Effect of Entrepreneurial Leadership on Firm Performance: The Mediating Role of Innovation Capability of SMEs in Idah Local Government Area, Kogi State, Nigeria

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ABSTRACT

Despite the recognised importance of SMEs in economic development, their performance in developing economies remains suboptimal, raising concerns about the effectiveness of leadership practices in driving sustainable growth. This study examined the effect of entrepreneurial leadership on firm performance, with particular focus on the mediating role of innovation capability among small and medium-sized enterprises (SMEs) in Idah LGA, Kogi State, Nigeria. The study was anchored on the Resource-Based View (RBV) and Dynamic Capabilities Theory (DCT), which explain how organisational resources and capabilities translate into competitive advantage. The study adopted a quantitative, cross-sectional survey design and collected data from 397 SMEs selected through stratified random sampling from a population of 3,842 active registered SMEs in Idah LGA, Kogi State. Data were gathered using a structured questionnaire measured on a 5-point Likert scale. The hypotheses were tested using Partial Least Squares Structural Equation Modelling (PLS-SEM), and mediation analysis was conducted using bootstrapping. The findings revealed that entrepreneurial leadership has a significant positive effect on both innovation capability and firm performance. Innovation capability also significantly influences firm performance. Furthermore, innovation capability partially mediated the relationship between entrepreneurial leadership and firm performance, indicating that leadership enhances performance both directly and indirectly through innovation processes. The study concludes that innovation capability is a critical mechanism through which entrepreneurial leadership translates into improved SME performance. Theoretically, the study extends RBV and DCT by validating a leadership–innovation–performance nexus in a developing economy context. Practically, it recommends that SME managers and policymakers prioritise developing innovation capabilities alongside entrepreneurial leadership practices to enhance competitiveness and sustainable growth.

Keywords: Entrepreneurial leadership, innovation capability, firm performance, SMEs, mediation, Kogi State, Nigeria.

INTRODUCTION

Small and medium-sized enterprises (SMEs) are increasingly recognised as pivotal drivers of economic growth, employment generation, and innovation, particularly in emerging economies. Consequently, scholarly attention has shifted toward understanding the organisational and leadership factors that enhance SME performance. Entrepreneurial leadership (EL), defined as leaders' ability to identify opportunities, mobilise resources, and foster innovation under uncertainty, has emerged as a critical construct in this discourse (Renko et al., 2015; Leitch & Volery, 2017). In contrast, firm performance (FP), the dependent variable, is a multidimensional construct encompassing financial, growth, and market outcomes (Richard et al., 2009; Ipinnaiye et al., 2017). While extant literature suggests a positive association between EL and FP, recent debates emphasise that this relationship is often indirect, operating through intermediate organisational capabilities such as innovation capability (IC) (Koryak et al., 2015).

Innovation capability, conceptualised as a firm's ability to generate, adopt, and implement new ideas,

processes, and products, has been widely identified as a key mechanism linking leadership to performance outcomes (Saunila, 2020; Abeh et al., 2021; O'Cass & Sok, 2014). Drawing on the Resource-Based View and Dynamic Capabilities Theory, IC is a strategic capability that enables firms to reconfigure resources and respond effectively to environmental dynamism (Teece, 2018; Teece, Pisano, & Shuen, 1997; Helfat & Martin, 2015). Empirical studies have consistently shown that firms with strong innovation capability are better positioned to achieve superior performance outcomes (Aminu & Shariff, 2015; Otache, 2024; Clauss et al., 2019). However, the extent to which EL fosters IC and how this, in turn, translates into improved performance remains an area of ongoing scholarly inquiry, particularly in resource-constrained SME contexts.

The contextual focus on SMEs in Idah LGA, Kogi State, Nigeria, is particularly significant given the region's economic structure and developmental challenges. SMEs in this region operate under conditions characterised by infrastructural deficits, institutional inefficiencies, and limited access to finance, which constrain their performance potential (Aminu & Shariff, 2015; Otache, 2024). Despite these challenges, SMEs remain central to local economic development and poverty reduction efforts. Prior studies have largely concentrated on national-level analyses or more industrialised regions, thereby overlooking sub-national contexts where environmental constraints may alter the dynamics between leadership, innovation, and performance (Welter, 2011; George et al., 2012). This underscores the need for context-specific investigations that capture the unique realities of SMEs in less-developed regions such as Kogi State.

Recent empirical literature (2014–2025) provides mixed but insightful evidence on the relationships among EL, IC, and FP. For instance, Bagheri and Harrison (2020), Sultan et al. (2024), and Kuratko (2007) demonstrate that entrepreneurial leadership significantly enhances innovation and performance outcomes in SMEs. Similarly, Covin and Wales (2019) emphasise the role of proactive, risk-taking leadership behaviours in driving innovation-led growth. However, other studies highlight inconsistencies, with some reporting weak or context-dependent relationships between leadership and performance (Clauss et al., 2019). Moreover, while studies such as O'Cass and Sok (2014) and Saunila (2020) confirm the mediating role of innovation capability, others suggest only partial mediation or direct effects, indicating the need for further empirical clarification. Methodologically, most studies employ cross-sectional designs and structural equation modelling, yet many lack contextual depth or fail to disaggregate key constructs into their core dimensions.

