
Impact of Entrepreneurial Traits on the Performance of Small and Medium Enterprises (SMEs) In North Central, Nigeria

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Abstract: *This study examined the impact of entrepreneurial traits on the performance of Small; and Medium Enterprises (SMEs) in North Central Nigeria. The specific entrepreneurial traits considered in the study include entrepreneurial need for achievement, entrepreneurial passion, and self-efficacy. A sample size of 400 SME owners and managers was selected for the study. Data collected through a structured questionnaire were analyzed using Structural Equation Modeling (SEM) to test the hypothesized relationships among the variables. The findings of the study revealed that entrepreneurial need for achievement has a positive and significant effect on SME performance. Similarly, entrepreneurial passion was found to have a positive and significant influence on SME performance, indicating that emotional attachment and enthusiasm for business activities contribute to improved outcomes. The results further showed that self-efficacy has the strongest and most significant effect on SME performance among the variables examined, suggesting that entrepreneurs' confidence in their abilities plays a critical role in determining business success. Based on these findings, the study concludes that entrepreneurial traits significantly influence the performance of SMEs in North Central Nigeria, with self-efficacy emerging as the most important predictor. The study recommends that entrepreneurship development programs should focus on strengthening entrepreneurs' psychological attributes such as achievement motivation, passion, and self-confidence through training, mentoring, and capacity-building initiatives. These efforts are essential for improving SME performance and enhancing sustainable economic development in the region.*

Keywords: entrepreneurial traits, SMEs performance, structural equation modeling (SEM)

JEL Classifications : C38, L25, L26

INTRODUCTION

It has been established that small and medium enterprises (SMEs) are important contributors to employment creation, economic performance, and innovation especially in developing nations like Nigeria. They play a key role in contributing to the national gross domestic product (GDP), poverty reduction and grassroots development through income generation and grassroots development of local communities (Adebayo & Salawu, 2025). In North Central region of Nigeria which include Federal Capital Territory, Kogi, Kaduna, Benue, Nasarawa, and Plateau, SMEs functions across manufacturing, agriculture, trade, and services as the mainstay of local economies. In spite of their significance, performance of SMEs in Nigeria is dwindling due to high failure rates and low survival levels. According to empirical evidence, almost 70% of the SMEs fails within the first 5 years of operation (Nwachukwu & Eze, 2025). Key challenges cited are mainly external constraints like weak infrastructure, low access to finance, erratic electricity supply, lack of good transportation and unstable environmental policy. But there are also internal issues such as entrepreneurial ability that are becoming more apparent as key factors in understanding SME performance outcomes.

A number of limited studies have turned their attention to entrepreneurial characteristics as key ingredients to SME success. These traits are need for achievement, passion, autonomy, self-efficacy, and leadership because they shape an entrepreneur's actions with respect to the opportunity discovery, strategic formulation, resource mobilization, and management of environmental uncertainties. Although there is a considerable amount of literature available globally, few studies have been conducted specifically in North Central Nigeria. The focus of the existing literature is more towards external factors than in understanding the interaction of internal entrepreneurial characteristics with socio-cultural and environmental factors. Furthermore, numerous studies have investigated the entrepreneurial traits using simple statistical methods that do not reflect the complex interdependencies of entrepreneurial traits and performance outcomes. Therefore, advanced techniques like Structural Equation Modeling (SEM) are thus required to give a thorough and integrated evaluation (Adedoyin & Yusuf, 2025).

Given these gaps, this study investigates the impact of entrepreneurial traits on SME performance in North Central Nigeria with the goal of presenting context-specific evidence which can be used to inform entrepreneurs, stakeholders and policymakers in enhancing SME sustainability and economic development in North Central Nigeria.

LITERATURE REVIEW

Theoretical Review

The section examines four important theories that underpin entrepreneurship research. In 1949, Schumpeter introduced his Innovation Theory which emphasized the role of entrepreneurs as agents of economic development who continuously innovate and create economic destruction to encourage competitive edge and Performance. Teece and Pisano (1994) developed the Dynamic Capability Theory, which emphasises how firms can adapt, learn and reconfigure resources in fast-changing environments to maintain their competitiveness over time. The Theory of Planned Behavior (Ajzen, 1991) describes the way social norms, personal attitudes and perceived control on entrepreneurial actions and intentions influences firm performance. Also, the Reasoned Action Theory (Ajzen & Fishbein, 1975) suggests that logical decision-making influenced by individual attitudes and social influences guides behavior, where intentions act as important precursors. The framework adopted for this study is the TPB, which effectually relate entrepreneurial characteristics like self-efficacy, innovativeness and risk-taking with entrepreneurial intentions and SME Performance which provide a thorough framework for supporting and understanding entrepreneurial performance and behaviour.

