharing, and dynamic capabilities within SMEs (Al-Sharif et al., 2023; Aristana et al., 2024). Such leaders foster cultures of experimentation and error management, allowing employees to explore new ideas and learn from failure, which supports continuous innovation (Kamran et al., 2024). They also leverage intellectual capital and networks to overcome resource constraints and improve innovative work behaviour (Hidayah & Rodhiah, 2024; Norena-Chavez & Thalassinos, 2023). Entrepreneurial leadership further supports opportunity recognition and strategic orientation, enabling SMEs to identify new markets and develop innovative solutions under uncertain conditions (Taleb et al., 2023). Through these mechanisms, entrepreneurial leadership links organisational culture, capability development, and strategic direction to improved innovative performance.

Although prior studies confirm the relevance of entrepreneurial leadership for innovative performance, important gaps remain. Much of the existing evidence focuses on general performance outcomes rather than innovative performance as a distinct construct. Empirical research examining entrepreneurial leadership and innovative performance in Nigerian SMEs remains limited, particularly within Lagos State where environmental constraints are acute. Many studies also examine leadership and innovation separately, with limited integration of how leadership behaviours influence innovative outcomes in resource constrained urban contexts. There is insufficient context specific analysis of how entrepreneurial leadership shapes innovative performance within Lagos SMEs operating under infrastructure deficits, market volatility, and financial constraints. Addressing these gaps is necessary to deepen understanding of the mechanisms through which leadership drives innovation in SMEs. This study therefore investigates the effect of entrepreneurial leadership on the innovative performance of SMEs in Lagos State, providing empirical evidence to guide management practice and policy aimed at strengthening SME innovation capacity.

Literature Review

Innovative performance refers to the measurable outcomes a firm achieves from its innovation activities, including the development and implementation of new products, processes, marketing methods, and organisational practices that improve competitiveness and growth (Feng et al., 2022). It reflects the extent to which firms successfully adopt and commercialise new ideas, technologies, and processes over time (Jaaffar et al., 2024; Norena-Chavez & Thalassinos, 2023). Innovative performance is multidimensional and dynamic, encompassing product, process, marketing, and organisational innovation, each contributing to growth, efficiency, and market differentiation (Amoa-Gyarteng & Dhliwayo, 2024). Its effectiveness depends on the

firm's innovation capability and leadership orientation, particularly entrepreneurial leadership, which strengthens the integration of knowledge, creativity, and resources to sustain competitiveness (Al-Sharif et al., 2023; Teece, 2007). Innovation outcomes may range from incremental improvements to radical changes, reflecting the firm's adaptability to shifting markets and technologies (Jaaffar et al., 2024).

Strong innovative performance enhances competitiveness, profitability, and long-term survival by enabling firms to respond to opportunities and environmental change (Adam & Alarifi, 2021; Purwati et al., 2021). Product and service innovation improves growth and customer satisfaction, while process and organisational innovation increase efficiency and flexibility (Amoa-Gyarteng & Dhliwayo, 2024). Entrepreneurial leadership supports these outcomes by aligning resources and encouraging experimentation and problem solving (Games et al., 2022). However, innovation is resource intensive and does not always yield positive results, particularly for SMEs with limited financial and technical capacity (Azizah et al., 2023; Jaffar et al., 2024). Contextual factors, resource misalignment, and uncertain returns can weaken the impact of innovation, and financial constraints often discourage sustained innovation investment (Amoa-Gyarteng & Dhliwayo, 2024; Al-Sharif et al., 2023). Innovative performance is defined in this study as the observable outcome of a firm's innovation capability, reflected in its ability to convert ideas into improved products, processes, and organisational systems that support growth and sustainability.

