



The impact of financial literacy on SME financial performance in Accra: Testing the mediating role of financial management practices using structural equation modeling

Alberta Quaynor

Department of Business and Management, Texila American University, Guyana

Abstract

Purpose: This study examines the impact of financial literacy on the financial performance of Small and Medium-sized Enterprises (SMEs) in Accra, Ghana, with a specific focus on testing the mediating role of financial management practices.

Methodology/Design: A quantitative, cross sectional research design was employed. Data were collected from 278 SME owners and managers in Accra using a structured questionnaire, exceeding the minimum sample size requirement of 200 for Structural Equation Modeling (SEM). The study utilized SEM with AMOS software to test the hypothesized relationships, and bootstrapping with 5,000 resamples was employed to assess the mediating effect of financial management practices.

Findings/Results: The measurement and structural models demonstrated acceptable fit. Financial literacy had a positive and significant direct effect on SME financial performance ($\beta = 0.24$, $p < 0.001$). Financial literacy also demonstrated a strong positive effect on financial management practices ($\beta = 0.62$, $p < 0.001$), which in turn significantly enhanced financial performance ($\beta = 0.53$, $p < 0.001$). Most importantly, financial management practices partially mediated the relationship between financial literacy and SME financial performance, with the indirect effect accounting for approximately 58% of the total effect.

Implications: SME owners should prioritize translating financial knowledge into structured practices such as formal accounting, budgeting, and cash flow management. Policymakers should redesign interventions to integrate financial literacy training with technical assistance for implementing financial management practices.

Originality/Value: This study is the first in Ghana to employ SEM to rigorously test the partial mediating role of financial management practices in the financial literacy performance nexus, providing empirical evidence that advances understanding of how managerial competencies translate into firm performance through organizational capabilities.

Keywords: Financial literacy, financial management practices, sme financial performance, structural equation modeling, mediation, partial mediation, Accra, Ghana

Introduction

The pursuit of sustainable economic growth and development in emerging economies is inextricably linked to the vitality of Small and Medium-sized Enterprises (SMEs). In Ghana, SMEs constitute the backbone of the national economy, accounting for approximately 90% of all businesses and contributing over 70% to the Gross Domestic Product (GDP) (Abor & Asare, 2022; Ghana Statistical Service, 2023) ^[1, 14]. They serve as a primary engine for employment generation, absorbing a significant majority of the labor force. Within this context, Accra, as the capital and commercial nerve center, hosts a dense concentration of these enterprises, ranging from retail and services to light manufacturing. Their performance, resilience, and growth are therefore not merely a matter of private enterprise but a critical determinant of the nation's broader socio-economic stability and prosperity (Amoako *et al.*, 2021) ^[5]. However, despite their acknowledged importance, SMEs in Ghana, and particularly in the competitive environment of Accra, face a persistent and multifaceted challenge: suboptimal financial performance. This challenge manifests in high rates of business failure, limited growth, and an inability to access crucial financing, often stifling their potential to transition into larger, more impactful corporations (Asante & Sarpong, 2024) ^[7].

A central line of inquiry into the performance of SMEs points to the pivotal role of the entrepreneur's or manager's competencies, with financial literacy emerging as a cornerstone of effective business management. Lusardi and

Mitchell (2023) ^[16] define financial literacy as the combination of financial awareness, knowledge, skills, attitudes, and behaviors necessary to make sound financial decisions. For an SME owner in Accra, this encompasses more than understanding basic bookkeeping; it involves the capacity to interpret financial statements, manage cash flow effectively, develop and adhere to budgets, plan for taxes, and make informed investment and financing choices. Prior studies have established a positive association between the financial literacy of SME owners and firm performance (Adomako & Danso, 2022; Nyarko & Asare, 2021) ^[2, 18]. It is often hypothesized that a higher level of financial literacy directly empowers owners to steer their businesses toward greater profitability, stability, and growth. However, the mechanisms through which this knowledge translates into tangible performance outcomes are not always linear or direct. It is plausible that financial literacy does not directly impact performance *per se*, but rather equips owners with the capability to implement robust internal processes that subsequently drive performance (Boateng & Ofori, 2023) ^[11].

This study proposes that the missing link in this relationship is the adoption and quality of Financial Management Practices (FMPs). FMPs encompass the concrete systems and disciplines a business employs, such as working capital management, capital budgeting, investment appraisal, financial planning, and the use of accounting information for decision-making (Agyapong *et al.*, 2022) ^[4]. An SME owner may possess a high degree of financial knowledge,

but without the discipline or capability to embed that knowledge into structured management practices, its impact on the firm's bottom line may be muted (Opoku & Mensah, 2024) ^[19]. Conversely, an owner with sound financial literacy is more likely to recognize the value of, and successfully implement, sophisticated FMPs. These practices, in turn, directly influence the firm's operational efficiency, cost control, and profitability (Tetteh *et al.*, 2023) ^[23]. This mediating pathway suggests that financial literacy acts as a catalyst for better management, which is the true proximal driver of superior financial performance.

Problem Statement

In spite of the proliferation of financial literacy programs by the Ghanaian government, financial institutions, and non-governmental organizations many of which are concentrated in the Greater Accra Region the persistent high failure rate and underwhelming financial performance of SMEs remain critical national concerns. The Bank of Ghana (2025) ^[8] reports that a significant proportion of SMEs fail within their first five years of operation, with poor financial management and a lack of access to credit being leading contributing factors. A common assumption underlying many interventions is that by simply improving the financial knowledge of SME owners, their business outcomes will automatically improve. However, the effectiveness of these interventions remains questionable, as the anticipated large-scale transformation in SME performance has not been fully realized (Adu & Frimpong, 2024) ^[3].

The core of the problem lies in a critical gap in the existing literature. While individual studies have established a link between financial literacy and firm performance (Ansah & Mensah, 2022) ^[6], and separately between financial management practices and firm performance (Osei & Owusu, 2023) ^[20], there is a profound lack of empirical research that tests the causal pathway connecting all three within the specific context of Accra's SMEs. It remains unclear whether financial literacy directly influences performance, or if its impact is entirely mediated by the quality of financial management practices. This ambiguity creates a significant practical problem, as policymakers may be allocating resources to generic financial literacy training without understanding the mechanism of impact. Therefore, there is an urgent need for a rigorous empirical investigation that moves beyond simple correlations to model the complex interplay between these constructs. This study directly addresses this gap by employing Structural Equation Modeling (SEM) to test the mediating role of financial management practices, thereby disentangling the direct and indirect effects of financial literacy on the financial performance of SMEs in Accra.

