

EFFECT OF ENTREPRENEURIAL KNOWLEDGE AND ORIENTATION ON PERFORMANCE OF SMEs IN FEDERAL CAPITAL TERRITORY ABUJA, NIGERIA

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ABSTRACT

This study examines the effect of entrepreneurial knowledge and orientation on the performance of small and medium enterprises in Federal Capital Territory Abuja, Nigeria. The study adopted a survey research design, the population of the study comprised of 22,861 small and medium enterprises operating in Federal Capital Territory Abuja, sample size of 393 was determined for the study using Taro Yamane sample size determination formula and stratified random sampling was employed to select the respondents. The study utilized adapted questionnaire to collect data. The data was analyzed using partial least square structural equation modeling (PLS- SEM). The study found that entrepreneurial knowledge has positive and significant effect on performance of small and medium enterprises in Federal Capital Territory Abuja at 5% level of significant, while entrepreneurial orientation has positive but insignificant effect on performance of SMEs in Federal Capital Territory Abuja at 5% level of significant. The study therefore concludes that entrepreneurial knowledge and orientation influence performance of small and medium enterprises. The study recommends among others that small and medium enterprises in FCT should focus on integrating these traits into broader business strategies by way of aligning their entrepreneurial orientation with enabling factors such as access to resources, networking opportunities, and customer-focused strategies.

Key words: Entrepreneurial Knowledge, Entrepreneurial Orientation, Performance, Small and Medium Enterprises,

INTRODUCTION

Small and Medium Enterprises (SMEs) are globally recognized for their vital role in economic development, accounting for significant employment and contributing to global GDP. Despite their importance, SMEs face several challenges such as limited access to finance, evolving market dynamics, and increased competition due to globalization and technological advancements. In Africa, SMEs represent the bulk of businesses and are crucial for job creation, but they often struggle with poor infrastructure and regulatory challenges. In Nigeria, SMEs contribute 48% to GDP and employ over 80% of the workforce, yet they face critical barriers, including poor access to finance and limited entrepreneurial skills, especially in regions like FCT. Enhancing entrepreneurship practices (SEPs) in these areas could significantly improve SME performance and long-term sustainability (Yildiz, et al., 2022).

However, they face persistent challenges, including limited access to capital, poor infrastructure, and inadequate managerial skills, which hamper their growth and profitability (Agwu & Emeti, 2014). The Nigerian government has recognized the importance of SMEs by implementing policies and initiatives aimed at enhancing their performance, yet the sector continues to underperform relative to its potential. In the Federal Capital Territory (FCT) Abuja, SMEs are increasingly recognized as key drivers of local economic activity and employment. Yet, their performance remains suboptimal due to factors such as limited entrepreneurial knowledge and orientation, poor strategic planning, and inadequate market insights (Udechukwu, 2020).

Entrepreneurial knowledge and orientation are critical factors influencing SME performance, particularly in dynamic and competitive environments. Entrepreneurial knowledge encompasses the skills and competencies required to manage, innovate, and adapt within the SME sector, including knowledge of market trends, financial management, and strategic planning (Hussain, et al., 2014). Entrepreneurial knowledge, encompassing essential skills such as strategic planning, financial management, and market

analysis, equips SMEs with the tools to navigate uncertainties and exploit opportunities (Hussain, et al, 2014).

Entrepreneurial orientation, on the other hand, reflects an SME's strategic posture toward innovation, proactiveness, and risk-taking, which are essential for competitive advantage and growth (Lumpkin & Dess, 2016). Entrepreneurial orientation, characterized by innovation, proactiveness, and risk-taking, is crucial for fostering competitiveness and long-term sustainability (Rauch, et al, (2019). However, in Abuja, many SMEs lack these capabilities, resulting in limited adaptability to market changes and reduced profitability (Udechukwu, 2020).

Small and Medium Enterprises (SMEs) are essential to the economic growth of FCT, contributing significantly to job creation, innovation, and poverty reduction. However, despite their potential, SMEs in Nigerian's capital faced several challenges, that impede their growth, performance, and sustainability. These issues result in poor decision-making, low productivity, and high operating costs, ultimately leading to underperformance and business failures (Abosede et al., 2018). Entrepreneurial practices, such as entrepreneurial Knowledge and entrepreneurial Orientation have been identified as key tools to help SMEs navigate these challenges and enhance their overall performance. However, there is limited empirical research on how these practices are adopted by SMEs in North Central region, particularly in the Nation capital city, leaving a significant research gap (Obeidat, 2016).

A risk-averse mentality, lack of market knowledge and Orientation of challenging business environment further limit their ability to engage in proactive and innovative activities necessary for growth Covin & Slevin, (2019). While the importance of entrepreneurial knowledge and orientation has been recognized, existing studies tend to focus on the general challenges faced by SMEs without exploring into the impact of these practices on SME growth and competitiveness. Also, much of the research in Nigeria has been qualitative or conceptual, with limited quantitative analysis to establish causal links between entrepreneurship knowledge and SME performance Eniola & Entebang, (2015). This methodological gap restricts the practical use of findings for entrepreneurs and policymakers, further highlighting the need for empirical studies on this subject. Therefore, this study aims to address these gaps by examining the effect of entrepreneurial knowledge and Orientation on the performance of SMEs in the federal capital territory, with a specific focus on entrepreneurial knowledge and orientation. Based on these objectives, the study addresses the following hypotheses:

H₀₁: Entrepreneurial knowledge has no significant effect on the performance of S MEs in FCT Abuja, Nigeria.

