

EFFECT OF FINANCIAL LITERACY ON THE PERFORMANCE OF SMALL AND MEDIUM SCALE ENTERPRISES IN KADUNA NORTH LOCAL GOVERNMENT AREA.

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Abstract

This study examines the impact of financial literacy dimensions; financial knowledge, behaviour, and attitude on SME performance in Kaduna North, Nigeria, using Partial Least Squares Structural Equation Modelling (PLS-SEM). Data from 387 SMEs were analysed using ADANCO 2.3 for structural equation modelling and SPSS for descriptive statistics. The results reveal distinct effects across financial literacy components: financial behaviour demonstrated the strongest positive influence ($\beta = 0.443$, $p < 0.05$), explaining substantial variance in performance, while financial knowledge showed a moderate but non-significant relationship ($\beta = 0.337$, $p = 0.209$). Financial attitude had negligible impact ($\beta = 0.172$, $p = 0.564$), suggesting its effects may be context-dependent or mediated by other factors. The model accounted for 28.1% of performance variance ($R^2 = 0.281$), with financial behaviour emerging as the most critical driver of SME success. These findings align with the Resource-Based View, emphasizing executable financial practices as strategic resources in developing economies. The study reveals the need for SME development programs to prioritize behaviour-focused financial training over abstract knowledge transfer, particularly in resource-constrained settings. Policymakers should design targeted interventions that strengthen practical financial management skills, such as cash flow optimization and strategic reinvestment, to enhance business sustainability. The research contributes to financial literacy literature by clarifying dimension-specific effects in challenging economic environments and provides a methodological framework for similar studies. Future research should explore longitudinal effects and industry-specific moderators to refine financial literacy interventions.

Keywords: *financial literacy, SME performance, financial knowledge, financial behaviour, financial attitude*

1.1. Introduction

Small and Medium-sized Enterprises (SMEs) are central to Nigeria's economic structure. They account for approximately 46.31% of the nation's GDP, 96.7% of all businesses, and 87.9% of employment (National Bureau of Statistics, 2022). In Kaduna North, SMEs play a similarly pivotal role in driving economic activity, employment, and innovation. However, despite their significance, many of these enterprises experience inconsistent financial performance, often attributed to poor financial management practices, weak financial literacy, and a lack of structured financial behaviour and attitudes. The persistent gap in financial capability among SME operators raises a fundamental problem: How can SMEs in Kaduna North attain sustainable performance without a robust financial foundation?

This study is necessary because, while global and national research increasingly emphasizes the importance of financial literacy, limited attention has been given to the interplay of financial knowledge, behaviour, and attitudes within the unique context of Kaduna North. This LGA features a diverse SME landscape, shaped by local economic dynamics, regional financial policies, and varying access to financial services. Unlike general studies across

Nigeria (e.g., Eniola & Entebang, 2016; Attamah, 2019), this research provides context-specific insights that account for local socio-economic and demographic peculiarities. It also fills a methodological gap by employing Structural Equation Modelling (SEM) through ADANCO—an advanced approach that simultaneously evaluates complex relationships among multiple variables, offering a more holistic understanding than traditional regression models.

Theoretically, the study is anchored in the Resource-Based View (RBV), which posits that firms achieve competitive advantage through internal resources that are valuable, rare, inimitable, and organized (Barney, 1991; 2021). In this context, financial literacy comprising knowledge, behaviour, and attitudes, serves as an intangible but critical internal capability. For SMEs, these components collectively shape financial decision-making, risk management, resource optimization, and adaptability in challenging business environments (Asue et al., 2023). Thus, from an RBV perspective, strengthening financial literacy may enhance enterprise performance by unlocking these internal resources.

Research from both advanced and emerging economies underscores this link. In high-income countries, financial literacy improves credit access, strengthens resilience to shocks, and enhances business planning (Ratnawati et al., 2024). In contrast, Nigerian SMEs often operate without adequate financial education, which hinders growth, sustainability, and informed decision-making (Maswin & Sudrajad, 2023). According to the African Development Bank (2022), while African SMEs generate up to 50% of GDP and 80% of jobs, their growth is hampered by poor financial literacy. This challenge is exacerbated in places like Kaduna North by low participation in financial literacy programs, restricted access to formal financial tools, and limited exposure to digital financial technologies (Imhanrenialena et al., 2024).