Entrepreneurial Leadership

Entrepreneurial leadership refers to a leadership approach that combines opportunity seeking behaviour with traditional leadership responsibilities to create value under uncertainty. It reflects a leader's ability to identify opportunities, mobilise resources, and guide teams toward innovative and growth-oriented goals despite risk and ambiguity (Abiyasa & Utama, 2023; Hussain & Li, 2022). Entrepreneurial leaders shape organisational culture and routines to support innovation, proactiveness, and calculated risk taking while motivating employees and aligning resources toward opportunity exploitation (Kebede et al., 2024; Nguyen et al., 2021; Sawaean et al., 2021). It is therefore viewed as a set of traits, behaviours, and strategic orientations that support sustained value creation in dynamic markets (Bhandari, 2023; Norena-Chavez & Thalassinos, 2023). Core elements include visionary thinking, opportunity recognition, creativity, proactiveness, and risk taking, supported by empowerment and knowledge sharing practices that strengthen intellectual and social capital (Aristana et al., 2024; Hussain & Li, 2022; Norena-Chavez & Thalassinos, 2023). However, its expression and impact vary across sectors and environments, particularly in resource constrained contexts (Kamran et al., 2024; Nguyen et al., 2021; Nurcahyo, 2024).

Research shows that entrepreneurial leadership improves SME outcomes by strengthening innovation, knowledge processes, and dynamic capabilities that support growth, competitiveness, and adaptability (Abiyasa & Utama, 2023; Ajike et al., 2024; Bhandari, 2023; Ebose et al., 2024; Taleb et al., 2023). It promotes experimentation, new

product development, and strategic renewal, leading to improved performance and resilience in turbulent markets (Kamran et al., 2024; Al-Sharif et al., 2023; Yang & Entebang, 2024). These effects often occur through mediating mechanisms such as innovation capability, knowledge sharing, and organisational systems rather than direct influence alone (Aristana et al., 2024; Nguyen et al., 2021; Norena-Chavez & Thalassinos, 2023). In resource constrained SMEs, however, leadership driven risk taking may strain limited resources and produce mixed results if not supported by strong organisational structures (Abiyasa & Utama, 2023; Widyastuti et al., 2023). Variations in measurement and context also produce inconsistent findings across studies (Al-Sharif et al., 2023; Sawaean et al., 2021). In this study, entrepreneurial leadership is defined as a vision driven and opportunity-oriented leadership approach that integrates innovation, resource mobilisation, and employee empowerment to convert strategic intent into measurable organisational outcomes in SMEs.

Visionary Leadership

Visionary leadership is a strategic leadership style in which leaders create and communicate a clear future direction that aligns organisational goals, values, and aspirations. It provides purpose and direction by guiding strategy and motivating employees toward shared long-term objectives (Mohamed & Al-Zalimi, 2022). In SMEs, visionary leadership functions as a cognitive and relational process that mobilises scarce resources, aligns stakeholders, and sustains commitment to growth under uncertain conditions (Adegbola et al., 2024; Wahyuningtyas et al., 2024). It combines strategic foresight with emotional influence so that employees understand and internalize the vision, making it a central component of transformational leadership in resource constrained firms (Wahyuningtyas et al., 2024; Adegbola et al., 2024). Through clear communication, empowerment, and trust building, visionary leaders guide SMEs through market turbulence and position them for future opportunities (Mohamed & Al-Zalimi, 2022; Herminingsih, 2021; Maran et al., 2022).

Visionary leadership supports innovation, engagement, and performance by encouraging creativity, risk taking, and shared commitment to organisational goals (Mascareño et al., 2020; Zhou & Ye, 2022). Evidence shows that it improves innovation outcomes, employee motivation, and firm growth across contexts including SMEs in Africa and Asia (Ghadi, 2024; Ochieng & Nyaberi, 2023; Wang et al., 2024). It also strengthens strategic alignment and adaptability, enabling firms to respond to environmental change and sustain competitiveness (Colombo, 2024; Mohamed & Al-Zalimi, 2022). However, its impact depends on effective communication, contextual alignment, and balanced decision making. Misaligned visions, centralized control, or overconfidence can weaken implementation and create strategic fragmentation (Klösel, 2021; Rasheed et al., 2021; Kadhum et al., 2023). Visionary leadership is therefore defined as a value driven and future oriented leadership approach that inspires and empowers employees to pursue shared goals, while aligning strategy, resources, and organisational capabilities toward long term competitiveness and sustainability.

