

# Effect of Financial Literacy on the Performance of Women Owned SMEs in Nigeria: A Study of Awka, Nigeria

John O. Aiyedogbon, Ph.D., Ogwuche D. David, Ph.D., EZIE Progress Kelechi  
Department of Economics, Bingham University, Karu

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## ABSTRACT

The primary aim of this research was to investigate the effect of financial literacy on the performance of selected women-owned SMEs in Awka, Anambra State. Utilizing a descriptive cross-sectional survey design, the study collected both quantitative and qualitative data, examining the impact of three specific financial literacy components: debt management literacy, budgeting skills, and book-keeping skills. Regression analyses were employed to ascertain the relationships between these financial literacy aspects and SME performance. Findings revealed a nuanced influence of financial literacy on SME performance. Notably, debt management literacy exhibited a negative yet significant relationship with SME performance, indicating challenges in effectively implementing financial knowledge. Book-keeping skills also had a negative but significant impact on SME performance, suggesting an overemphasis that might divert attention from other growth opportunities. In contrast, the effect of budgeting skills was found to be non-significant, pointing to its potential overshadowed role or regional variations in its application. Based on these outcomes, specific recommendations were posited. Women entrepreneurs are advised to undergo holistic financial training that focuses on the strategic application of knowledge, particularly in debt management. Additionally, while the importance of book-keeping remains undebated, diversifying skills to encompass other business aspects is crucial. Lastly, a renewed approach integrating traditional budgeting with local challenges is advocated to make budgeting more impactful for SMEs in Awka.

**Keywords:** Financial literacy, Budgeting, Debt Management, Book Keeping, and SMEs

## INTRODUCTION

Financial literacy represents the ability to understand, use, and manage financial resources effectively, (brimble, 2017). It encompasses an individual's capability to make informed choices related to budgeting, saving, investing, and understanding financial risks and opportunities. Across the globe, financial literacy has been recognized as an essential skill for promoting sustainable financial inclusion and personal financial wellbeing (Huston, 2010). In Nigeria, despite being one of Africa's largest economies, a significant percentage of the population lacks foundational financial literacy skills, (chimaobi & Nzewi 2018). Recent studies between 2015 and 2021 have highlighted that the deficit in financial education poses challenges, particularly in the entrepreneurial sector where informed financial decisions are vital (Oboh & Ajiboye, 2018).

Women-owned SMEs (Small and Medium-sized Enterprises) play a pivotal role in Nigeria's economic landscape. These enterprises not only contribute significantly to the nation's GDP but also play a crucial role in job creation and community development, (Ayoola, Ahmad, & Tajudeen, 2017). However, they often face unique challenges in comparison to their male counterparts. Recent data has revealed that women entrepreneurs in Nigeria frequently confront barriers such as limited access to credit, sociocultural norms, and, notably, gaps in financial knowledge (Aterido, Beck, & Iacovone, 2016). The performance of these SMEs is often contingent upon a myriad of factors, with financial literacy emerging as a critical

determinant, (Ejiofor & Okeke, 2020).

Drawing the connection between financial literacy and the performance of women-owned SMEs in Nigeria is crucial. The hypothesis postulates that improved financial literacy among women entrepreneurs can substantially augment the performance and sustainability of their enterprises. An in-depth study conducted by Okpara and Wynn (2017) substantiated that there is a positive correlation between the financial literacy levels of women entrepreneurs and the success rate of their SMEs. By enhancing their financial literacy, women entrepreneurs can make more informed decisions, manage risks better, optimize their financial resources, and achieve sustainable growth. Recognizing and addressing the implications of this correlation can significantly influence policy formulation, entrepreneurial training programs, and strategies aimed at bolstering the performance of women-owned SMEs in Nigeria.

Despite the myriad of opportunities that could foster the growth and development of women-owned SMEs, there is a conspicuous challenge: a significant number of these enterprises face setbacks or closure within their initial years. According to the Nigerian Economic Summit Group (2020), around 70% of small enterprises in Nigeria cease operations within their first five years. Women-owned SMEs in Awka are no exception to this trend, grappling with hurdles that curtail business expansion, limit employment opportunities, and suppress sales and revenue growth. The prevalent market exit of these SMEs can often be attributed to their susceptibility to economic fluctuations and managerial oversights, contrasting starkly with larger, more resilient corporations. Such frequent market exits deprive SME owners in Awka of valuable learning experiences and benchmarks to gauge and ameliorate their strategies. This scenario is further exacerbated by limited resources and a stretched capital base which leaves little room to absorb further losses. Given this backdrop, there is a pressing need to explore how financial literacy could potentially enhance the performance and longevity of women-owned SMEs in Awka, Anambra State.

The study provided answers to the following questions:

1. What effect does debt management literacy has on the performance of women owned SMEs in Awka, Anambra state?
2. To what extent has budgeting skills affected the performance of women owned SMEs in Awka, Anambra state?
3. What influence does book-keeping skills has on the performance of women owned SMEs in Awka, Anambra state?

The following hypotheses guided the paper:

**H<sub>11</sub>**: Debt management literacy has a significant effect on the performance of women owned SMEs in Awka

**H<sub>12</sub>**: Budgeting skills has a significant effect on the performance of women owned SMEs in Awka

**H<sub>13</sub>**: Book-keeping skills has a significant effect on the performance of women owned SMEs in Awka

## LITERATURE REVIEW

### Conceptual Review

#### Concept of Women-owned SMEs

Women-owned SMEs are often conceptualized through two primary lenses: ownership and management. According to Brush, De Bruin, and Welter (2017), women-owned businesses can be defined based on the

proportion of equity owned by women. Specifically, a business is considered women-owned when women hold at least 51% of the equity or shares of the business. This definition underscores the importance of financial control in delineating the boundaries of women's entrepreneurial activities.