H₀₂: Entrepreneurial orientation has no significant effect on the performance of SMEs in FCT Abuja, Nigeria.

LITERATURE REVIEW

Performance of Small and Medium Enterprises

The performance of SMEs is defined as the combination of financial success and operational efficiency, emphasizing a balance between financial health and resource management for long-term competitiveness (Nguyen & Xuan, 2023). Innovation is a critical determinant of SME success, enabling firms to adapt to market changes and enhance competitiveness (Yıldız et al., 2022). Beyond financial growth, SME performance includes resilience during crises, with survival and adaptability being key indicators, especially during economic uncertainties like the COVID-19 pandemic (Bercovitz & Mitchell, 2021). Sustainable development broadens SME performance to include environmental and social goals, underscoring the importance of sustainable practices (Fadly, 2023). Performance metrics for SMEs encompass financial (e.g., profitability), market (e.g., customer satisfaction), operational, innovation, and sustainability indicators, offering a comprehensive evaluation framework. Effective resource management and strategic planning are critical for improving competitiveness and sustaining growth (Nkundabanyanga, 2014; David, 2011). These diverse metrics provide actionable insights for entrepreneurs and stakeholders to enhance SME performance and viability.

Small and Medium Enterprises

According to Nefedov (2023), SMEs are defined as entrepreneurial entities engaged in various areas of economic activity, aimed at making a profit and solving both social and economic problems. These enterprises operate within market economies under specific legal criteria, which vary by country. SMEs are crucial in promoting perfect competition and are often the focus of state support to foster economic development. SMEs are typically categorized based on the number of employees and annual turnover. The European Union, for example, defines SMEs as enterprises that employ fewer than 250 employees and have an annual turnover not exceeding €50 million (European Commission, 2015). This size-based classification allows for differentiated support mechanisms tailored to the specific needs of these businesses in comparison to larger firms.

The ministry defines SMEs as firms with total investment (excluding the cost of land) of up to N750,000, employing between 10 to 300 persons (Federal Ministry of Commerce and Industry, 2015). Similarly, SMEs are defined as enterprises employing less than 200 employees, with assets (excluding land) of less than N50 million (NBS, 2017). The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) defines SMEs as businesses employing between 10 and 49 people with an annual turnover between N5 million and N49.9 million. This definition is part of their National Policy on MSMEs (SMEDAN, 2021). The Central Bank of Nigeria (CBN) classifies SMEs based on their asset base (excluding land) and annual turnover. An SME must have an asset base of between N5 million and N500 million and a staff strength of 11-300 employees (CBN, 2020).

Entrepreneurial Knowledge

Entrepreneurial knowledge is a multifaceted concept that encompasses the various skills, expertise, and insights that individuals or organizations possess in relation to identifying, evaluating, and exploiting entrepreneurial opportunities (Alvarez & Busenitz, 2021). It is a critical resource for entrepreneurs and small and medium enterprises (SMEs) alike, as it enables them to navigate the complex and dynamic landscape of entrepreneurship and achieve sustainable growth and success.

At its core, entrepreneurial knowledge includes a wide range of both tacit and explicit knowledge related to different aspects of the entrepreneurial process (Marvel et al., 2016). Tacit knowledge refers to the intangible, experience-based knowledge that individuals acquire through practice and observation, such as the ability to identify market trends, assess customer needs, or build effective teams. Explicit knowledge, on the other hand, refers to the codified, systematic knowledge that can be easily articulated and shared, such as the knowledge of business planning, financial management, or legal regulations.

Entrepreneurial knowledge also spans both general and specific domains, depending on the nature and context of the entrepreneurial opportunity (Marvel et al., 2016). General knowledge refers to the broad, transferable skills and insights that are applicable across different industries and markets, such as creativity, problem-solving, or networking. Specific knowledge, in contrast, refers to the specialized, domain-specific expertise that is required to identify and exploit opportunities within a particular sector or niche, such as technological know-how, market intelligence, or regulatory compliance (Rauch & Hulsink, 2015).

Entrepreneurial Orientation

Entrepreneurial Orientation (EO) is a strategic orientation that reflects an organization's propensity to engage in entrepreneurial behaviors and processes, such as innovativeness, proactiveness, and risk-taking (Covin & Wales, 2012). It represents a fundamental set of beliefs, values, and practices that guide an organization's strategic actions and decision-making in the pursuit of new opportunities and the creation of value (Wales et al., 2013). EO has emerged as a central construct in the field of entrepreneurship and has been widely studied as a driver of organizational performance and competitive advantage, particularly in the context of small and medium enterprises (SMEs) (Rauch et al., 2019).

The multidimensional nature of EO has been a subject of ongoing debate and empirical investigation in the literature. While some scholars have treated EO as a unidimensional construct, arguing that its

dimensions covary and jointly reflect an overall entrepreneurial posture (Covin & Slevin, 1989), others have advocated for a multidimensional conceptualization, suggesting that each dimension represents a distinct aspect of EO and may have differential effects on organizational outcomes (Lumpkin & Dess, 1996). The latter perspective has gained increasing support in recent years, with studies demonstrating the unique contributions and contingent effects of each EO dimension on various performance indicators, such as growth, profitability, and innovation (Lomberg et al., 2017).