Opportunity Recognition

Opportunity recognition is the starting point of entrepreneurship and refers to the process through which new ideas are identified and transformed into viable business opportunities (Hartono & Ardini, 2022; Ruiz-Palomino & Martínez-Cañas, 2021; Tian et al., 2022). It involves cognitive and creative processes that combine perception, knowledge, and problem solving to detect unmet market needs and convert them into actionable business concepts (Filser et al., 2023; Hassan et al., 2020; Khanin et al., 2021; Xiong, 2025). For SMEs, opportunity recognition is a critical capability that drives performance, competitiveness, and survival, as firms that identify and exploit emerging opportunities tend to outperform rivals (Alim et al., 2022; Filser et al., 2023; Hartono & Ardini, 2022). It mediates the influence of entrepreneurial orientation and leadership on firm outcomes by translating vision and proactiveness into strategic action and growth (Anwar et al., 2022; Hou et al., 2022; Taleb et al., 2023). The process is both cognitive and socially embedded, shaped by prior knowledge, networks, organisational culture, and environmental conditions (Chang & Chen, 2020; Rahim et al., 2023; Ruiz-Palomino & Martínez-Cañas, 2021). Digitalisation and sustainability trends have expanded its scope, requiring SMEs to develop new skills to identify opportunities in digital markets and in socially responsible ventures (Kreuzer et al., 2022; Sarma et al., 2024; Viswanath & Reddy, 2022).

Strong opportunity recognition capability improves firm performance, supports new venture creation, and enhances resilience during market disruptions (Azam et al., 2021; Cucino et al., 2024). It enables SMEs to enter new markets, develop innovative offerings, and sustain competitiveness even under resource constraints (Anwar et al., 2022; Kreuzer et al., 2022). However, the process is complex and constrained by limited finance, skills, and infrastructure, which can prevent SMEs from acting on identified opportunities (Anwar et al., 2022; Khanin et al., 2021). Conceptual ambiguity and measurement challenges also persist in research, while cognitive biases and uncertainty in dynamic markets can hinder accurate recognition (Castillo-Vergara et al., 2018; Filser et al., 2023; Jovanović et al., 2024). Social networks can both support and restrict opportunity pursuit depending on their structure and strength (Ruiz-Palomino & Martínez-Cañas, 2021). In this study, opportunity recognition is defined as a dynamic process through which SME leaders identify, interpret, and develop potential ventures from changes in markets, technology, and society, using prior knowledge, networks, and strategic insight to transform ideas into actionable business opportunities.

Risk Taking

Opportunity recognition is the starting point of entrepreneurship and refers to the process through which new ideas are identified and transformed into viable business opportunities (Hartono & Ardini, 2022; Ruiz-Palomino & Martínez-Cañas, 2021; Tian et al., 2022). It involves cognitive and creative processes that combine perception, knowledge, and problem solving to detect unmet market needs and convert them into actionable business concepts (Filser et al., 2023; Hassan et al., 2020; Khanin et al., 2021; Xiong, 2025). For SMEs, opportunity recognition is a critical capability that drives

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Proactiveness

Proactiveness refers to a forward-looking entrepreneurial orientation in which SMEs anticipate market trends, identify emerging opportunities, and act ahead of competitors (Hossain et al., 2022; Oiku, 2023; Zannah & Mahat, 2021). It involves actively scanning the environment, initiating strategic change, and introducing new products, markets, or business models before rivals respond (Amjad et al., 2021; Oguru et al., 2023; Wach et al., 2023). Proactive firms seek first mover advantages by taking early action and positioning themselves to capture opportunities in volatile markets (Kadarusman & Rosyafah, 2022; Hashem et al., 2024). This orientation requires strong opportunity recognition, creativity, and strategic initiative, supported by organisational cultures that encourage autonomy, knowledge acquisition, and long-term thinking (Akani et al., 2022; Omisakin et al., 2022; Peiris & Jayatilake, 2022). As a core element of entrepreneurial orientation, proactiveness drives innovation and risk taking by initiating actions that shape market conditions and improve competitiveness (Wach et al., 2023; Vinsensius & Ryandra, 2024).