Entrepreneurial leadership is often operationalised through three key dimensions: innovativeness, proactiveness, and risk-taking. Innovativeness reflects the leader's capacity to foster creativity and support new ideas, directly enhancing innovation capability and indirectly influencing firm performance (Kuratko, 2007; Bagheri & Harrison, 2020). Proactiveness, defined as a forward-looking orientation to anticipate and act on future market opportunities, has been shown to strengthen both innovation processes and competitive positioning (Covin & Wales, 2019). Risk-taking, which involves the willingness to commit resources to uncertain ventures, is essential for innovation but may produce variable outcomes depending on environmental conditions (Covin & Slevin, 1989). Empirical evidence suggests that these dimensions collectively shape innovation capability, which serves as a conduit through which leadership behaviours translate into improved firm performance (Saunila, 2020; O'Cass & Sok, 2014).

Firm performance, as a multidimensional construct, can be effectively captured through three core proxies: financial performance, growth performance, and market performance. Financial performance reflects profitability and return on investment, indicating operational efficiency (Richard et al., 2009). Growth performance captures increases in sales, employment, or assets, reflecting the firm's expansion trajectory (Ipinnaiye et al., 2017). Market performance, which includes market share and customer satisfaction, reflects the firm's competitive positioning (O'Cass & Sok, 2014). Studies have shown that innovation capability is more strongly associated with growth and market performance than with short-term financial outcomes (Saunila, 2020; Clauss et al., 2019). Despite growing consensus on these relationships, significant gaps remain. Specifically, researchers have not integrated EL dimensions, IC, and FP proxies into a unified framework, particularly in sub-Saharan African contexts. Additionally, few studies have examined the mediating role of innovation capability in sub-national settings such as Kogi State. This study addresses

these gaps by providing a context-specific, empirically grounded analysis of how entrepreneurial leadership influences firm performance through innovation capability, thereby contributing to both theory and practice.

Problem Statement

Despite the recognised importance of SMEs as drivers of economic growth and employment in Nigeria, their performance, particularly in states such as Kogi, remains persistently low, characterised by high failure rates, limited growth, and weak competitive positioning (Aminu & Shariff, 2015; Otache, 2024; SMEDAN, 2021). While prior studies have emphasised leadership's role in enhancing firm outcomes, emerging evidence suggests that leadership alone may not directly translate into improved performance, especially in resource-constrained and volatile environments typical of many Nigerian SMEs (Koryak et al., 2015). Indeed, inconsistent findings in the literature suggest that the relationship between entrepreneurial leadership and firm performance is often indirect and contingent on internal capabilities that enable firms to exploit opportunities effectively (Koryak et al., 2015; O'Cass & Sok, 2014). In this regard, innovation capability has been identified as a critical but underexplored mediating mechanism through which leadership influences performance outcomes (Saunila, 2020). However, empirical studies examining this mediating role remain limited, particularly within sub-national contexts such as Kogi State, where institutional constraints and infrastructural deficits may further weaken the leadership–performance link (Welter, 2011; George et al., 2012). Consequently, there is a clear need to investigate how entrepreneurial leadership translates into improved SME performance through innovation capability, thereby addressing the existing gap in both theory and context-specific evidence.

Research Objectives

The main objective of this study is to examine the effect of entrepreneurial leadership on firm performance, focusing on the mediating role of innovation capability among SMEs in Idah LGA, Kogi State. Specifically, the study seeks to:

- Examine the effect of entrepreneurial leadership on firm performance of SMEs in Idah LGA, Kogi State.
- Assess the effect of entrepreneurial leadership on the innovation capability of SMEs in Idah LGA, Kogi State.
- Determine the effect of innovation capability on firm performance of SMEs in Idah LGA, Kogi State.
- Examine the mediating role of innovation capability in the relationship between entrepreneurial leadership and firm performance of SMEs in Idah LGA, Kogi State.

Research Questions

The study is guided by the following research questions:

- What is the effect of entrepreneurial leadership on the firm performance of SMEs in Idah LGA, Kogi State?
- How does entrepreneurial leadership influence the innovation capability of SMEs in Idah LGA, Kogi State?
- What is the effect of innovation capability on the firm performance of SMEs in Idah LGA, Kogi State?
- Does innovation capability mediate the relationship between entrepreneurial leadership and firm performance of SMEs in Idah LGA, Kogi State?

Hypotheses

The following null hypotheses are formulated for the study:

$H0^1$: Entrepreneurial leadership has no significant effect on firm performance of SMEs in Idah LGA, Kogi State.

H0^2: Entrepreneurial leadership has no significant effect on the innovation capability of SMEs in Idah LGA, Kogi State.

H0^3: Innovation capability has no significant effect on firm performance of SMEs in Idah LGA, Kogi State.

H0^4: Innovation capability does not significantly mediate the relationship between entrepreneurial leadership and firm performance of SMEs in Idah LGA, Kogi State.

LITERATURE REVIEW

Entrepreneurial Leadership

Entrepreneurial leadership (EL) has emerged as a critical construct at the intersection of entrepreneurship and leadership studies, reflecting leaders' capacity to influence and direct organisational members to recognise and exploit entrepreneurial opportunities (Renko et al., 2015). It integrates the opportunity-driven, risk-oriented nature of entrepreneurship with the relational and influence-based processes of leadership (Leitch & Volery, 2017; Bagheri & Harrison, 2020). Conceptually, researchers commonly operationalise entrepreneurial leadership through three core dimensions: innovativeness, proactiveness, and risk-taking (Covin & Wales, 2019; Kuratko, 2007). Innovativeness refers to the leader's ability to foster creativity and support new ideas within the firm; proactiveness reflects a forward-looking orientation that anticipates and acts on future market opportunities, while risk-taking denotes the willingness to commit resources to uncertain ventures (Covin & Slevin, 1989). Together, these dimensions enable firms to navigate dynamic environments and strengthen their competitive position.