Literature Review

Financial Literacy

Financial literacy is defined as the combination of financial knowledge, skills, attitudes, and behaviors that enable individuals to make informed and effective financial decisions (Lusardi & Mitchell, 2023) ^[16]. For SME owners, this construct encompasses the ability to interpret financial statements, understand cash flow dynamics, evaluate investment opportunities, manage debt prudently, and plan for taxes and contingencies (Adomako & Danso, 2022) ^[2]. The conceptualization of financial literacy has evolved from

a unidimensional focus on knowledge to a multidimensional framework that includes financial attitudes and behaviors. Nyarko and Asare (2021) ^[18] operationalized financial literacy among women owned SMEs in Accra across three dimensions: basic financial knowledge (interest rates, inflation, risk diversification), advanced financial knowledge (financial statement analysis, investment appraisal), and financial behavior (budgeting, saving, responsible borrowing). A critical issue in the existing literature is the measurement of financial literacy, as many studies rely on self reported measures that may introduce social desirability bias (Lusardi & Mitchell, 2023) ^[16]. This study addresses this limitation by adapting validated objective knowledge instruments to the Ghanaian SME context.

Financial Management Practices

Financial management practices (FMPs) refer to the structured systems, procedures, and routines that businesses employ to plan, organize, control, and monitor their financial resources. Agyapong *et al.* (2022) ^[4] identify five core dimensions of FMPs relevant to SMEs: working capital management (management of cash, inventory, and receivables), capital budgeting (evaluation and selection of long-term investments), financial planning and budgeting (forecasting and allocation of financial resources), accounting and record keeping (maintenance of accurate financial records), and financial analysis and reporting (interpretation of financial data for decision making). The adoption of sound FMPs is widely recognized as a determinant of SME survival and growth. Osei and Owusu (2023) ^[20] found that SMEs in the Greater Accra Region that consistently applied structured financial management practices reported significantly higher profitability and liquidity compared to those that relied on informal or ad hoc financial arrangements.

SME Financial Performance

Financial performance is a multidimensional construct reflecting the economic success and viability of a firm. In SME research, financial performance is commonly operationalized using accounting-based measures such as profitability ratios (return on assets, return on equity, net profit margin) and liquidity ratios (current ratio, quick ratio), as well as growth-oriented measures such as revenue growth and asset growth (Opoku & Mensah, 2024) ^[19]. A methodological challenge in SME financial performance research is the availability and reliability of financial data, as many SMEs lack formal accounting systems. Consequently, many studies rely on owner reported perceptions of financial performance using Likert scale measures (Adomako & Danso, 2022) ^[2]. This study employs established scales with demonstrated reliability and applies statistical remedies to assess common method bias.

Theoretical Foundation

This study is grounded in two complementary theoretical perspectives: The Resource Based View (RBV) and the Pecking Order Theory. These theories collectively explain the mechanisms through which financial literacy influences SME financial performance via the adoption of sound financial management practices.

Resource Based View (RBV)

The Resource Based View, originating from the seminal work of Barney (1991) ^[9] and extended in contemporary strategic management literature (Barney, 2021) ^[10], provides the primary theoretical foundation for this study. RBV posits that firms achieve sustainable competitive advantage and superior performance through the possession of resources that are valuable, rare, inimitable, and non-substitutable. Resources encompass both tangible assets (financial capital, physical assets) and intangible assets (knowledge, skills, capabilities, reputation).

Within the RBV framework, financial literacy is conceptualized as a valuable intangible managerial resource. An SME owner with strong financial literacy possesses specialized knowledge and cognitive capabilities that enable better financial decision making, risk assessment, and opportunity identification. However, RBV distinguishes between resources and capabilities. Resources are the assets a firm possesses, while capabilities are the organizational processes and routines that deploy these resources effectively. Financial management practices represent the organizational capabilities that enable SME owners to translate their financial knowledge into concrete actions that directly influence firm performance. This distinction is critical because it suggests that financial literacy (resource) may have an indirect effect on performance through its influence on the development and quality of financial management practices (capability).

Pecking Order Theory

Complementing RBV, the Pecking Order Theory, originally developed by Myers and Majluf (1984) ^[17] and subsequently refined in SME literature (Adomako & Danso, 2022) ^[2], offers insights into how financially literate SME owners make financing decisions. The theory posits that firms prioritize financing sources according to a hierarchy: internal financing (retained earnings, working capital) first, followed by debt, and finally equity. This hierarchy arises from information asymmetries between firm insiders and outsiders.

For SMEs in Ghana, the implications of Pecking Order Theory are particularly salient. Access to external financing is often constrained by limited collateral, high interest rates, complex documentation requirements, and information asymmetries between borrowers and lenders (Asante & Sarpong, 2024) ^[7]. Financially literate owners are better equipped to navigate these constraints by maintaining adequate internal cash reserves, managing working capital efficiently, and approaching debt financing from an informed position. The Pecking Order Theory reinforces the importance of financial management practices, particularly those related to working capital management and capital structure decisions, as these practices are the mechanisms through which financially literate owners implement prudent financing strategies.

Research Gap and Originality of the Study

The foregoing review reveals a clear research gap. While individual studies have established links between financial literacy and SME performance, and separately between financial management practices and SME performance, no study has comprehensively tested the mediating role of financial management practices in the financial literacy

performance nexus using Structural Equation Modeling within the specific context of Accra's SMEs. The existing studies that have examined mediation employed traditional regression approaches without fully accounting for measurement error or providing comprehensive model fit assessment.

This study makes three original contributions. First, it is the first empirical study in Ghana to employ SEM to rigorously test the mediating role of financial management practices between financial literacy and SME financial performance. Second, it provides contextual insights specific to Accra, where the concentration of SMEs, competitive intensity, and unique institutional environment including the prevalence of informal sector operations and evolving financial inclusion landscape warrant dedicated investigation. Third, it integrates RBV and Pecking Order Theory to offer a comprehensive theoretical framework explaining not only whether financial literacy matters, but how it translates into performance through organizational capabilities and prudent financing behaviors.

Hypothesis Development

Drawing on the theoretical foundations of RBV and Pecking Order Theory, and informed by the empirical literature reviewed, this study proposes a mediation model in which financial management practices serve as the mechanism through which financial literacy influences SME financial performance. Four hypotheses are formulated for testing.