Empirical evidence links proactiveness to stronger firm growth, profitability, and competitive advantage. Proactive SMEs often achieve first mover benefits, improved adaptability, and greater resilience during market disruptions (Adam et al., 2024; Dost & Umrani, 2024; Peiris & Jayatilake, 2022). It supports innovation and strategic agility by enabling firms to align resources quickly with changing customer needs and environmental shifts (Cherotich & Ngugi, 2024; Ogundare & Van der Merwe, 2024). However, proactive strategies require significant resource commitment and can expose SMEs to financial risk if pursued without careful analysis (Vinsensius & Ryandra, 2024; Wach et al., 2023). Early market entry and aggressive expansion may lead to misallocation of resources, overconfidence, and unsustainable investments, particularly in volatile environments (Hashem et al., 2024; Ogundare & Van der Merwe, 2024). In this study, proactiveness is defined as a leadership driven orientation in which SMEs deliberately anticipate and act on opportunities to shape their market position, while balancing initiative with careful resource management and environmental awareness.

Theoretical Framework

This study adopts an integrated framework that combines Effectuation Theory and Upper Echelons Theory to examine how entrepreneurial leadership and innovation influence SME performance in Lagos State. The framework reflects the Lagos business environment, which is marked by market volatility, infrastructure constraints, and intense competition. Effectuation Theory provides the behavioral lens. It explains how entrepreneurs operate under uncertainty by focusing on available resources, networks, and flexible decision making to create opportunities and manage risk (Sarasvathy, 2001). This logic fits Lagos SMEs, where leaders often face limited capital and unstable conditions and must rely on adaptive strategies and network support to sustain performance (Chohan et al., 2022; Gunawan & Hashim, 2025; Madigoe & Pretorius, 2024). Upper Echelons Theory adds a cognitive and structural perspective by asserting that organisational outcomes reflect the values, experiences, and orientations of top leaders (Hambrick & Mason, 1984). In SMEs, where decision making is concentrated in the owner/manager, leadership traits such as education, experience, and risk tolerance shape innovation choices, resource allocation, and strategic direction (Nimfa et al., 2024; Saiyed et al., 2023).

The integration of both theories provides a multi-level explanation of SME behavior and outcomes. Effectuation explains how leaders respond to uncertainty through adaptive action, while Upper Echelons Theory explains why leaders make particular 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 (Barney, 1991; Teece, 2007; Rogers, 2003). The integrated Effectuation and Upper Echelons framework therefore provides a more suitable basis for examining how entrepreneurial leadership shapes innovation and performance in resource constrained and uncertain environments.

Methodology

The study adopted a positivist research philosophy and deductive approach to test hypothesized relationships among entrepreneurial leadership, entrepreneurial innovation, organisational culture, and SME performance in Lagos State. Registered SMEs in Lagos served as the research context, with owner/managers selected as the unit of analysis because they control strategic and innovation decisions. A cross-sectional survey design was used to collect quantitative data from a population of 42,067 registered SMEs. Using Cochran's formula with non-response adjustment, a sample of 495 owner managers was selected through simple random sampling from SMEDAN records across manufacturing, retail, and service sectors. Data were collected through a structured questionnaire with validated scales for entrepreneurial leadership, entrepreneurial innovation and innovative performance, measured on a six-point Likert scale. The instrument was pilot tested with 50 SMEs and achieved acceptable reliability and validity through Cronbach's alpha, composite reliability, average variance extracted, and factor analysis. Questionnaires were administered face to face by trained research assistants, with follow ups to improve response rates and procedures to ensure confidentiality and consent. Data was analysed with SmartPLS 3.5.2. Multiple regression analysis tested direct relationships, hierarchical regression assessed moderating effects, and PLS-SEM evaluated the full structural model, including measurement and structural validity, allowing comprehensive testing of the study hypotheses.