Empirical Review

In recent years, limited research has focused on the impact of entrepreneurial traits on the performance of small and medium-sized businesses (SMEs) in North Central, Nigeria. Several literatures support the notion that entrepreneurial traits are important in enhancing SME performance but nonetheless, empirical studies remains mixed because some studies denotes positive significant, while others have negative impact outcomes. For instance, Ananda and Amir (2025) observed that the traits such as leadership, innovativeness and diligence are positively related with better results like market expansion, increase in sales and profitability. Similarly, Ndibalema et al. (2025) revealed the positive effect of entrepreneurial self-efficacy on the financial and non-financial performance, suggesting the importance of the entrepreneur's confidence in their competence. This is supported by studies of Dwumah et al. (2024) and Supeni et al. (2024) which show that entrepreneurial orientation specifically risk-taking innovation and proactiveness can greatly improve the organizational performance, particularly when integrated with solid networks and strong financial decision-making. Collectively, these results indicate that entrepreneurial traits operate as significant internal strengths that can assist SMEs to success, especially in difficult settings.

Some scholars stress that entrepreneurial traits enhance performance primarily via leadership and innovation. For example, Tajpour et al. (2025) and Ghosh and Manokaran (2025) all identified that innovation plays a critical part in success and sustainability of business. Additionally, Rahman et al. (2025) demonstrated that innovation promotes efficiency of manufacturing in SMEs, which

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leads to increased productivity from the same resources. Moreover, Jabbour AI Maalouf et al. (2025) emphasized the significance of transformational leadership in fostering exploratory and exploitative innovations respectively which eventually enhance performance. Likewise, Wang and Zhang (2025) showed that digital transformation reinforces the innovation capacity and enhances the long-term firm performance. Studies have clearly demonstrated that entrepreneurial traits aim to yield greater success in the application of innovative practices and successful leadership strategies.

Other empirical literatures have agreed that entrepreneurial traits do not directly translate into increased performance. Also, some discoveries opined that the correlation is weaker or not even important in some instances. For instance, Ananda and Amir (2025) stated that SME performance are not significantly affected by self-confidence and independence. Similarly, Lynety et al. (2025) found that entrepreneurial trait may be significant in the initial phase of a business but may not have greater influence on its long-term sustainability. Emmanuel and Mapeto (2025) equally noted that even though traits like autonomy are relevant, they do not have direct linear connection with profitability. The results contradict the notion that it is sufficient to have entrepreneurial traits to ensure success.

In explaining these mixed results, a lot of scholars agreed that the association between entrepreneurial traits and performance are impacted by other variables. This means that entrepreneurial traits are not distinct from each other. For instance, Trung and Thanh (2025) concluded that risk-taking behaviour and psychological capital serve as the mediators, enhancing the relationship of entrepreneurial competence with sustainability performance. Likewise, Ullah and Khan (2024) underscored the importance of proper decision-making, particularly in risk control and financial management, to enhance SME resilience and performance. In addition, Hasani et al. (2024) demonstrated that the technology adoption impacts performance via elements like customer engagement and adoption intention. These studies indicate that entrepreneurial traits are mostly active when strengthened by high managerial competence, capacity to implement new technologies and adequate decision-making.

Another key result from the literature that can be gleaned is that context is important. The influence of entrepreneurial traits may differ based on the businesses settings, nation and industry. For example, Wang and Guedes (2025) discovered that the critical factors in determining business survival are firm size and age while financial indicators vary between older SME and newly established SMEs. Furthermore, Frajtoová Michalíková et al. (2025) found that particular entrepreneurial traits differ between industries and countries. Tanchangya et al. (2025) noted that FinTech innovations can enhance access to finance and boost SME Performance, particularly in less developed areas. The results indicate that external conditions like institutional support, access to finance and technology are important determinants of the performance impact of entrepreneurial traits.

Lynety et al. (2025) identified that these traits are more critical at the start-up and performance stages and less at the mature stage of the firm. This suggests that although the entrepreneurial spirit is crucial for the initiation and growth of a business, continued success might rely more on sound management and external assistance processes. In general, the literature offers a balanced perspective as their effects, however, are not always direct or stable. Rather, it relies on a mixture of internal competencies, external circumstances, and the phase of business development. However, the magnitude of their impact is context-dependent, and these findings provide an in-depth research foundation for hinging the study on a behavioural framework that explains how entrepreneurial characteristics translate into intentional action and the measurable outcomes of SME performance.