Innovation Capability

Innovation capability (IC) refers to a firm's ability to develop, adopt, and implement new ideas, products, and processes that improve organisational effectiveness and competitiveness (Saunila, 2020; O'Cass & Sok, 2014). It encompasses both product innovation capability, which involves creating new or improved goods and services, and process innovation capability, which focuses on improving production and operational methods (Clauss et al., 2019). Rooted in the Resource-Based View and Dynamic Capabilities Theory, innovation capability is considered a strategic asset that enables firms to reconfigure resources and respond to environmental changes (Teece, 2018; Helfat & Martin, 2015). Empirical evidence suggests that innovation capability enables firms to continuously create and refine products and processes, thereby enhancing efficiency, adaptability, and overall competitiveness in turbulent markets (Saunila, 2020; O'Cass & Sok, 2014).

Firm Performance

Firm performance (FP) is a multidimensional construct that reflects the extent to which an organisation achieves its strategic and operational objectives (Richard et al., 2009). Researchers typically measure it using both financial and non-financial indicators. Financial performance includes metrics such as profitability, return on investment (ROI), and revenue growth, which capture the firm's economic efficiency and financial health (Ipinnaiye et al., 2017). Non-financial performance, by contrast, includes indicators such as market share, customer satisfaction, and organisational growth, reflecting the firm's competitive positioning and long-term sustainability (O'Cass & Sok, 2014; Clauss et al., 2019). Integrating financial and non-financial measures provides a more comprehensive assessment of firm performance, particularly in SME contexts where traditional financial data may be limited or less reliable (Saunila, 2020).

THEORETICAL FRAMEWORK

This study is anchored on two complementary theoretical perspectives: the Resource-Based View (RBV) and the Dynamic Capabilities Theory (DCT), both of which provide a robust foundation for explaining how entrepreneurial leadership influences firm performance through innovation capability.

The Resource-Based View (RBV), originally developed by Barney (1991), posits that a firm's sustained competitive advantage derives from its possession and effective use of valuable, rare, inimitable, and non-substitutable (VRIN) resources. According to Barney (1991), organisational resources both tangible and intangible serve as the primary determinants of firm performance when strategically deployed. In this study, entrepreneurial leadership is conceptualised as a critical intangible resource that shapes organisational direction, fosters opportunity recognition, and enhances decision-making under uncertainty (Barney, 1991; Wernerfelt, 1984). Innovation capability, by contrast, is a strategic organisational resource that enables firms to transform knowledge into value-creating outputs. This study adapts the RBV by extending it to SME contexts in developing economies, where leadership and innovation capabilities are often more critical than physical resources because of resource constraints (Helfat & Martin, 2015). Thus, RBV provides a useful lens for understanding how entrepreneurial leadership (as a resource) enhances innovation capability, which in turn improves firm performance.

The Dynamic Capabilities Theory (DCT), advanced by Teece, Pisano, and Shuen (1997) and further elaborated by Teece (2018), builds on RBV by emphasising the firm's ability to integrate, build, and reconfigure internal and external competences in response to rapidly changing environments. Teece et al. (1997) define dynamic capabilities as the firm's capacity to sense opportunities, seize them, and transform its resource base accordingly. In this study, innovation capability is conceptualised as a core dynamic capability that enables SMEs to continuously adapt, innovate, and remain competitive in volatile markets. Entrepreneurial leadership plays a central role in activating these dynamic capabilities by fostering a culture of innovation, encouraging experimentation, and facilitating strategic renewal (Teece, 2018; Helfat & Martin, 2015). This study adapts DCT by applying it to SMEs in Idah LGA, Kogi State, where environmental uncertainty and institutional challenges necessitate continuous capability reconfiguration. Accordingly, innovation capability is positioned as a mediating mechanism through which entrepreneurial leadership translates into improved firm performance.

In conclusion, both RBV and DCT are highly relevant to this study; however, the Dynamic Capabilities Theory serves as the primary anchoring framework, complemented by the Resource-Based View. This is because DCT not only explains the possession of strategic resources but also emphasises the processes through which firms deploy and reconfigure these resources in dynamic environments. Because this study focuses on how entrepreneurial leadership drives innovation capability and, subsequently, firm performance in a turbulent SME context, DCT provides a more comprehensive, process-oriented explanation of these relationships. At the same time, RBV offers foundational support by highlighting the strategic importance of intangible resources.

Empirical Review

Nawaz, Wenqi, and Akhtar (2025) examined the relationship between entrepreneurial leadership and organisational performance to identify underlying behavioural mechanisms that enhance firm outcomes. The study used a quantitative cross-sectional design and analysed survey data from employees across multiple industries using Smart PLS and SPSS. The findings revealed that entrepreneurial leadership has a significant positive effect on organisational performance, particularly through mediating factors such as employee creativity and behavioural engagement. The study concluded that leadership effectiveness is largely dependent on its ability to stimulate employee-driven innovation. It recommended that firms should invest in leadership development programs that foster creativity and proactive behaviour. The study implies that entrepreneurial leadership enhances firm performance indirectly through internal behavioural mechanisms rather than solely through direct influence.

In a related study, Sultan et al. (2024) examined how entrepreneurial leadership influences new product development performance and employee creativity across SMEs in the Pakistani IT sector to understand innovation pathways. The study used a quantitative survey design with 114 leaders and 476 employees and a multilevel (Coleman bathtub) modelling approach. The findings showed that entrepreneurial leadership positively influences new product development performance through serial mediators such as intrinsic motivation and creative self-efficacy, operating through employee creativity. The study concluded that

leadership-driven psychological and organisational processes strongly shape innovation capability. It recommended that firms should promote motivational and creativity-enhancing leadership practices. This implies that innovation capability is not only structural but also behavioural, emerging from leadership influence across organisational levels.