Model Specification

For this study, the independent variable is entrepreneurial leadership (X), while the dependent variable (Y) is Innovative performance.

$Y = f(X)$

Y = Dependent Variable

X= Independent Variable

Y = Innovative Performance (INP)

X1 = Entrepreneurial Leadership (EL)

Y =Profitability (PTY)

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

Where:

X1 = Entrepreneurial Leadership (EL)

x_1 = Visionary Leadership (VSL)

x_2 = Opportunity Recognition (OPR)

x_3 = Proactiveness (PRO)

x_4 = Risk Taking (RIT)

Regression Model

The model formulated for each of the hypotheses are written as

$INP = f(VSL, OPR, RIT, PRO)$ …. ……..…….. Function Equation 1

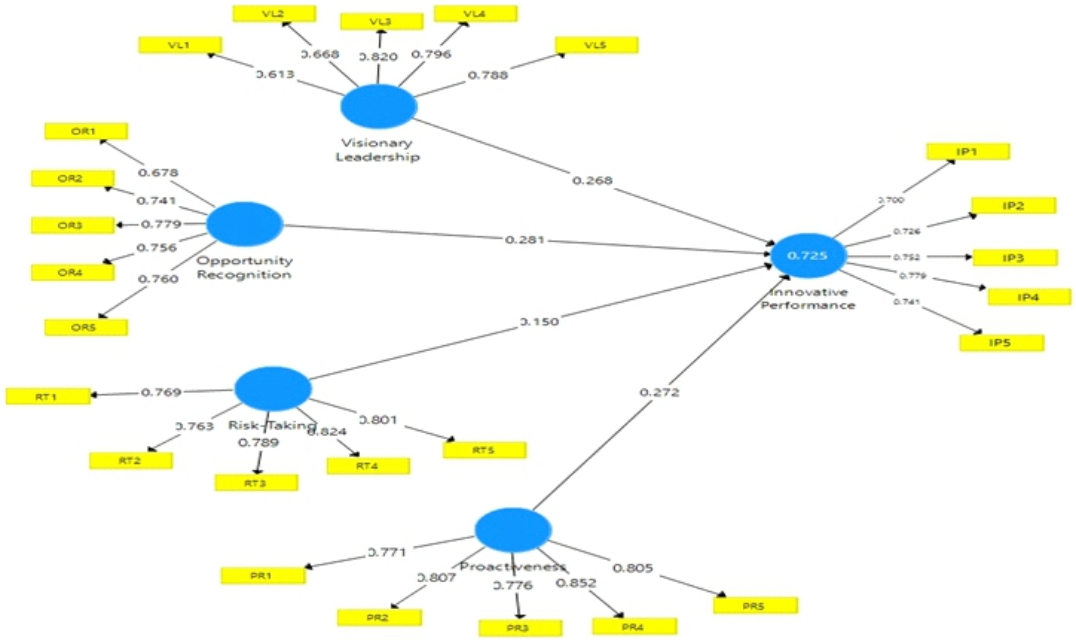
$INP = a_0 + \beta_1 VSL + \beta_2 OPR + \beta_3 RIT + \beta_4 PRO + \mu_i$……..…..…....Regression Equation 2

Data Analysis, Interpretation and Discussions

This section presents the analysis and interpretation of data collected from 495 SME owner managers in Lagos State to examine how entrepreneurial leadership and entrepreneurial innovation influence SME performance. A total of 413 usable responses were obtained, representing an 83.4 percent response rate. Data screening confirmed that assumptions for regression and structural modelling were satisfied. Skewness and kurtosis values indicated normal distribution, correlation results showed strong and significant positive relationships among leadership dimensions, innovation variables, organisational culture, and SME performance, and tests for homoscedasticity and multicollinearity confirmed that the data were suitable for further analysis. Hypotheses were tested at a 5 percent significance level using structural modelling techniques aligned with the study objectives.

