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Entrepreneurial Leadership as a Driver of Employee Creativity and Innovative Work Behaviour in SMEs in Africa: The Dual Mediating Analysis of Entrepreneurial Intention and Self-Efficacy

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Abstract

This study examines how entrepreneurial leadership enhances employee creativity and innovative work behaviour in African small and medium sized enterprises. It further tests the dual mediating roles of entrepreneurial intention and entrepreneurial self-efficacy in explaining how entrepreneurial leadership translates into innovation related employee outcomes. The study used a quantitative approach and cross-sectional survey design. Data was collected from 388 employees of SMEs operating in Ghana and was analyzed using partial least squares structural equation modelling in SmartPLS version 4.0. The measurement and structural models were assessed through reliability, validity, model fit, explanatory power, predictive relevance, and bootstrapping with 5000 subsamples. The finding revealed that entrepreneurial leadership significantly improves employee creativity, innovative work behaviour, entrepreneurial intention, and entrepreneurial self-efficacy. Entrepreneurial intention significantly predicts employee creativity, while entrepreneurial self-efficacy significantly predicts innovative work behaviour. The mediation results further confirm that entrepreneurial intention partially mediates the relationship between entrepreneurial leadership and employee creativity, whereas entrepreneurial self-efficacy partially mediates the relationship between entrepreneurial leadership

and innovative work behaviour. The practical implications are that SME owners and managers should develop entrepreneurial leadership practices that promote opportunity seeking, autonomy, experimentation, and confidence building to strengthen creativity and innovation in resource constrained environments, thereby enhancing innovation capacity in African SMEs to support enterprise resilience, job creation, livelihood improvement, and inclusive economic development. The study contributes to entrepreneurial leadership and innovation literature by modelling entrepreneurial intention and entrepreneurial self-efficacy as complementary mediators linking entrepreneurial leadership to two distinct innovation outcomes in an under researched African SME context.

Keywords

Entrepreneurial Leadership, Employee Creativity, Innovative Work Behaviour, Entrepreneurial Intention, Self-Efficacy, SMEs

1. Introduction

Small and medium sized enterprises remain central to Africa's development agenda because they provide employment, support income generation, stimulate local innovation, and broaden participation in economic activity. Globally, micro, small, and medium enterprises account for over 90% of firms and make major contributions to employment and gross domestic product, while in emerging and developing economies they remain critical vehicles for inclusive growth, poverty reduction, and enterprise resilience (IFC, 2024; World Bank, 2025). In Africa, where the demand for productive jobs continues to rise, SMEs are especially important because they absorb a large share of the labour force, create opportunities for youth and women, and contribute to the diversification of national economies (Agyapong, 2025; World Bank, 2026).

However, many African SMEs operate in uncertain and resource constrained environments characterised by limited finance, weak infrastructure, digital capability gaps, intense competition, and institutional volatility (World Bank, 2023, 2025; AFI, 2024). These constraints make creativity and innovative work behaviour essential for SME survival, competitiveness, and long-term growth.

Entrepreneurial leadership has become an important leadership approach for understanding how SME owners, managers, and supervisors mobilise employees toward opportunity recognition, experimentation, and value creation. Entrepreneurial leadership refers to a leader's capacity to influence employees to identify opportunities, take calculated risks, act proactively, and pursue innovative solutions under uncertainty (Renko et al., 2015; Bagheri et al., 2022; Karol, 2023). Unlike conventional leadership approaches that often emphasise control, stability, and routine performance, entrepreneurial leadership encourages autonomy, initiative, learning from failure, resourcefulness, and opportunity seeking behaviour

(Mehmood et al., 2021; Hoang et al., 2022; Xu, 2026). This leadership style is particularly relevant to African SMEs because such firms often lack the formal research and development structures available to large organisations. Therefore, innovation frequently depends on how leaders motivate employees to generate ideas, challenge existing routines, and convert limited resources into new products, services, and work processes.

Employee creativity is a key outcome of entrepreneurial leadership. It refers to the generation of novel and useful ideas relating to products, services, procedures, markets, and work methods (Amabile, 1988; Liu et al., 2023). Creativity is valuable in SMEs because it allows employees to identify new ways of solving customer problems, reducing operational inefficiencies, adapting to market changes, and improving service delivery. Recent innovation research shows that creativity is a foundational condition for SME innovation and performance because firms cannot implement innovation without first generating useful ideas (Afsar & Umrani, 2020; Mubarak et al., 2022; Agyapong, 2025). In resource constrained African SMEs, employee creativity is especially important because employees are often required to improvise, solve problems quickly, and develop low-cost solutions to operational and market challenges.

Innovative work behaviour extends creativity by capturing the process through which employees not only generate ideas but also promote, champion, and implement them within the workplace (Janssen, 2000; Newman et al., 2018; Afsar & Umrani, 2020). While employee creativity focuses mainly on idea generation, innovative work behaviour includes idea exploration, idea promotion, and idea realisation. This distinction is important because employees may produce creative ideas without having the motivation, confidence, or organisational support required to implement them. In SMEs, innovative work behaviour is critical because innovation is often informal, employee driven, and embedded in daily work practices rather than formalised in dedicated innovation units (Mubarak et al., 2022; Santoso et al., 2023; Agyapong, 2025). Thus, entrepreneurial leadership may strengthen innovative work behaviour by creating a work climate in which employees feel encouraged to experiment, take initiative, and translate ideas into practical improvements.

Entrepreneurial intention is one motivational mechanism through which entrepreneurial leadership may shape creativity. Entrepreneurial intention refers to an individual's conscious willingness and commitment to engage in entrepreneurial or value creating action (Liñán & Fayolle, 2015; Nguyen et al., 2021). Within existing firms, entrepreneurial intention does not only mean starting a new business; it also reflects employees' readiness to identify opportunities, propose improvements, and participate in innovative initiatives. Entrepreneurial leaders strengthen this intention by communicating opportunity focused visions, encouraging initiative, and legitimising experimentation as part of work behaviour (Schmutzler et al., 2021; Mehmood et al., 2021; Santoso et al., 2023). When employees develop stronger entrepreneurial intention, they are more likely to think creatively, question routine practices, and search for new ways of creating value

for the firm and its customers.

Entrepreneurial self-efficacy is another important mechanism linking entrepreneurial leadership to innovation outcomes. It refers to an individual's belief in his or her capability to perform entrepreneurial and innovation related tasks successfully (Bandura, 1997; Newman et al., 2019). Employees with high entrepreneurial self-efficacy are more likely to approach difficult tasks with confidence, persist when facing obstacles, and convert ideas into action. Entrepreneurial leadership can strengthen self-efficacy by providing encouragement, role modelling opportunity seeking behaviour, granting autonomy, and supporting employees during experimentation (Li et al., 2020; Bagheri et al., 2022; Xu, 2026). In African SMEs, where employees often face limited resources and uncertain market conditions, self-efficacy is particularly important because innovation requires confidence, persistence, and resilience. Therefore, entrepreneurial self-efficacy may be a direct psychological channel through which entrepreneurial leadership improves innovative work behaviour.

Taken together, the present study argues that entrepreneurial leadership enhances employee creativity and innovative work behaviour in African SMEs not only through direct influence but also through two agentic motivational mechanisms: entrepreneurial intention and entrepreneurial self-efficacy. This position is grounded in social cognitive theory, which explains that human action is shaped by the interaction between environmental cues, cognitive beliefs, motivation, and behaviour (Bandura, 1986, 1997). Entrepreneurial leaders provide the social and organisational cues that activate employees' intention to act entrepreneurially and strengthen their confidence to perform innovation related tasks. These motivational states subsequently influence employees' capacity to generate creative ideas and implement innovative solutions.