Moreover, existing studies rarely disaggregate data by SME segment, such as women-led businesses or youth-run startups, whose financial literacy needs may differ. Reports by ACCA Global (2020) and the Kaduna State Bureau of Statistics (2024) offer broad statistics but fail to capture these nuances. This omission justifies a more detailed, data-driven examination to tailor interventions and policies effectively.

To address these gaps, the current study aims to evaluate the impact of financial literacy through its dimensions on the financial performance of SMEs in Kaduna North. Specifically, it answers the following research questions:

- i.* To what extent does financial knowledge affect the performance of SMEs in Kaduna North?
- ii.* How does financial behaviour affect the performance of SMEs in Kaduna North?
- iii.* To what extent does financial attitude affect the performance of SMEs in Kaduna North?

To test these relationships empirically, the following null hypotheses were formulated:

- i.* H₀₁: Financial knowledge has no significant impact on the performance of SMEs in Kaduna North.
- ii.* H₀₂: Financial behaviour has no significant impact on the performance of SMEs in Kaduna North.

- iii.* H₀₃: Financial attitude has no significant impact on the performance of SMEs in Kaduna North.

By exploring these hypotheses through SEM, this study contributes both theoretical and practical value unpacking the multifaceted role of financial literacy and offering evidence-based strategies for capacity building, policy formulation, and SME support programs in Kaduna and similar emerging-market environments.

1.2. Literature Review and Theoretical Frame work

SME Performance is a multifaceted construct extending beyond financial metrics to encompass overall business health, sustainability, and effective resource management, crucial for evaluating strategic effectiveness and fostering growth (Dadd & Hinton, 2023; Turner et al., 2023). Financial literacy is the ability to understand and apply financial knowledge and skills for informed decision-making (Ratnawati et al., 2023; Maswin & Sudrajad, 2023). It comprises three key dimensions: financial knowledge (understanding core concepts like budgeting and investment, Yuliana et al., 2023), financial behaviour (the practical application of this knowledge in actions such as disciplined saving and debt management, and financial attitude (the psychological disposition and mindset towards financial matters, influencing risk-taking and long-term planning, Ngoenriang et al., 2022; Adeleke & Dallah, 2024).

The Resource-Based View (RBV) critically underpins this study, arguing that sustainable competitive advantage arises from internal resources that are valuable, rare, inimitable, and organized (VRIO). Financial literacy across its knowledge, behaviour, and attitude dimensions—serves as a critical, intangible internal capability for SMEs. This view explains how proficient financial literacy can become a strategic asset, enabling superior decision-making, resource optimization, and enhanced resilience, especially crucial for SMEs in resource-constrained and dynamic environments like Kaduna North, where it can drive varied performance outcomes among otherwise similar firms (Bakashaba et al., 2024; Hussien & Omar, 2023).

Empirical studies broadly affirm the positive link between financial literacy and SME performance. Research from Nigeria (e.g., Ibitomi et al., 2024) and internationally (Bakashaba et al., 2024) consistently shows that enhanced financial literacy improves financial management, access to finance, and overall business success. Studies have specifically highlighted the impact of financial knowledge (Esiebugie et al., 2018), financial behaviour (Yıldırım, 2024), and financial attitude (Yuliana et al., 2023; Ibrahim & Yusuf, 2023) on SME outcomes. However, many prior studies offer generalized findings or focus on specific dimensions or contexts, often neglecting to comprehensively disaggregate the distinct impacts of financial knowledge, behaviour, and attitude, particularly within the specific socio-economic peculiarities of Kaduna North. This study aims to address this critical gap by providing context-specific, dimension-specific insights into how these elements collectively influence SME performance in the region.