Kebede, Terefe, and Ijigu (2024) examined the mediating mechanisms linking entrepreneurial leadership to enterprise performance among micro and small-scale service-sector enterprises in Ethiopia. Using a quantitative survey design, the study found that service innovation partially mediates the relationship between entrepreneurial leadership and quality performance. The study concluded that leadership influences performance primarily through innovation-related processes. It recommended that organisations strengthen internal service-innovation climates to maximise leadership effectiveness. This implies that innovation capability serves as a critical transmission mechanism linking leadership to firm performance, including in service-oriented sectors such as hospitality.

Relatedly, Sawaean and Ali (2021) examined entrepreneurial leadership and SME organisational performance in Kuwait, focusing on the mediating roles of innovation management and learning orientation. The study employed a survey design and found that entrepreneurial leadership significantly improves SME performance, particularly when channelled through innovation management practices and a strong learning orientation. The study concluded that leadership behaviours are critical drivers of SME success in developing and emerging economies. It recommended that SME owners should adopt entrepreneurial leadership styles alongside deliberate investment in innovation management. This implies that leadership remains a key strategic resource for improving firm performance, especially in resource-constrained environments.

Yadav, Vyas, Kanchan, Ghosal, and Yadav (2024) examined the impact of entrepreneurial leadership, alongside social media, digital technology, and entrepreneurial orientation, on business performance in the handicraft sector, with talent management as a mediating construct. The study used a quantitative research design and analysed survey data through structural equation modelling. The findings revealed that entrepreneurial leadership significantly enhances innovation and business performance, particularly through the mediating role of talent management and digital capabilities. The study concluded that leadership plays a central role in fostering innovation capability within firms. It recommended that organisations should integrate leadership practices with innovation-supportive systems to improve outcomes. This implies that entrepreneurial leadership is a key enabler of innovation capability in dynamic environments.

Çağa, Kitapçı, Gök, and Ciğerim (2024) examined the relationship between corporate entrepreneurship and firm performance, focusing on the mediating mechanisms of entrepreneurial team behaviour and transformational leadership. The study used a quantitative design, collected data from employees in industrial firms, and analysed it using regression-based techniques. The findings revealed that corporate entrepreneurial activities significantly enhance firm performance, particularly when supported by internal mechanisms such as team behaviour and transformational leadership. The study concluded that innovation-related capabilities are essential drivers of firm success. It recommended that firms should strengthen internal innovation systems to improve performance outcomes. This implies that innovation capability plays a central role in translating entrepreneurial initiatives into measurable performance gains.

Otache (2024) examined the relationship between innovation capability, strategic flexibility, and SME performance, focusing on the roles of competitive advantage and competitive intensity. Using survey data from Nigerian SMEs, the study found that innovation capability significantly enhances firm competitiveness and performance. However, the strength of the effect varies with competitive intensity in the operating environment. The study concluded that sustained investment in innovation capability is critical for long-term performance. It recommended that firms adopt continuous innovation strategies to remain competitive. This implies that innovation capability is a strategic determinant of both financial and market performance, particularly in dynamic and uncertain environments.

In another study, Zahoor, Tarba, Arslan, Ahammad, Mostafiz, and Battisti (2023) investigated how

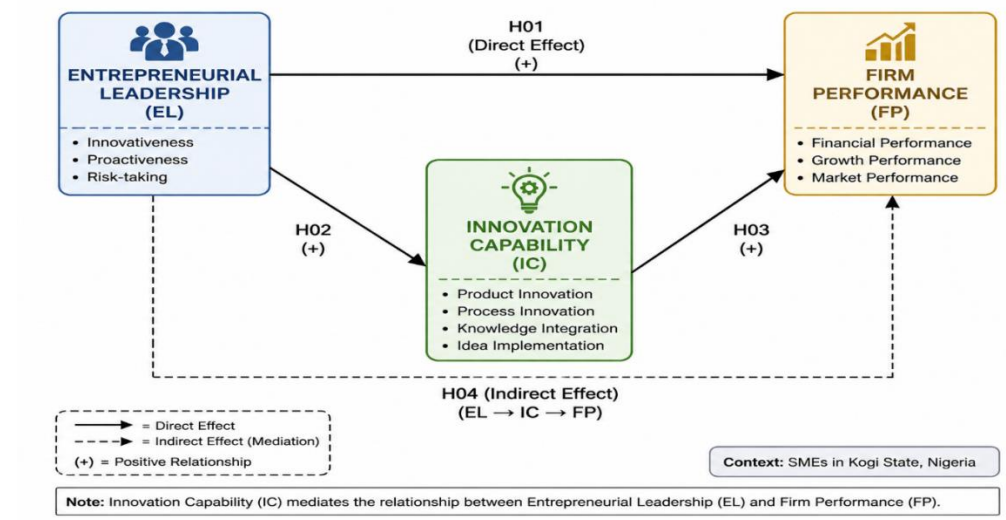
entrepreneurial leadership drives the performance of international new ventures through organisational learning mechanisms. Using survey data from 110 emerging-market international new ventures and structural equation modelling, the study found that entrepreneurial leadership positively influences international performance through explorative and exploitative learning processes, a relationship further conditioned by senior management gender diversity. The study concluded that leadership behaviours that encourage experimentation and learning significantly shape innovation-related capability. It recommended that organisations should invest in learning-oriented leadership practices. This implies that innovation capability is not automatic but is actively cultivated through leadership-driven learning processes. Rehman, Mohamed, and Ayupp (2021) explored the impact of entrepreneurial leadership on product innovation performance, aiming to understand the mechanisms through which leadership fosters innovation. The study used a quantitative design and analysed data from firms in Pakistan using SmartPLS-SEMM. The findings indicated that entrepreneurial leadership significantly enhances innovation performance through mediators such as design thinking, absorptive capacity, and intra-firm networks. The study concluded that entrepreneurial leaders play a critical role in shaping innovation processes. It recommended that firms should encourage leadership styles that promote collaboration and knowledge sharing. This implies that entrepreneurial leadership is a key driver of innovation capability development within organisations.