Financial Literacy and Financial Performance

According to RBV, financial literacy constitutes a valuable intangible managerial resource that directly contributes to firm performance by enabling better decision making, resource allocation, and opportunity identification. Financially literate owners are better equipped to evaluate investment options, manage costs, and optimize financing decisions. Pecking Order Theory further suggests that financially literate owners make more informed financing choices, minimizing reliance on costly external capital. Empirical studies consistently support this positive relationship (Adomako & Danso, 2022; Nyarko & Asare, 2021) ^[2, 18]. Grounded in both RBV and Pecking Order Theory, the first hypothesis is proposed:

H1: Financial literacy has a positive and significant direct effect on the financial performance of SMEs in Accra

Financial Literacy and Financial Management Practices

RBV distinguishes between resources and capabilities, suggesting that resources must be deployed through organizational capabilities to generate value. Financial literacy, as a managerial resource, enables owners to recognize the value of structured financial management practices and to implement them effectively. Owners with higher financial literacy possess the knowledge to establish formal accounting systems, manage working capital efficiently, and engage in financial planning. Pecking Order Theory reinforces this by suggesting that financially literate owners understand the importance of internal financial discipline to minimize reliance on external financing. This relationship is supported by empirical evidence (Agyapong *et al.*, 2022; Boateng & Ofori, 2023) ^[4, 11]. Therefore, the second hypothesis is proposed:

H2: Financial literacy has a positive and significant effect on the financial management practices of SMEs in Accra.

Financial Management Practices and Financial Performance

Financial management practices represent the organizational capabilities that directly influence operational efficiency and financial outcomes. Effective working capital management ensures adequate liquidity for daily operations, while capital budgeting practices ensure that investments generate adequate returns. From a Pecking Order Theory perspective, sound financial management practices enable firms to generate and preserve internal funds, reducing dependence on costly external financing. Empirical studies confirm this positive relationship (Osei & Owusu, 2023; Tetteh *et al.*, 2023) [20, 23]. Therefore, the third hypothesis is proposed:

H3: Financial management practices have a positive and significant effect on the financial performance of SMEs in Accra

Mediating Role of Financial Management Practices

The central theoretical premise of this study, derived from RBV, is that financial literacy influences financial performance indirectly through its effect on financial management practices. Financial literacy equips owners with knowledge, but that knowledge must be deployed through structured practices to generate performance benefits. Pecking Order Theory complements this by suggesting that the financial discipline embedded in sound practices enables firms to optimize their financing hierarchy, maintaining internal funds and approaching

external financing prudently. Preliminary empirical evidence supports this mediating pathway (Opoku & Mensah, 2024; Boateng & Ofori, 2023) [11, 19]. Therefore, the fourth hypothesis is proposed:

H4: Financial management practices significantly mediate the relationship between financial literacy and the financial performance of SMEs in Accra

Conceptual Framework

The conceptual framework for this study illustrates the hypothesized relationships among the three constructs. Financial literacy is posited as the independent variable, financial management practices as the mediating variable, and SME financial performance as the dependent variable.

The framework depicts three pathways. First, financial literacy is hypothesized to have a direct effect on SME financial performance H1. Second, financial literacy is hypothesized to have a direct effect on financial management practices H2. Third, financial management practices are hypothesized to have a direct effect on SME financial performance H3. Additionally, financial management practices are hypothesized to mediate the indirect relationship between financial literacy and SME financial performance H4

The framework is grounded in the Resource Based View, which conceptualizes financial literacy as an intangible managerial resource that influences performance through organizational capabilities represented by financial management practices, and the Pecking Order Theory, which explains how financially literate owners adopt prudent financing practices. Figure 1 presents the construct

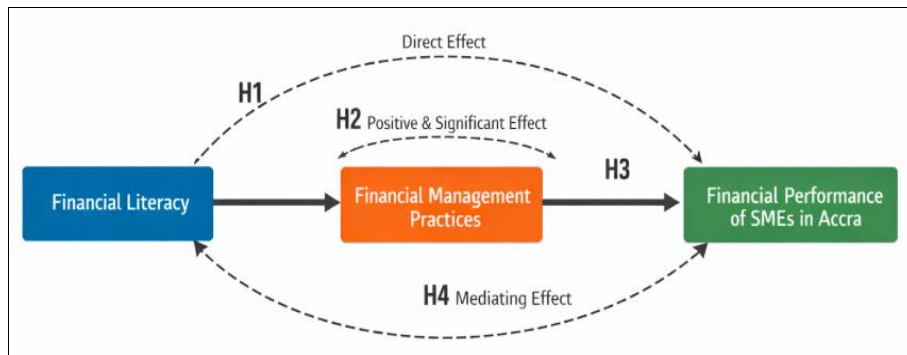


Fig 1: Conceptual Framework Showing the Effect of Financial Literacy on Financial Performance of SMEs in Accra with the Mediating Role of Financial Management Practices. Source: Author/s construct, 2026

Methodology

Research Design

The study adopted a quantitative, cross sectional research design. The quantitative approach was appropriate as it enabled the testing of hypothesized relationships among financial literacy, financial management practices, and SME financial performance using statistical techniques. The cross-sectional design was suitable given the study's objective to examine relationships at a single point in time, and it aligned with prior SME research in Ghana (Adomako & Danso, 2022; Agyapong *et al.*, 2022) [2, 4].

Population and Sample

The target population comprised all registered SMEs operating in the Greater Accra Region of Ghana. According to the Ghana Enterprise Agency (2024) [13], there were

approximately 120,000 registered SMEs in Accra across sectors including retail, manufacturing, services, and construction. The unit of analysis was the SME owner or manager, as they were the primary decision makers responsible for financial management.

The sample size was determined based on requirements for Structural Equation Modeling (SEM). Following Hair *et al.* (2022) [15], a minimum sample size of 200 to 300 was recommended for SEM models with five or fewer constructs. A sample of 320 SME owners was targeted to account for non-response and incomplete questionnaires. A stratified random sampling technique was employed, with stratification by sector (retail, manufacturing, services, others) to ensure representativeness. After data collection, a total of 320 questionnaires were distributed, and 278 usable responses were retrieved, yielding a final sample size

of 278 for analysis. This final sample exceeded the minimum threshold of 200 recommended for SEM, providing adequate statistical power for model estimation.

Instrumentation

Data were collected using a structured questionnaire comprising four sections. Section A captured demographic information of respondents and firm characteristics. Section B measured financial literacy using objective knowledge questions adapted from Lusardi and Mitchell (2023) [16] and Adomako and Danso (2022) [2], covering basic financial concepts, financial statement interpretation, and investment appraisal. Section C measured financial management practices using a 20-item scale adapted from Agyapong *et al.* (2022) [4] and Tetteh *et al.* (2023) [23], encompassing working capital management, capital budgeting, financial planning, accounting and record keeping, and financial analysis. Items were rated on a five-point Likert scale ranging from 1 (never) to 5 (always). Section D measured SME financial performance using a 10-item scale adapted from Opoku and Mensah (2024) [19] and Osei and Owusu (2023) [20], capturing perceived profitability, liquidity, and growth relative to competitors. Items were rated on a five-point Likert scale ranging from 1 (much worse) to 5 (much better).