1.3. Methodology

This study adopts a quantitative, cross-sectional research design to explore the relationship between financial literacy and the performance of small and medium-sized enterprises (SMEs) in Kaduna North. The design is appropriate for examining the influence of discrete variables—specifically, financial knowledge, financial behaviour, and financial attitude—on

SME performance at a specific point in time. The operationalization of these variables follows well-established scholarly models, adapted to the local Nigerian context.

1.3.1. Population and Sampling Technique

The study population comprises SME owners and managers across retail, service, and manufacturing sectors within Kaduna North Local Government Area. To ensure sectoral representation, a stratified random sampling technique was employed. The Yamane (1967) formula was used to calculate the appropriate sample size, based on a known population of 3,294 registered SMEs in Kaduna North:

$$\frac{N}{1 + \left(\frac{N \cdot E^2}{n} \right)}$$

Where; n = Sample size; N = Population size; E =margin of error (5%)

$$\frac{3294}{1 + \left(\frac{3294 \cdot 0.05^2}{n} \right)}$$

356.68 is the sample size

n = 357

To mitigate the impact of non-response and potential attrition, an additional 20% (n = 71) was added, yielding a final sample size of 427 respondents.

1.3.2. Instrumentation and Data Collection

Data were collected using a structured, self-administered questionnaire, which was distributed both in-person and online to maximize coverage and response rates. The questionnaire was divided into five sections:

- a. Section A captured demographic data.
- b. Section B assessed Financial Knowledge using six Likert-scale items.
- c. Section C evaluated Financial Behaviour via six items.
- d. Section D measured Financial Attitude with six items.
- e. Section E assessed SME Performance using eight indicators.

All construct items were rated using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). This format allowed participants to express their degree of agreement with statements measuring their financial literacy and firm-level performance outcomes.

The items used in the questionnaire were adapted from validated instruments developed by Lusardi & Mitchell (2007, 2011), Atkinson & Messy (2012), Van Rooij et al. (2012), and others. Specific adjustments were made to reflect the economic and cultural context of SMEs operating in Northern Nigeria.

For example, financial knowledge was assessed through statements such as:

- “I understand basic financial concepts relevant to managing a business.”
- “I update my financial knowledge regularly through training or self-study.”
- Financial behaviour was measured through items such as:
- “I maintain accurate financial records for my business.”
- “I adjust my financial strategies as market conditions change.”

Attitude-related questions included:

- “I approach financial challenges with a positive mind-set.”
- “I believe financial success comes from discipline and smart decisions.”

Firm performance was examined through statements like:

- “My SME is profitable.”
- “Customer satisfaction with my products/services is high.”
- “My SME has experienced growth in the past year.”

Each item was designed to capture perceptual and behavioural nuances relevant to the local SME context. This design ensured that the constructs were not only psychometrically sound but also contextually meaningful.

1.3.3. Data Analysis

Data were analyzed using descriptive and inferential statistical techniques. Descriptive statistics, including means, standard deviations, and frequencies, were employed to summarize demographic characteristics and item responses. For inferential analysis, Partial Least Squares Structural Equation Modelling (PLS-SEM) was performed using ADANCO software. This approach allowed for simultaneous estimation of measurement and structural models, providing insights into the latent relationships among financial literacy dimensions and SME performance indicators.

Hypotheses were tested at a 95% confidence level ($\alpha = 0.05$). Reliability and validity of constructs were assessed using composite reliability, average variance extracted (AVE), and discriminant validity via the Fornell-Larcker criterion. Model fit indices and path coefficients were evaluated to determine the strength and directionality of hypothesized relationships.

1.3.4. Ethical Considerations

The study adhered strictly to ethical research standards. Informed consent was obtained from all respondents, and confidentiality of responses was maintained throughout. Participation was voluntary, and respondents were informed of their right to withdraw at any point without penalty.