Empirical Review

Entrepreneurial Knowledge and Performance of SMEs.

Kalio et al. (2022) investigated the impact of entrepreneurial knowledge on organizational performance within the oil and gas industry in Port Harcourt, Nigeria. The study utilized a quantitative design, underpinned by the dynamic capability and relational view theories. Though the population and sample size were not explicitly stated, data collection was achieved through surveys and literature review. The analysis employed statistical tools to establish a strong positive relationship between entrepreneurial knowledge and organizational performance. The study concluded that effective management of entrepreneurial dimensions significantly improves organizational outcomes. However, it lacked specific details on sampling methods, potentially limiting replicability.

Manampiring, et al, (2020) studied the influence of entrepreneurial knowledge, education, and skills on the performance of SMEs in Manado, Indonesia. The research employed a quantitative design, though the population and sample size details were not specified. Data were collected via structured questionnaires and analyzed using regression analysis. The findings underscored entrepreneurial education as a strong predictor of SME performance, recommending continuous internal and external improvements for businesses. A lack of clarity on the sample selection process detracted from the study's methodological rigor.

Ibidunni et al. (2020) investigated the relationship between partner knowledge transfer and innovation performance in informal economy SMEs involved in international business relationships in Nigeria. Employing a survey design, the study sampled 370 owner-managers and managers of SMEs from Nigeria's informal electronic market. Data were collected using structured questionnaires and analyzed using Structural Equation Modeling (AMOS 22). The findings indicated that partner knowledge transfer dimensions, including ideas, R&D, and social networking, had varying positive impacts on innovation performance. However, knowledge transfer through training was found to have an inverse and insignificant relationship with innovation performance. The study's focus on a single variable of network capability limits its generalizability. The results provide actionable insights for enhancing theory and practice in SME innovation.

Entrepreneurial Orientation and Performance of Small and Medium Enterprises

Joseph and Chukwuemeka (2023) analyzed the effect of entrepreneurial orientation (EO) on the performance of SMEs in Nigeria, particularly in manufacturing. Using a multi-theoretic approach and Structural Equation Modeling (SEM), they surveyed 352 entrepreneurs across Lagos, Kano, Aba, and Abuja. Data were collected through structured questionnaires and analyzed to determine the relationship between EO and firm performance. Findings revealed a significant positive impact of EO on SME performance, highlighting autonomy, innovativeness, and proactiveness as key drivers. Critically, the study did not explore sector-specific challenges, which may limit generalizability.

Aliyu et al. (2022) investigated the impact of EO on SME performance in Northeast Nigeria, emphasizing educational level as a moderating factor. The study used a sample of 326 SME owners, employing multi-stage sampling and Structural Equation Modeling (SEM) via Smart-PLS for analysis. Results indicated a significant positive effect of EO on performance but showed that educational level did not moderate this relationship. A critique of the study is its focus on a single region, which may not capture the diversity of Nigeria's SME ecosystem.

Irikefe and Bagobiri (2022) examined the dimensions of entrepreneurial orientation (EO) and their effects on the performance of small enterprises in Abuja, Nigeria. Using a survey design, the researchers targeted a population of 2,750 SMEs, deriving a sample of 349 via Yamane's formula, with 338 valid responses collected. Data collection involved structured questionnaires rated on a Likert scale, and multiple regression was used for analysis. The findings revealed that innovativeness, proactiveness, and risk-taking significantly influenced performance, while autonomy was insignificant. Despite its contributions, the study did not extensively account for external environmental influences.

Adegbe (2021) explored the impact of EO dimensions autonomy, innovativeness, risk-taking, competitive aggressiveness, and proactiveness on small business performance in Makurdi, Nigeria. The study adopted a quantitative design and employed convenience sampling to select 185 respondents. Data were gathered using structured questionnaires and analyzed via correlation and regression techniques. The results indicated that risk-taking, competitive aggressiveness, and proactiveness significantly impacted business performance, while autonomy and innovativeness did not. The reliance on convenience sampling limited the generalizability of the findings.

Resource-Based View Theory

This study is grounded in the Resource-Based View (RBV), a theoretical framework developed by Jay Barney in 1991. RBV suggests that firms can achieve and maintain competitive advantages by acquiring, managing, and utilizing resources that are valuable, rare, inimitable, and non-substitutable (Barney, 1991). The theory emphasizes that an organization's internal resources such as capabilities, knowledge, human capital, and technology are critical for outperforming competitors and enhancing performance. Unlike market-oriented theories, RBV focuses on internal factors as key determinants of differences in organizational performance.

Other scholars have extended and enriched the RBV framework over time. For instance, Peteraf (1993) emphasized the role of resource immobility, suggesting that firms can retain competitive advantages by protecting key resources from competitors. Wernerfelt (1984) further contributed by linking resources to strategic growth opportunities, suggesting that the diversification and development of resources are vital for long-term sustainability. Critics of the RBV, such as Priem and Butler (2001), argue that the theory is too tautological and lacks empirical precision in identifying what exactly constitutes a strategic resource. Also, some critics have noted that the theory underemphasizes the role of dynamic environmental changes and external market conditions.