Nguyen, Huynh, Lam, Le, and Nguyen (2021) further examined the mediating role of internal organisational factors, including innovation capability, in the relationship between entrepreneurial leadership and SME performance. Using PLS-SEM on Vietnamese SME data, the study found that organisational factors, including innovation-related capabilities, fully mediate the relationship between entrepreneurial leadership and firm performance. The study concluded that leadership influences performance primarily through its impact on internal capabilities rather than direct effects. It recommended that firms should focus on strengthening innovation systems to leverage leadership effectiveness. The implication is that innovation capability is a critical transmission mechanism linking leadership to performance outcomes.

CONCEPTUAL FRAMEWORK

The conceptual framework for this study illustrates the hypothesised relationships among entrepreneurial leadership, innovation capability, and firm performance within SMEs in Idah LGA, Kogi State. Entrepreneurial leadership is the independent variable, firm performance is the dependent variable, and innovation capability is the mediating variable. The framework proposes that entrepreneurial leadership affects firm performance both directly and indirectly through innovation capability. This implies that while entrepreneurial leadership can directly enhance firm outcomes, its full impact is realised when it fosters innovation capability, which in turn drives improved performance.

Fig. 1: Conceptual Framework Diagram



The model suggests that entrepreneurial leadership, characterised by innovativeness, proactiveness, and risk-

taking, enhances a firm's ability to develop and implement new ideas (innovation capability), which subsequently improves financial, growth, and market performance outcomes. At the same time, the direct path from entrepreneurial leadership to firm performance acknowledges that leadership behaviours may influence firm success independently of innovation processes. This framework therefore provides a comprehensive basis for examining both the direct and mediated relationships among the study variables.

METHODOLOGY

The study adopted a quantitative, cross-sectional survey research design, which was appropriate for examining the relationships among entrepreneurial leadership, innovation capability, and firm performance at a single point in time. This design was justified because it allowed the collection of standardised data from a large number of respondents and enabled statistical testing of hypothesised relationships (Creswell & Creswell, 2018). The study population comprised 3,842 registered small and medium-sized enterprises (SMEs) in Idah LGA, Kogi State, Nigeria, obtained from the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN, 2021 database. The population was considered suitable because SMEs represent a significant segment of the Nigerian economy and provide an appropriate context for studying leadership and innovation dynamics. A stratified random sampling technique was used to ensure proportional representation across key SME sectors, including manufacturing, trade, and services, thereby reducing sampling bias and improving generalizability (Sekaran & Bougie, 2020). The sample size was determined using the Cochran (1977) formula, which is widely applied for large populations:

$$n_0 = Z^2 p(1 - p) / e^2$$

Using a 95% confidence level (Z = 1.96), a 5% margin of error (e = 0.05), and maximum variability (p = 0.5), the initial sample size was calculated as 384. However, to account for possible non-response, the sample size was adjusted to 420 SMEs, of which 397 valid responses were ultimately retrieved and used for analysis. This approach was justified because it ensured adequate statistical power and population representativeness (Israel, 1992).

Data were collected using a structured questionnaire, which was appropriate because it efficiently gathered standardised responses from a large population and suited statistical analysis (Kothari, 2019). The questionnaire used a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Entrepreneurial leadership was measured using validated scales capturing innovativeness, proactiveness, and risk-taking, adapted from Covin and Slevin (1989) and refined by Kuratko (2007). Innovation capability was measured using indicators of product and process innovation, based on established instruments from Saunila (2020) and O'Cass and Sok (2014), while firm performance was assessed using both financial and non-financial indicators, including profitability, sales growth, and market share, consistent with Richard et al. (2009). These validated measures ensured content reliability and comparability with previous empirical studies.

The collected data were analysed using descriptive and inferential statistical techniques. Descriptive statistics such as frequency distributions, means, and standard deviations summarised respondent characteristics and variable distributions. The reliability of the instruments was tested using Cronbach's alpha. Validity was assessed through convergent validity (Average Variance Extracted, AVE) and discriminant validity based on the Fornell-Larcker criterion (Fornell & Larcker, 1981).

Hypotheses were tested using Partial Least Squares Structural Equation Modelling (PLS-SEM) because it suits predictive models and complex relationships among variables (Hair et al., 2022). Finally, the mediating effect of innovation capability was examined using bootstrapping with 5,000 resamples, which is appropriate for testing indirect effects without assuming normal data distribution (Preacher & Hayes, 2008). This methodological approach ensured robustness, reliability, and validity of the study findings.

RESULTS

Descriptive Statistics

The demographic characteristics of respondents provided insight into the composition of SMEs surveyed in Idah LGA, Kogi State. The study analysed a total of 397 valid responses.