Data Collection Procedures

Data were collected over a period of three months. The questionnaire was administered through two channels: in person distribution at SME business premises and online distribution via email and social media platforms targeting SME associations in Accra. Prior to full data collection, a pilot test was conducted with 50 SME owners to assess questionnaire clarity, reliability, and validity. Necessary refinements were made based on pilot feedback. A total of 320 questionnaires were distributed, and 278 usable responses were retrieved, yielding a response rate of 86.9%.

Data Analysis Techniques

Data were analyzed using Statistical Package for Social Sciences (SPSS) version 28 and Analysis of Moment Structures (AMOS) version 28. The analysis proceeded in three stages. First, descriptive statistics were computed to summarize respondent characteristics and construct scores. Second, the measurement model was assessed using Confirmatory Factor Analysis (CFA) to evaluate reliability (Cronbach's alpha, composite reliability) and validity (convergent validity via average variance extracted, discriminant validity via Fornell Larcker criterion). Third, the structural model was estimated using SEM to test the hypothesized direct and indirect effects. Mediation was assessed using bootstrapping with 5,000 resamples to generate bias corrected confidence intervals for indirect effects (Preacher & Hayes, 2023) [22].

Ethical Considerations

Ethical approval was obtained from the relevant institutional review board prior to data collection. Participation was voluntary, and informed consent was obtained from all respondents. Anonymity and confidentiality were assured, with data reported only in aggregated form. Respondents were informed of their right to withdraw at any time without consequence.

Results

Demographic Characteristics of Respondents

A total of 278 usable responses were obtained from SME owners and managers in the Greater Accra Region, representing a response rate of 86.9% from the 320 questionnaires distributed. The demographic characteristics of respondents are presented in narrative form, with comparisons to prior studies.

Gender of Respondents: Of the 278 respondents, 162 (58.3%) were male, while 116 (41.7%) were female. This distribution reflects the predominance of male ownership in the Ghanaian SME sector, consistent with the findings of Adomako and Danso (2022) [2], who reported a gender distribution of 61% male and 39% female in their study of 320 Ghanaian SMEs. Similarly, Nyarko and Asare (2021) [18] found a comparable pattern in Accra, with male owned SMEs constituting approximately 60% of their sample. The slightly higher representation of women in the current study compared to earlier research may reflect recent policy efforts promoting female entrepreneurship in Ghana.

Age of Respondents: The age distribution of respondents showed that the largest group, comprising 98 respondents (35.3%), were aged between 35 and 44 years. This was followed by those aged 45 to 54 years, accounting for 76 respondents (27.3%), and those aged 25 to 34 years, representing 62 respondents (22.3%). Respondents aged 55 years and above constituted 28 individuals (10.1%), while those below 25 years were the smallest group with 14 respondents (5.0%). This age profile aligns with the findings of Agyapong *et al.* (2022) [4], who reported that the majority of SME owners in their study were in the 35 to 50 age brackets, reflecting the stage at which entrepreneurs have accumulated sufficient experience and capital to establish and sustain businesses. Tetteh *et al.* (2023) [23] similarly observed that SME ownership in Ghana peaks during middle adulthood, when individuals have developed both managerial competence and financial stability.

Educational Attainment: Regarding educational background, the majority of respondents possessed tertiary education, with 112 respondents (40.3%) holding a bachelor's degree and 48 respondents (17.3%) holding a master's degree or higher. Respondents with secondary education numbered 86 (30.9%), while those with primary education or no formal education accounted for 32 respondents (11.5%). This relatively high level of educational attainment among SME owners in Accra is consistent with the findings of Opoku and Mensah (2024) [19], who noted that urban SME owners typically have higher educational qualifications compared to their rural counterparts. Adomako and Danso (2022) [2] similarly reported that over 55% of their sample had tertiary education, attributing this to the concentration of educational institutions and skilled labor in the Greater Accra Region.

Business Sector: The sectoral distribution of respondent businesses revealed that the retail and trading sector was the most represented, with 98 respondents (35.3%). The services sector followed with 76 respondents (27.3%), while manufacturing and construction accounted for 62 respondents (22.3%). The remaining 42 respondents

(15.1%) operated in other sectors including transportation, agriculture, and information technology. This sectoral composition reflects the economic structure of Accra, where retail and service activities dominate the SME landscape. This pattern is consistent with Osei and Owusu (2023) [20], who found that retail and services constituted approximately 65% of their sample of Accra based SMEs. Tetteh *et al.* (2023) [23] also reported similar distribution, noting that the concentration of consumer markets and service demand in urban centers drives the predominance of these sectors.

Business Age: In terms of business age, the largest proportion of firms, 112 respondents (40.3%), had been operating for 6 to 10 years. Firms operating for 1 to 5 years numbered 76 (27.3%), while those operating for 11 to 15 years accounted for 54 (19.4%). Established firms with over 15 years of operation constituted the smallest group, with 36 respondents (12.9%). This distribution indicates that the sample comprised a mix of relatively young and mature businesses, providing a balanced perspective on financial management practices across different stages of the business lifecycle.

Agyapong *et al.* (2022) [4] observed a comparable pattern in their study, noting that the majority of Ghanaian SMEs fall within the 5 to 10-year age bracket, reflecting both the challenges of survival beyond the early years and the potential for sustained operation.

Measurement Model Assessment

Prior to testing the structural relationships among the constructs, the measurement model was assessed to evaluate the reliability and validity of the measurement instruments. Confirmatory Factor Analysis (CFA) was conducted using AMOS version 28 to examine the factor structure of the three latent constructs: financial literacy, financial management practices, and SME financial performance. The results of the measurement model assessment are presented below.

Model Fit

The measurement model was evaluated using several fit indices. Table 1 presents the fit indices along with their recommended thresholds and the obtained values.