The Resource-Based View (RBV) is highly relevant to a study examining the effect of entrepreneurial knowledge and orientation on the performance of SMEs. Introduced by Barney (1991), the RBV emphasizes that organizations achieve sustained competitive advantage by leveraging resources that are valuable, rare, inimitable, and non-substitutable (VRIN). This theory aligns well with the core elements of entrepreneurial knowledge and orientation, which are critical internal resources for SMEs striving to achieve superior performance.

Entrepreneurial knowledge, which encompasses both tacit and explicit knowledge, is a valuable resource that enables SMEs to identify opportunities, innovate, and adapt to dynamic market conditions (Marvel et al., 2016). Similarly, entrepreneurial orientation characterized by innovativeness, proactiveness, and risk-taking represents strategic capabilities that can be leveraged to enhance competitiveness and drive firm performance (Covin & Wales, 2012). These resources align with the RBV's emphasis on internal capabilities as the foundation for sustained success, particularly in resource-constrained environments like those faced by SMEs. The RBV is particularly pertinent for SMEs operating in the Federal Capital Territory, Abuja, Nigeria, where external challenges such as inadequate infrastructure and limited access to capital may constrain growth. By focusing on internal resources such as entrepreneurial knowledge and orientation, SMEs can overcome these challenges and achieve sustainable competitive advantages (Nguyen et al., 2021). For instance, effective use of entrepreneurial knowledge can enable SMEs to

develop innovative solutions, while a strong entrepreneurial orientation fosters resilience and adaptability in volatile markets.

Furthermore, the RBV provides a robust framework for understanding how SMEs can strategically manage their unique resources to achieve superior performance. Entrepreneurial practices such as resource optimization, leadership, and networking can further enhance the utility of entrepreneurial knowledge and orientation, as suggested by Rauch et al. (2009). This highlights the RBV's applicability in exploring the intersection of resource management and entrepreneurial practices in improving SME performance. In conclusion, the RBV offers a comprehensive theoretical lens for examining the effect of entrepreneurial knowledge and orientation on SME performance. It underscores the importance of leveraging internal resources to navigate external challenges and achieve sustained growth, making it an ideal framework for this study.

METHODOLOGY

This study examines the effect of entrepreneurial knowledge and orientation on performance of SMEs in FCT Abuja, employs a survey research design. The population of this study comprised of small and medium enterprises (SMEs) operating in various sectors in Federal Capital Territory (FCT) Abuja, Nigeria. According to the available data from SMEDAN (2021), there are 22,861 SMEs operating in Federal capital of Nigeria, across various sectors such as agriculture, manufacturing, trade, and services. Therefore, the population of this study comprised of 22,861 registered SMEs in FCT Abuja Nigeria. The study covered all the six (6) area council in FCT Abuja namely; Abaji area council, Abuja Municipal area council, Bwari area council, Gwagwalada area council, Kuje area council and Kwali Area Council. The sample size of 393 was determined using Taro Yamane (1967) sample size determination formula which is given as Yamane (1967) sample sizes determination formula is given as $n = \frac{N}{1+N(e)^2}$ where: 'n' is the sample size, 'N' is the finite population size, 1 is constant and 'e' is the level of precision.

This study used stratified random sampling to select the respondents. The target respondents of the study were owner/managers of SMEs operating in FCT Abuja, Nigeria. Questionnaire was used to collection data. Questionnaire was administered to the six (6) Area Councils in FCT Abuja, however, five of the area council got 60 questionnaire each, while AMAC got 93 questionnaire this is because it has the highest number of SMEs operating in the city center. The questionnaire used in this study was adapted from the works of Man et al. (2002), Covin and Slevin (1989), Kihara, et al. (2016); Shahbandi and Farrokhsad (2019).

The adoption of an existing, validated instrument enhances the reliability and validity of the data collected. The reliability of the instrument used was accessed using Cronbach alpha of 0.914. Cronbach alpha value of greater than 0.7 is appropriate (Hair, et al., 2022). The questionnaires were administered through in-person visits and social media to ensure a high response rate. To facilitate data collection, 6 trained research assistants (one from each Area Council), were employed. Their role was particularly crucial in assisting respondents with limited literacy or those who preferred to communicate in their native language to fast tract the collection of the data. This method helped ensure accurate responses and reduced the potential for misunderstandings during the data collection process.

For data analysis, Partial Least Squares Structural Equation Modeling (PLS-SEM) was utilized, an advanced statistical technique well-suited for handling complex models with multiple constructs and relationships. This approach allows for the simultaneous examination of the effect entrepreneurial knowledge, entrepreneurial orientation and performance of SMEs indicators. PLS-SEM is particularly appropriate for this study as it can accommodate smaller sample sizes and does not require the data to meet strict distributional assumptions. This flexibility makes it ideal for the census approach used in the research, ensuring robust analysis despite the sample characteristics.