METHODOLOGY

Research Design

This study utilized survey-based research design which gives room for quantitative data to be collected systematically using structured questionnaires. This method is ideal for studying the impact of entrepreneurial traits on the performance of small and medium enterprises (SMEs) in North central Nigeria. By using survey, the researcher directly collected measurable and detailed data from the SME owners and managers, giving insights into the ways particular entrepreneurial traits like need for achievement, self-efficacy and entrepreneurial passion influence different performance indicators such as market growth, profitability, sustainability as well as business performance.

The survey approach has numerous benefits which includes collecting a large amount of data from a variety of sectors across the enterprise, thus allowing the data to be analysed across a variety of contexts in the region. This methodological approach was made because of the researcher's interest in gaining factual, real-life understanding of an entrepreneur's experiences and behaviours in the region. Finally, the survey-based methodology offers a strong basis for relationships, causal effects and patterns that contributes to better understanding of the impact entrepreneurial traits have on SME performance in the region.

Population of the study

The study population is 161,515 registered SME owners and operators in the North-Central region of Nigeria, with more focus in FCT and is important variation across states. The data sources were mainly from SMEDAN (2020) while Benue State was sourced from SMEDAN (2017) because of data gaps. The SMEs are spread to different sectors like services, agriculture, commerce, and manufacturing which reflects the economic diversity of the region. This wide coverage provides a representative picture of entrepreneurial activities and business landscapes. This study is focused on how entrepreneurial traits like need for achievement, self-efficacy and entrepreneurial passion

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influence firm performance. Finally, it seeks to offer policy interventions recommendations on how to improve SME Performance and sustainable economic growth.

Sample Size and Sampling techniques

To determine the sample size, the Yamane (1967) formula is applied, a well-established method in statistical research for calculating a representative sample size based on a population. The formula is as follows:

$$n = N / (1 + N(\alpha)^2)$$

Where:

n = sample size

N = total population

α = level of significance (0.05)

By applying this formula:

$$n = 161,515 / (1 + 161,515 (0.05)^2)$$

$$n = 161,515 / (1 + 161,515 (0.0025))$$

$$n = 161,515 / 403.7875$$

$$n \approx 400$$

Table 1.0: Sampling Procedure

S/N	Group	Total No. of SMEs	Sample SMEs	
1	Benue	1,811	(1,811/161,515*400)	5
2	Kogi	22,715	(22,715/161,515*400)	56
3	Kwara	16,935	(16,935/161,515*400)	42
4	Nasarawa	38,536	(38,536/161,515*400)	95
5	Niger	2,749	(2,749/161,515*400)	7
6	Plateau	16,870	(16,870/161,515*400)	42
7	FCT Abuja	61,899	(61,899/ 161,515*400)	153
Total No.		161,515		400

Source: Generated by the Author, 2026

This approach guarantees that each of the selected groups is represented proportionally and that a 400 registered SMEs within the region will be visited where only owners and managers will be the participants of the study.

Sources of Data

Quantitative data was employed for this study and obtained via structured questionnaires which targets SME owners and managers in the North Central of Nigeria. This method guarantees

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measurable and consistent responses for strong statistical analysis. It gives allowance for comparison across enterprise sizes and sectors.

Method of Data Analysis, Validity and Reliability

Descriptive statistics was used to summarize the demographic and business data backed up by tables and charts. Furthermore, the multifaceted causal correlation between entrepreneurial traits and SME performance was examined using Structural Equation Modeling (SEM). This model analyzed how traits such as need for achievement, self-efficacy, and entrepreneurial passion revenue impacts on the performances of SMEs in North Central, Nigeria.

To guarantee that important variables were measured accurately, the instrument went through face-to-face validity with content validity checks, pre-testing, and expert review. Also, test-retest approach was used in assessing the reliability, with Cronbach Alpha ranging between 0.70 and 0.96 which indicates consistency.

Test of Model Fitness

The SEM's validity was assessed using goodness-of-fit indices, with a non-significant Chi-square indicating a good fit. Incremental indices like CFI (>0.95), RMSEA (<0.05), and GFI (>0.95) are also used, alongside SRMR and PR, to provide a comprehensive evaluation of model fit. These indices collectively help to determine how well the model explains the data. Combining these measures ensures a robust assessment of SEM validity.