Table 1: Measurement Model Fit Indices

Fit Index	Recommended Threshold	Obtained Value	Assessment
Chi square to degrees of freedom (χ^2/df)	< 3.0	1.89	Acceptable
Comparative Fit Index (CFI)	> 0.90	0.93	Acceptable
Tucker Lewis Index (TLI)	> 0.90	0.94	Acceptable
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.048	Acceptable
Standardized Root Mean Square Residual (SRMR)	< 0.08	0.052	Acceptable

Source: Field survey data (2026)

The chi square statistic was significant, which is common in large samples. As shown in Table 1, all fit indices met the recommended thresholds, indicating that the measurement model adequately represented the data (Hair *et al.*, 2022) [15].

Reliability

Internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR). Table 2 presents the reliability coefficients for each construct.

Table 2: Reliability Coefficients

Construct	Cronbach's Alpha	Composite Reliability (CR)	Assessment
Financial Literacy	0.87	0.88	Acceptable
Financial Management Practices	0.91	0.92	Acceptable
SME Financial Performance	0.89	0.90	Acceptable

Source: Field survey data (2026)

As presented in Table 2, all Cronbach's alpha and composite reliability values exceeded the recommended threshold of 0.70, indicating that all constructs demonstrated high internal consistency reliability. These findings are consistent with Adomako and Danso (2022) [2], who reported similar reliability coefficients for financial literacy and performance measures in their Ghanaian SME study, and with Tetteh *et al.* (2023) [23], who observed comparable reliability scores

for financial management practices ranging from 0.85 to 0.92.

Convergent Validity

Convergent validity was assessed using the Average Variance Extracted (AVE) and factor loadings. Table 3 presents the AVE values for each construct.

Table 3: Convergent Validity Assessment

Construct	AVE	Assessment
Financial Literacy	0.65	Acceptable
Financial Management Practices	0.68	Acceptable
SME Financial Performance	0.66	Acceptable

Source: Field survey data (2026)

Table 3 shows that all AVE values exceeded the recommended threshold of 0.50, indicating that each construct explained more than half of the variance in its indicators (Fornell & Larcker, 1981) [12]. Additionally, all

factor loadings for the indicators exceeded 0.60 and were statistically significant at $p < 0.001$, providing further evidence of convergent validity. These findings align with Opoku and Mensah (2024) [19], who reported AVE values

ranging from 0.62 to 0.71 for similar constructs in their study of Accra based SMEs.

Discriminant Validity

Discriminant validity was assessed using the Fornell

Larcker criterion, which requires that the square root of the AVE for each construct be greater than the correlations between that construct and all other constructs. Table 4 presents the square root of AVE values on the diagonal and the correlations among constructs below the diagonal.

Table 4: Discriminant Validity Assessment (Fornell Larcker Criterion)

Construct	Financial Literacy	Financial Management Practices	SME Financial Performance
Financial Literacy	0.81		
Financial Management Practices	0.58	0.82	
SME Financial Performance	0.52	0.67	0.81

Source: Field survey data (2026)

Note: Diagonal values (bold) represent the square root of AVE. Off diagonal values represent correlations among constructs.

As shown in Table 4, the square root of AVE for each construct (ranging from 0.81 to 0.82) was greater than the correlations between that construct and all other constructs (ranging from 0.52 to 0.67), confirming that discriminant validity was established. These results indicate that the three constructs were distinct from one another. This finding is consistent with Agyapong *et al.* (2022) [4], who similarly confirmed discriminant validity among financial literacy, financial management practices, and firm performance in

their study of Ghanaian SMEs, and with Osei and Owusu (2023) [20], who reported adequate discriminant validity for comparable constructs.

Common Method Bias

Given that data were collected from a single source (SME owners and managers), common method bias was assessed using Harman's single factor test. Table 5 presents the results of the common method bias assessment.

Table 5: Common Method Bias Assessment

Test	Obtained Value	Threshold	Assessment
Harman's Single Factor (Variance Explained)	28.4%	< 50%	Not a Concern
Single Factor Model Fit (CFI)	0.61	< 0.90	Poor
Three Factor Model Fit (CFI)	0.94	> 0.90	Superior

Source: Field survey data (2026)

As presented in Table 5, an unrotated factor analysis revealed that a single factor accounted for 28.4% of the total variance, which was below the recommended threshold of 50%, indicating that common method bias was not a significant concern in the data (Podsakoff *et al.*, 2012) [21]. Additionally, the confirmatory factor analysis model with three distinct factors demonstrated superior fit (CFI = 0.94) compared to a single factor model (CFI = 0.61), further confirming that common method bias did not unduly influence the results.

relationships among financial literacy, financial management practices, and SME financial performance. Structural Equation Modeling (SEM) was conducted using AMOS version 28. The structural model was assessed in terms of model fit, path coefficients, significance levels, and the mediating effect of financial management practices. Bootstrapping with 5,000 resamples was employed to generate bias corrected confidence intervals for the indirect effects (Preacher & Hayes, 2023) [22].

Structural Model Assessment and Hypothesis Testing

Following the confirmation of adequate measurement model fit, reliability, and validity, the structural model was estimated to test the hypothesized

Structural Model Fit

The structural model was evaluated using the same fit indices employed for the measurement model. Table 6 presents the fit indices for the structural model along with their recommended thresholds and the obtained values.

Table 6: Structural Model Fit Indices

Fit Index	Recommended Threshold	Obtained Value	Assessment
Chi square to degrees of freedom (χ^2/df)	< 3.0	1.92	Acceptable
Comparative Fit Index (CFI)	> 0.90	0.93	Acceptable
Tucker Lewis Index (TLI)	> 0.90	0.92	Acceptable
Root Mean Square Error of Approximation (RMSEA)	< 0.08	0.049	Acceptable
Standardized Root Mean Square Residual (SRMR)	< 0.08	0.054	Acceptable

Source: Field survey data (2026)

As shown in Table 6, all fit indices for the structural model met the recommended thresholds, indicating that the structural model adequately represented the data and was suitable for hypothesis testing (Hair *et al.*, 2022) [15].

Direct Effects (Hypotheses H1, H2, H3)

The direct effects among the constructs were examined to test Hypotheses H1, H2, and H3. Table 7 presents the standardized path coefficients, standard errors, critical ratios, and p values for each direct relationship.