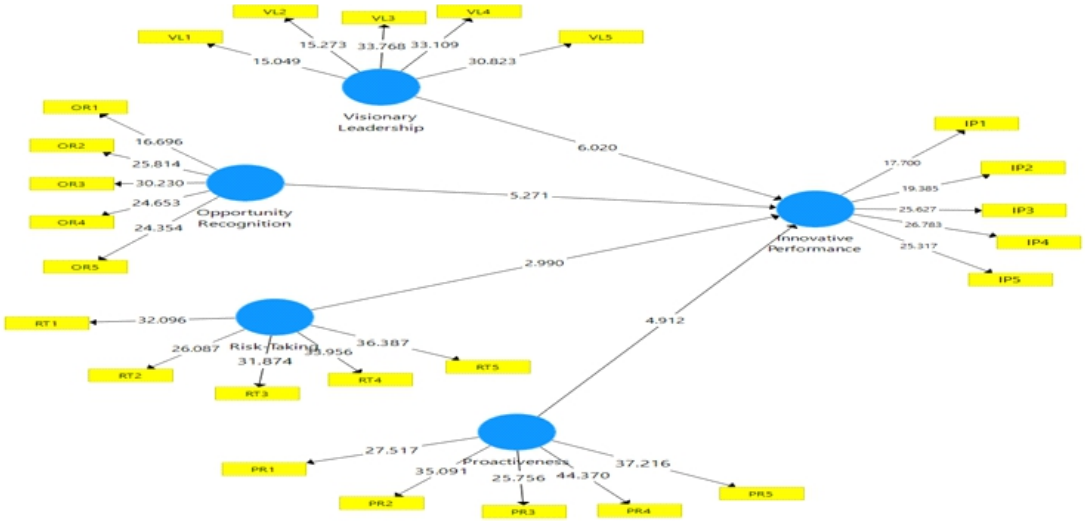
The structural model showed strong explanatory and predictive power. Explanatory strength was assessed through R^2, predictive relevance through Q^2, and effect size through f^2, while path coefficients were evaluated through bootstrapping. Model fit indices indicated an acceptable fit between the model and the data. The findings confirmed that entrepreneurial leadership, entrepreneurial innovation, and organisational culture significantly influence SME performance in Lagos State. The results show that leadership behaviour and innovation capability are key drivers of profitability, competitiveness, customer satisfaction, and market share in a volatile and resource constrained business environment.

Figure 1: Path Analysis Showing the Measurement and Structural model



Source: Researchers' Data, via SmartPLS 3.5.2.2 (2026)

Figure 2: T-Statistic.



Source: Researchers' Data, via Smart PLS 3.5.2.2 (2026)

Table 1: Summary of the PLS – SEM for the Effect of Entrepreneurial leadership dimensions on Innovative Performance in SMEs, Nigeria.

Path Description	Original Sample (o) Unstandardized Beta (β)	T	Sig.	F^2	R	R^2	Adj. R^2	Q^2
Opportunity Recognition -> Innovative Performance	0.282	5.271	0.000	0.099	0.852	0.725	0.722	0.383
Proactiveness -> Innovative Performance	0.272	4.912	0.000	0.089				
Risk-Taking -> Innovative Performance	0.147	2.99	0.003	0.029				
Visionary Leadership -> Innovative Performance	0.269	6.02	0.000	0.132				

Source: Researchers' Result via SmartPLS Version 3.5.2.2 (2026

Interpretation of PLS-SEM Results

The PLS-SEM model assessed the influence of opportunity recognition, proactiveness, risk taking, and visionary leadership on SME innovative performance. The model demonstrates strong explanatory power. $R^2 = 0.725$ and adjusted $R^2 = 0.722$ indicate that

72.5 percent of the variation in innovative performance is explained by the leadership dimensions. The small gap between R^2 and adjusted R^2 shows that the model is stable and not inflated by the number of predictors. Predictive relevance is high with $Q^2 = 0.383$, which exceeds the 0.35 threshold. This confirms that the model predicts innovative performance beyond the sample and has strong out-of-sample relevance.