3.7.1 Index Table

S/N	Category	Index Name	Acceptable Threshold
1	Absolute Fit	Chi-square (χ^2)	$p > 0.05$
		Goodness of Fit Index (GFI)	$GFI > 0.90$
2	Incremental Fit	CFI	$CFI > 0.95$
		RMSEA	$RMSEA \leq 0.08$
		TLI	$TLI > 0.90$
3	Parsimonious Fit	χ^2/df	$\chi^2/df < 5.0$

Source: Field survey 2026

Model Specification

The study aims to investigate the impact of entrepreneurial traits on the performance of small and medium enterprises (SMEs), and the model is adapted from Nson (2024), with a focus on the independent variables. The measurement and structural models are specified as follows:

Measurement Model

The measurement model establishes the relationship between the observed variables (y and x) and the latent variables (ξ and η).

For Entrepreneurs' Need for Achievement (ENA):

$$y_1 = \Lambda_y \eta_1 + e_1 \text{-----}(1)$$

y_1 where represents the observed variables related to Entrepreneurs' Need for Achievement (ENA), and η_1 is the latent variable for Entrepreneurs' Need for Achievement (ENA). The error term is e_1 .

For Self-Efficacy (SEF):

$$y_2 = \Lambda_y \eta_2 + e_2 \text{-----}(2)$$

y_2 where represents the observed variables related to Self-Efficacy (SEF), and η_2 is the latent variable for Self-Efficacy (SEF). The error term is e_2 .

For Entrepreneurial Passion (EPA):

$$y_3 = \Lambda_y \eta_3 + e_3 \text{-----}(3)$$

y_3 where represents the observed variables related to Entrepreneurs' Passion (EPA), and η_3 is the latent variable for Entrepreneurs' Passion (EPA). The error term is e_3 .

For SME Performance (SMEP):

$$y_4 = \Lambda_y \eta_4 + e_4 \text{-----}(4)$$

y_4 where represents the observed variables related to SME Performance, and η_4 is the latent variable for SME Performance (SMEP). The error term is e_4 .

Structural Model

The structural model defines the relationships between the latent dependent variables (SMEG) and the independent variable (SEF, EPA, ENA).

$$\eta = \beta \eta + \Gamma \xi + \zeta \text{-----}(5)$$

$\eta = \eta_1, \eta_2, \eta_3$ represents the dependent variables (SME Performance).

$\xi = (\text{SEF, EPA, ENA})$ represents the independent variables, entrepreneurial traits, which impacts SME Performance in the study area.

β = represents the coefficients for the relationships among the dependent variables.

Γ = represents the coefficient that captures the direct effect of entrepreneurial traits (SEF, EPA, ENA) on performance of small and medium enterprises (SME Performance)

ζ = represents the error term, capturing any unobserved factors affecting the dependent variables.

RESULT AND INTERPRETATION

Descriptive Statistics

The descriptive statistics is presented in table 4.1.1 for different variables based on 382 observations. The expected measuring perceptions or behaviors for the variables are on a 1 to 5 (or 6 for one case) ratio, which have mean scores ranging from approximately 3.78 to 4.15,

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implying a general high alignment or positive responses. Varying standard deviation of 0.51 to 0.94 shows a modest variability in responses across participants. Above all, the data recommend that the participants aim to rate these variables positively, with relative consistent responses, showing positive views or behaviours linked to the study's focus.

Table 4.1.1: Descriptive Statistics

Variables	Obs	Mean	Std.dev	Min	Max
ENA2	382	4.116866	0.5739419	1	5
ENA3	382	4.15405	0.5361036	1	5
ENA4	382	4.12749	0.507603	1	5
ENA5	382	4.067729	0.6097019	1	5
SFC3	382	4.091633	0.702084	1	5
SFC4	382	3.775564	0.9375942	1	5
SFC5	382	4.047809	0.6746541	1	5
SFC6	382	3.980053	0.7695095	1	5
ENP1	382	4.074468	0.852528	1	5
ENP2	382	3.946879	0.8551123	1	5
ENP3	382	4.01328	0.7921382	1	5
ENP4	382	4.078353	0.8318599	1	5
SMEP3	382	4.115538	0.7446156	1	5
SMEP4	382	4.14077	0.7588821	1	5
SMEP5	382	4.11421	0.8073614	1	6

Source: Generated by the author using STATA version 17

Multicollinearity

The table shows the results of multicollinearity diagnostics for three models, with each variable's Tolerance and Variance Inflation Factor (VIF) values. Tolerance values above 0.1 and VIF values below 10 indicate no significant multicollinearity issues. All variables across the models have Tolerance values between approximately 0.38 and 0.50, and VIF values between about 1.99 and 2.47. This suggests that the independent variables in each model are not highly correlated, and multicollinearity is not a concern in this analysis.