Although SMEs are widely recognised as engines of employment, innovation, and inclusive growth, many African SMEs continue to record weak innovation performance and limited organisational growth. Recent evidence shows that firms in Sub-Saharan Africa grow more slowly across their lifecycle than firms in other regions, raising concerns about productivity, job creation, and long-term competitiveness (World Bank, 2026). This challenge is intensified by finance gaps, infrastructure weaknesses, limited digital readiness, market uncertainty, and managerial capability constraints (World Bank, 2023, 2025; AFI, 2024). Under these conditions, the ability of SME leaders to stimulate creativity and innovative work behaviour among employees becomes a critical managerial and policy concern.

The existing literature provides useful evidence that entrepreneurial leadership can promote employee creativity and innovative work behaviour (Li et al., 2020; Bagheri et al., 2022; Hoang et al., 2022; Xu, 2026). However, four important gaps remain. First, much of the empirical evidence on entrepreneurial leadership and innovation has been developed in Western and Asian contexts, while African SMEs remain underrepresented despite their developmental importance (Mehmood et al., 2021; Agyapong, 2025; World Bank, 2026). This limits the contextual relevance of existing theory because African SMEs operate under distinctive institu-

tional, financial, infrastructural, and labour market conditions.

Second, prior studies have often examined employee creativity and innovative work behaviour as overlapping or interchangeable outcomes, even though they represent different stages of innovation. Creativity concerns the generation of novel and useful ideas, whereas innovative work behaviour includes idea promotion and implementation (Newman et al., 2018; Afsar & Umrani, 2020; Mubarak et al., 2022). Treating both outcomes as the same may obscure how entrepreneurial leadership influences ideation differently from implementation.

Third, although entrepreneurial intention and entrepreneurial self-efficacy are widely recognised as important motivational drivers of entrepreneurial and innovative action, they are frequently examined separately rather than as parallel mediating mechanisms within one integrated model (Nguyen et al., 2021; Schmutzler et al., 2021; Santoso et al., 2023). This creates an incomplete understanding of whether employees become creative because they intend to act entrepreneurially, because they believe they can perform innovation related tasks, or because both mechanisms operate simultaneously.

Fourth, existing studies have not sufficiently explained how entrepreneurial leadership translates into employee level innovation outcomes within resource constrained African SMEs. This weakens both theoretical understanding and practical guidance for SME managers, enterprise development agencies, and policymakers. Addressing these gaps is important because African economies require SMEs that are not only numerous but also innovative, resilient, productive, and capable of generating quality employment. Therefore, this study examines entrepreneurial leadership as a driver of employee creativity and innovative work behaviour in African SMEs, with entrepreneurial intention and entrepreneurial self-efficacy serving as dual mediating mechanisms.

1.1. Research Objectives

The general objective of the study is to examine the effect of entrepreneurial leadership on employee creativity and innovative work behaviour in African SMEs through the dual mediating roles of entrepreneurial intention and entrepreneurial self-efficacy. Specifically, the study seeks to:

1) Examine the direct effect of entrepreneurial leadership on employee creativity and innovative work behaviour.

2) Assess the effect of entrepreneurial leadership on entrepreneurial intention and entrepreneurial self-efficacy.

3) Determine the effect of entrepreneurial intention on employee creativity.

4) Determine the effect of entrepreneurial self-efficacy on innovative work behaviour.

5) Examine the mediating role of entrepreneurial intention in the relationship between entrepreneurial leadership and employee creativity.

6) Examine the mediating role of entrepreneurial self-efficacy in the relationship between entrepreneurial leadership and innovative work behaviour.

1.2. Contributions of the Study

The study makes three contributions. Theoretically, it extends social cognitive theory and the entrepreneurial leadership perspective by demonstrating how leadership operates through two agentic motivational states to shape distinct innovation outcomes, thereby enriching the nomological network surrounding entrepreneurial leadership (Bandura, 1986; Renko et al., 2015). In terms of contribution to existing knowledge, it provides rare empirical evidence from African SMEs and separates the ideation pathway from the implementation pathway, clarifying that intention is more proximal to creativity while self-efficacy is more proximal to innovative work behaviour (Liu et al., 2023; Afsar & Umrani, 2020). With respect to policy implications, the findings inform enterprise development agencies, business support institutions, and policy makers seeking to embed innovation capacity within the SME sector as a vehicle for inclusive growth and employment generation.

The remainder of the paper is organised as follows. Section two presents the theoretical framework, reviews relevant literature, and develops the hypotheses and conceptual model. Section three describes the methodology. Section four reports the analysis and results. Section five discusses the findings and the theoretical and managerial implications. Section six presents limitations, future research directions, and conclusions.

2. Literature Review and Hypotheses Development

2.1. Theoretical Framework

The study is anchored on social cognitive theory propounded by Albert Bandura (1986), complemented by the entrepreneurial leadership perspective advanced by Renko, El Tarabishy, Carsrud, and Brännback (2015) and the componential theory of creativity developed by Amabile (1988). Social cognitive theory proposes that human behaviour is the product of a continuous reciprocal interaction among personal factors, environmental influences, and behaviour itself, a process Bandura termed triadic reciprocal determinism (Bandura, 1986, 1997). Within this logic, the leadership context functions as an environmental stimulus, entrepreneurial intention and self-efficacy operate as personal cognitive states, and creativity and innovative work behaviour represent the behavioural outcomes. The theory is highly relevant to the present study because it explains why and how exposure to entrepreneurial leadership cultivates the motivational beliefs that drive employees to generate and implement novel ideas (Newman et al., 2019; Santoso et al., 2023). Self-efficacy, a central mechanism in the theory, captures the confidence that enables employees to attempt and persist with creative tasks despite uncertainty (Bandura, 1997; Schmutzler et al., 2021). The entrepreneurial leadership perspective justifies the focus on a leadership style that explicitly models opportunity seeking behaviour, while the componential theory of creativity explains the conditions under which intrinsic motivation and domain skills converge to produce creative output (Amabile, 1988; Liu et al., 2023). Together these perspectives provide a coherent and theoretically defensible foundation for the

proposed model.

2.2. Entrepreneurial Leadership and Employee Creativity

Entrepreneurial leaders foster a climate of psychological safety, autonomy, and opportunity orientation that encourages employees to explore unconventional solutions (Bagheri et al., 2022; Mehmood et al., 2021). Empirical evidence consistently indicates that entrepreneurial leadership stimulates creative behaviour by signalling that experimentation is valued and failure is tolerated (Cai et al., 2019; Liu et al., 2023). However, a minority of studies report weaker or context dependent effects, suggesting that the relationship may be sensitive to organisational resources and national culture (Hoang et al., 2022; Karol, 2023). On balance, the weight of evidence supports a positive association in entrepreneurial settings such as SMEs. Accordingly, the following hypothesis is proposed:

H1. Entrepreneurial leadership has a positive and significant effect on employee creativity.

2.3. Entrepreneurial Leadership and Innovative Work Behaviour

Beyond ideation, entrepreneurial leadership encourages the championing and implementation of ideas that characterise innovative work behaviour (Afsar & Umrani, 2020; Bagheri et al., 2022). Leaders who model proactiveness and risk taking provide both the inspiration and the resources that employees require to convert ideas into practice (Newman et al., 2018; Mubarak et al., 2022). While most studies confirm a robust positive relationship, some scholars caution that implementation depends additionally on structural enablers that leadership alone cannot supply (Hoang et al., 2022; Ofori & Appiah, 2024). The preponderance of evidence nonetheless favours a direct positive effect. Thus:

H2. Entrepreneurial leadership has a positive and significant effect on innovative work behaviour.

2.4. Entrepreneurial Leadership, Intention, and Self-Efficacy

Entrepreneurial leaders serve as salient role models whose behaviour shapes the entrepreneurial intentions of their followers through vicarious learning and verbal persuasion (Bandura, 1997; Nguyen et al., 2021). Exposure to opportunity focused leadership strengthens employees' commitment to pursue value creating activity, an effect documented across diverse settings (Schmutzler et al., 2021; Santoso et al., 2023). Similarly, entrepreneurial leadership builds entrepreneurial self-efficacy by providing mastery experiences, encouragement, and supportive feedback that raise employees' confidence in their own capabilities (Newman et al., 2019; Bagheri et al., 2022). Although a few studies find that the efficacy effect is partly contingent on prior experience, the dominant view supports positive direct effects (Cai et al., 2019; Mehmood et al., 2021). Hence:

H3. Entrepreneurial leadership has a positive and significant effect on entrepreneurial intention.