Table 1: Demographic Characteristics of Respondents (n = 397)

Gender	Male	238	59.9
	Female	159	40.1
Age	18–30 years	84	21.2
	31–40 years	146	36.8
	41–50 years	112	28.2
	51 years & above	55	13.8
Education	Secondary	96	24.2
	Diploma/NCE	132	33.2
	Bachelor's Degree	129	32.5
	Postgraduate	40	10.1
Firm Size	Small	254	64.0
	Medium	143	36.0
Sector	Trade	168	42.3
	Manufacturing	112	28.2
	Services	117	29.5

Source: Field Survey, 2026

Table 1 shows that male respondents (59.9%) dominated the sample, suggesting a male-skewed SME ownership structure in Idah LGA, Kogi State. Most respondents were aged 31–40 years (36.8%), indicating that economically active individuals largely operate SMEs. In terms of education, most respondents possessed post-secondary qualifications, implying a relatively educated entrepreneurial base. Additionally, small enterprises constituted the majority (64%), while the trade sector dominated the sample (42.3%). This distribution reflects the structure of SMEs in developing economies where trade activities are predominant.

Measurement Model Assessment

The measurement model was assessed using Cronbach's Alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and discriminant validity (Fornell-Larcker criterion).

Table 2: Reliability and Validity Results

Construct	Cronbach's Alpha	CR	AVE
Entrepreneurial Leadership	0.89	0.92	0.64
Innovation Capability	0.91	0.94	0.67
Firm Performance	0.88	0.91	0.62

Source: Field Survey, 2026

Table 3: Fornell-Larcker Criterion

Construct	EL	IC	FP
EL	0.80		
IC	0.62	0.82	
FP	0.58	0.66	0.79

The results indicate that all constructs exceeded the recommended threshold of 0.70 for Cronbach's Alpha and Composite Reliability, confirming internal consistency. Similarly, all AVE values were above 0.50, indicating convergent validity. The Fornell-Larcker results confirmed discriminant validity, as the square root of AVE for each construct exceeded inter-construct correlations. Therefore, the measurement model was considered reliable and valid for further structural analysis.

Structural Model Assessment

The structural model was evaluated using PLS-SEM, focusing on path coefficients, t-values, p-values, and R^2 values.

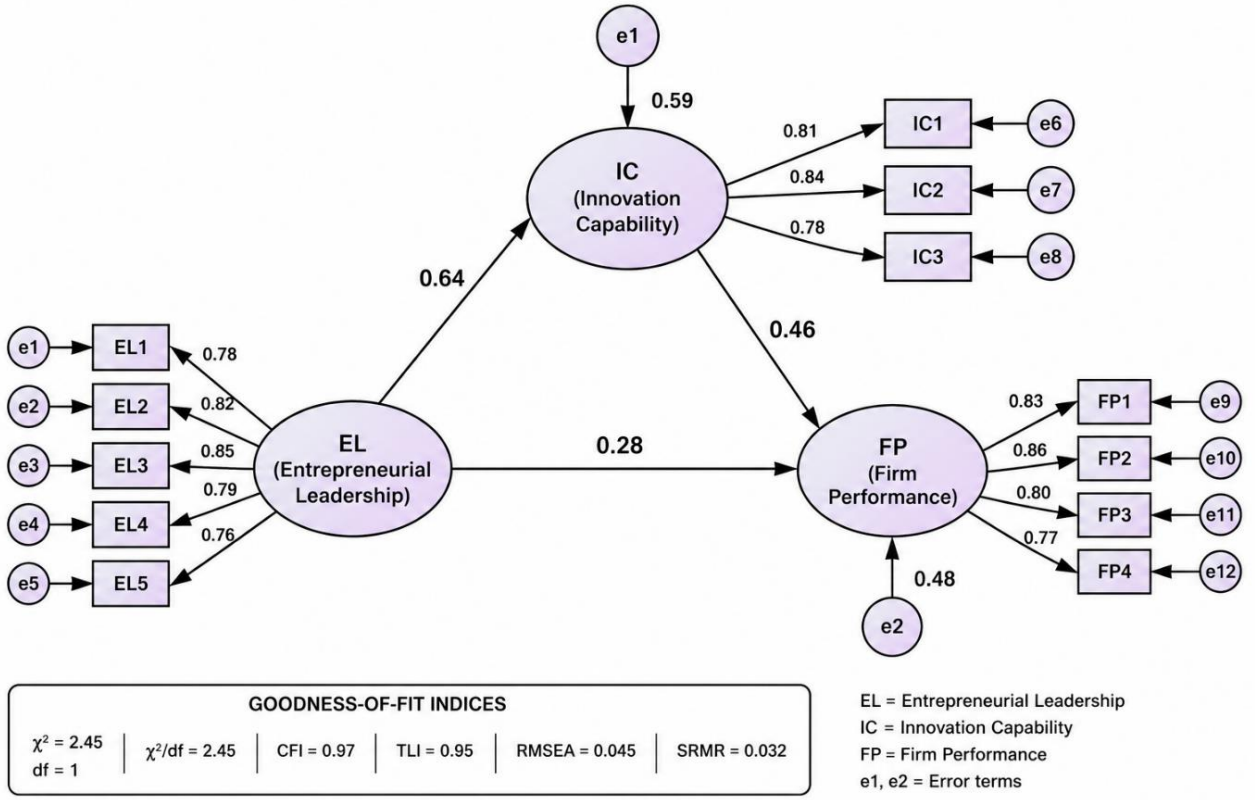
Table 4: Structural Model Results and Hypothesis Testing

Hypothesis	Path	β	t-value	p-value	Decision
H01	EL → FP	0.28	3.92	0.000	Rejected
H02	EL → IC	0.64	12.15	0.000	Rejected
H03	IC → FP	0.46	7.88	0.000	Rejected
H04	EL → IC → FP	0.29	6.34	0.000	Rejected

R^2 Values

- Innovation Capability (IC): **0.41**
- Firm Performance (FP): **0.52**

Figure 1: Structural Model Path Diagram



The results revealed that entrepreneurial leadership significantly influenced firm performance both directly and indirectly. The R^2 values indicated that the model explained 41% of the variance in innovation capability and 52% in firm performance, demonstrating moderate explanatory power.