1.4. Results

Table 1.1 presents key indicators for assessing the internal consistency and convergent validity of the measurement model's constructs: Financial Knowledge, Financial Attitude, Performance, and Financial Behaviour. Internal consistency, which evaluates the extent to which items within a construct measure the same concept, was assessed using Composite Reliability (CR). As detailed in Table 1.1, all constructs demonstrated acceptable internal consistency. Financial Knowledge had a CR of 0.7938, Financial Attitude a CR of 0.7494, Performance a CR of 0.7525, and Financial Behaviour the highest CR at 0.7993. All these values exceed the commonly recommended threshold of 0.70, suggesting that the indicator items are reasonably reliable and consistently measuring their intended constructs.

The assessment of convergent validity, which evaluates the degree to which a construct converges to explain the variance of its items, was primarily conducted using the Average Variance Extracted (AVE) and factor loadings. Table 1.1 shows that the AVE values for all

constructs are below the conventional threshold of 0.50. Financial Attitude recorded the lowest AVE at 0.2898, followed by Performance at 0.2630, Financial Knowledge at 0.3856, and Financial Behaviour at 0.3924.

Further examining the factor loadings in Table 1.1, which represent the strength of the relationship between each item and its construct, provides additional insight into the convergent validity. While some items exhibit strong loadings above the ideal 0.708 threshold (e.g., FA6 at 0.7579, FB4 at 0.7001, FB5 at 0.7035), many items across all constructs fall below this benchmark. Several items even have loadings below the 0.50 threshold (e.g., FA3 at 0.2790, FA4 at 0.3581, Performance P7 at 0.2776). This variation in loadings, with a number of items not strongly correlating with their intended construct, contributes directly to the lower AVE values observed and reinforces the conclusion that convergent validity, based on conventional thresholds, is not fully established for these measures.

Generally, based on the data presented in Table 1.1, the measurement model demonstrates acceptable internal consistency reliability across all constructs, as evidenced by CR values above 0.70. However, it faces challenges regarding convergent validity, as indicated by AVE values below the 0.50 threshold and a notable number of indicator loadings falling below commonly accepted benchmarks.

Table 1.1: Internal Consistency and Convergent Validity

Construct	Items	Loadings	AVE	CR
Financial Knowledge	FK1	0.6494	0.3856	0.7938
	FK2	0.5285		
	FK3	0.6772		
	FK4	0.6940		
	FK5	0.5597		
	FK6	0.5970		
Financial Attitude	FA1	0.5181	0.2898	0.7494
	FA2	0.4804		
	FA3	0.2790		
	FA4	0.3581		
	FA5	0.6775		
	FA6	0.7579		
Performance	P1	0.4918	0.2630	0.7525
	P2	0.6656		
	P3	0.4121		
	P4	0.4506		
	P5	0.5406		
	P6	0.5481		
	P7	0.2776		
	P8	0.6137		
Financial Behaviour	FB1	0.5493	0.3924	0.7993
	FB2	0.6318		
	FB3	0.5413		
	FB4	0.7001		
	FB5	0.7035		
	FB6	0.6128		

Table 1.2 presents the results of the structural model analysis, examining the direct effects of Financial Knowledge (FK), Financial Behaviour (FB), and Financial Attitude (FA) on SME Performance. The model, depicted in Figure 1.1 (Note: Figure 1.1), hypothesizes that these three dimensions of financial literacy influence the performance of SMEs in Kaduna North. The analysis employed Partial Least Squares Structural Equation Modelling (PLS-SEM) to estimate the path coefficients (β), test their significance using t-values and p-values, and determine the effect size (f^2).

The examination of the first null hypothesis (H_{01} : Financial knowledge has no significant impact on performance) and the third null hypothesis (H_{03} : Financial attitude has no significant impact on Performance) revealed statistically non-significant direct effects. As shown in Table 1.2, the path from Financial Knowledge to Performance showed a positive coefficient ($\beta=0.3366$), but it was not statistically significant ($t=1.2582$, $p=0.2086$). Similarly, the path from Financial Attitude to Performance exhibited a small positive coefficient ($\beta=0.1720$) which was also statistically non-significant ($t=0.5769$, $p=0.5641$). The effect sizes for both relationships were notably small, with Cohen's f^2 of 0.1452 for FK $\rightarrow$ Performance and a negligible f^2 of 0.0373 for FA $\rightarrow$ Performance. Based on these results, H_{01} and H_{03} are not rejected, suggesting that financial knowledge and financial attitude do not exert a statistically significant *direct* influence on SME performance in this study's context at the 5% significance level.