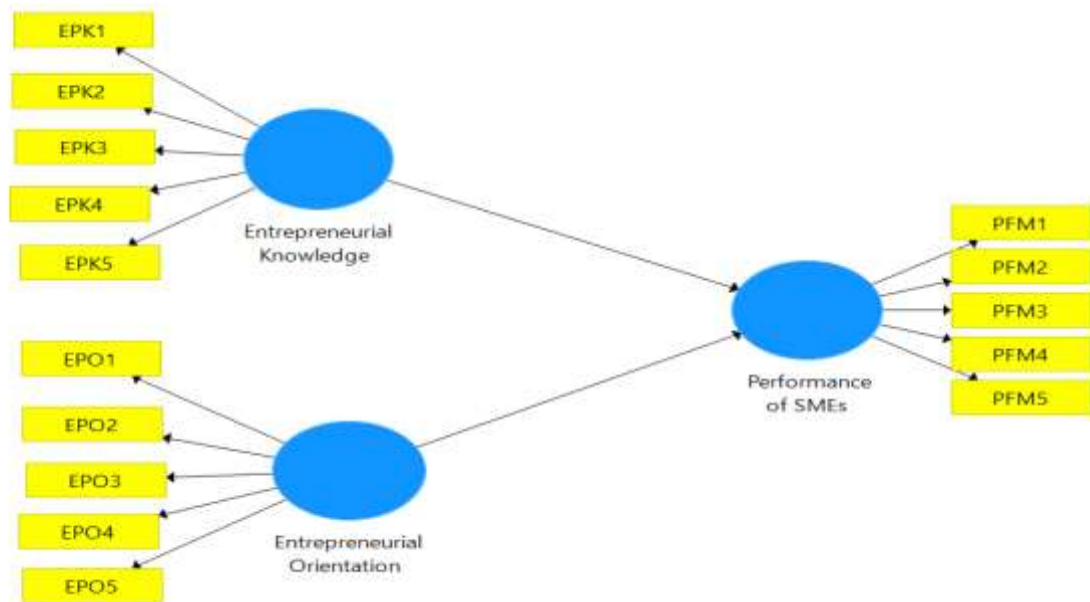


Fig. 1 The Model of the Study

The PLS-SEM analysis was carried out using Smart PLS software, employing a two-step process. In the first step, the measurement model was evaluated to confirm the reliability and validity of the constructs, ensuring that the measurement items for entrepreneurial knowledge and orientation accurately captured the intended dimensions. The second step involved assessing the structural model to test the hypotheses proposed in the study. This approach provided a thorough analysis of both direct and indirect relationships, offering valuable insights into how entrepreneurial knowledge and orientation impact the performance of SMEs in the Federal Capital Territory (FCT), Abuja.

Furthermore, the research adhered to stringent ethical guidelines. Participants provided informed consent, confirming their understanding of the study's objectives and their right to withdraw at any point without any negative consequences. The confidentiality of participants' responses was strictly maintained, with all data anonymized and securely stored to safeguard their privacy. These measures ensured the research process upheld high ethical standards and maintained its integrity throughout.

RESULT AND DISCUSSIONS

Assessment of Measurement Model

In this section, all the hypotheses formulated in chapter one are tested. All the tests are conducted at 5% level of significance. All the test statistics for the hypotheses are shown and the structural model is shown in the model below.

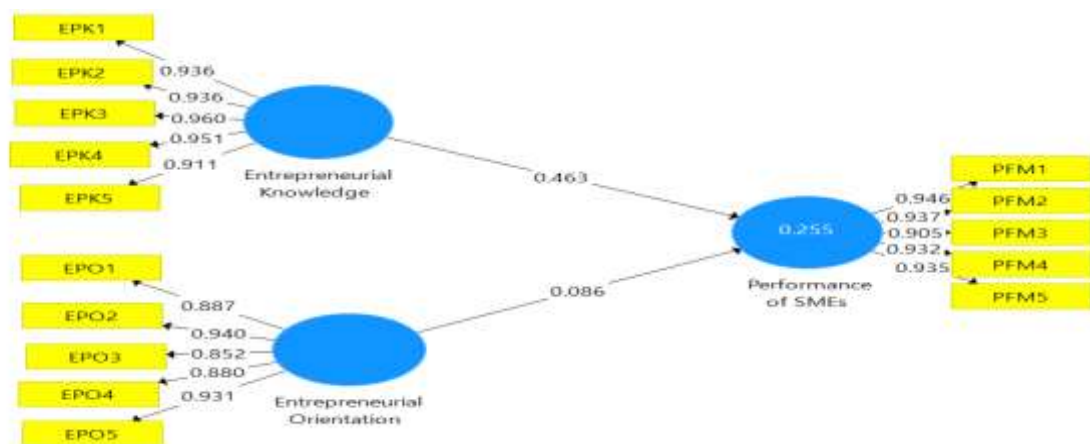


Fig. 2: Measurement model of the study constructs and indicators.
Source: Smart PLS Output, 2024

Variables	Indicators	Factor Loadings	Cronbach's alpha	Composite Reliability	Average Variance Extracted (AVE)
Performance of SMEs	PFM1	0.946	0.952	0.970	0.867
	PFM2	0.937			
	PFM3	0.905			
	PFM4	0.932			
	PFM5	0.935			
Entrepreneurial Knowledge	EPK1	0.936	0.966	0.924	0.882
	EPK2	0.937			
	EPK3	0.960			
	EPK4	0.951			
	EPK5	0.911			
Entrepreneurial Orientation	EPO1	0.887	0.941	0.955	0.808
	EPO2	0.940			
	EPO3	0.852			
	EPO4	0.880			
	EPO5	0.931			

Table 1: Convergent validity**Source: Smart PLS Output, 2024**

The table presents the convergent validity assessment for three constructs: Performance of SMEs, Entrepreneurial Knowledge, and Entrepreneurial Orientation. Convergent validity is evaluated using factor loadings, Cronbach's alpha, composite reliability, and average variance extracted (AVE).