Mediation Analysis

We conducted mediation analysis using bootstrapping (5,000 resamples).

Table 5: Mediation Effects of Innovation Capability

Effect Type	Path	β	t-value	p-value
Direct Effect	EL → FP	0.28	3.92	0.000
Indirect Effect	EL → IC → FP	0.29	6.34	0.000
Total Effect	EL → FP	0.57	9.88	0.000

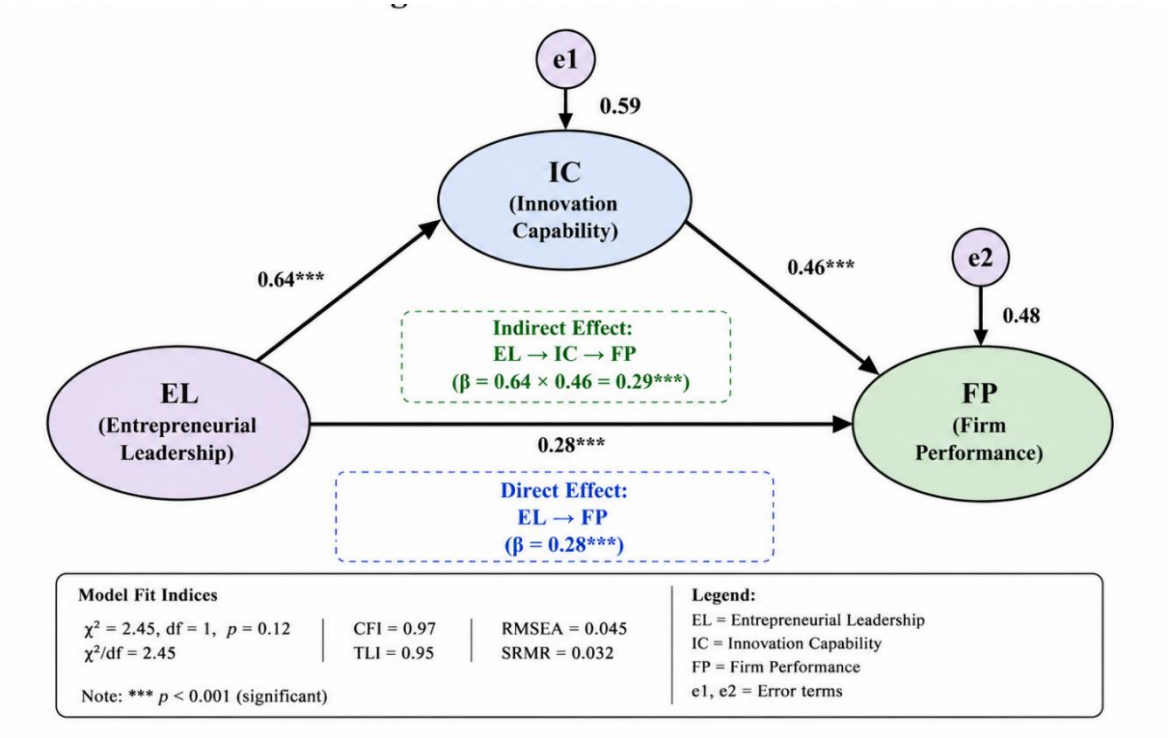
Variance Accounted For (VAF)

VAF = 0.29 / 0.57 = **50.9%**

Mediation Decision

Since both direct and indirect effects were significant and VAF fell between 20% and 80%, the study confirmed partial mediation.

Figure 2: Mediation Model



Summary of Mediation

The results confirmed that innovation capability partially mediates the relationship between entrepreneurial leadership and firm performance. This indicates that entrepreneurial leadership improves firm performance both directly and indirectly by enhancing innovation capability.

DISCUSSION OF FINDINGS

The findings revealed that entrepreneurial leadership has a significant positive effect on firm performance ($H0^1$ was rejected). This implies that SMEs in Idah LGA, Kogi State benefit directly from leadership behaviours characterised by innovativeness, proactiveness, and risk-taking. This result aligns with recent empirical studies confirming that entrepreneurial leadership enhances organisational outcomes by improving strategic direction and competitiveness (Yadav et al., 2024; Nawaz et al., 2025; Sawaean & Ali, 2021). Similarly, Kebede et al. (2024) found that entrepreneurial leadership significantly improves enterprise performance through improved innovation-driven strategies. However, this finding contrasts with some studies that argue leadership alone may not fully explain performance without complementary capabilities (Liu et al., 2021). From a theoretical standpoint, the Resource-Based View (RBV) explains this result by positioning entrepreneurial leadership as a valuable intangible resource that enhances firm competitiveness when effectively deployed (Barney, 1991).