In stark contrast, the analysis of the second null hypothesis (H_{02} : Financial behaviour has no significant impact on performance) yielded a statistically significant and positive result. Table 1.2 indicates a robust positive path coefficient from Financial Behaviour to Performance ($\beta=0.4430$), which is statistically significant ($t=2.1108$, $p=0.0350$). This finding demonstrates that financial behaviour is a crucial driver of SME performance in Kaduna North, leading to the strong rejection of H_{02} . The Cohen's f^2 value of 0.2260 associated with this path indicates a medium effect size, enunciating the practical importance of this relationship. The total effect of Financial Behaviour on Performance is also substantial at 0.4430 (Table 1.2), reinforcing that practical financial management practices significantly contribute to business success.

Table 1.2: Effects

Effect	Hypothesis	Beta	t-value	p-value	Total effect	Cohen's f^2
FK $\rightarrow$ Performance	H_{01}	0.3366	1.2582	0.2086*	0.3366	0.1452
FB $\rightarrow$ Performance	H_{02}	0.4430	2.1108	0.0350**	0.4430	0.2260
FA $\rightarrow$ Performance	H_{03}	0.1720	0.5769	0.5641*	0.1720	0.0373

Key: Significant ** Not Significant *

The hypothesis testing results presented in Table 1.2 reveal a clear pattern of direct effects: Financial Behaviour has a significant positive impact on SME Performance, while Financial Knowledge and Financial Attitude do not demonstrate a statistically significant direct influence. This outcome underscores the pivotal role of actionable financial practices in driving business success within this specific context. While financial knowledge shows a positive association, its impact is not statistically significant directly, and financial attitude's direct influence appears negligible. These differential effects show which dimensions of financial literacy are most imperative for directly enhancing SME performance in Kaduna North.