Table 4.2.1 Multicollinearity

Model	Tolerance	VIF
MODEL 1		
Entrepreneurs' Need for Achievement ²	.461	2.168
Entrepreneurs' Need for Achievement ³	.440	2.274
Entrepreneurs' Need for Achievement ⁴	.432	2.316
Entrepreneurs' Need for Achievement ⁵	.457	2.186
MODEL 2		
Self-Efficacy ³	.469	2.131
Self-Efficacy ⁴	.501	1.995
Self-Efficacy ⁵	.384	2.601
Self-Efficacy ⁶	.416	2.403
MODEL 3		
Entrepreneurial Passion ¹	.462	2.163
Entrepreneurial Passion ²	.453	2.206
Entrepreneurial Passion ³	.406	2.465
Entrepreneurial Passion ⁴	.423	2.363

Covariances

The covariance analysis reveals significant positive relationships among the three variables studied. Specifically, entrepreneurial passion and entrepreneurs' need for achievement are positively covariant (estimate = 0.431, $p = 0.019$), indicating that higher levels of passion are associated with a greater need for achievement. Similarly, there is a significant positive covariance between need for achievement and self-efficacy (estimate = 0.549, $p = 0.013$), suggesting that individuals with a higher need for achievement tend to have greater self-efficacy. Most notably, the strongest and highly significant relationship exists between entrepreneurial passion and self-efficacy (estimate = 0.668, $p < 0.001$), indicating that these two constructs are strongly interconnected. Overall, these findings suggest that passion, achievement motivation, and self-efficacy are positively related, and increases in one are likely to be associated with increases in the others.

Table 4.3.1: Covariances

Variables	Estimate	S.E.	C.R.	P
EntrepPassion <--> EntreNeedforAch	0.431	0.020	1.561	0.019
EntreNeedforAch <--> SelfEfficacy	0.549	0.020	2.479	0.013
EntrepPassion <--> SelfEfficacy	0.668	0.028	6.072	***

Source: **Source: Field survey 2026**

Correlations

The table shows strong positive relationships among the variables, with entrepreneurial passion most closely linked to self-efficacy (0.785). Additionally, passion is strongly associated with the need for achievement (0.691), and the need for achievement is moderately related to self-efficacy (0.544). Overall, these findings indicate that higher levels of passion, achievement motivation, and self-efficacy tend to go hand in hand.

Table 4.4.1: Correlations

Variables	Estimate
EntrepPassion <--> EntreNeedforAch	0.691
EntreNeedforAch <--> SelfEfficacy	0.544
EntrepPassion <--> SelfEfficacy	0.785

Source: **Source: Field survey 2025**

Assessment of fit of the Measurement Model

The results of the confirmatory factor analysis (CFA) demonstrate that the measurement model exhibits an adequate fit to the data, as evidenced by multiple fit indices. The Root Mean Square Error of Approximation (RMSEA) values ranged from 0.071 to 0.077, indicating acceptable model fit according to conventional criteria. Additionally, the Goodness-of-Fit Index (GFI) and Adjusted GFI (AGFI) exceeded 0.9, reflecting a strong fit between the hypothesized model and the observed data. The Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) approached unity, further supporting the model's adequacy, while the Normed Fit Index (NFI) values also surpassed the 0.9 threshold. The Chi-square to degrees of freedom ratios (χ^2/DF) were below 5, indicating an acceptable level of model fit. Reliability analysis revealed high internal consistency, with Cronbach's alpha coefficients exceeding 0.69 across all constructs. Collectively, these findings confirm the validity and reliability of the measurement model, affirming its suitability for subsequent analyses of the constructs under investigation.

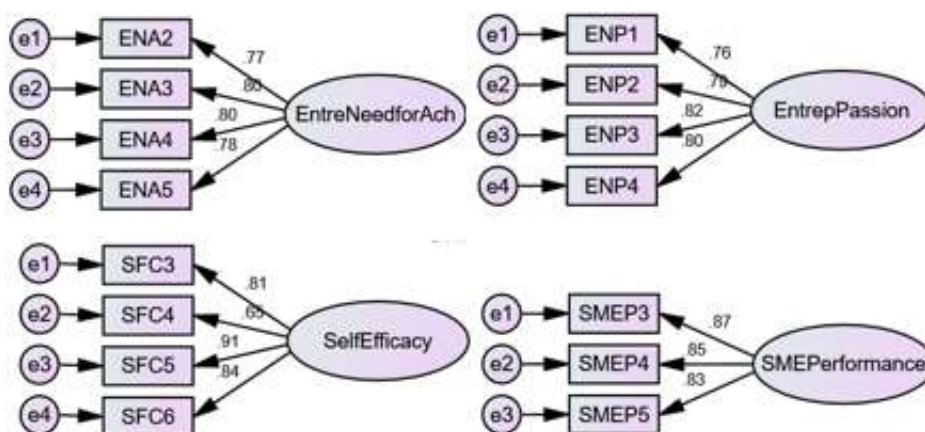
Table 4.5.1: Individual Confirmatory Factor Analysis CFA (Assessment of fit of the Measurement Model)