H4. Entrepreneurial leadership has a positive and significant effect on entre-

preneurial self-efficacy.

2.5. Entrepreneurial Intention and Employee Creativity

Entrepreneurial intention reflects a goal directed motivational state that channels cognitive and emotional energy towards opportunity seeking, a disposition closely aligned with the generation of novel ideas (Liñán & Fayolle, 2015; Nguyen et al., 2021). Employees with strong entrepreneurial intention actively scan their environment for problems to solve and possibilities to exploit, behaviours that underpin creativity (Santoso et al., 2023; Liu et al., 2023). While some scholars argue that intention is more closely tied to venture creation than to within job creativity, recent evidence affirms its relevance to creative output in established firms (Schmutzler et al., 2021; Mubarak et al., 2022). Therefore:

H5. Entrepreneurial intention has a positive and significant effect on employee creativity.

2.6. Entrepreneurial Self-Efficacy and Innovative Work Behaviour

Self-efficacy is among the most consistent predictors of innovative work behaviour because confident employees are more willing to champion ideas and absorb the risks associated with implementation (Bandura, 1997; Afsar & Umrani, 2020). Employees who believe in their entrepreneurial capabilities persist through obstacles and mobilise support for novel initiatives (Newman et al., 2019; Mubarak et al., 2022). Although a small number of studies report attenuated effects under highly bureaucratic conditions, the consensus supports a strong positive relationship (Cai et al., 2019; Santoso et al., 2023). Accordingly:

H6. Entrepreneurial self-efficacy has a positive and significant effect on innovative work behaviour.

2.7. The Mediating Roles of Intention and Self-Efficacy

Social cognitive theory implies that the influence of environmental stimuli on behaviour is transmitted through personal cognitive states (Bandura, 1986; Newman et al., 2019). On this basis, entrepreneurial leadership is expected to shape creativity indirectly by first elevating entrepreneurial intention, and to shape innovative work behaviour indirectly by first strengthening self-efficacy (Schmutzler et al., 2021; Santoso et al., 2023). Mediation evidence in adjacent domains supports such indirect transmission, although the strength of mediation varies with context and measurement (Nguyen et al., 2021; Liu et al., 2023). Building on the preceding direct hypotheses, the study proposes two mediating effects:

H7. Entrepreneurial intention mediates the relationship between entrepreneurial leadership and employee creativity.

H8. Entrepreneurial self-efficacy mediates the relationship between entrepreneurial leadership and innovative work behaviour.

Rationale for the Matched Mediation Pathways

The model deliberately pairs entrepreneurial intention with employee creativity

and entrepreneurial self-efficacy with innovative work behaviour, rather than specifying crossed paths in which intention also predicts innovative work behaviour and self-efficacy also predicts creativity. This specification is theory driven and follows from the distinct functions that the two cognitive states perform within social cognitive theory and the intention to action sequence (Bandura, 1986, 1997; Liñán & Fayolle, 2015). Entrepreneurial intention is a deliberative, goal directed motivational state concerned with whether an employee is willing to pursue opportunities and value creating ideas. Because creativity is fundamentally an ideation construct, that is, the generation of novel and useful ideas, it is most proximal to the motivational, opportunity scanning orientation that intention represents (Amabile, 1988; Nguyen et al., 2021; Liu et al., 2023). Entrepreneurial self-efficacy, by contrast, is an agentic capability belief concerned with whether an employee is confident of executing entrepreneurial tasks under risk and uncertainty. Because innovative work behaviour is fundamentally an implementation construct that requires employees to champion, mobilise support for, and realise ideas in the face of resistance and possible failure, it is most proximal to the volitional, persistence enabling function that self-efficacy represents (Bandura, 1997; Newman et al., 2019; Afsar & Umrani, 2020). In other words, the deliberative mechanism is matched to the ideation outcome and the agentic mechanism is matched to the enactment outcome, which mirrors the conceptual progression from idea generation to idea implementation. The two crossed paths were therefore not hypothesised because they are less strongly grounded in this theoretical logic; the study acknowledges them as plausible secondary relationships and returns to them as an avenue for future research in Section 6.1.

2.8. Conceptual Framework

Drawing on entrepreneurial leadership theory and the preceding empirical arguments, **Figure 1** presents the conceptual framework of the study. The framework positions entrepreneurial leadership as the exogenous construct that directly influences employee creativity and innovative work behaviour among SMEs in Africa. It further proposes entrepreneurial intention and entrepreneurial self-efficacy as dual mediating mechanisms through which entrepreneurial leadership translates into creativity and innovation related outcomes.

The framework specifies eight hypotheses. First, entrepreneurial leadership is expected to directly enhance employee creativity (H1) and innovative work behaviour (H2). Second, entrepreneurial leadership is proposed to strengthen entrepreneurial intention (H3) and entrepreneurial self-efficacy (H4). Third, entrepreneurial intention is expected to improve employee creativity (H5), while entrepreneurial self-efficacy is expected to enhance innovative work behaviour (H6). Finally, entrepreneurial intention is proposed to mediate the relationship between entrepreneurial leadership and employee creativity (H7), whereas entrepreneurial self-efficacy is proposed to mediate the relationship between entrepreneurial leadership and innovative work behaviour (H8). Because **Figure 1** represents the hypothesised model rather than estimated output, the paths are labelled with their

hypothesis numbers (H1 to H8) and do not display fitted coefficients; the estimated coefficients are reported later in Figure 2 and Figure 3 and in Table 7 and Table 8.

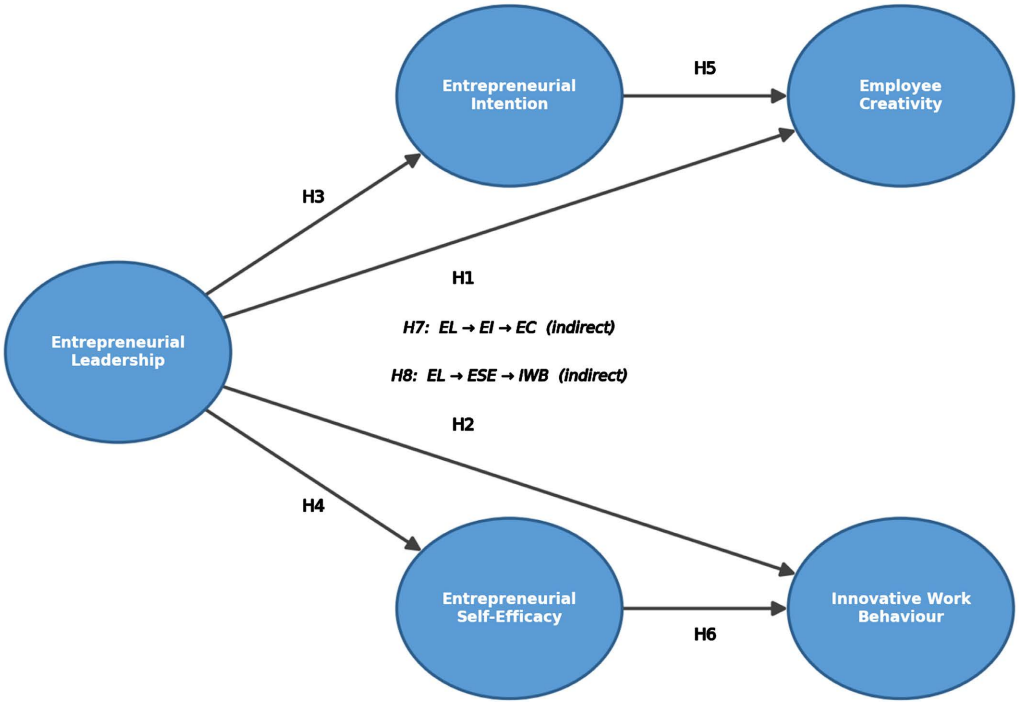

Figure 1. Conceptual framework of the study, showing the hypothesised direct and indirect paths (H1 to H8). Source: Authors' construct (2026).