Path analysis shows that all four leadership dimensions significantly influence innovative performance. Opportunity recognition has a positive and significant effect ($\beta = 0.282$, $t = 5.271$, $p = 0.000$, $f^2 = 0.099$). This indicates that when SME leaders improve their ability to identify and act on opportunities, innovative performance increases. The effect size suggests a small to moderate contribution to the overall model. Proactiveness also shows a positive and significant effect ($\beta = 0.272$, $t = 4.912$, $p = 0.000$, $f^2 = 0.089$). This means that firms that anticipate market changes and act early achieve higher innovation outcomes. Risk taking has a smaller but significant effect ($\beta = 0.147$, $t = 2.990$, $p = 0.003$, $f^2 = 0.029$). While its impact is weaker than the other dimensions, it still contributes to innovative performance by enabling firms to invest in uncertain but potentially valuable initiatives. Visionary leadership is the strongest predictor ($\beta = 0.269$, $t = 6.020$, $p = 0.000$, $f^2 = 0.132$). This shows that leaders who communicate clear future direction and align teams toward long term goals achieve higher innovation outcomes.

Table 2: Model Fit for Hypothesis Two

Model Fit Index	Saturated Model	Estimated Model
SRMR	0.065	0.065
d_ULS	1.357	1.357
d_G	0.485	0.485
Chi-Square	1085.326	1085.326
NFI	0.806	0.806

Source: Smart PLS 3.5.2 output

The model fit statistics confirm acceptable fit. SRMR = 0.065 is below the 0.08 threshold, indicating low average residuals between observed and predicted correlations. The equality of SRMR values for saturated and estimated models shows that adding structural paths does not reduce model quality. d_ULS and d_G values are low, suggesting that differences between empirical and model implied matrices are minimal. The NFI value of 0.806 indicates moderate fit, which is acceptable in PLS-SEM.
Overall, the model fits the data and is suitable for structural interpretation.

Predictive model:
$IVPi = \alpha 0 + 0.282MKIi + 0.272PRIi + 0.147PDIi + 0.269BMIi + Ui$

Prescriptive model:
$IVPi = \alpha 0 + 0.282MKIi + 0.272PRIi + 0.147PDIi + 0.269BMIi + Ui$

Where:
IVP = Innovative Performance
MKI = Marketing Innovation
PRI = Process Innovation
PDI = Product Innovation
BMI = Business Model Innovation

The coefficients show that improvements in leadership related innovation dimensions produce corresponding increases in innovative performance. A one unit increase in each predictor increases innovative performance by 0.282, 0.272, 0.147, and 0.269 units respectively. Visionary leadership has the largest contribution, followed by opportunity recognition and proactiveness, while risk taking has a smaller but significant role. The structural model explains a large share of performance variation. The high R^2 value confirms strong explanatory power, while the Q^2 value confirms predictive relevance. The closeness of R^2 and adjusted R^2 indicates a parsimonious model with minimal bias from sample size or complexity. Overall, the findings show that entrepreneurial leadership dimensions significantly enhance innovative performance in SMEs. Visionary leadership is the most influential dimension, followed by opportunity recognition, proactiveness, and risk taking. The null hypothesis that entrepreneurial leadership dimensions have no significant effect on innovative performance is rejected since p = 0.000 is less than 0.05.