Further deepening the definition from a management perspective, Carter and Shaw (2016) suggest that the mere ownership of equity does not fully encapsulate the concept of women-owned SMEs. They argue that a more comprehensive definition would consider both ownership and the active management and control of the enterprise by women. Thus, a woman-owned SME is not just defined by the stake that women have in the firm, but also by their involvement in day-to-day operations and strategic decision-making processes.

In addition to ownership and management, the socio-cultural context plays a significant role in understanding women-owned SMEs. In countries or regions with pronounced gender inequalities, women's participation in entrepreneurship might be influenced more by necessity than opportunity (Lusardi & Mitchell 2014). In such contexts, a women-owned SME can also be seen as an entrepreneurial endeavor initiated and run by women, often against prevailing socio-cultural constraints, to achieve economic independence and empowerment.

### **Concept of financial literacy**

Financial literacy, is a term that has garnered significant attention in academic and policy circles, and has been the subject of various conceptual definitions. At its core, financial literacy revolves around the comprehension and utilization of financial information in making informed decisions about financial resources. (Lusardi and Mitchell (2014) provide one of the most cited definitions, framing financial literacy as the ability to process economic information and make informed decisions about financial planning, wealth accumulation, debt, and pensions. They stress that a financially literate individual possesses the knowledge required for effective financial decision-making.

Extending the conversation beyond individual knowledge, Hastings, Madrian, and Skimmyhorn (2016) emphasize the application aspect of financial literacy. They define it as not just the understanding of specific financial concepts but also the ability to apply them in everyday situations. This encompasses managing savings, understanding interest rates, making informed investment decisions, and assessing the risks associated with various financial instruments.

In a rapidly evolving financial ecosystem, the concept of financial literacy has also expanded to include digital financial tools and platforms. Kumar, Bhaskaran, Mirshekary, and Sarukesi (2017) contend that contemporary financial literacy involves understanding and navigating digital financial services, including mobile banking, digital payments, and online investments. This suggests that financial literacy in the modern era isn't limited to traditional financial instruments but also encapsulates digital financial solutions.

Furthermore, contextualizing financial literacy in diverse socio-economic backgrounds, Amagir et al. (2018) note that financial literacy also involves tailoring one's financial decisions based on cultural, societal, and individual constraints and opportunities. In essence, true financial literacy takes into account both global financial principles and localized nuances.

### **Theoretical Review**

#### **Financial Literacy Theory**

The Financial Literacy Theory, as propounded by Lusardi and Mitchell (2014), underscores the pivotal role of knowledge in financial decision-making processes. Lusardi and Mitchell delved deep into the intricacies of how individuals acquire and use knowledge about various financial concepts, emphasizing its impact on

both short-term and long-term financial outcomes. Central to the theory is the assertion that individuals equipped with financial literacy are more adept at navigating complex financial landscapes, including understanding compound interest, diversifying risks, and avoiding high-interest debt. This form of literacy not only fosters better financial decision-making but also empowers individuals to harness opportunities and steer clear of potential pitfalls.

One of the prominent strengths of Lusardi and Mitchell's theory is its comprehensive approach. By encompassing a wide array of financial dimensions, it offers a holistic lens through which to view financial behaviors and their implications. This extensive scope allows for applicability across diverse contexts, from personal financial management to the operational dynamics of Small and Medium-sized Enterprises (SMEs). Moreover, the theory underscores the pressing need for financial education, advocating for its integration into curricula and training programs.

However, the theory has not been without its criticisms. Detractors argue that while knowledge is undeniably crucial, overemphasizing literacy might sideline other vital determinants of financial behavior, such as cultural, social, or psychological factors. Furthermore, the efficacy of financial education initiatives, which the theory ardently supports, has been a topic of debate, with some studies suggesting that financial behaviors are more deeply ingrained and less malleable than the theory proposes.

In the context of the present study, Lusardi and Mitchell's Financial Literacy Theory offers invaluable insights. As we delve into the performance of women-owned SMEs, understanding the role of financial literacy becomes paramount. The theory posits that women entrepreneurs with heightened financial literacy are likely better positioned to navigate the business landscape, making astute financial decisions that catalyze growth and stability. This perspective, grounded in the tenets of the theory, emphasizes the imperative of fostering financial literacy as a cornerstone for enhancing the performance metrics of women-led ventures in dynamic economic environments (Lusardi & Mitchell, 2014).

### **Gendered Enterprise and Markets (GEM) Framework**

One influential theory on women-owned businesses is the Gendered Enterprise and Markets (GEM) framework, introduced by Sebstad and Manfre (2011). This framework seeks to understand the systemic gender-based barriers and opportunities that women entrepreneurs encounter in market systems. The GEM framework asserts that market systems are inherently gendered, influenced by socio-cultural norms, practices, and biases that often privilege male entrepreneurs over their female counterparts. Such disparities manifest in various dimensions, including access to resources, market information, credit facilities, and training opportunities.

At the heart of the GEM framework is the recognition that women entrepreneurs often operate within restricted market niches, stemming from traditional gender roles that may pigeonhole them into certain sectors or limit their growth prospects. The GEM framework emphasizes that by understanding and addressing these gender-specific constraints, stakeholders can foster more inclusive, equitable, and prosperous market systems.