Variables	RMSEA	GFI	AGFI	CFI	TLI	NFI	CHISQ/DF	PV	Cronbach α
ENA	0.071	0.956	0.932	0.991	0.972	0.904	1.387	0.000	0.866
SFC	0.077	0.902	0.976	0.936	0.981	0.922	4.296	0.012	0.836
ENP	0.074	0.910	0.950	0.970	0.951	0.956	4.212	0.000	0.871
SMEP	0.071	0.944	0.903	0.965	0.913	0.992	4.675	0.000	0.699

Source: **Source: Field survey 2026**

Factor Loadings of Measurement model

The path diagram presents an SEM measurement model showing that entrepreneurial need for achievement, entrepreneurial passion, self-efficacy, and SME performance are all reliably measured using multiple indicators with strong factor loadings above 0.70. Need for achievement and entrepreneurial passion both demonstrate solid measurement quality, while self-efficacy shows the strongest indicators, suggesting it is a highly robust construct in the model. SME performance is also well captured with consistently high loadings, indicating strong reliability of its indicators. Overall, the model confirms good convergent validity, meaning all constructs are adequately represented by their items, and it supports the idea that entrepreneurial traits such as achievement motivation, passion, and self-efficacy are strongly and consistently measured and likely to have meaningful relationships with SME performance.

**Eliminated construct with low Factor Loadings**

The table shows the elimination of indicators with low factor loadings across the four constructs in the measurement model, indicating weak or invalid measurement items. For entrepreneurial need for achievement, ENA1 (-0.03) and ENA6 (0.01) exhibit extremely low and negative loadings, showing that they do not meaningfully represent the construct. Similarly, in self-efficacy, SFC1 (-0.06) and SFC2 (-0.01) also record negative and near-zero values, indicating poor measurement quality and lack of contribution to the construct. In entrepreneurial passion, ENP5 (0.23) and ENP6 (0.09) fall below the acceptable threshold, suggesting weak representation of the latent variable. Likewise, SME performance indicators SMEP1 (0.37), SMEP2 (0.36), and SMEP6 (0.46) show low loadings, implying inadequate measurement of the construct. Overall, these results justify the removal of these indicators from the model in order to improve construct validity, reliability, and the overall accuracy of the measurement model.

Table 4.7.1: low Factor Loadings

Construct 1	Factor Loadings
ENA1	-0.03
ENA6	0.01
construct 2	
SFC1	-0.06
SFC2	-0.01
construct 3	
ENP5	0.23
ENP6	0.09
construct 4	
SMEP1	0.37
SMEP2	0.36
SMEP6	0.46

Structural model

Table 4.9.1 presents the results of the structural model, which examines the impact of entrepreneurial need for achievement, entrepreneurial passion, and self-efficacy on SME performance. The findings show that all three entrepreneurial traits have a positive and statistically significant relationship with SME performance, although their levels of influence differ.

The first hypothesis indicates that entrepreneurial need for achievement has a positive and significant effect on SME performance ($\beta = 0.216$, S.E = 0.058, C.R = 3.320, $p = 0.049$). This suggests that entrepreneurs with a strong desire to achieve set goals, excel, and improve performance are more likely to enhance the performance of their SMEs. Although the effect is statistically significant at the 5% level, the magnitude of the relationship is relatively moderate compared to the other predictors in the model. This indicates that while achievement motivation is relevant in leading SME success, its impacts may be based on other supporting variables like environmental conditions skills and resources.