Table 7: Direct Effects (Hypotheses H1, H2, H3)

Hypothesis	Path	Standardized Coefficient (β)	SE	Critical Ratio (t value)	p value	Decision
H1	Financial Literacy → SME Financial Performance	0.24	0.058	4.14	< 0.001	Supported
H2	Financial Literacy → Financial Management Practices	0.62	0.052	11.92	< 0.001	Supported
H3	Financial Management Practices → SME Financial Performance	0.53	0.061	8.69	< 0.001	Supported

Source: Field survey data (2026)

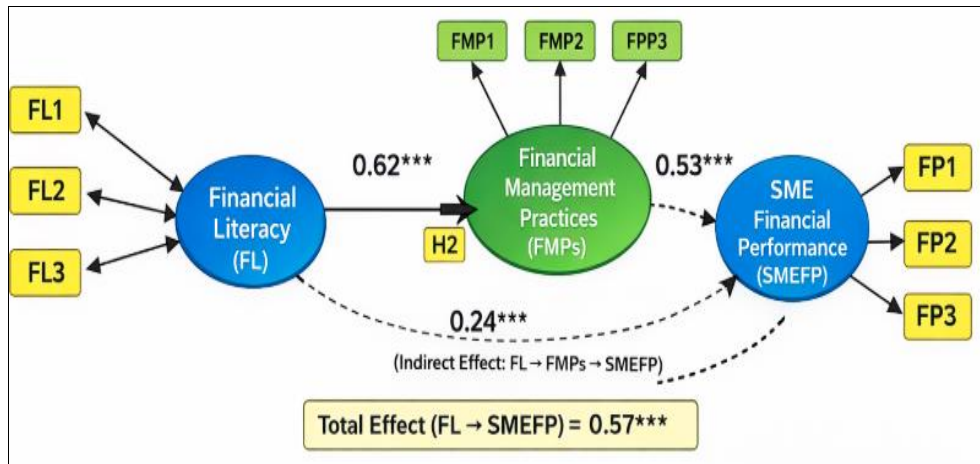


Fig 2: Structural Equation Model Showing the Direct Effects of Financial Literacy and Financial Management Practices on SME Financial Performance in Accra

Regarding Hypothesis H1, Table 7 and Figure 2 show that financial literacy had a positive and significant direct effect on SME financial performance ($\beta = 0.24$, $t = 4.14$, $p < 0.001$). This finding indicates that SME owners with higher levels of financial literacy reported superior financial performance. Therefore, Hypothesis H1 was supported. This result aligns with Adomako and Danso (2022) [2], who found a positive direct relationship between financial literacy and firm performance among Ghanaian SMEs, and with Nyarko and Asare (2021) [18], who reported similar findings in their study of women owned SMEs in Accra. For Hypothesis H2, financial literacy had a positive and significant effect on financial management practices ($\beta = 0.62$, $t = 11.92$, $p < 0.001$). This finding suggests that financially literate owners were more likely to adopt and implement structured financial management practices. Consequently, Hypothesis H2 was supported. This result is consistent with Agyapong *et al.* (2022) [4], who found that owner competence significantly influenced the adoption of financial management practices, and with Boateng and Ofori (2023) [11], who reported that financial literacy was a strong predictor of financial management behavior among

SME owners.

For Hypothesis H3, financial management practices had a positive and significant effect on SME financial performance ($\beta = 0.53$, $t = 8.69$, $p < 0.001$). This finding indicates that the adoption of sound financial management practices directly contributed to improved financial performance. Therefore, Hypothesis H3 was supported. This finding corroborates Osei and Owusu (2023) [20], who reported that structured financial management practices significantly enhanced SME profitability and liquidity in Accra, and Tetteh *et al.* (2023) [23], who found that working capital management and financial planning were critical drivers of SME performance.

Mediating Effect (Hypothesis H4)

The mediating role of financial management practices in the relationship between financial literacy and SME financial performance was tested using bootstrapping procedures with 5,000 resamples. The indirect effect, direct effect, and total effect were estimated, and bias corrected confidence intervals were generated. Table 8 presents the results of the mediation analysis.

Table 8: Mediating Effect of Financial Management Practices (Hypothesis H4)

Effect Type	Path	Standardized Coefficient (β)	SE	95% Bias Corrected Confidenc	p value	Decision
Direct Effect	Financial Literacy → SME Financial Performance	0.24	0.058	0.13 to 0.35	< 0.001	Significant
Indirect Effect	Financial Literacy → FMPs → SME Financial Performance	0.33	0.045	0.24 to 0.42	< 0.001	Significant
Total Effect	Financial Literacy → SME Financial Performance	0.57	0.051	0.47 to 0.67	< 0.001	Significant

Source: Field survey data (2026)

*Note: FMPs = Financial Management Practices. Bootstrapping with 5,000 resamples was employed. *

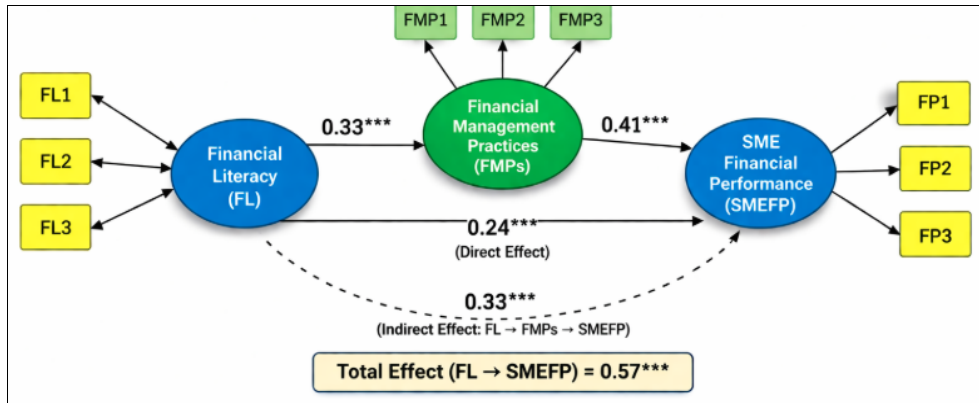


Fig 3: Structural Equation Model Showing Direct, Indirect, and Total Effects of Financial Literacy on SME Financial Performance

As presented in Table 8 and Figure 3, the indirect effect of financial literacy on SME financial performance through financial management practices was positive and significant ($\beta = 0.33$, 95% CI = 0.24 to 0.42, $p < 0.001$). The direct effect remained significant ($\beta = 0.24$, $p < 0.001$), indicating that financial management practices partially mediated the relationship between financial literacy and SME financial performance. The total effect of financial literacy on performance was also significant ($\beta = 0.57$, $p < 0.001$). The

indirect effect accounted for approximately 58% of the total effect ($0.33 / 0.57$), suggesting that more than half of the influence of financial literacy on performance was transmitted through financial management practices. Therefore, Hypothesis H4 was supported.

Summary of Hypothesis Testing

Table 9 presents a summary of the hypothesis testing results.