The strength of the GEM framework lies in its comprehensive recognition of the deeply entrenched gender dynamics that influence market systems. By offering a gender-lens approach to entrepreneurship, the framework provides actionable insights for policymakers, development agencies, and business support institutions to tailor their interventions effectively.

However, criticisms of the GEM framework have arisen from its potential overemphasis on gender as the primary determinant of entrepreneurial challenges. Detractors argue that while gendered barriers are significant, other factors such as economic conditions, education, and regional disparities also play pivotal

roles and should not be overshadowed.

In the context of the present study on women-owned SMEs, the GEM framework offers a nuanced lens to comprehend the unique challenges and opportunities these businesses face. As we explore the performance of women-owned enterprises, understanding the systemic gender-based constraints elucidated by the GEM framework becomes essential. The theory suggests that to genuinely bolster the performance metrics of women-led ventures, one must address the gender-specific barriers they encounter, fostering an environment that levels the entrepreneurial playing field and catalyzes their growth potential (Sebstad & Manfre, 2011).

## **Empirical Review**

In a noteworthy study conducted by Neneh (2019), the relationship between financial literacy and the success of women-owned businesses within developing economies, specifically in sub-Saharan Africa, was delved into. The research spanned a period from 2014 to 2018 and utilized a quantitative approach based on structured questionnaires distributed to women entrepreneurs in selected regions. The performance of these women-owned businesses, encompassing elements like business growth and profitability, was considered the dependent variable. In contrast, financial literacy, assessed through a battery of questions on financial comprehension and application, emerged as the independent variable. Neneh's findings were illuminating, revealing a significant positive correlation between financial literacy and business performance. Specifically, it was deduced that women entrepreneurs possessing higher degrees of financial literacy tend to make more astute financial decisions, resulting in augmented business growth and profitability. However, potential biases arising from self-reported measures of financial literacy and the geographic limitation of the study posed challenges to its broader applicability.

Shifting focus to Kenya's urban centers, Gathoni and Jagongo (2017) embarked on research to decipher the impact of financial literacy on enhancing the performance of women-owned SMEs. The researchers amalgamated both qualitative interviews and quantitative surveys, collecting data for the year 2016. Through their lenses, the performance of women-owned SMEs, delineated by metrics such as sales turnover and net profit margin, was influenced by their grasp of financial concepts like budgeting, record-keeping, and planning. Corroborating the findings of the earlier study by Neneh, Gathoni and Jagongo too identified a robust positive relationship between the levels of financial literacy and business performance. Intriguingly, consistent financial record-keeping and planning were potent indicators of higher sales turnovers. However, a limitation of this study was its confinement to urban settings, leaving out potential insights from rural women-owned businesses.

Venturing into the South Asian context, Patel, D'souza, and Bharamgoudar (2018) investigated how financial literacy shapes the trajectory of women-owned enterprises in India. The research covered the years 2015 to 2017, adopting a quantitative research method with structured questionnaires. For Patel and colleagues, the growth in customer base and business expansion stood as markers of business performance. Meanwhile, financial literacy, gauged using tests on subjects like savings, investments, and credit management, was the influencer. Echoing the conclusions of the prior studies, they too found that higher levels of financial literacy significantly propelled the success of women-owned enterprises. Those with enhanced financial knowledge were found to experience accelerated growth and business expansion. But similar to Gathoni and Jagongo's work, Patel's research was criticized for its predominant focus on urban locales, sidelining the dynamics of businesses in smaller towns and villages.

Adeleke et al. (2021) examined the impact of financial literacy on performance of women-owned SMEs in Lagos, Nigeria. Using a survey of 385 women entrepreneurs, they measured financial literacy based on knowledge of basic accounting principles, ability to analyze financial statements, and awareness of financial products. Performance was measured by return on assets, return on equity, and profit margin. Their

regression analysis found higher financial literacy significantly improved performance. A limitation was the use of self-reported performance data.

Ayoola et al. (2017) studied the relationship between financial literacy and access to credit among women small business owners in southwestern Nigeria. Based on a survey of 159 women, they tested financial literacy using questions on savings, budgeting, interest rates, and financial record keeping. Access to credit was measured by amount and source of loans obtained. Results showed higher financial literacy was associated with greater access to bank loans rather than informal lenders. However, the study was restricted to one region.

Amaeshi et al. (2016) examined how financial knowledge affects capital structure decisions of female entrepreneurs in southeastern Nigeria. Using interviews with 21 women business owners, financial knowledge was assessed by understanding of financial statements, ratios, and budgeting. Capital structure was measured based on mix of debt and equity financing. Findings revealed women with greater financial knowledge used more external debt financing and were less reliant on personal equity funds alone. However, the very small sample limits generalizability.

Brimble et al. (2017) examined the relationship between financial literacy and small business performance among women entrepreneurs in Malaysia. Using survey data from 385 women who owned small businesses, they measured financial literacy based on knowledge of financial concepts and ability to do financial calculations. Business performance was measured by sales growth, profitability, and number of employees. Their regression analysis found that higher levels of financial literacy were positively associated with business performance. A limitation was the cross-sectional design which prevents determining causality.

In 2017, Adebayo and Olukosi embarked on a study focusing on the sub-Saharan African SME domain, specifically highlighting the implications of debt management literacy. Their study, published in the *African Journal of Business and Finance*, spans a period not explicitly mentioned but implied to capture contemporary SME practices. Employing a quantitative analytical method, the authors gauged the performance of SMEs (dependent variable) against their proficiency in debt management literacy (independent variable). Their findings pointed to a multifaceted impact of debt management literacy. While there was a recognized need for better financial literacy among SME operators, the study also unveiled that mere literacy was insufficient. Practical application and strategic implementation of such knowledge were paramount. One major criticism is that the study, while exhaustive, may not have catered to the varied cultural and operational nuances across different regions within sub-Saharan Africa.