The second hypothesis unveils that entrepreneurial passion also has a positive and significant effect on SME performance ($\beta = 0.178$, S.E = 0.051, C.R = 3.163, $p = 0.002$). This implies that entrepreneurs who demonstrate emotional attachment, strong passion and enthusiasm to their business are likely to attain improved business performance. The significance level ($p < 0.01$) discloses a strong statistical correlation, even though the path coefficient postulates a relatively lower impact compared to demand for achievement and self-efficacy. This indicate that while passion contributes meaningfully to SME performance, its effect may be more supportive in nature, enhancing persistence and commitment rather than directly driving performance outcomes. The third hypothesis demonstrates that self-efficacy has the strongest and most significant effect on SME performance ($\beta = 0.444$, S.E = 0.053, C.R = 7.594, $p < 0.001$). This finding indicates that entrepreneurs who have high confidence in their abilities to perform business tasks, overcome

Publication of the European Centre for Research Training and Development-UK challenges, and achieve business goals are more likely to experience higher levels of SME performance. The high path coefficient and strong statistical significance suggest that self-efficacy is the most influential predictor among the three entrepreneurial traits examined. This implies that belief in one's capabilities plays a critical role in shaping entrepreneurial behavior, decision-making, and overall business success.

Overall, the structural model results confirm that all three entrepreneurial traits such as need for achievement, entrepreneurial passion, and self-efficacy have significant positive effects on SME performance. However, the relative strength of influence varies, with self-efficacy emerging as the most dominant predictor, followed by entrepreneurial need for achievement and entrepreneurial passion. This suggests that psychological and motivational factors are crucial drivers of SME success, with self-efficacy playing a particularly central role in enhancing entrepreneurs' ability to effectively manage and grow their businesses.

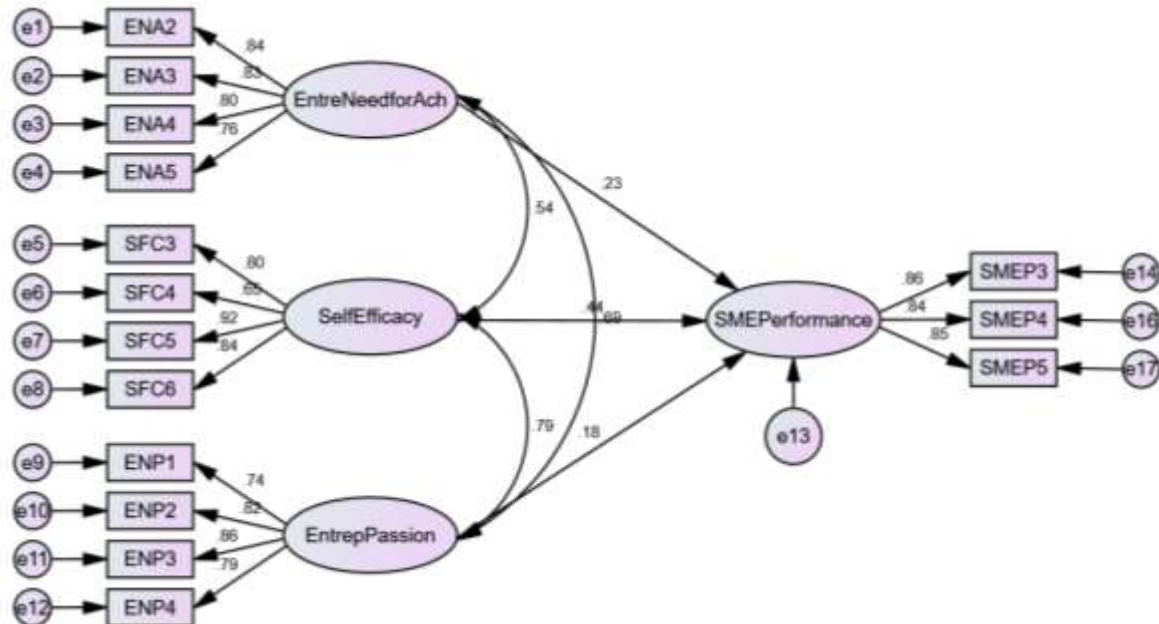


Figure 4.8.1: Structural Model

Table 4.8.1: Structural model

Hypothetical Relationship	Path Coefficient	S.E	C.R	p-value
SMEPerformance <-- EntreNeedforAch	0.216	0.058	3.320	0.049
SMEPerformance <-- EntrepPassion	0.178	0.051	3.163	0.002
SMEPerformance <-- SelfEfficacy	0.444	0.053	7.594	***

Source: Field survey 2025**DISCUSSION OF MAJOR FINDINGS**

The results of this study disclosed that entrepreneurial traits particularly self-efficacy, entrepreneurial need for achievement and entrepreneurial passion were found to have positive and significant impact on performance of SMEs in North central Nigeria. Of these variables, self-efficacy was the most significant one for the performance of SMEs, followed by need for achievement as well as entrepreneurial passion. These findings implies that entrepreneurs' belief in their own abilities has more important role to play in improving the performance of a business than emotional attachment and motivation. This finding is consistent with Ndibalema et al. (2025) which found that entrepreneurial self-efficacy positively enhances the financial and non-financial performance of SMEs, stressing that being confident in entrepreneurial skills fosters opportunity recognition and business execution. Likewise, Trung and Thanh (2025) discovered that psychological capital which consist of resilience and self-confidence improves affects entrepreneurial long-term sustainability and competence.