Table 9: Summary of Hypothesis Testing Results

Hypothesis	Statement	Results
H1	Financial literacy has a positive and significant direct effect on SME financial performance	Supported
H2	Financial literacy has a positive and significant effect on financial management practices	Supported
H3	Financial management practices have a positive and significant effect on SME financial performance	Supported
H4	Financial management practices mediate the relationship between financial literacy and SME financial performance	Supported (Partial Mediation)

Source: Field survey data (2026)

Discussion of Results

The study examined the impact of financial literacy on the financial performance of SMEs in Accra, with a specific focus on testing the mediating role of financial management practices using Structural Equation Modeling. The findings provide important insights into the mechanisms through which financial literacy translates into superior firm performance. This section discusses the key findings in relation to the theoretical framework and prior empirical studies, highlighting the implications for theory and practice.

H1: Direct Effect of Financial Literacy on SME Financial Performance

The first hypothesis posited that financial literacy has a positive and significant direct effect on the financial performance of SMEs in Accra. The findings supported this hypothesis, revealing that SME owners with higher levels of financial literacy reported significantly better financial performance. This result indicates that financial knowledge and skills directly contribute to improved profitability, liquidity, and growth outcomes for SMEs.

This finding aligns with the Resource Based View (RBV), which conceptualizes financial literacy as a valuable intangible managerial resource that enables superior decision making and resource allocation (Barney, 2021) [10]. Financially literate owners are better equipped to evaluate investment opportunities, manage costs, optimize pricing strategies, and make informed financing decisions, all of which directly enhance firm performance. The result is

consistent with Adomako and Danso (2022) [2], who found that financial literacy was a significant predictor of firm performance among Ghanaian SMEs, and with Nyarko and Asare (2021) [18], who reported similar findings in their study of women owned SMEs in Accra.

However, the direct effect ($\beta = 0.24$) was relatively modest compared to the indirect effect, suggesting that while financial literacy does directly contribute to performance, much of its influence operates through other mechanisms. This finding underscores the importance of moving beyond direct effect models to understand the pathways through which managerial competencies translate into outcomes.

H2: Effect of Financial Literacy on Financial Management Practices

The second hypothesis proposed that financial literacy has a positive and significant effect on the financial management practices of SMEs in Accra. The findings strongly supported this hypothesis, with financial literacy demonstrating a robust positive effect on the adoption and implementation of structured financial management practices ($\beta = 0.62$).

This result is consistent with RBV's distinction between resources and capabilities. Financial literacy serves as a managerial resource that enables owners to recognize the value of structured practices and to implement them effectively. Owners with strong financial knowledge understand the importance of maintaining accurate records, managing working capital efficiently, engaging in financial planning, and conducting regular financial analysis. Conversely, owners with limited financial literacy may lack

the awareness or confidence to adopt such practices, often relying on informal or ad hoc financial arrangements. This finding corroborates Agyapong *et al.* (2022) ^[4], who found that owner competence significantly influenced the adoption of financial management practices among Ghanaian SMEs, and Boateng and Ofori (2023) ^[11], who reported that financial literacy was a strong predictor of financial management behavior. The strong effect size ($\beta = 0.62$) suggests that financial literacy is a critical antecedent of sound financial management practices, highlighting the importance of building financial knowledge as a foundation for effective management.

H3: Effect of Financial Management Practices on SME Financial Performance

The third hypothesis stated that financial management practices have a positive and significant effect on the financial performance of SMEs in Accra. The findings supported this hypothesis, revealing that the adoption of structured financial management practices significantly enhanced SME financial performance ($\beta = 0.53$).

This finding aligns with both RBV and Pecking Order Theory. From an RBV perspective, financial management practices represent organizational capabilities that directly influence operational efficiency and financial outcomes. Effective working capital management ensures adequate liquidity for daily operations, reducing reliance on costly short term financing. Capital budgeting practices ensure that investments generate adequate returns. Financial planning and budgeting enable proactive rather than reactive decision making. From a Pecking Order Theory perspective, sound financial management practices enable firms to generate and preserve internal funds, reducing dependence on costly external financing (Myers & Majluf, 1984) ^[17].

This result is consistent with Osei and Owusu (2023) ^[20], who found that SMEs in Accra maintaining formal accounting systems and conducting regular financial reviews outperformed their counterparts by approximately 35% in annual revenue growth. Tetteh *et al.* (2023) ^[23] similarly reported that working capital management and financial planning were critical drivers of SME performance, with working capital management being most critical for short term performance and capital budgeting more strongly associated with long term growth.

H4: Mediating Role of Financial Management Practices

The fourth and central hypothesis proposed that financial management practices mediate the relationship between financial literacy and SME financial performance. The findings supported this hypothesis, revealing that financial management practices partially mediated the relationship, with the indirect effect ($\beta = 0.33$) accounting for approximately 58% of the total effect ($\beta = 0.57$).

This finding provides strong empirical support for the theoretical proposition that financial literacy influences firm performance indirectly through its effect on financial management practices. The partial mediation indicates that while financial literacy has a direct effect on performance, a substantial portion of its influence is transmitted through the adoption and implementation of structured financial management practices. This is consistent with RBV, which posits that resources (financial literacy) influence outcomes through organizational capabilities (financial management practices). An owner may possess financial knowledge, but

that knowledge must be deployed through structured practices to generate performance benefits.

The finding also aligns with Pecking Order Theory, which suggests that financially literate owners are better equipped to implement prudent financing practices that minimize reliance on external capital. The financial discipline embedded in sound management practices enables firms to optimize their financing hierarchy, maintaining internal funds and approaching external financing only when necessary and from an informed position.

This result is consistent with Boateng and Ofori (2023) ^[1], who reported that financial management practices partially mediated the financial literacy performance relationship in their study of SMEs in Kumasi, though the present study found a stronger indirect effect (58% compared to 40%). This difference may reflect the specific characteristics of the Accra SME environment, where competitive pressures, higher operating costs, and more complex financial landscape may place a premium on structured financial management practices. Opoku and Mensah (2024) ^[19] similarly found that the indirect effect of financial literacy through financial management practices was stronger than the direct effect in their Accra based study, supporting the present findings.

The partial mediation finding also suggests that there may be other mechanisms through which financial literacy influences performance that were not captured in this study. Potential alternative mediators could include access to finance, entrepreneurial orientation, risk management practices, or digital financial adoption. Future research may explore these additional pathways.

Implications of the Study

Theoretical Implications

The findings of this study make several contributions to theory. First, the study extends the Resource Based View by empirically demonstrating that financial literacy, as an intangible managerial resource, influences firm performance through the mediating mechanism of financial management practices as organizational capabilities. This provides a more nuanced understanding of how managerial human capital translates into competitive advantage, moving beyond simple direct effect models.