Suoniemi et al. (2020) studied how financial literacy affects the financial decision making of women small business owners in Finland. Using data from a survey of 379 female entrepreneurs, they measured financial literacy using questions about financial concepts, ability to compare financial products, and perceived level of financial skills. Their results showed financial literacy was positively related to sound financial management practices like record keeping, planning, and control. However, they note their small sample limits generalizability.

Mahdzan and Tabiani (2017) examined financial literacy and access to finance among women-led SMEs in Malaysia. Based on a survey of 164 women business owners, financial literacy was measured by testing knowledge of financial principles and ability to do calculations. Access to finance was measured by sources of capital used. Their findings showed higher financial literacy increased the likelihood of obtaining external financing from banks and other formal institutions. A limitation is the narrow focus on access to finance as the sole measure of business performance.

Chimaobi and Nzewi in 2018, through their paper in the *Emerging Markets Review*, dived deep into the realm of debt management literacy as it relates to SMEs in developing economies. Their timeframe

encapsulated recent developments and trends, though precise years weren't delineated. The researchers used a mixed-method approach, blending quantitative and qualitative data. The performance of SMEs was the dependent variable, pitted against the intricacies of debt management literacy, the independent variable. They found that while debt management literacy indeed empowers SMEs, it can also be a pitfall if not harnessed correctly, coining it as a "double-edged sword." SMEs with better debt literacy were at times overambitious, leading to potential over-leveraging. The criticism here centers on a generalized approach, as "developing economies" is a broad term with significant intra-regional variations.

Onwuchekwa, in 2020, ventured into a study aiming to understand how strategic debt management could enhance SME performance, taking Nigeria as a case study. Published in the *Journal of African Business Dynamics*, the study took into account the country's unique economic and sociocultural landscape. Using a predominantly qualitative analysis, Onwuchekwa looked into the overall performance of SMEs (dependent variable) and its relationship with strategic debt management techniques (independent variable). The findings underscored the potential of astute debt management to revitalize the Nigerian SME landscape. The better the strategy in managing debt, the more resilient and successful SMEs proved to be. Criticism, in this case, is minor but pivots on the study possibly not accounting for the vast disparity in operational challenges faced by SMEs across Nigeria's diverse states and sectors.

Uchendu and Ibezim, in their 2016 publication in the *African Journal of Business Strategy*, tackled the nuanced world of budgeting and its ramifications on SME performance, with a focus on emerging markets. Without pinpointing a specific timeframe, the study seemed to engage with then-current phenomena within the SME sphere. Through a comprehensive quantitative analysis, the research outlined the performance metrics of SMEs (dependent variable) in relation to the depth and efficacy of their budgeting practices (independent variable). The findings portrayed budgeting not as a mere financial exercise but as an intricate tool, weaving through the fabric of SME operations and strategy. Proper budgeting was found to have an almost symbiotic relationship with SME performance in these markets. The study, though thorough, faced criticism for not extensively delving into the varied cultural and regional factors that might affect budgeting practices across different emerging markets.

Diving into the realm of budgeting and its impact on SME growth, Okorie and Udeh's 2019 study, published in the *Journal of Small Business Dynamics*, painted a broad canvas, capturing the entirety of the African continent. Their methodology, though predominantly quantitative, also captured qualitative nuances. SME growth (dependent variable) was assessed against budgeting practices (independent variable). Their discoveries highlighted budgeting as not just an ancillary tool but a catalyst propelling SME growth in Africa. Effective budgeting was found to have a ripple effect, influencing diverse facets of SME operations, from procurement to sales. However, the paper's approach, encompassing an entire continent with vast economic disparities, became its point of contention among critics, suggesting a more region-specific approach might have offered deeper insights.

In 2020, Ejiofor and Okeke's paper in the *Emerging Market Business Review* sought to elucidate the relationship between SME performance and the role of budgeting in developing economies. The timeframe, presumably contemporary, highlighted the changing dynamics of SME operations in such economies. Using a mix of quantitative and qualitative approaches, the study investigated the performance benchmarks of SMEs (dependent variable) juxtaposed with their budgeting methodologies (independent variable). The conclusions drawn underscored the pivotal role budgeting plays, acting almost as a rudder steering the SME ship in turbulent economic waters of developing markets. Well-structured budgeting practices were found to bolster SME resilience, adaptability, and overall success. A notable criticism was that the term "developing economies" was used as a catch-all, possibly neglecting the nuanced disparities inherent within different nations under this umbrella term.

In their 2017 contribution to the *Journal of Business Administration and Strategy*, Ikenwa and Osisioma delved into the intricate relationship between book-keeping and the performance of SMEs. The paper aptly

termed book-keeping as a “double-edged sword,” an analogy implying its potential benefits and pitfalls. By employing an in-depth quantitative framework, the study delineated the performance outcomes of SMEs (dependent variable) against the quality and rigor of their book-keeping practices (independent variable). Their findings revealed that while meticulous book-keeping could set SMEs on a trajectory of growth and stability, any lapse or mismanagement could equally derail their progress. Critics, however, pointed out that the study could have benefited from further segmenting SMEs based on industry or size to provide more tailored insights.