The substantial positive impact of entrepreneurial need for achievement on SME performance confirms the perception that entrepreneurs with a goal attainment and success orientation are likely to have positive performance. The finding aligns with that of Ananda and Amir (2025) which revealed that leadership, diligence, and innovation substantially enhance profitability of SMEs as well as their Sales Performance. Also, agrees with Emmanuel and Mapeto (2025) which concluded that entrepreneurial traits are important for the profitability of SME even though it requires environmental conditions to be effective. Additionally, Islam et al. (2024) and Yaseen et al. (2024) found that entrepreneurial orientation that includes proactiveness and achievement motivation improves SME Performance and efficiency.

The increased performance of the SMEs as a result of entrepreneurial passion is also justified by the link that emotional commitment and enthusiasm increase perseverance and resilience in business operations. This aligns with Gunawan (2024) who stated that creativity and commitment are needed for success in an innovation-oriented organizations. Again, it agrees with Dwumah et

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al. (2024) who established that entrepreneurial orientation has a positive impact on firm performance, particularly with the presence of external support systems like networks. Moreover, Frajtová Michalíková et al. (2025) pointed out that entrepreneurial traits like proactiveness and passion are context-specific but in most cases have been proved to be crucial to success in SMEs in various industries.

The results also agree the broader literature on the impact of innovation to the performance of SMEs as Ghosh and Manokaran (2025) and Rahman et al. (2025) confirmed that innovation has a significant improvement on productivity and efficiency of SMEs, strengthening the notion that entrepreneurial traits lead to performance via innovative-based processes. Likewise, Jabbour Al Maalouf et al. (2025) found that transformational leadership improves innovative behavior and hence enhances firms' performance. Other studies by Tajpour et al., 2025 and Zaidan, 2024 also found that innovation management practices boost sustainability and competitive edge of SMEs. The technological development equally backs up entrepreneurial traits in enhancing performance of SME. Digital transformation is found to boost sustainable innovation capability and organizational performance (Wang and Zhang, 2025) whereas digitally oriented SMEs were found to be more resilient during the COVID-19 pandemic (Mishrif and Khan, 2023). Similarly, Tanchangya et al. (2025), and Khalife et al. (2024) noted that FinTech and blockchain technologies can enhance financial access, efficiency and transparency that enables SMEs to achieve improved performance outcomes.

Generally, the results of this research corroborate with both empirical evidence and theoretical expectations of previous studies. The findings of this study affirm that entrepreneurial traits have significant impact on the performance of SMEs, and that self-efficacy is the most dominant trait, followed by need for achievement and entrepreneurial passion to boost the SMEs growth in North Central Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study concludes that entrepreneurial need for achievement has a positive and significant impact on SME performance. This implies that entrepreneurs who are driven by a strong drive to achieve set goals and excel in their business activities are more likely to enhance the performance of their SMEs. Entrepreneurial passion is also found to have a positive and significant influence on SME performance, indicating that enthusiasm, emotional attachment, and commitment to business activities contribute to improved performance outcomes, although its impact is relatively moderate compared to other factors.

The study further acknowledges that self-efficacy is the most influential entrepreneurial characteristic affecting SME performance. Entrepreneurs who have strong confidence in their abilities to manage business challenges and make effective decisions are more likely to achieve

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higher levels of business success. The study recommended that SMEs should encourage and strengthen achievement motivation among entrepreneurs through training, mentorship, and goal-setting programs, as this will enhance their drive for business success and improved performance. Entrepreneurship development programs should focus on fostering entrepreneurial passion by promoting interest, commitment, and emotional engagement in business activities, as this can improve persistence and long-term business performance. The study therefore emphasizes the importance of improving entrepreneurial characteristics not just as a business priority but a strategic approach to inclusive and sustainable economic growth. Hence, policymakers and business support agencies should prioritize initiatives that enhance entrepreneurial self-efficacy, such as capacity-building workshops, business coaching, and practical skill development, since self-efficacy has the strongest impact on SME performance.

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