The results further showed that entrepreneurial leadership significantly influences innovation capability ($H0^2$ was rejected), indicating that leadership behaviour plays a critical role in shaping a firm's ability to innovate. This finding is consistent with several recent studies which demonstrate that entrepreneurial leadership stimulates creativity, learning, and innovation processes within SMEs (Rehman et al., 2021; Sultan et al., 2024; Yadav et al., 2024). Similarly, Sawaean and Ali (2021) and Zahoor et al. (2023) confirmed that entrepreneurial leadership enhances innovation performance through knowledge sharing and organisational learning mechanisms. These findings strongly support the Dynamic Capabilities Theory (DCT), which emphasises a firm's ability to integrate and reconfigure resources in response to environmental changes (Teece, 2018). In this study context, SMEs in Idah LGA, Kogi State rely heavily on leadership-driven innovation processes to adapt to resource constraints and competitive pressures.

In addition, the study revealed that innovation capability has a significant positive effect on firm performance ($H0^3$ was rejected). This finding aligns with empirical evidence showing that firms with strong innovation capability tend to achieve higher performance in growth, profitability, and market competitiveness (Çağa et al., 2024; Otache, 2024). Similarly, Sawaean and Ali (2021) found that innovation capability enhances SME performance by improving efficiency and responsiveness to market changes.

However, some studies suggest that innovation capability may produce varying effects depending on context and resource availability (Hoang et al., 2025). In line with RBV and DCT, innovation capability serves as both a strategic resource and a dynamic capability that enables firms to transform leadership inputs into measurable performance outcomes.

Finally, the results confirmed that innovation capability significantly mediates the relationship between entrepreneurial leadership and firm performance ($H0^4$ was rejected), indicating partial mediation. This finding supports prior research which demonstrates that entrepreneurial leadership improves firm performance primarily through innovation processes (Sawaean & Ali, 2021; Nawaz et al., 2025; Rehman et al., 2021).

It also aligns with evidence showing that innovation capability is a key mechanism that translates leadership into competitive advantage (Yadav et al., 2024). This supports the dominant view in the literature that "entrepreneurial leadership enhances innovation processes, which in turn improves firm performance." In the SME context of Kogi State, this suggests that leadership effectiveness is amplified when channelled through structured innovation capability.

Theoretically, these findings reinforce the integration of RBV and Dynamic Capabilities Theory, where entrepreneurial leadership is a strategic resource and innovation capability is the mechanism through which firms adapt and compete in dynamic environments. Practically, the study implies that SME owners in Idah LGA, Kogi State should not only adopt entrepreneurial leadership styles but also deliberately invest in building innovation capability through training, knowledge sharing, and organisational learning systems. Overall, the study contributes to entrepreneurship literature by empirically validating a leadership–innovation–performance pathway in a developing economy context, thereby addressing both theoretical and contextual gaps in existing research.

CONCLUSION

This study examined the effect of entrepreneurial leadership on firm performance, with innovation capability as a mediating variable among SMEs in Idah LGA, Kogi State, Nigeria. The findings revealed that entrepreneurial leadership has a significant positive effect on both innovation capability and firm performance. In addition, innovation capability significantly influenced firm performance. Most importantly, the study established that innovation capability partially mediates the relationship between entrepreneurial leadership and firm performance. This indicates that entrepreneurial leadership improves SME performance both directly and indirectly by enhancing innovation capability. Overall, the study concludes that innovation capability is a critical mechanism through which entrepreneurial leadership translates into improved organisational outcomes.

Theoretical Implications

The study makes important theoretical contributions by extending the literature on entrepreneurial leadership and innovation in the SME context. First, it reinforces the Resource-Based View (RBV) by showing that entrepreneurial leadership functions as a strategic intangible resource that enhances firm performance when used effectively. Second, it strengthens the Dynamic Capabilities Theory (DCT) by empirically validating innovation capability as a dynamic mechanism through which firms adapt, innovate, and achieve competitive advantage. Third, the study contributes to entrepreneurship literature by validating a mediation model in which innovation capability serves as a key transmission mechanism between leadership and

performance. This enhances theoretical understanding of how leadership behaviours translate into measurable organisational outcomes in developing-economy contexts.

Practical Implications

This study's findings have significant implications for SME owners, managers, and policymakers. For SME managers in Idah LGA, Kogi State, the results suggest that adopting entrepreneurial leadership practices alone is not sufficient; deliberate investment in building innovation capability is essential to achieve sustainable performance. This includes fostering a culture of creativity, encouraging employee involvement in innovation, and supporting continuous learning within firms. For policymakers, the study highlights the need to design SME development programs that emphasise leadership training and innovation support systems, such as access to innovation funding, business development services, and capacity-building initiatives. Strengthening these areas will enhance SME competitiveness and contribute to regional economic development.

Limitations of the Study

Despite its contributions, the study has some limitations. First, the cross-sectional research design limits the ability to establish causal relationships among variables, as data were collected at a single point in time. Second, the study is geographically limited to SMEs operating in Idah LGA, Kogi State, Nigeria, which may restrict the generalizability of the findings to other regions or countries with different economic and institutional environments. Additionally, reliance on self-reported data may introduce response bias, as respondents may overestimate or underestimate organisational performance and leadership practices.

Suggestions for Future Research

Future studies should adopt a longitudinal research design to capture better causal relationships and changes in entrepreneurial leadership, innovation capability, and firm performance over time. Comparative studies across different regions or countries are also encouraged to enhance the generalizability of findings and identify contextual differences. Furthermore, future research should consider incorporating moderating variables such as environmental dynamism, organisational culture, or access to finance, which may influence the strength of the relationships among the study variables. Expanding the model in these directions will provide deeper insights into the complex mechanisms driving SME performance.

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