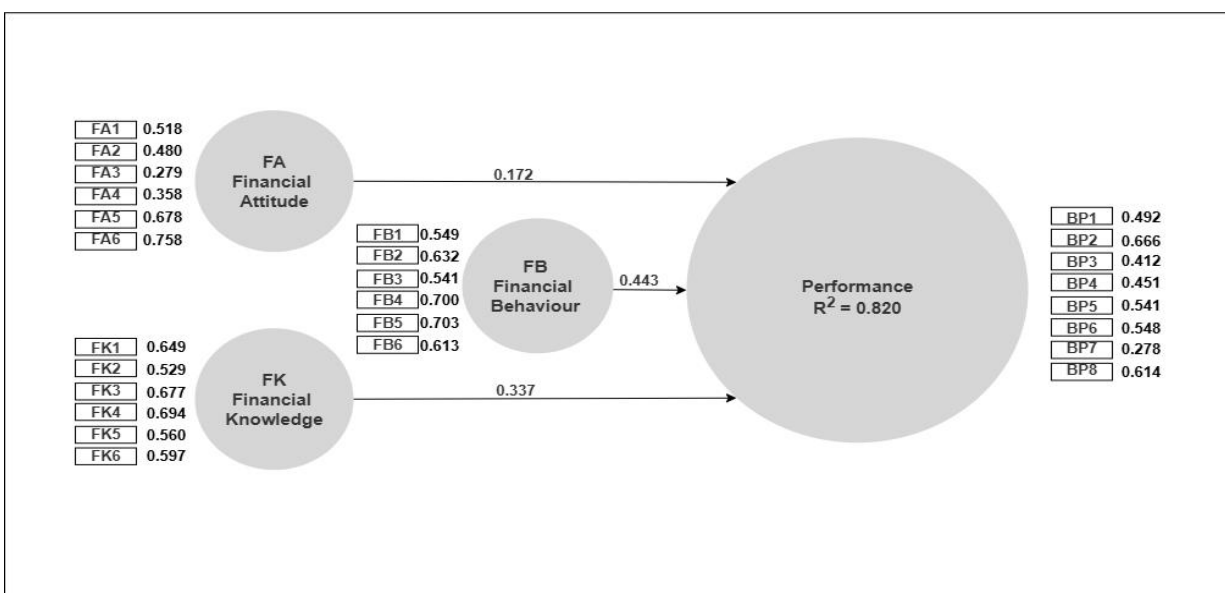


Figure 1.1: Partial Least Square (PLS) Structural Model

Table 1.3 presents the R-squared statistics for the dependent variable, Performance. The coefficient of determination (R^2) for Performance is 0.8201, indicating that the combined effects of Financial Knowledge, Financial Attitude, and Financial Behaviour explain a substantial 82.01% of the variance in SME Performance in Kaduna North. This represents a very strong level of explanatory power for the model. The adjusted R-squared value, which accounts for the number of predictor variables and sample size, is 0.8185, very close to the R^2 , further supporting the model's robustness.

These high R-squared values underscore the critical importance of financial literacy dimensions (as measured by FK, FA, and FB) in determining the financial outcomes of SMEs in this context. While other factors not included in the model undoubtedly influence SME performance, the analysis reveals that the measured aspects of financial literacy collectively account for a very large proportion of the observed variability, reveals them as central elements for understanding and potentially improving SME success in Kaduna North.

Table 1.3: -Square Statistics

Construct	Coefficient of determination (R^2)	Adjusted R^2
Performance	0.8201	0.8185

1.5.Discussion

1.5.1. Financial Knowledge and SME Performance

This study sought to determine the extent to which financial knowledge affects the financial performance of SMEs in Kaduna North. The analysis of the structural model, as presented in Table 1.2, provides the results for testing the first null hypothesis (H_{01} : Financial knowledge has no significant impact on performance of SMEs in Kaduna North). The results show a positive path coefficient from Financial Knowledge (FK) to Performance ($\beta=0.3366$). However, this relationship was not statistically significant ($t=1.2582$, $p=0.2086$) at the conventional 5% significance level. Consequently, the null hypothesis H_{01} is not rejected. The

effect size of this relationship, as indicated by Cohen's f^2 , is 0.1452, which falls just below the threshold for a medium effect size (0.15).

This finding presents a nuanced picture, suggesting that while financial knowledge is positively associated with SME performance, its direct influence is not statistically significant in this specific context. This outcome requires careful interpretation, particularly when compared to existing literature. Some studies, such as Ibrahim and Yusuf (2023) focusing on Kaduna SMEs, have reported a significant positive impact of financial knowledge on performance (finding a 10.4% performance improvement attributable to FK in their model), and similarly, Abiola and Olayemi (2023) linked financial knowledge to reduced financial distress and improved cash flow stability in Oyo State SMEs. Internationally, Yuliana et al. (2023) found that financial knowledge led to better financial decisions in Indonesian SMEs, and Ratnawati et al. (2024) connected it to increased fintech adoption and subsequent revenue growth.

The discrepancy between our non-significant direct finding and studies reporting significant direct effects might be attributed to several factors. Firstly, the specific economic and institutional context of Northern Nigeria, which may present unique challenges or mediating factors, could influence the direct translation of knowledge into performance. Studies in crisis or unstable periods, like Pearce and Bah's (2023) Sierra Leonean research (finding a lower $\beta=0.18$ for FK during a crisis), suggest that environmental stability plays a role in the impact of knowledge. Secondly, the measurement properties of the Financial Knowledge construct in this study, which showed acceptable reliability ($\alpha=0.7874$) but did not meet the conventional threshold for convergent validity ($AVE = 0.3856$) (as detailed in Table 1.1), might have attenuated the observable effect, consistent with suggestions by Muscettola (2024) that refined measurement can enhance effect detection.