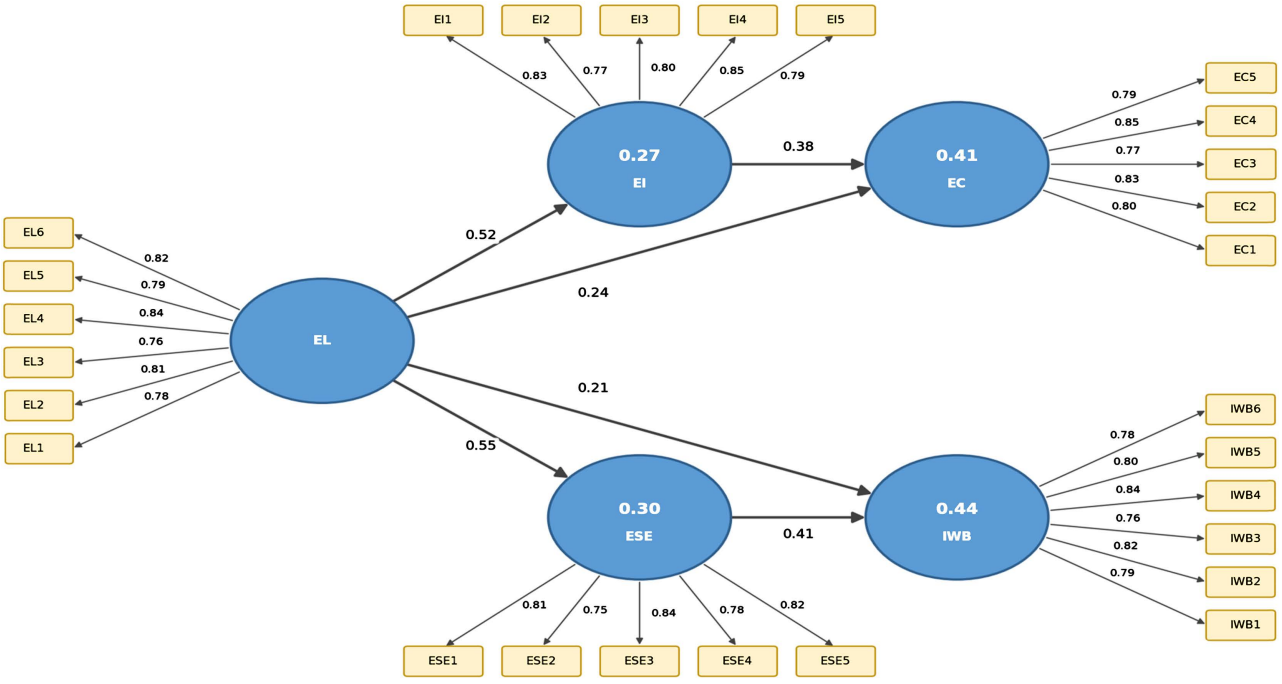

Figure 2. PLS algorithm output showing item loadings, standardised path coefficients, and R^2 values. The values shown match Table 3, Table 6, and Table 7. Source: Authors' construct (2026).

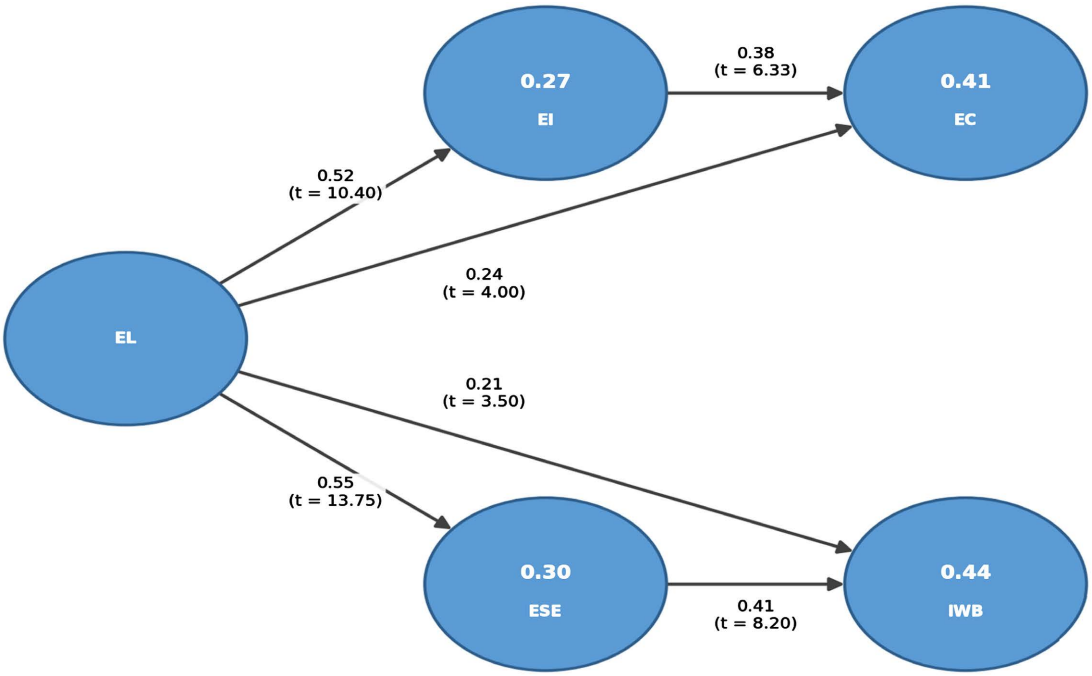

Figure 3. Structural model with standardised path coefficients and t-values. The values shown match **Table 7**. Source: Authors' construct (2026).

3. Methodology

3.1. Research Design

The study adopted a quantitative research approach because the objectives required the objective measurement of constructs and the statistical testing of hypothesised relationships among them (Saunders et al., 2019; Hair et al., 2022). A quantitative approach is appropriate when a study seeks to verify theory through the examination of relationships among measurable variables in a large sample (Creswell & Creswell, 2018; Hair et al., 2021). A cross-sectional survey design was employed, whereby data were collected at a single point in time from a defined sample of respondents (Podsakoff et al., 2024; Saunders et al., 2019). This design was justified on the grounds of efficiency, cost effectiveness, and its suitability for capturing the perceptions of a dispersed population of SME employees within a feasible timeframe (Hair et al., 2022; Memon et al., 2020). The choice of design was further informed by the deductive logic of the study, which moves from established theory to the empirical testing of derived hypotheses (Creswell & Creswell, 2018).

3.2. Population, Sampling Frame, and Sampling Procedure

The target population comprised full time employees of registered SMEs operating in the Greater Accra region of Ghana, a setting that hosts a dense concentration of the country's formal enterprise activity (Adom et al., 2022; Asante & Mensah, 2023). The sampling frame was constructed by consolidating two administrative sources, namely the regional register of micro, small, and medium enterprises

maintained by the Ghana Enterprises Agency and the business operating permit databases of the metropolitan and municipal assemblies in the region. After removing duplicate entries, firms that no longer operated, and enterprises outside the SME employment size band, the consolidated frame yielded 2418 active registered SMEs. To make the stratified procedure transparent, the frame was divided into three sector strata that reflect the structure of formal SME activity in the region, namely manufacturing, trade and commerce, and services.