The indicators for the construct "Performance of SMEs" exhibit high factor loadings, ranging from 0.905 to 0.946, indicating strong correlations between the indicators and the construct. The Cronbach's alpha value of 0.952 and composite reliability of 0.970 both exceed the recommended threshold of 0.7, confirming excellent internal consistency. The Average Variance Extracted (AVE) is 0.867, which is well above the acceptable threshold of 0.5, indicating that the construct explains a significant portion of the variance in its indicators. This demonstrates that the measurement items are valid and reliable for capturing the construct of SME performance.

The construct "Entrepreneurial Knowledge" has factor loadings ranging from 0.911 to 0.960, reflecting a strong association between the indicators and the construct. The Cronbach's alpha value of 0.966 and composite reliability of 0.924 highlight excellent internal consistency. The AVE of 0.882 signifies that a substantial amount of variance in the indicators is explained by the construct, exceeding the minimum threshold of 0.5. These results confirm that the indicators effectively measure entrepreneurial knowledge, making the construct highly reliable and valid.

For "Entrepreneurial Orientation," the factor loadings range between 0.852 and 0.940, indicating strong relationships between the indicators and the construct. The Cronbach's alpha of 0.941 and composite reliability of 0.955 demonstrate robust internal consistency. The AVE of 0.808 confirms that a large portion of the variance in the indicators is captured by the construct. These results validate that the indicators reliably measure entrepreneurial orientation and that the construct has strong convergent validity.

The high factor loadings, Cronbach's alpha, composite reliability, and AVE values across all constructs indicate that the measurement items are consistent, reliable, and valid for capturing the dimensions of

SME performance, entrepreneurial knowledge, and entrepreneurial orientation. These findings support the robustness of the measurement model, ensuring the credibility of further analysis in the study.

Discriminant Validity

Table 2: Heterotrait-Monotrait Ratio (HTMT)

	Performance of SMEs	Entrepreneurial Knowledge	Entrepreneurial Orientation
Performance of SMEs			
Entrepreneurial Knowledge	0.512		
Entrepreneurial Orientation	0.281	0.421	

Source: Smart PLS Output, 2024

Table 3 presents the Heterotrait -Monotrait Ratio (HTMT) results, which are crucial for assessing the discriminant validity of the constructs in the study. The Heterotrait-Monotrait Ratio (HTMT) values indicate the discriminant validity of the constructs in the model by assessing the extent to which they are distinct from one another. The HTMT value between Performance of SMEs and Entrepreneurial Knowledge is 0.512, and the value between Performance of SMEs and Entrepreneurial Orientation is 0.281, both of which are well below the recommended threshold of 0.85. Similarly, the HTMT value between Entrepreneurial Knowledge and Entrepreneurial Orientation is 0.421, also below the threshold. These results confirm that the constructs are conceptually distinct and measure different aspects of the model. This strong discriminant validity ensures that the constructs are not overlapping, enhancing the credibility and validity of the study's structural model.

Assessment of the Structural Model and Hypotheses Testing

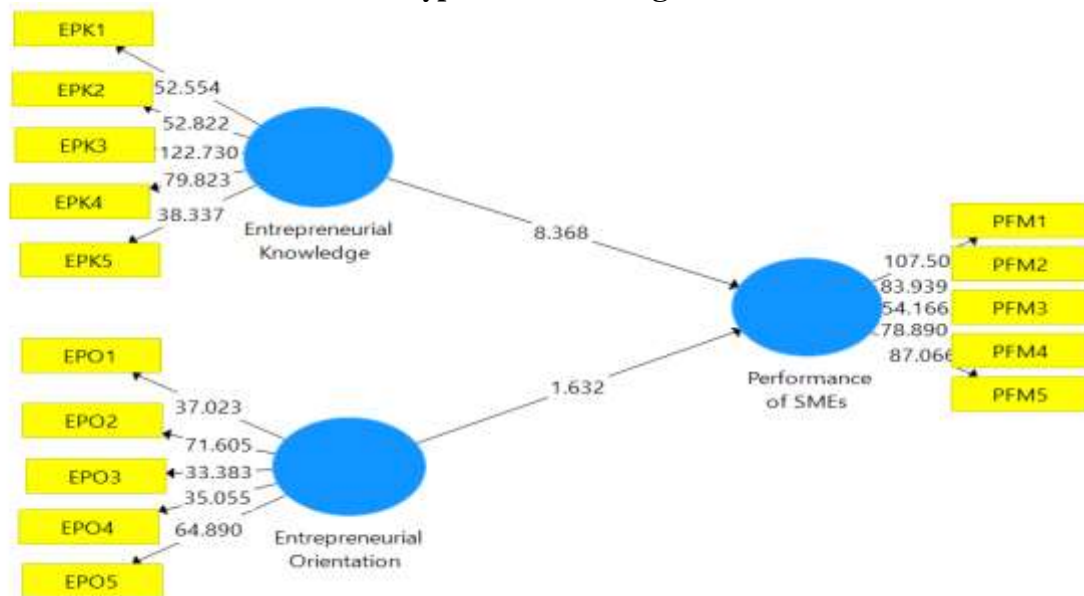


Fig. 3: Measurement model of the study constructs and indicators.