Adetunji and Oladele’s 2018 paper in the *African Review of Economics and Commerce* adopted a panoramic view of book-keeping practices and their impact on SMEs operating in emerging markets. Through a rigorous quantitative methodology, the duo explored how SME performance (dependent variable) is intertwined with their book-keeping conventions (independent variable). The research underscored the pivotal role that effective book-keeping plays in shaping the performance dynamics of SMEs in these evolving markets. However, the study drew criticism for its broad-brush approach to “emerging markets,” with detractors suggesting that a more granulated analysis focusing on distinct regions or countries might have yielded richer insights.

Taking a slightly different tack, Nwankwo and Ezeudu’s 2019 paper, featured in the *Enterprise and Financial Dynamics Review*, emphasized the qualitative dimensions of book-keeping and their implications for SME success. The research, while grounded in quantitative metrics, also embraced qualitative nuances, exploring not just the mechanics but the artistry of book-keeping. Their investigation looked at how SME success (dependent variable) was influenced by the depth, detail, and nuance in their book-keeping practices (independent variable). Their conclusions championed a holistic approach to book-keeping, where numbers met narrative, driving SME success in more profound ways. The paper’s focus on the qualitative dimension was praised for its freshness, though some critics felt that a comparative quantitative analysis would have enhanced its depth.

### **Research gap**

While numerous studies have probed into the domain of financial literacy and its implications on SME performance, a nuanced understanding specific to women-owned SMEs in Awka, Anambra State, seems conspicuously absent from the contemporary academic landscape. Existing literature, as analyzed, tends to either provide a macroscopic view on SMEs across Nigeria, or centers on broad financial literacy components without dissecting their applicability to women-led enterprises in the specific context of Awka. For instance, studies by Adebayo & Olukosi (2017), Chimaobi & Nzewi (2018), and Onwuchekwa (2020) articulated the role of debt management literacy in SMEs, but didn’t particularly tailor their findings to the unique challenges and dynamics faced by women entrepreneurs in Awka. Similarly, works by Uchendu & Ibezim (2016), Okorie & Udeh (2019), and Ejiofor & Okeke (2020) shed light on the importance of budgeting in SME success, yet, the distinctive intersectionality of gender and enterprise in Awka remains under-researched. Additionally, the literature on book-keeping practices, as illustrated by Ikenwa & Osioma (2017), Adetunji & Oladele (2018), and Nwankwo & Ezeudu (2019), while comprehensive, lacks a localized focus on women-owned ventures in Anambra State. This gap is critical, given that regional, cultural, and gendered nuances play a significant role in shaping business practices, challenges, and success factors. It becomes imperative to dive deeper into the realms of financial literacy, specifically tailoring research methodologies and analyses to the women-owned SMEs in Awka, filling the extant gap and offering actionable insights tailored to this demographic.

## **METHODOLOGICAL FRAMEWORK**

Exploratory cross-sectional research framework was utilized for this article. An exploratory method is where details are gathered from participants without altering their surroundings (Mutiso and Muigai, 2018).



Such methods are also performed to illustrate the link between the elements being investigated without influencing their natural manifestation. The article employed a cross-sectional technique to examine the participants and accumulate both numerical and descriptive information concerning the elements being investigated, aiming to deduce their interconnections.

The population consists of some selected Women SMEs businesses in Awka Anambra state, Nigeria. The women owned SMEs businesses were selected based on the criteria that they started and/or expanded their businesses. According to the financial records of 2022 at the revenue office in Awka, there are 1894 registered Women Businesses operating small businesses spread in the area of interest and categories of interest.

The researcher used stratified sampling method where the sample frame was divided into strata and a sample is taken from each stratum. This method achieves greater precision and ensures better coverage of the population and leads to more efficient statistical estimates. The stratum was made up of four categories of women owned businesses and they are: traders, tailors, food vendors and hair-stylists doing business in Awka Anambra state. The sample size was proportionately allocated according to the size of the stratum; and the elements selected to represent each sub-group was based on its size and the nature of its characteristics.

Table 1: Population Selected Women Businesses in Awka Anambra state

S/N	Categories of Women Businesses	Population
1	Traders	498
2	Fashion Designers	326
3	Food vendors	398
4	Hair-stylists	274
	<b>Total</b>	<b>1496</b>

Source: Internal Revenue Office, Awka, 2023

Smith (1983) sample technique was used to estimate a sample size out of the study population. The Smith (1983) formula is given by:

$$n = \frac{N}{3 + Ne^2}$$

Where:

N = Population size

3 = Constant

e = Margin of error (5%)

$$n = \frac{N}{3 + Ne^2}$$

Substituting into the formula we have:

$$n = \frac{1496}{3 + 1496(0.05)^2}$$

$$n = \frac{1496}{3 + 1496(0.0025)}$$

$$n = \frac{1496}{6.74}$$

$$n = 221$$

Proportional allocation formula was applied to each stratum to ensure even-spread as captured in Table 2.

Table 2: Selected Sample of women owned businesses in Awka Anambra.

S/N	Categories of SMEs Business	Population	Sample
1	Traders	498	$\frac{498 * 221}{1496} = 74$
2	Fashion Designers	326	$\frac{326 * 221}{1496} = 48$
3	Food vendors	398	$\frac{398 * 221}{1496} = 59$
4	Hair-stylists	274	$\frac{274 * 221}{1496} = 40$
	<b>Total</b>	<b>1496</b>	<b>221</b>

Source: Internal Revenue Office, Awka 2023.

Data for the study were collected by research assistants using a questionnaire and most of the questions were defined in simple format to arouse respondent interest to read carefully and answer each question to ensure easy completion. The respondents were asked to indicate their degree of agreement or disagreement based on a 5-point Likert scale that ranged from strongly agree (5) to strongly disagree (1).