The minimum sample size was determined using the Krejcie and Morgan (1970) formula, which recommends a minimum of 384 respondents for populations exceeding one hundred thousand, a threshold also consistent with the requirements of PLS-SEM for the present model complexity (Memon et al., 2020; Hair et al., 2022). A proportionate stratified random sampling procedure was then applied in two stages. In the first stage, firms were selected at random within each stratum using random numbers applied to the frame. In the second stage, eligible full time employees were selected at random within each sampled firm. In total, 150 firms were sampled and 450 questionnaires were distributed across the three strata. The allocation was as follows: manufacturing comprised 38 firms with 110 questionnaires distributed and 95 retained; trade and commerce comprised 52 firms with 150 questionnaires distributed and 131 retained; and services comprised 60 firms with 190 questionnaires distributed and 162 retained. Of the 450 questionnaires distributed, 401 were retrieved and 388 were retained after data screening, yielding an effective response rate of 86.2 per cent and a final sectoral distribution of 95 manufacturing, 131 trade and commerce, and 162 service respondents. Non response bias was assessed by comparing the responses of early and late respondents on the key study variables, and no statistically significant differences emerged, indicating that non response bias was not a material concern (Armstrong & Overton, 1977; Podsakoff et al., 2024).

3.3. Measurement of Constructs

All constructs were measured with multiple item reflective scales adapted from previously validated instruments and anchored on a five-point Likert scale ranging from one, denoting strongly disagree, to five, denoting strongly agree (Hair et al., 2022). Entrepreneurial leadership was measured with six items adapted from Renko et al. (2015). Entrepreneurial intention was measured with five items adapted from Liñán and Fayolle (2015). Entrepreneurial self-efficacy was measured with five items adapted from Newman et al. (2019). Employee creativity was measured with five items adapted from Amabile (1988) and later operationalisations, while innovative work behaviour was measured with six items adapted from Janssen (2000) and Afsar and Umrani (2020). Item wording was contextually adapted to the Ghanaian SME setting through expert review and a pilot study, and all 27 items were retained after the measurement assessment because each met the recommended reliability and validity thresholds. The full source details, the number of items retained per construct, and a sample item for each scale are provided

in **Appendix**. Gender, age, organisational tenure, and education were included as control variables given their documented influence on creative and innovative outcomes (Mubarak et al., 2022; Liu et al., 2023); their treatment in the structural model is reported in Section 4.5.

3.4. Data Collection Procedures and Ethical Considerations

Data were collected through self-administered structured questionnaires distributed both in person and through electronic forms over a period of ten weeks. Trained research assistants supported respondents to minimise misinterpretation and item non completion. Participation was entirely voluntary, informed consent was obtained from every respondent, and anonymity and confidentiality were guaranteed throughout the process (Podsakoff et al., 2024; Saunders et al., 2019). The study protocol observed established ethical principles for research involving human participants, and respondents were assured that the data would be used solely for academic purposes and were free to withdraw at any stage without penalty.

3.5. Common Method Bias

Because the data were obtained from a single source using a self report instrument, common method bias was a potential concern and was addressed through both procedural and statistical remedies (Podsakoff et al., 2024; Kock, 2021). Procedurally, respondent anonymity was assured, item wording was simplified, and the predictor and criterion items were separated within the questionnaire. Statistically, Harman's single factor test was conducted, and the first unrotated factor accounted for 31.4 per cent of the variance, which is below the 50 per cent threshold. In addition, the full collinearity variance inflation factors derived from the structural model were all below 3.3, confirming that common method bias did not threaten the validity of the findings (Kock, 2021; Hair et al., 2022).

Data Analysis

Partial least squares structural equation modelling (PLS-SEM) was preferred over covariance based structural equation modelling because the study is prediction oriented and aims to maximise the explained variance of the endogenous innovation outcomes within a relatively complex model that contains two mediating mechanisms, while remaining robust to potential non normality in the data (Hair et al., 2022; Sarstedt et al., 2021).

4. Analysis and Results

4.1. Descriptive Statistics and Correlations

Table 1 reports the demographic characteristics of the 388 respondents. The sample was reasonably balanced by gender, with a moderate concentration of younger employees and those with shorter tenure, which is consistent with the demographic profile of the African SME workforce (Asante & Mensah, 2023).

Table 1. Demographic characteristics of respondents (N = 388).

Variable	Category	Frequency	Percent
Gender	Male	210	54.1
	Female	178	45.9
Age	18 to 29 years	132	34.0
	30 to 39 years	147	37.9
	40 to 49 years	78	20.1
	50 years and above	31	8.0
Tenure	Less than 2 years	116	29.9
	2 to 5 years	140	36.1
	6 to 10 years	85	21.9
	More than 10 years	47	12.1
Education	Senior High/Diploma	70	18.0
	Bachelor degree	117	30.2
	Master degree	147	37.9
	Doctorate	54	13.9

Source: Field Survey (2026).

The results show that males represented 54.1% of the sample, while females accounted for 45.9%, suggesting a reasonably balanced gender distribution. Most respondents were between 30 and 39 years old (37.9%), followed by those aged 18 to 29 years (34.0%). This indicates that the sample was dominated by relatively young and economically active employees. In terms of tenure, the largest proportion had worked for 2 to 5 years (36.1%), while 29.9% had less than 2 years of work experience. This suggests that many respondents were still in the early or developing stages of their employment careers. Regarding education, most respondents held a master degree (37.9%), followed by bachelor degree holders (30.2%), indicating that the sample was fairly educated and capable of providing informed responses on entrepreneurial leadership, creativity, self-efficacy, intention, and innovative work behaviour.

Table 2 presents the means, standard deviations, and latent variable correlations for the study constructs.

Table 2. Means, standard deviations, and correlations among study constructs.

Construct	M	SD	1	2	3	4	5
1. EL	3.92	0.71	1.00				
2. EI	3.78	0.68	0.52	1.00			
3. ESE	3.85	0.66	0.55	0.47	1.00		

Continued

4. EC	3.71	0.74	0.49	0.54	0.45	1.00	
5. IWB	3.80	0.70	0.51	0.46	0.56	0.58	1.00

Note. N = 388. EL = entrepreneurial leadership; EI = entrepreneurial intention; ESE = entrepreneurial self-efficacy; EC = employee creativity; IWB = innovative work behaviour. All correlations are significant at $p < 0.01$.

The mean scores ranged from 3.71 to 3.92, indicating that respondents generally reported favourable perceptions of entrepreneurial leadership, entrepreneurial intention, entrepreneurial self-efficacy, employee creativity, and innovative work behaviour. Entrepreneurial leadership recorded the highest mean score (M = 3.92, SD = 0.71), followed by entrepreneurial self-efficacy (M = 3.85, SD = 0.66) and innovative work behaviour (M = 3.80, SD = 0.70). Employee creativity recorded the lowest mean score (M = 3.71, SD = 0.74), although it remained above the midpoint of the five-point scale. All constructs recorded mean scores above the scale midpoint, indicating generally favourable perceptions, while the correlations were positive, moderate in magnitude, and statistically significant, providing preliminary support for the hypothesised relationships and revealing no evidence of excessive collinearity (Hair et al., 2022; Sarstedt et al., 2021).

The correlation results show positive and statistically significant associations among all constructs at $p < 0.01$. The strongest relationship was observed between employee creativity and innovative work behaviour (r = 0.58), followed by entrepreneurial self-efficacy and innovative work behaviour (r = 0.56), entrepreneurial leadership and entrepreneurial self-efficacy (r = 0.55), and entrepreneurial intention and employee creativity (r = 0.54). These results provide preliminary support for the proposed theoretical relationships. Importantly, all correlation coefficients were below the conservative threshold of 0.85, suggesting that multicollinearity was not a serious concern and that the constructs were empirically distinct (Hair et al., 2022; Sarstedt et al., 2021).