Furthermore, the potential for indirect effects warrants consideration. Our previous analysis noted moderate cross-loadings between financial knowledge and financial behaviour items (ranging from 0.4207 to 0.6716), suggesting that financial knowledge may primarily impact performance indirectly by influencing financial behaviours. This aligns with studies demonstrating mediation pathways, such as Ratnawati et al.'s (2024) finding of indirect knowledge effects through fintech adoption behaviours or Bakashaba et al.'s (2024) study where financial knowledge became significant when mediated by digital finance behaviours. From a theoretical perspective, this supports resource complementarity frameworks (e.g., Sirmon et al., 2022), where knowledge might function as a basic resource that requires combination with practical capabilities (behaviours) to generate significant value. Therefore, while Financial Knowledge shows a positive tendency and moderate effect size, its impact on SME Performance in Kaduna North appears to be conditional and likely mediated by other factors, particularly the adoption of sound financial behaviours.

1.5.2. Financial Behaviour and SME Performance

The second research question aimed to determine the impact of financial behaviour on the financial performance of SMEs in Kaduna North. The analysis of the structural model, as presented in Table 1.2, provides the results for testing the second null hypothesis (H_{02} : Financial behaviour has no significant impact on performance of SMEs in Kaduna North). The findings reveal a statistically significant positive effect of Financial Behaviour (FB) on SME Performance. The path coefficient is $\beta=0.4430$, with a corresponding t-value of 2.1108 and a p-value of 0.0350. Since the p-value (0.0350) is less than the conventional significance

level of 0.05, the effect is deemed statistically significant. Consequently, the null hypothesis H_{02} is strongly rejected.

This significant positive relationship indicates that practical financial behaviours are a crucial driver of SME success in Kaduna North. The effect size, measured by Cohen's f^2 , is 0.2260 (Table 1.2), which is considered a medium effect size, approaching a large effect (0.35). This shows the practical importance of financial behaviour in explaining the variance in SME performance. The magnitude of the direct effect ($\beta=0.4430$) also shows that for every one-unit increase in financial behaviour, SME performance is expected to increase by approximately 0.4430 units, holding other factors constant.

This finding aligns strongly with numerous studies across various contexts, underscoring the universal importance of disciplined financial practices. For instance, Bakashaba et al.'s (2024) Ugandan study found digital financial behaviours significantly explained performance variance ($\beta=0.52$). Razak and Mohammed (2024) research in Somalia also posited the critical role of cash management behaviours. In Nigeria, studies corroborate this, with Ibrahim and Yusuf (2023) reporting performance improvements linked to disciplined financial planning in Kaduna SMEs, and Abiola and Olayemi (2023) observing reduced financial distress and improved cash flow stability among SMEs in Oyo State due to structured financial behaviour. Furthermore, international perspectives from Yuliana et al. (2023) in Indonesia and Singh and Rastogi (2022) in India also affirm the positive impact of disciplined financial behaviour on growth rates and return on investment respectively.

The consistent significance and medium-to-large effect size of financial behaviour across diverse cultural and economic settings, including different regions within Nigeria (Okonkwo and Eze, 2022; Adekunle and Adebayo, 2023), suggests that financial behaviour represents a fundamental driver of SME success. This strongly supports the conclusion that financial behaviour constitutes what the Resource-Based View (RBV) would classify as a strategic resource (Barney, 2021) – one that is valuable, rare (in practice among many SMEs), difficult to imitate, and organizationally embedded through consistent practices.

1.5.3. Financial Attitudes and SME Performance

The third research question investigated the extent to which financial attitudes influence the financial performance of SMEs in Kaduna North. The empirical findings from the structural model analysis, presented in Table 1.2, provide the results for testing the third null hypothesis (H_{03} : Financial attitude has no significant impact on Performance of SMEs in Kaduna North). The results show a positive path coefficient from Financial Attitude (FA) to Performance ($\beta=0.1720$). However, this relationship was not statistically significant ($t=0.5769$, $p=0.5641$) at the conventional 5% significance level. Consequently, the null hypothesis H_{03} is not rejected.