Source: Smart PLS Output, 2024

Path Coefficients

Table3: Path Coefficient

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
EPK -> PFM	0.463	0.466	0.055	8.368	0.000
EPO -> PFM	0.086	0.085	0.053	1.632	0.103

Source: Smart PLS Output, 2024

The Figure 3 and table 2 show that standard beta and the corresponding t-values were used in assessing the structural model in this study. It was done through the bootstrapping procedure.

H₀₁: Entrepreneurial Knowledge has no significant effect on the performance of SMEs in FCT Abuja Nigeria.

The bootstrapping result from the Smart PLS reveals that path coefficient of entrepreneurial knowledge and performance of SMEs (EPK->PFM) is positive and statistically significant at 5% level of significant. The path coefficient between entrepreneurial knowledge (EPK) and the performance of SMEs (PFM) is 0.463, indicating a moderately strong and positive relationship. The T-statistic is 8.368, and the p-value is 0.000, which is statistically significant at the 5% level. This result revealed that entrepreneurial knowledge has positive and significant effect on performance. SMEs in FCT Abuja, Nigeria. this means that as the entrepreneurial knowledge increases, performance. SMEs in FCT Abuja, Nigeria also increases positively and significantly.

The findings underscore the importance of equipping SME owners and managers with entrepreneurial knowledge to improve their businesses' operational efficiency, decision-making, and innovation capabilities. Knowledgeable entrepreneurs are better positioned to identify opportunities, adapt to market changes, and implement effective strategies, thereby boosting their enterprises' competitiveness and sustainability. For policymakers and development agencies, this result highlights the need to prioritize entrepreneurial training programs, workshops, and capacity-building initiatives tailored to SMEs. By fostering a culture of continuous learning and knowledge acquisition, the performance of SMEs in FCT Abuja can be significantly improved, contributing to broader economic development and job creation in the region. The finding is in line with the finding of Kalio et al. (2022) investigated the impact of entrepreneurial knowledge on organizational performance within the oil and gas industry in Port Harcourt, Nigeria and found entrepreneurial knowledge had a significant positive impact on organizational performance

H₀₂: Entrepreneurial Orientation has no significant effect on the performance of SMEs in FCT Abuja, Nigeria.

For the second hypothesis, the result from the Smart PLS reveals that path coefficient of entrepreneurial orientation has positive but insignificant effect on the performance of SMEs in FCT Abuja, Nigeria. The path coefficient for the relationship between entrepreneurial orientation (EPO) and SME performance (PFM) is 0.086, indicating a weak positive relationship. However, the T-statistic is 1.632, and the p-value is 0.103, which is above the conventional 5% significance level, rendering the relationship statistically insignificant. This suggests that entrepreneurial orientation does not have a significant direct effect on SME performance in this context. This means that the level of entrepreneurial orientation among SMEs in FCT Abuja is positive but does not serve as a driver to SMEs performance. While entrepreneurial orientation, which includes innovativeness, proactiveness, and risk-taking, is essential, its direct influence on performance may be minimal. Other mediating or moderating factors might enhance its effectiveness, requiring further exploration in future research. This result also suggests that while entrepreneurial traits such as innovativeness, proactiveness, and risk-taking are present, they do not directly drive performance in this context. The weak relationship, indicated by the path coefficient (0.086) and the lack of statistical significance (p-value 0.103), implies that entrepreneurial orientation alone is insufficient to significantly impact the performance of SMEs. This finding is in agreement with Aliyu et al. (2022) who investigated the impact of EO on SME performance in Northeast Nigeria, and found a significant positive effect of EO on performance but showed that educational level did not moderate this relationship.

Multicollinearity Test

Table 5: Inner VIF Values

	Performance of SMES
Entrepreneurial knowledge	1.198
Entrepreneurial Orientation	1.194

Source: Smart PLS Output, 2024

Table 5 presents the Inner Variance Inflation Factor (VIF) values for the structural model of the study and it shows the VIF values for the two predictor constructs. The Inner Variance Inflation Factor (VIF) values for the constructs in the model are 1.198 for Entrepreneurial Knowledge and 1.194 for Entrepreneurial Orientation. Both values are well below the commonly accepted threshold of 5.0, indicating the absence of multicollinearity among the independent variables. This means that Entrepreneurial Knowledge and Entrepreneurial Orientation are sufficiently distinct and do not overlap significantly in their predictive contributions to the Performance of SMEs. The low VIF values enhance the reliability of the regression coefficients, ensuring that the results are not distorted by multicollinearity. This supports the validity of including both variables as independent constructs in the model and confirms that their individual effects on SME performance can be confidently interpreted.

R Square

Table 6: R Square

	R Square	R Square Adjusted
Performance of SMEs	0.255	0.250

Source: Smart PLS Output, 2024

Table 6 presents the R Square values for the structural model, specifically focusing on the endogenous variable performance of SMEs. The R Square value of 0.255 indicates that 25.5% of the variance in the performance of SMEs is explained by the independent variables, Entrepreneurial Knowledge and Entrepreneurial Orientation, included in the model. The Adjusted R Square of 0.250, which accounts for the number of predictors, suggests that the model retains a similar explanatory power while penalizing for any additional variables. These values imply that while Entrepreneurial Knowledge and Entrepreneurial Orientation have a meaningful impact on SME performance, a significant proportion of the variance (74.5%) is influenced by other factors not included in the model. This result highlights the need to consider additional variables, such as access to resources, market conditions, or technological adoption, to improve the model's explanatory power and provide a more comprehensive understanding of SME performance in FCT Abuja, Nigeria.