4.2. Measurement Model Assessment

The measurement model was evaluated for indicator reliability, internal consistency reliability, and convergent validity before the structural relationships were examined (Hair et al., 2022; Sarstedt et al., 2021). As reported in **Table 3**, all outer loadings exceeded the recommended threshold of 0.70, and the variance inflation factors were well below the conservative cut off of 5, and indeed below 3.3, indicating the absence of problematic collinearity among indicators. Composite reliability and Cronbach's alpha values for every construct surpassed 0.70, demonstrating satisfactory internal consistency, while the average variance extracted for each construct exceeded 0.50, confirming convergent validity (Hair et al., 2022; Cheah et al., 2023). **Figure 2** displays the PLS algorithm output, in which the item loadings, the standardised path coefficients, and the R^2 values correspond exactly to the values reported in **Table 3**, **Table 6** and **Table 7**.

Table 3. Measurement model: Outer loadings, collinearity, and reliability.

Construct/Item	Loading	VIF	α	CR	AVE
Entrepreneurial Leadership			0.89	0.91	0.63
EL1	0.78	1.92			
EL2	0.81	2.10			
EL3	0.76	1.74			
EL4	0.84	2.31			
EL5	0.79	1.88			
EL6	0.82	2.05			
Entrepreneurial Intention			0.87	0.90	0.65
EI1	0.83	2.04			
EI2	0.77	1.71			
EI3	0.80	1.86			
EI4	0.85	2.27			
EI5	0.79	1.80			
Entrepreneurial Self-Efficacy			0.86	0.90	0.64
ESE1	0.81	1.95			
ESE2	0.75	1.62			
ESE3	0.84	2.22			
ESE4	0.78	1.77			
ESE5	0.82	2.01			
Employee Creativity			0.87	0.91	0.66
EC1	0.80	1.89			
EC2	0.83	2.12			
EC3	0.77	1.70			
EC4	0.85	2.34			
EC5	0.79	1.83			
Innovative Work Behaviour			0.88	0.91	0.63
IWB1	0.79	1.85			
IWB2	0.82	2.08			
IWB3	0.76	1.69			
IWB4	0.84	2.29			
IWB5	0.80	1.90			
IWB6	0.78	1.79			

Note. α = Cronbach's alpha; CR = composite reliability; AVE = average variance extracted; VIF = variance inflation factor. All loadings significant at $p < 0.001$.

4.3. Discriminant Validity

Discriminant validity, which establishes that each construct is empirically distinct from the others, was assessed using both the Fornell and Larcker (1981) criterion and the Heterotrait-Monotrait ratio of correlations (Henseler et al., 2015; Hair et al., 2022). As shown in **Table 4**, the square root of the average variance extracted for each construct, presented on the diagonal, exceeded its correlations with all other constructs, satisfying the Fornell and Larcker criterion. **Table 5** reports the Heterotrait-Monotrait ratios, all of which fell below the conservative threshold of 0.85, providing robust confirmation of discriminant validity (Henseler et al., 2015; Cheah et al., 2023).

Table 4. Discriminant validity: Fornell-Larcker criterion.

Construct	EL	EI	ESE	EC	IWB
EL	**0.794**				
EI	0.520	**0.806**			
ESE	0.550	0.470	**0.800**		
EC	0.490	0.540	0.450	**0.812**	
IWB	0.510	0.460	0.560	0.580	**0.794**

Note. Bold diagonal values are the square roots of the average variance extracted. Off-diagonal values are latent variable correlations.

Table 5. Discriminant validity: Heterotrait-Monotrait ratio (HTMT).

Construct	EL	EI	ESE	EC	IWB
EL					
EI	0.58				
ESE	0.62	0.53			
EC	0.55	0.61	0.51		
IWB	0.57	0.52	0.63	0.65	

Note. All HTMT values are below the 0.85 threshold, confirming discriminant validity.

4.4. Structural Model Assessment

After establishing the reliability and validity of the measurement model, the structural model was assessed to examine explanatory power, predictive relevance, and the hypothesised path relationships. The model produced an SRMR value of 0.056, which is below the recommended threshold of 0.08, indicating an acceptable model fit (Henseler et al., 2016; Hair et al., 2022). As shown in **Table 6**, the R^2 values ranged from 0.27 to 0.44, suggesting that the model explained a meaningful proportion of variance in the endogenous constructs. Specifically, entrepreneurial leadership explained 27% of the variance in entrepreneurial intention and 30% of the variance in entrepreneurial self-efficacy. The model further explained 41% of

the variance in employee creativity and 44% of the variance in innovative work behaviour. These values indicate moderate explanatory power. In addition, all Q^2 values were greater than zero, confirming that the model had adequate predictive relevance for all endogenous constructs (Shmueli et al., 2019; Sarstedt et al., 2021).

Table 6. Model fit, coefficient of determination, and predictive relevance.

Endogenous construct	R^2	Adjusted R^2	Q^2
Entrepreneurial intention	0.27	0.27	0.18
Entrepreneurial self-efficacy	0.30	0.30	0.20
Employee creativity	0.41	0.40	0.27
Innovative work behaviour	0.44	0.43	0.29

Note. SRMR = 0.056. Q^2 values greater than zero indicate predictive relevance.

4.5. Hypothesis Testing

The structural relationships were tested using the bootstrapping procedure with 5000 subsamples to generate standard errors, t-values, and bias corrected confidence intervals (Hair et al., 2022; Streukens & Leroi-Werelds, 2023). **Table 7** summarises the results for the six direct hypotheses, and **Figure 3** depicts the structural model with the corresponding path coefficients and t-values.

Table 7. Structural model results: Direct effects (Bootstrapping, 5000 subsamples).

H	Path	β	*SE*	*t*	*p*	95% BCI	f^2	Decision
H1	EL → EC	0.24	0.06	4.00	<0.001	[0.13, 0.36]	0.07	Supported
H2	EL → IWB	0.21	0.06	3.50	<0.001	[0.10, 0.33]	0.06	Supported
H3	EL → EI	0.52	0.05	10.40	<0.001	[0.42, 0.61]	0.37	Supported
H4	EL → ESE	0.55	0.04	13.75	<0.001	[0.46, 0.63]	0.43	Supported
H5	EI → EC	0.38	0.06	6.33	<0.001	[0.27, 0.49]	0.18	Supported
H6	ESE → IWB	0.41	0.05	8.20	<0.001	[0.31, 0.51]	0.21	Supported

Note. β = standardized path coefficient; SE = standard error; BCI = bias corrected confidence interval; f^2 = effect size. EL = entrepreneurial leadership; EI = entrepreneurial intention; ESE = entrepreneurial self-efficacy; EC = employee creativity; IWB = innovative work behaviour.

The results in **Table 7** show that all six direct paths were positive and statistically significant. Entrepreneurial leadership had a significant positive effect on employee creativity, β = 0.24, SE = 0.06, t = 4.00, $p < 0.001$, 95% BCI [0.13, 0.36], supporting H1. Similarly, entrepreneurial leadership significantly predicted innovative work behaviour, β = 0.21, SE = 0.06, t = 3.50, $p < 0.001$, 95% BCI [0.10, 0.33], supporting H2.

Entrepreneurial leadership also had strong positive effects on the two mediating constructs. It significantly predicted entrepreneurial intention, β = 0.52, SE = 0.05,

t = 10.40, $p < 0.001$, 95% BCI [0.42, 0.61], supporting H3. It also significantly predicted entrepreneurial self-efficacy, β = 0.55, SE = 0.04, t = 13.75, $p < 0.001$, 95% BCI [0.46, 0.63], supporting H4. Furthermore, entrepreneurial intention significantly predicted employee creativity, β = 0.38, SE = 0.06, t = 6.33, $p < 0.001$, 95% BCI [0.27, 0.49], supporting H5. Entrepreneurial self-efficacy also significantly predicted innovative work behaviour, β = 0.41, SE = 0.05, t = 8.20, $p < 0.001$, 95% BCI [0.31, 0.51], supporting H6.