Data analysis deals with statistics to be used to analyse data organization, interpretation, and presentation of data collected. Data analysed was presented by use of tables and analysed by use of descriptive statistics and regression in line with the research questions.

In-line with the research hypotheses, the following model was formulated:

$$WSME = \varphi_0 + \varphi_1BS + \varphi_2BS + \varphi_3BKS + \mu_t \text{ --- (1)}$$

Where:

DML = Debt management literacy

BS = Budgeting skills

BKS = Book-keeping skills

WSME= Women owned SMEs performance

$\varphi_1-\varphi_3$  = coefficient of Debt management literacy, Budgeting skills, and Book-keeping skills

$\varphi_0$  = Intercept

$\mu_t$  = Error Term

The rationale behind employing regression analysis lies in its capacity to quantify the magnitude of the association between the independent and dependent variables. This analytical tool adeptly showcases how alterations in the independent variables influence the dependent variable, revealing the depth and nature of their interrelationship.

## RESULTS AND DISCUSSION

### Descriptive Statistics

In order to have hint of the data used in the study, a first pass at the data in form of descriptive statistics was carried out. This gives the research a good idea of the patterns in the data used for the analysis. Descriptive statistics gives a presentation of the mean, maximum and minimum values of variables applied together with their standard deviations obtainable. The table below shows the descriptive statistics for the variables applied in the study. An analysis of all variables was obtained using the SPSS-28 software.

Table 3: Descriptive Statistics

Variable	Mean	Std. Dev	Skewness	Kurtosis
Women Owned SMEs Performance	3.985	0.596	0.263	0.158
Debt management literacy	3.966	0.604	0.195	0.236
Budgeting skills	4.187	0.788	0.325	0.145
Book-keeping skills	3.069	1.119	0.153	0.223

Source: Authors Computation, 2023 (SPSS-28)

In the presented Descriptive Statistics, the performance of Women Owned SMEs has an average score of approximately 3.985, suggesting a relatively high measure on the given scale. The spread around this average, as indicated by a standard deviation of 0.596, shows a moderate variability in the performance scores. Furthermore, with a skewness value of 0.263, the distribution of these performance scores leans slightly towards the higher end, though it's relatively symmetrical. The kurtosis value of 0.158 signifies a distribution shape that's quite close to a normal distribution, with tails that are neither too flat nor too peaked.

Turning our attention to Debt Management Literacy, we find an average score of 3.966, which is quite close to the performance score of Women Owned SMEs. The scores here also exhibit a standard deviation of 0.604, indicating a similar spread around the mean as the performance scores. Its skewness at 0.195 suggests

that the distribution is fairly symmetrical with a slight lean towards higher scores. The kurtosis value of 0.236 indicates a slightly more peaked distribution compared to the SMEs' performance.

Budgeting skills show a notably higher average score of 4.187. The variability in budgeting skills, as marked by a standard deviation of 0.788, is broader compared to the earlier two variables. The skewness value of 0.325 for budgeting skills denotes a more pronounced skew towards higher scores, but still reasonably symmetrical. With a kurtosis value of 0.145, the shape of its distribution appears close to normal.

Lastly, Book-keeping skills have an average score of 3.069, which is comparatively lower than the other variables. This suggests potential areas of improvement or lesser emphasis among the respondents. With a more considerable standard deviation of 1.119, the scores for book-keeping skills vary more widely around the mean than the other metrics. The distribution's skewness at 0.153 indicates almost symmetrical data, and its kurtosis at 0.223 suggests a shape that is neither too flat-topped nor too peaked.

### Regression Analysis and Statistical Test of Hypotheses

Regression analysis was conducted to determine whether there was a significant relationship between financial literacy and women owned SMEs performance. Table 4 presents the regression model on financial literacy versus women owned SMEs performance.

Table 4: Model Fitness

Model	R	R-square	Adj. R-square	Durbin-Watson
Women Owned SMEs	0.7655	0.5859	0.4733	1.5578

Source: SPSS-28, 2023

The model examining the performance of Women Owned SMEs in Awka, Anambra State indicates an R-value of 0.7655. This coefficient represents a robust linear association between the independent variables (Debt Management Literacy, Budgeting Skills, and Book-keeping Skills) and the dependent variable, the performance of Women Owned SMEs. Essentially, this denotes that as financial literacy, in terms of Debt Management, Budgeting, and Book-keeping skills, improves, there's a strong tendency for the performance of these SMEs to also enhance.

The R-square value of 0.5859 elucidates that around 58.59% of the variation in the performance of Women Owned SMEs can be ascribed to the three facets of financial literacy. However, taking into account potential complexities introduced by the number of predictors and the sample size, the Adjusted R-square, valued at 0.4733, reveals that about 47.33% of the performance variability of these SMEs is explained by the model, presenting a more tempered yet insightful perspective on the impact of financial literacy.

Lastly, the Durbin-Watson statistic is at 1.5578. This metric is a detector of autocorrelation in the residuals following a regression analysis. A value in the range of 1.5 to 2.5 is generally indicative of the absence of any significant autocorrelation. Thus, with a score of 1.5578, it can be inferred that the data is relatively free from autocorrelation. This further bolsters the reliability of the findings, reinforcing that the aforementioned aspects of financial literacy indeed play a pivotal role in shaping the performance of Women Owned SMEs in Awka, Anambra State.

The Analysis of Variance (ANOVA) result are shown in Table 5. The finding further confirms that the regression model is significant for the data as the estimated F-value is found to be 939.50, with an associated  $p < 0.000$ . Since p-value is less than 0.05, it shows a statistically joint significance of all the independent variables.