Effect Size

Table 7: F Square

	Performance of SMES
Entrepreneurial Knowledge	0.140
Entrepreneurial Orientation	0.018

Source: Smart PLS Output, 2024

The F Square values assess the effect sizes of the independent variables on the dependent variable, Performance of SMEs. The value for Entrepreneurial Knowledge is 0.140, which indicates a medium effect size based on Cohen's (1988) guidelines, suggesting that Entrepreneurial Knowledge has a meaningful and moderate influence on SME performance. In contrast, the F Square value for Entrepreneurial Orientation is 0.018, which falls below the threshold of 0.02, indicating a negligible effect size. This result highlights that Entrepreneurial Knowledge plays a more significant role in driving SME performance compared to Entrepreneurial Orientation. The findings suggest that while Entrepreneurial Orientation may contribute to SME performance, its impact is minimal in this context, emphasizing the need for further exploration of factors that could enhance its effectiveness, such as environmental enablers or complementary practices.

*Model Fit***Table 8: Fit Summary**

	Saturated Model	Estimated Model
SRMR	0.053	0.053
d_ULS	0.341	0.341
d_G	4.182	4.182
Chi-Square	3565.763	3565.763
NFI	0.588	0.588

Source: Smart PLS Output, 2024

The fit summary provides key indicators of the model's overall fit. The Standardized Root Mean Square Residual (SRMR) is 0.053, which is below the recommended threshold of 0.08, indicating a good fit between the observed data and the model. The d_ULS (0.341) and d_G (4.182) values measure the discrepancy between the empirical and model-implied correlation matrices, with lower values indicating better fit; these values suggest the model's stability. The Chi-Square value (3565.763) reflects the goodness of fit but should be interpreted cautiously as it is sensitive to large sample sizes, potentially overstating discrepancies. Lastly, the Normed Fit Index (NFI) is 0.588, which falls below the acceptable threshold of **0.90**, indicating room for improvement in the model's fit. Overall, while the SRMR and discrepancy measures support the model's adequacy, the low NFI suggests that additional refinements or inclusion of other explanatory variables may improve the model's fit and explanatory power.

CONCLUSION AND RECOMMENDATIONS

The study conclude that entrepreneurial knowledge and orientation jointly influence the performance of SMEs in FCT Abuja, Nigeria. Specifically, this study concludes that entrepreneurial knowledge plays a significant and positive role in enhancing the performance of SMEs in the region. Equipping SMEs owners and managers with the necessary knowledge to effectively manage resources, innovate, and adapt to market dynamics, can boosting their competitiveness and sustainability. Conversely, while entrepreneurial traits such as innovativeness, proactiveness, and risk-taking are beneficial, they do not independently drive significant performance improvements in SMEs within the study context.

Based on the findings and conclusion made in this study, the following recommendations were made:

- i. Small and Medium Enterprise (SME) operators in the Federal Capital Territory (FCT), Abuja, are encouraged to enhance their entrepreneurial expertise by actively engaging in training programs, workshops, and mentorship initiatives. These opportunities, focusing on areas such as business management, financial planning, market analysis, and innovation strategies, provide essential knowledge and tools. By staying informed, SMEs can make better decisions, optimize resource use, seize growth opportunities, and ultimately improve their operational efficiency and long-term sustainability.
- ii. To enhance SME performance, operators should integrate entrepreneurial traits into broader business strategies by aligning their entrepreneurial orientation with key enablers such as access to resources, networking opportunities, and customer-focused approaches. Collaborating with industry peers, participating in business networks, and adopting market-driven strategies can amplify the advantages of entrepreneurial orientation. Additionally, leveraging data-driven decision-making and strategic planning will help transform entrepreneurial traits into tangible business outcomes, ultimately boosting the overall performance of SMEs in FCT Abuja.

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Questionnaire

5= Strongly Agree, 4=Agree, 3= Neutral, 2 = Disagree and 1 = Strongly Disagree.

		5	4	3	2	1
	Entrepreneurial Knowledge					
EPK1	Our employees possess the necessary knowledge to identify and pursue new business opportunities					
EPK2	Our employees are well-trained in developing and implementing effective business strategies					
EPK3	Our employees have a strong understanding of the market and industry in which we operate					
EPK4	Our employees are skilled in managing and allocating resources efficiently					
EPK5	Our employees are encouraged to continuously learn and develop their entrepreneurial skills					
	Entrepreneurial Orientation					
EPO1	Our organization actively seeks out and pursues new market opportunities					
EPO2	Our organization encourages and supports innovative ideas and projects					
EPO3	Our organization is willing to take calculated risks to achieve its strategic objectives					
EPO4	Our organization is proactive in anticipating and responding to market changes and customer needs					
EPO5	Our organization has a strong focus on growth and expansion into new markets					
	Performance of SMEs					
PFM1	Our sales revenue has demonstrated consistent growth over the past 3 years					
PFM2	We have expanded our customer base across targeted buyer segments.					
PFM3	Our enterprise has experience workers at our disposal					
PFM5	Our enterprise experience increases in production					
PFM5	We have expanded our market share of industry sales over past 3 years					