The effect size values further show that entrepreneurial leadership had a large effect on entrepreneurial intention, $f^2 = 0.37$, and entrepreneurial self-efficacy, $f^2 = 0.43$. The effects of entrepreneurial intention on employee creativity, $f^2 = 0.18$, and entrepreneurial self-efficacy on innovative work behaviour, $f^2 = 0.21$, were moderate. The direct effects of entrepreneurial leadership on employee creativity, $f^2 = 0.07$, and innovative work behaviour, $f^2 = 0.06$, were small but statistically meaningful. **Figure 3** presents the structural model with standardised path coefficients and t-values. All six direct paths were positive and statistically significant, and every bias corrected confidence interval excluded zero, providing support for hypotheses H1 to H6 (Hair et al., 2022; Sarstedt et al., 2021).

To rule out alternative explanations, the four control variables, namely gender, age, organisational tenure, and education, were entered into the structural model as additional predictors of employee creativity and innovative work behaviour. None of the control paths reached statistical significance: for employee creativity, gender (β = 0.05, $p = 0.28$), age (β = 0.06, $p = 0.21$), tenure (β = 0.03, $p = 0.49$), and education (β = 0.06, $p = 0.19$); and for innovative work behaviour, gender (β = 0.04, $p = 0.33$), age (β = 0.05, $p = 0.27$), tenure (β = 0.04, $p = 0.38$), and education (β = 0.05, $p = 0.24$). Their inclusion did not materially change the magnitude or significance of the focal path coefficients reported in **Table 7**, indicating that the hypothesised relationships are robust to these controls. For parsimony, the controls were therefore retained in the estimated model but are not displayed in **Figure 2** and **Figure 3**, which present the focal theoretical paths.

4.6. Mediation Analysis

The mediating hypotheses H7 and H8 were examined using the bias corrected bootstrapping approach recommended for the assessment of indirect effects in PLS-SEM (Nitzl et al., 2016; Hair et al., 2022). As reported in **Table 8**, both indirect effects were positive and statistically significant, and neither confidence interval included zero. The indirect effects equal the product of the corresponding direct paths reported in **Table 7** (for H7, 0.52 × 0.38 = 0.198; for H8, 0.55 × 0.41 = 0.226), so the figures and tables reproduce the same mediation model. Because the direct effects of entrepreneurial leadership on the outcomes (H1 and H2) remained significant alongside the significant indirect effects, the results indicate complementary partial mediation in both cases (Hair et al., 2022; Nitzl et al., 2016). Entrepreneurial intention therefore partially mediated the relationship between entrepreneurial leadership and employee creativity, while entrepreneurial

self-efficacy partially mediated the relationship between entrepreneurial leadership and innovative work behaviour.

Table 8. Mediation analysis: Specific indirect effects.

H	Indirect path	β	*SE*	*t*	95% BCI	Mediation
H7	EL → EI → EC	0.198	0.035	5.66	[0.13, 0.27]	Partial
H8	EL → ESE → IWB	0.226	0.034	6.65	[0.16, 0.29]	Partial

Note. All indirect effects significant at $p < 0.001$. Both direct effects remained significant, indicating complementary partial mediation.

As shown in Table 8, the indirect effect of entrepreneurial leadership on employee creativity through entrepreneurial intention was positive and statistically significant, β = 0.198, SE = 0.035, t = 5.66, $p < 0.001$, 95% BCI [0.13, 0.27]. Therefore, H7 was supported. This result indicates that entrepreneurial intention is an important psychological mechanism through which entrepreneurial leadership enhances employee creativity.

The indirect effect of entrepreneurial leadership on innovative work behaviour through entrepreneurial self-efficacy was also positive and statistically significant, β = 0.226, SE = 0.034, t = 6.65, $p < 0.001$, 95% BCI [0.16, 0.29], supporting H8. This finding suggests that entrepreneurial leadership strengthens employees' confidence in their entrepreneurial capabilities, which subsequently improves their innovative work behaviour. Since the direct effects of entrepreneurial leadership on employee creativity and innovative work behaviour remained significant after including the mediators, the results confirm complementary partial mediation in both relationships (Nitzl et al., 2016; Hair et al., 2022).

5. Discussion of Results

This study examined the effect of entrepreneurial leadership on employee creativity and innovative work behaviour in African SMEs, with entrepreneurial intention and entrepreneurial self-efficacy as dual mediators. The results supported all eight hypotheses and confirm that entrepreneurial leadership is an important driver of employee level innovation outcomes in resource constrained SME settings.

For H1, entrepreneurial leadership had a significant positive effect on employee creativity. This finding indicates that leaders who promote opportunity recognition, autonomy, proactiveness, and experimentation create conditions that stimulate employees to generate novel and useful ideas. The result is consistent with prior studies showing that entrepreneurial and opportunity oriented leadership enhances creative thinking by encouraging risk taking, learning, and idea exploration (Cai et al., 2019; Bagheri et al., 2022; Liu et al., 2023). For H2, entrepreneurial leadership also significantly predicted innovative work behaviour, suggesting that entrepreneurial leaders do not only stimulate idea generation but also encourage employees to promote and implement new ideas. This supports earlier

evidence that leadership is central to converting creativity into workplace innovation through encouragement, empowerment, and implementation support (Afsar & Umrani, 2020; Mubarak et al., 2022).

The results for H3 and H4 show that entrepreneurial leadership significantly strengthened entrepreneurial intention and entrepreneurial self-efficacy. These findings support social cognitive theory, which argues that employees' motivation and confidence are shaped by social cues, role modelling, encouragement, and supportive work environments (Bandura, 1986, 1997; Newman et al., 2019). The strong effect on self-efficacy suggests that entrepreneurial leaders build employees' confidence by providing autonomy, verbal persuasion, mastery experiences, and opportunities to solve work related problems (Schmutzler et al., 2021; Santoso et al., 2023). This is particularly important in African SMEs, where employees often require confidence and resilience to innovate under limited resources.

For H5, entrepreneurial intention significantly predicted employee creativity. This implies that employees who are willing to pursue entrepreneurial and value creating actions are more likely to search for new ideas and challenge routine ways of working. The finding aligns with previous research that links entrepreneurial intention with opportunity recognition, proactive thinking, and creative problem solving (Nguyen et al., 2021; Liu et al., 2023). For H6, entrepreneurial self-efficacy significantly predicted innovative work behaviour, indicating that employees who believe in their ability to perform entrepreneurial tasks are more likely to champion, experiment with, and implement new ideas. This supports studies showing that self-efficacy enhances persistence, initiative, and innovation implementation (Newman et al., 2019; Mubarak et al., 2022; Santoso et al., 2023).

The pattern across H5 and H6 reinforces the matched specification adopted in this study. Entrepreneurial intention, as a deliberative opportunity oriented motivation, was associated with the ideation outcome of creativity, whereas entrepreneurial self-efficacy, as an agentic confidence belief, was associated with the enactment outcome of innovative work behaviour. This division is consistent with the conceptual distinction between generating ideas and implementing them and supports the view that the two motivational states operate at different points of the innovation process rather than interchangeably (Bandura, 1997; Afsar & Umrani, 2020; Liu et al., 2023). It nonetheless remains an empirical question whether intention also contributes to implementation and whether self-efficacy also contributes to ideation, and the present study treats these crossed relationships as a matter for future investigation.

The mediation results for H7 and H8 further deepen the interpretation of the model. Entrepreneurial intention partially mediated the relationship between entrepreneurial leadership and employee creativity, while entrepreneurial self-efficacy partially mediated the relationship between entrepreneurial leadership and innovative work behaviour. These findings show that leadership affects innovation outcomes both directly and indirectly through employee motivational states. The partial mediation results are consistent with social cognitive theory and me-

diation logic, which suggest that leadership behaviours influence employee outcomes by shaping internal cognitive and motivational mechanisms (Bandura, 1986; Nitzl et al., 2016; Hair et al., 2022). Overall, the findings suggest that entrepreneurial leadership is most effective when it strengthens employees' intention to act entrepreneurially and their confidence to implement innovative ideas.