This finding indicates that financial attitudes do not have a statistically significant *direct* influence on SME performance in this study's context. The effect size, measured by Cohen's f^2 , is a negligible 0.0373 (Table 1.2), further supporting the conclusion that the direct impact is minimal. This result stands in apparent contrast to several studies that have reported a significant positive relationship between financial attitude and SME performance in other contexts (e.g., Adekunle and Adebayo, 2023; Singh and Rastogi, 2022; Jing and Khan, 2022).

Several factors may explain the lack of a statistically significant direct effect of financial attitude in this study. Firstly, the specific economic environment of Northern Nigeria, with its potential challenges and structural constraints, may require more than a positive financial mindset to translate into tangible business outcomes. This aligns with findings in challenging or crisis contexts (e.g., Pearce and Bah, 2023) where attitude effects appeared attenuated. Secondly, the measurement properties of the Financial Attitude construct in this study, which exhibited acceptable reliability ($\alpha=0.7492$) but the lowest convergent validity ($AVE = 0.2898$) among all constructs (as detailed in Table 1.1), may have contributed to the non-significant finding by potentially weakening the observed relationship. Measurement challenges for attitude scales, particularly in diverse cultural contexts, have been noted in another research (e.g., Muscettola, 2024).

Furthermore, the influence of financial attitude on performance may be indirect, operating through financial behaviours. Our earlier analysis noted moderate cross-loadings between financial attitude and financial behaviour items (ranging from 0.4380 to 0.7579), suggesting a conceptual overlap and potential causal pathway. This aligns with studies such as Yuliana et al.'s (2023) Indonesian research, which found that financial attitudes influenced performance through the mediating role of financial practices. From a theoretical perspective, within the Resource-Based View (Barney, 2021), financial attitudes might be considered a foundational resource that requires complementary behavioural capabilities to generate value, particularly in demanding economic environments. Therefore, while financial attitude may play a role in shaping perspectives or influencing financial behaviours, its direct impact on SME Performance in Kaduna North is not statistically significant based on this study's findings.

1.6. Conclusion

This study investigated the influence of financial literacy; specifically financial knowledge, financial behaviour, and financial attitude on the performance of SMEs in Kaduna North. Using a quantitative approach and a cross-sectional survey of 427 SME owners and managers, the study employed Partial Least Squares Structural Equation Modelling (PLS-SEM) to test hypothesized relationships among the variables.

Findings revealed that financial behaviour had a significant and positive impact on SME performance. This implies that practices such as record-keeping, budgeting, reinvestment of profits, and proactive financial decision-making are critical drivers of business success. The result reinforces the argument that it is not merely what business owners know, but what they do financially, that matters most for performance.

While financial knowledge showed a positive relationship with performance, the effect was statistically insignificant. This suggests that knowledge alone, without practical application, may be insufficient in enhancing business outcomes. The finding supports previous literature asserting that the conversion of knowledge into behaviour is what ultimately adds value.

Similarly, financial attitude representing beliefs, outlooks, and confidence regarding financial management—was found to have a negligible and non-significant effect on performance. This points to the possibility that attitude, in isolation, may not yield measurable performance gains unless supported by behavioural application and structural support.

The study concludes that financial behaviour is the most influential dimension of financial literacy affecting SME performance in the region. Therefore, equipping SME operators with

tools and training that translate knowledge and attitude into consistent financial practices is essential. These insights not only enhance understanding of SME financial dynamics in Nigeria but also inform targeted policy interventions and entrepreneurial development programs focused on sustainable growth and financial resilience in the SME sector.

1.7. Recommendations

To enhance SME performance, the following recommendations are proposed:

- i. Improve financial literacy programs to equip SME owners with essential financial management skills such as budgeting, record-keeping, and investment decision-making.
- ii. Promote responsible financial behaviour by encouraging disciplined financial practices such as proper accounting, reinvesting profits, and using financial planning tools.
- iii. Foster a positive financial mindset through awareness campaigns and mentorship programs that help business owners adopt a strategic approach to financial management.

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