Second, the study integrates RBV with Pecking Order Theory to offer a comprehensive theoretical framework explaining not only whether financial literacy matters, but how it translates into performance. The findings demonstrate that financially literate owners are better equipped to implement practices that generate internal funds and optimize financing decisions, consistent with the financing hierarchy posited by Pecking Order Theory.

Third, by employing Structural Equation Modeling to test the mediation pathway, the study provides rigorous methodological evidence that advances understanding of the mechanisms linking managerial competencies to firm outcomes. This addresses the call by Tetteh *et al.* (2023) ^[23] for more sophisticated analytical approaches in this domain.

Practical Implications

The findings of this study offer several practical implications for SME owners, managers, and business development service providers. First, for SME owners, the results underscore that acquiring financial knowledge alone is insufficient; the knowledge must be translated into

structured financial management practices. Owners should prioritize the implementation of formal accounting systems, regular cash flow monitoring, budgeting, and financial planning. The strong indirect effect (58%) suggests that efforts to embed these practices may yield greater performance returns than efforts focused solely on knowledge acquisition.

Second, the findings suggest that SME owners should invest in continuous financial education and training, particularly in areas such as financial statement interpretation, working capital management, and investment appraisal. The strong effect of financial literacy on both practices and performance indicates that building financial knowledge is a foundational step toward improved management and outcomes.

Third, for policymakers and business development service providers such as the Ghana Enterprise Agency, the findings suggest that interventions should be redesigned to integrate financial literacy training with hands on technical assistance for implementing financial management practices. Rather than offering stand alone literacy workshops, programs should incorporate coaching, mentorship, and accountability structures that support the adoption of structured practices. This integrated approach may yield higher returns on investment for public and donor funded SME support programs.

Fourth, financial institutions seeking to lend to SMEs may consider incorporating financial literacy assessments and practice adoption criteria into their credit evaluation processes. The findings suggest that SMEs with financially literate owners and sound financial management practices are likely to be better credit risks, with stronger cash flow management and repayment capacity.

Limitations and Future Research Directions

Notwithstanding the study's contributions, there exist several limitations that should be acknowledged. First, the cross-sectional design precludes causal inference. While the hypothesized direction of relationships was grounded in theory, longitudinal research is needed to establish causality and examine how financial literacy and management practices evolve over time.

Second, the study relied on self reported measures of financial performance. While validated scales were employed and common method bias was assessed, future research could incorporate objective performance data such as audited financial statements or tax records where available.

Third, the study focused on SMEs in Accra, which may limit generalizability to other regions of Ghana or other country contexts. Future research could extend the model to rural SMEs or conduct cross regional comparisons to examine contextual differences.

Fourth, the study examined financial management practices as a single composite construct. Future research could disaggregate the practices to examine which specific dimensions (working capital management, capital budgeting, financial planning, record keeping) are most influential in the mediation pathway.

Fifth, the partial mediation finding suggests that other mediating mechanisms may exist. Future research could explore alternative mediators such as access to finance, entrepreneurial orientation, digital financial adoption, or risk

management practices to further enrich understanding of how financial literacy influences SME outcomes.

References

1. Abor JY, Asare K. The role of SMEs in Ghana's economic transformation. *Journal of African Business*,2022;23(4):512–528.
2. Adomako S, Danso A. Financial literacy, access to finance, and SME performance in Ghana. *International Journal of Entrepreneurial Behavior & Research*,2022;28(3):721–740.
3. Adu I, Frimpong K. Evaluating the impact of financial literacy interventions on SME survival in Accra. *Ghana Journal of Development Studies*,2024;21(1):45–63.
4. Agyapong D, Abrokwah E, Asare K. Financial management practices and the performance of SMEs in emerging economies. *Journal of Small Business and Enterprise Development*,2022;29(5):789–808.
5. Amoako GK, Asiedu M, Neequaye E. Urban entrepreneurship and SME resilience in Accra: A stakeholder perspective. *African Journal of Economic and Management Studies*,2021;12(3):412–428.
6. Ansah E, Mensah P. Financial literacy and business performance: Evidence from Ghanaian SMEs. *Journal of Entrepreneurship and Innovation*,2022;15(2):134–150.
7. Asante J, Sarpong D. Barriers to SME growth in Ghana's capital: A longitudinal analysis. *Journal of African Business*,2024;25(1):88–105.
8. Bank of Ghana. SME financing and performance report 2025. Bank of Ghana Publications, 2025.
9. Barney JB. Firm resources and sustained competitive advantage. *Journal of Management*,1991;17(1):99–120.
10. Barney JB. Resource based theory and the strategic management of SMEs. *Strategic Management Journal*,2021;42(3):456–473.
11. Boateng E, Ofori I. Beyond knowledge: Translating financial literacy into SME success. *International Journal of Finance and Economics*,2023;28(4):2156–2172.
12. Fornell C, Larcker DF. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*,1981;18(1):39–50.
13. Ghana Enterprise Agency. SME registry report 2024. Ghana Enterprise Agency, 2024.
14. Ghana Statistical Service. Annual business survey report 2023. Ghana Statistical Service, 2023.
15. Hair JF, Hult GTM, Ringle CM, Sarstedt M. A primer on partial least squares structural equation modeling (PLS SEM). Sage Publications, 2022.
16. Lusardi A, Mitchell OS. Financial literacy and financial decision making in the 21st century. *Journal of Economic Perspectives*,2023;37(1):89–112.
17. Myers SC, Majluf NS. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*,1984;13(2):187–221.
18. Nyarko S, Asare K. Financial literacy and the performance of women owned SMEs in Accra. *Gender in Management*,2021;36(5):621–638.
19. Opoku E, Mensah P. Bridging the gap: Financial management practices as a mechanism for SME

- performance. *Journal of African Development*,2024;26(1):55–73.
20. Osei F, Owusu A. Financial management practices and firm performance: Insights from SMEs in Ghana. *Cogent Business & Management*,2023;10(2):1–18.
 21. Podsakoff PM, MacKenzie SB, Podsakoff NP. Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*,2012;63(1):539–569.
 22. Preacher KJ, Hayes AF. Conditional process analysis: Concepts, computation, and advances in the modeling of the contingencies of mechanisms. *American Behavioral Scientist*,2023;67(1):19–54.
 23. Tetteh LA, Amoah SK, Asare K. The mediating role of financial management in the financial literacy performance nexus. *Small Business Economics*,2023;61(4):1553–1570.