Discussion of Findings
The findings show that entrepreneurial leadership has a strong and significant effect on SME innovative performance. The model explains 72.2 percent of the variation in innovative performance (Adj. $R^2 = 0.722$), with meaningful effect sizes across dimensions and strong predictive relevance ($Q^2 = 0.383$, $p < 0.05$). These results confirm that opportunity recognition, proactiveness, risk taking, and visionary leadership each contribute to innovation outcomes. The evidence supports effectuation logic, which holds that leaders in uncertain environments drive innovation through experimentation, resource mobilisation, and opportunity exploitation rather than rigid planning. Empirical studies also show that entrepreneurial leadership strengthens innovation capacity, service innovation, and innovative work behaviour across SMEs (Kebede et al., 2024; Novita, 2023; Hidayah & Rodhiah, 2024).

The results also align with Upper Echelons Theory, which links firm outcomes to leader cognition and strategic orientation. Leaders who value experimentation and learning tend to achieve stronger innovation outcomes (Al-Sharif et al., 2023; Sawaean & Ali, 2020). Prior research shows that the leadership–innovation link often operates through mediating factors such as innovation capability, intellectual capital, knowledge processes, and dynamic capabilities (Abiyasa & Utama, 2023; Hussain & Li, 2022; Norena-Chavez & Thalassinos, 2023; Nguyen et al., 2021). These mechanisms translate leadership intent into measurable innovation results. However, the strength of this relationship varies by context. Resource constraints, weak absorptive capacity, and short-term

financial pressures can limit innovation investment and reduce leadership impact (Al-Sharif et al., 2023; Jaaffar et al., 2024). Overall, the study confirms that entrepreneurial leadership significantly improves innovative performance in SMEs and extends both effectuation and Upper Echelons perspectives by showing how leadership cognition and adaptive decision making jointly shape innovation outcomes in resource constrained settings.

Conclusion and Recommendation

This study examined the effect of entrepreneurial leadership dimensions on innovative performance among SMEs in Lagos State. The results confirm that entrepreneurial leadership significantly improves innovative performance. Opportunity recognition, proactiveness, risk taking, and visionary leadership all show positive and significant effects. The model explains a large share of variation in innovative performance and demonstrates strong predictive relevance. Visionary leadership and opportunity recognition show the strongest influence, followed by proactiveness and risk taking. These findings show that leadership behaviours that promote opportunity identification, forward planning, calculated risk, and clear strategic direction strengthen innovation outcomes in resource constrained SME environments.

The findings support Effectuation Theory and Upper Echelons Theory. SME leaders who act with flexibility, mobilise available resources, and rely on experience and judgment are more likely to sustain innovation. Leadership cognition and strategic orientation shape how firms respond to uncertainty and convert limited resources into innovative outcomes. The study confirms that innovative performance in SMEs depends not only on resources but also on leadership behaviour, decision logic, and organisational capability. Strengthening entrepreneurial leadership therefore remains central to improving SME innovation and long-term competitiveness in Lagos.

SME owners and managers should strengthen visionary leadership and opportunity recognition. Leaders should define clear direction, monitor market trends, and align teams around innovation goals. Training should focus on strategic thinking, opportunity identification, and adaptive decision making. Firms should embed proactiveness and calculated risk taking in daily operations, encourage experimentation, support employee ideas, and commit small but consistent resources to innovation. Learning from pilot projects and market feedback will improve innovation outcomes and reduce failure costs. Policy makers and support institutions should expand leadership and innovation development programmes for SME owners. These programmes should target leadership capability, innovation management, and digital adoption. Access to innovation funding, mentorship, and collaborative platforms should be improved to support investment in new technologies and processes. Industry bodies should promote partnerships, knowledge sharing, and cluster initiatives that link SMEs with research institutions, technology providers, and markets to strengthen collective innovation capacity. Future research should examine mediating factors such as innovation capability, organisational culture, and digital adoption in the leadership–innovation relationship. Longitudinal

studies across sectors and regions will help confirm causal relationships and improve generalisation of the findings.

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