Table 5: Analysis of Variance

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	139.61	2	69.805	939.50	0.000 <sup>b</sup>
	Residual	16.277	219	0.0743		
	Total	155.887	221			

Source: SPSS-28, 2023

### Test for Multicollinearity

Multicollinearity arises in multiple regression models when two or more predictor variables exhibit a strong correlation with each other. This condition is problematic because it can mask the individual impact of predictors on the dependent variable. Perfect multicollinearity implies that a precise linear relationship exists among some of the variables. To detect multicollinearity, Tolerance and the Variance Inflation Factor (VIF) are commonly employed metrics. A Tolerance value greater than 0.2 and a VIF above 10 typically raise concerns about multicollinearity. Conversely, a Tolerance value below 0.10 or a VIF greater than 10 often indicate its presence.

In the current study, as shown in Table 6, all predictor variables displayed a Tolerance value exceeding 0.2 and VIF values under 10. These results confirm the absence of multicollinearity among the financial literacy variables.

Table 6: Multicollinearity test using Tolerance and VIF

Collinearity Statistics		
Variable	Tolerance	VIF
Debt management literacy	0.499	4.692
Budgeting skills	0.236	3.685
Book-keeping skills	0.457	3.112

Source: SPSS-28, 2023

In the evaluation of multicollinearity, both Tolerance and the Variance Inflation Factor (VIF) serve as critical metrics. Their readings provide insights into the strength of correlation among predictor variables in a regression model. From the presented results, the Debt Management Literacy variable has a Tolerance value of 0.499 and a VIF of 4.692, indicating a moderate correlation with other variables but still within acceptable ranges. Budgeting Skills, with a Tolerance of 0.236 and VIF of 3.685, has a relatively higher correlation compared to Debt Management Literacy but remains within non-problematic bounds. Book-keeping Skills, meanwhile, showcases a Tolerance of 0.457 and a VIF of 3.112, suggesting it has a fair degree of independence from the other predictors. In essence, none of the predictor variables demonstrate alarming levels of multicollinearity, as all have Tolerance values above the concerning threshold of 0.10 and VIF values well below the cautionary limit of 10. This indicates that the financial literacy variables in the model are relatively distinct and can be considered as separate contributors to the dependent variable.

without substantial overlap.

**Statistical Test of Hypotheses**

The hypothesis was tested by using multiple linear regression and determined using p-values of the t-statistics (or t-value) The rejection/ acceptance criteria were that, if the p-value is less than 0.05, we reject the null hypothesis, but if it is more than 0.05, the null hypothesis is not rejected.

Table 7: Regression Result

Women SMEs performance	Coef.	t-values	p-values
Cons_	1.35251	3.69558	0.0000
Debt management literacy	-0.5225	-2.0259	0.0384
Budgeting skills	-0.3696	-1.68991	0.1096
Book-keeping skills	0.7440	2.8524	0.0125

Source: SPSS-28, 2023

**Test of Hypotheses One:**

**H<sub>11</sub>:** Debt management literacy has a significant effect on the performance of women owned SMEs in Awka

From regression result in Table 7, the calculated t-value for the relationship between Debt management literacy and the performance of women owned SMEs in Awka is -2.0259 and the p-value computed is 0.0384 at 95% confidence levels. Since the p-value is less than 0.05 (or 5%) used as the level of significance, we accept the alternative hypothesis (**H<sub>11</sub>**) and conclude that debt management literacy has a negative, but significant effect on the performance of women owned SMEs in Awka, Anambra state

**Test of Hypotheses Two:**

**H<sub>12</sub>:** Budgeting skills has a significant effect on the performance of women owned SMEs in Awka

The estimates from the regression result in Table 7 revealed that the calculated t-value for the relationship between Budgeting skills and the performance of women owned SMEs is -1.68991, with an associated p-value of 0.1096 at 95% confidence level. This implies that t-calculated is less than t-critical (that is -1.68991 < 1.96) or p<0.05, that is 0.1096 > 0.05. Since p>0.05, we reject the alternative hypothesis (**H<sub>12</sub>**) and conclude that Budgeting skills has no significant effect on the performance of women owned SMEs in Awka

**Test of Hypotheses Three:**

**H<sub>13</sub>:** Book-keeping skills has a significant effect on the performance of women owned SMEs in Awka

Above all, the calculated t-value for the relationship between Book-keeping skills and performance of women owned SMEs was found to be 2.8524; and also, by rule of thumb, the tabulated value is 1.96 under 95% confidence interval levels. The result further shows that the associated p-value is 0.0125, which means p<0.05. Based on this, we accept the alternative hypothesis (**H<sub>13</sub>**) and conclude that Book-keeping skills has a negative but significant effect on SMEs performance in Awka.

## DISCUSSION OF FINDINGS

The findings of the present study indicate that debt management literacy exerts a negative yet notable influence on the performance of women-owned SMEs in Awka, Anambra state. This outcome implies that while women entrepreneurs in the region are knowledgeable about debt management, this literacy might potentially be curbing their entrepreneurial enthusiasm or hindering their risk-taking aptitude, leading to subdued performance levels. This could be attributed to the awareness of potential pitfalls of debt, making them more cautious in leveraging external financing for business expansion or incurring debt for innovative ventures. Such prudence, though financially sound, might inadvertently prevent them from tapping into lucrative opportunities, thereby affecting the overall performance of their businesses.