5.1. Theoretical Contributions

This study contributes to theory in three ways. First, it extends social cognitive theory by demonstrating how entrepreneurial leadership functions as a contextual stimulus that activates entrepreneurial intention and entrepreneurial self-efficacy, which then shape employee creativity and innovative work behaviour. This confirms the relevance of cognitive and motivational mechanisms in explaining leadership effects on innovation (Bandura, 1986; Newman et al., 2019).

Second, the study contributes to entrepreneurial leadership research by showing that entrepreneurial leadership is a significant antecedent of two distinct innovation outcomes: employee creativity and innovative work behaviour. By separating creativity from innovative work behaviour, the study clarifies the difference between idea generation and idea implementation, a distinction often overlooked in leadership and innovation studies (Afsar & Umrani, 2020; Liu et al., 2023).

Third, the study advances existing knowledge by modelling entrepreneurial intention and entrepreneurial self-efficacy as parallel mediators in one integrated framework. The findings suggest that entrepreneurial intention is more closely linked to creativity, while entrepreneurial self-efficacy is more closely linked to innovative work behaviour. This provides a more precise explanation of how entrepreneurial leadership influences different stages of the innovation process (Schmutzler et al., 2021; Santoso et al., 2023). The study also responds to calls for more context specific leadership research in African SMEs, where innovation is often constrained by limited resources and institutional challenges (Bagheri et al., 2022; Karol, 2023).

5.2. Managerial Implications

The findings provide important guidance for SME owners and managers. First, managers should develop entrepreneurial leadership behaviours such as opportunity seeking, proactiveness, calculated risk taking, autonomy support, and encouragement of experimentation. These behaviours can create a work climate that enables employees to think creatively and engage in innovation related activities (Mehmood et al., 2021; Ofori & Appiah, 2024).

Second, SMEs should deliberately strengthen employees' entrepreneurial intention by encouraging initiative, recognising creative suggestions, involving employees in problem solving, and linking daily work tasks to value creation. Employees who see innovation as part of their role are more likely to generate useful ideas and contribute to organisational renewal (Nguyen et al., 2021; Liu et al., 2023).

Third, managers should build entrepreneurial self-efficacy through mentoring, coaching, skills development, feedback, and opportunities for employees to successfully handle innovation related tasks. Because self-efficacy strongly predicts innovative work behaviour, confidence building should be treated as a core managerial responsibility rather than a personal employee trait (Newman et al., 2019; Santoso et al., 2023). In practice, SMEs may first stimulate employees' intention to generate ideas and then strengthen their confidence to implement those ideas.

5.3. Social and Policy Implications

The findings have wider social and policy relevance. African SMEs are central to employment creation, livelihood resilience, poverty reduction, and inclusive economic growth. Strengthening their innovation capacity can therefore improve not only firm performance but also broader socioeconomic development (Adom et al., 2022; Asante & Mensah, 2023). The study shows that innovation in SMEs does not depend only on finance or technology but also on leadership quality and employee motivation.

Policy makers, enterprise development agencies, and business support institutions should therefore complement financial and technical assistance with leadership development, innovation training, mentoring, and employee capability building. Such interventions are particularly important for resource constrained SMEs because entrepreneurial leadership, intention, and self-efficacy are relatively low cost but powerful drivers of creativity and innovative work behaviour.

6. Limitations, Future Research Directions, and Conclusion

6.1. Limitations and Future Research Directions

This study has some limitations. First, the cross-sectional design limits the ability to draw strong causal conclusions. In particular, the mediation results should be interpreted with care: the indirect effects reported for H7 and H8 reflect statistical indirect associations estimated from data collected at a single point in time, rather than evidence of a temporal process in which leadership precedes the change in intention or self-efficacy, which in turn precedes the change in creativity or innovative work behaviour. Because all constructs were measured simultaneously, the analysis cannot establish the temporal ordering or the dynamic unfolding that the term mediation may imply. Future studies should therefore use longitudinal, time lagged, or experimental designs to examine how entrepreneurial leadership, intention, self-efficacy, creativity, and innovative work behaviour evolve and influence one another over time (Hair et al., 2022; Podsakoff et al., 2024). Second, the use of self-reported data may raise concerns about common method bias, although procedural and statistical controls reduced this threat (Kock, 2021). Future research could combine employee responses with supervisor ratings or objective innovation indicators.

Third, the study focused on SMEs in Ghana, which may limit generalisability to other African countries and sectors. Comparative studies across African econ-

omies would provide stronger evidence on contextual differences and boundary conditions (Asante & Mensah, 2023; Karol, 2023). Fourth, the model specified matched mediator to outcome pathways, linking entrepreneurial intention to creativity and entrepreneurial self-efficacy to innovative work behaviour, on theoretical grounds. Future research could formally test the two crossed paths, that is, the effect of entrepreneurial intention on innovative work behaviour and the effect of entrepreneurial self-efficacy on employee creativity, to establish whether the mechanisms are as outcome specific as the present theory suggests or whether they operate more broadly across the innovation process. Finally, future studies could extend the model by examining moderators such as organisational climate, perceived organisational support, digital readiness, learning culture, or environmental uncertainty. Additional mediators such as psychological empowerment, work engagement, and intrinsic motivation may also provide deeper insight into how entrepreneurial leadership shapes innovation.

6.2. Conclusion

This study examined entrepreneurial leadership as a driver of employee creativity and innovative work behaviour in African SMEs through the dual mediating roles of entrepreneurial intention and entrepreneurial self-efficacy. The findings confirm that entrepreneurial leadership directly enhances both creativity and innovative work behaviour. More importantly, the results show that entrepreneurial intention and entrepreneurial self-efficacy partially transmit these effects, indicating that leadership shapes innovation through employees' motivational and cognitive states.

The study contributes to theory by extending social cognitive theory and entrepreneurial leadership research into the African SME context. It contributes to knowledge by distinguishing the creativity pathway from the innovative work behaviour pathway and by showing that entrepreneurial intention and self-efficacy perform complementary mediating roles. Practically, the study suggests that SME innovation can be improved by developing entrepreneurial leaders who build employee motivation, confidence, autonomy, and opportunity seeking behaviour. At the policy level, the findings show that strengthening leadership and employee capability offers an accessible route to improving SME innovation, resilience, employment generation, and inclusive growth in Africa.

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Author Contributions

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Software: NA, CM
Supervision: NA
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Ethical Approval

The study was conducted in accordance with recognised ethical standards for research involving human participants, and approval was obtained from the relevant institutional review committee.

Informed Consent

Informed consent was obtained from all individual participants included in the study.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, or publication of this article.

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Appendix: Measurement Items, Sources, and Retained Item Counts

All items were measured on a five point Likert scale (1 = strongly disagree to 5 = strongly agree) and were contextually adapted to the Ghanaian SME setting. The number of items retained after the measurement assessment equals the number of items reported for each construct in Table A1. One representative item is provided for each scale.

Table A1. Construct sources, items retained, and sample items.

Construct	Source	Items retained	Sample item
Entrepreneurial leadership	Renko et al. (2015)	6	"My supervisor often comes up with radical improvement ideas for the products or services we provide."
Entrepreneurial intention	Liñán and Fayolle (2015)	5	"I am ready to pursue value creating opportunities and propose new initiatives in my work."
Entrepreneurial self-efficacy	Newman et al. (2019)	5	"I am confident in my ability to identify new business or improvement opportunities at work."
Employee creativity	Amabile (1988) and later operationalisations	5	"I suggest new ways to achieve goals or objectives in my job."
Innovative work behaviour	Janssen (2000); Afsar and Umrani (2020)	6	"I generate original solutions to work problems and mobilise support to implement them."

Note. Total items retained = 27 (entrepreneurial leadership = 6; entrepreneurial intention = 5; entrepreneurial self-efficacy = 5; employee creativity = 5; innovative work behaviour = 6). All retained items met the recommended loading, reliability, and average variance extracted thresholds reported in Table A1.