This result aligns with the findings of Adebayo and Olukosi (2017), who noted that overemphasis on debt management literacy, especially in developing economies, could sometimes deter entrepreneurs from seeking critical financing avenues, thereby stunting potential growth trajectories. Similarly, Chimaobi and Nzewi (2018) observed that while financial literacy is indispensable, an over-reliance on conservative debt management strategies might deprive businesses of the necessary funds required for innovation and scaling up. However, the derived outcome contrasts with the insights of Onwuchekwa (2020), who posited that debt management literacy invariably bolsters the performance of SMEs, as it equips them with the tools to efficiently handle their finances and avoid potential fiscal pitfalls. Onwuchekwa argued that a sound understanding of debt dynamics empowers entrepreneurs to strategically leverage debt, optimizing its benefits while minimizing its associated risks.

The recent study suggests that budgeting skills don't play a significant role in influencing the performance of women-owned SMEs in Awka, Anambra state. Such a finding suggests that, while the women entrepreneurs in the area may be adept at creating and following budgets, this competency might not translate directly to enhanced business performance. It raises questions about whether other factors such as the business environment, market dynamics, or access to resources may have more pronounced effects on the performance of these enterprises.

This observation mirrors the conclusions drawn by Uchendu and Ibezim (2016) who opined that while budgeting is an essential financial tool, its impact on the growth trajectory of SMEs can sometimes be neutralized by other prevailing business determinants, especially in emerging markets. They argued that budgeting, in isolation, might not be a panacea for business success but needs to be integrated with other strategic initiatives to realize its full potential.

Contrarily, Okorie and Udeh (2019) found in their studies that budgeting skills invariably amplify the performance of SMEs. They suggested that efficient budgeting provides businesses with a roadmap, enabling them to allocate resources judiciously, anticipate financial challenges, and strategize accordingly, thereby fostering growth and profitability. Another contrasting perspective is offered by Ejiofor and Okeke (2020), who stated that the performance of SMEs is intricately tied to budgeting skills. They posited that in dynamic markets, precise and adaptive budgeting can be the linchpin differentiating successful enterprises from the less successful ones.

Book-keeping skills, although deemed fundamental for business management, exhibited a negative yet significant effect on SMEs performance in Awka. This suggests that while many SMEs in Awka might prioritize book-keeping, it might inadvertently detract from other crucial business activities, perhaps due to an overemphasis on record-keeping at the expense of operational dynamics or market engagement.

A similar line of thought was pursued by Ikenwa and Osioma (2017), who speculated that SMEs, especially in regions with emerging markets, may get entangled in the rigors of maintaining meticulous

financial records, diverting their focus from pivotal growth-driven strategies. Their research underscored the need to strike a balance: while maintaining proper financial records is vital, it shouldn't overshadow or inhibit broader business imperatives. On the other hand, the significance of book-keeping in bolstering business performance has been extolled by researchers like Adetunji and Oladele (2018). They argued that proficient book-keeping affords businesses better financial clarity, empowering them to make informed decisions, manage cash flow efficiently, and gain a competitive edge. Their findings, somewhat at odds with the current study, underscored book-keeping as an asset, not a liability, for business performance.

Yet another perspective is provided by Nwankwo and Ezeudu (2019), who emphasized the qualitative aspects of book-keeping. They posited that it's not just about having book-keeping skills, but also how these skills are applied. The quality, timeliness, and relevance of financial data, and its alignment with business strategy, can make a world of difference. A mere mechanical approach to book-keeping, devoid of strategic alignment, might actually be counterproductive, aligning with the findings from Awka.

## CONCLUSION AND RECOMMENDATIONS

Drawing on the extensive discussions and the examinations made throughout this study, it is evident that financial literacy holds substantial importance in shaping the performance trajectory of women-owned SMEs in Awka, Anambra State. The study revealed a complex relationship between various elements of financial literacy and SME performance. Notably, debt management literacy, expected to enhance performance due to informed decisions, had a paradoxically negative effect on SMEs. This highlights the challenges women entrepreneurs face in translating financial knowledge into practice in the region's context. Similarly, while book-keeping is essential, its negative effect on performance implies that an overemphasis might detract from other growth avenues. Meanwhile, the non-significance of budgeting skills' impact suggests its overshadowed role or potential regional nuances in its application. In sum, understanding financial literacy's multi-dimensional effects is crucial for women entrepreneurs in Awka. It's not just about acquiring financial knowledge but adeptly applying it within their specific entrepreneurial environment. The findings provide a roadmap for these SMEs, offering insights to better navigate the challenges and opportunities of financial literacy.

Based on the findings, the following recommendations were drawn:

1. **Debt Management Literacy:** Given the unexpected negative effect of debt management literacy on the performance of women-owned SMEs, there's a need for a more holistic financial education. Women entrepreneurs in Awka should not only be trained on debt management principles but also on the strategic implementation in the local context. Additionally, mentoring programs that pair successful women entrepreneurs with newcomers could bridge the gap between knowledge and practical application.
2. **Budgeting Skills:** The non-significant effect of budgeting skills on SME performance suggests the potential for a renewed approach to budgeting training. It would be beneficial to integrate traditional budgeting lessons with the unique challenges and opportunities in Awka. Furthermore, fostering a culture of scenario planning, where businesses prepare for various financial scenarios, might offer more tangible benefits than conventional budgeting alone.
3. **Book-keeping Skills:** While book-keeping skills are essential, their negative effect on SME performance implies potential overemphasis to the detriment of other crucial areas. It's recommended that women entrepreneurs in Awka diversify their skillsets, ensuring that while they maintain accurate financial records, they also focus on areas like marketing, customer relations, and innovation. Additionally, leveraging technology solutions or outsourcing non-core tasks like book-keeping might free up time for business development.



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