INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES

Vol 16, Issue 11, (2026) E-ISSN: 2222-6990

Harnessing Financial Literacy for Sustainability of Small and Micro Businesses in Nigeria

Suleiman Muhammad Hussaini*

Department of Business Administration, Air Force Institute of Technology, Kaduna, Nigeria

*Corresponding Author Email: suleimanhussaini@yahoo.com

DOI Link: http://dx.doi.org/10.6007/IJARBSS/v16-i11/29486

Published Date: 25 November 2026

Abstract

Small and micro businesses are vital contributors to employment creation, poverty reduction, wealth generation, productivity, and economic development in Nigeria. However, many fail to survive beyond their early years due to inadequate financial management skills, limited access to finance, weak business planning, and insufficient entrepreneurial capacity. This study examines the role of financial literacy in enhancing the sustainability of small and micro businesses in Nigeria, focusing on financial knowledge, financial behavior, financial attitude, and digital financial literacy. A quantitative, cross-sectional survey design was adopted, involving 412 registered small and micro business owners in Kaduna State, Nigeria, selected through stratified random sampling, with structured questionnaires used for data collection. Findings indicate moderate levels of financial literacy among respondents. Strengths were observed in basic budgeting, savings practices, and cash management, while comparatively lower competencies were identified in investment analysis, digital financial literacy, and risk assessment. The study demonstrates that financial literacy extends beyond basic financial skills and represents a strategic capability for business resilience, competitiveness, and long-term survival. By extending Human Capital Theory and Resource-Based View Theory, the study highlights the strategic value of financial literacy within Nigeria's evolving fintech environment. The findings provide useful implications for policymakers, financial institutions, entrepreneurship development agencies, and business owners seeking sustainable enterprise development and economic transformation.

Keywords: Financial Literacy, Sustainability, Small and Micro Businesses, Entrepreneurship, Business Performance, Nigeria

Introduction

Small and micro businesses constitute the bedrock of many developing economies and provide employment, poverty reduction, innovation, and economic growth. In Nigeria, small and micro businesses account for 90% of the businesses and contribute significantly to the country's GDP and employment (Oladipupo & Pam, 2025). Despite the importance of these businesses, their long-term sustainability is highly uncertain considering their high failure rates, poor management capacity, poor access to finance, lack of institutional backing, and

economic struggles. These challenges have become more acute in the last few years as Nigerian businesses are confronted with inflationary pressures, exchange rate volatility, increasing production costs, and technological disruption.

Business sustainability is the ability of the company to persist economically, profitably, and competently during long-term development and to adapt to changing environmental, economic, and social conditions. Sustainable businesses are able to withstand economic shocks to their operations, take advantage of new business opportunities, and create long-term value for the business (Adesua-Lincoln, 2025). But the majority of micro and small businesses in Nigeria fail in the first 5 years of operation due to poor financial management and inadequate entrepreneurial skills.

Financial literacy has been identified as one of the most important factors in the sustainability of businesses of various kinds, and it is now a very important dimension in the business sustainability factors (Sani, 2025). Financial literacy is the knowledge, skills, attitudes, and habits needed to make sound financial decisions and manage financial resources. It includes competencies in budgeting, savings, investment planning, debt management, bookkeeping, cash flow management, risk assessment, and financial decision-making (Adeyombo, 2024). Successful entrepreneurs with good financial literacy in terms of budgeting skills, financial risk management, and accessing external financing for sustainable business growth ensure they can allocate resources efficiently and manage their debts effectively. In the current global business arena, financial literacy is essential to the sustainability of entrepreneurs. Digital financial services, fintech technologies, electronic payment systems, and online lending platforms have revolutionized how businesses operate and manage their money (Chinwe et al., 2025). In order to be competitive in today's business environment, entrepreneurs need to have knowledge not only of traditional financial systems but also digital financial skills. Financial literacy is rapidly gaining recognition as a necessary life skill for financial inclusion, economic resilience, and entrepreneurial development, according to the Organisation for Economic Co-operation and Development (2023).

Even with the awareness of financial literacy, it is still very low among the small business owners in Nigeria. A vast majority of entrepreneurs are deficient in financial management knowledge, accounting knowledge, financial record keeping knowledge, investment evaluation and knowledge of debt management. This can lead to cash flow problems, budgeting problems, too much debt, or financial instability for companies. These challenges are a major stumbling block to business sustainability and are the main reasons for the failure of enterprises.

Entrepreneurs in Nigeria face numerous difficulties when it comes to access to finance. There are a number of funding options available for small businesses, but many of the business owners do not have the financial knowledge and poor financial records. Financial literacy helps entrepreneurs in the aspects of applying for loans, comparing financing options, understanding the financial products, and meeting financial institution requirements. Financial literacy thus is a significant tool to enhance financial inclusion and business sustainability. The increasing focus on sustainable development makes financial literacy even more important. The achievement of the United Nations Sustainable Development Goals (SDGs), particularly those related to poverty reduction, decent work, economic growth, and

lessening inequalities, depends greatly on the sustainability of small and micro businesses. Financially literate entrepreneurs will be more likely to contribute towards those goals through business growth, job creation, and greater economic participation. However, with the growing interest in financial literacy in Nigeria, the majority of the studies have focused on financial literacy and its role in financial inclusion, business performance, and entrepreneurial success. In contrast, few studies have examined financial literacy in the context of the long-term sustainability of small and micro businesses within Nigeria's difficult economic context. This paper aims to remedy the gap by looking into how financial literacy can serve as an aid to sustainable small and micro businesses in Nigeria.

The study has three goals. First, it explores the conceptual relationship between financial literacy and business sustainability. Second, it identifies the mechanisms through which financial literacy affects the sustainability of small and micro businesses. Third, it makes policy and managerial recommendations to boost financial literacy among entrepreneurs in Nigeria.

Literature Review

Concept of Financial Literacy

Financial literacy is an understanding, skills, attitudes, and skills necessary for making informed financial decisions. Seraj, Fazal and Alshebami (2022) describe financial literacy as the ability to apply financial skills, knowledge and concepts in order to make informed financial decisions about personal finances and to manage money. Nurjannah et al. (2023) define financial literacy as the knowledge and skills necessary to make informed financial decisions in budgeting, saving, investing, borrowing, and managing debt.

Scholars, such as Parmitasari (2023), averred that financial literacy is the ability to understand financial information as in understanding basic concepts like interest rates, inflation and risk diversification. Usama and Yusoff (2019) and Oyeniyi et al. (2022) have shown that financial literacy is actually useful in practice, showing its positive impact on savings behavior and retirement planning in these cases. Rosyadah, Mus, Semmaila, and Chalid (2022) discuss behavioral aspect of financial literacy and how it has an impact on the attitudes and behavior towards money management. Financial literacy is a broad concept as it includes knowledge, skills and behavioral aspects which are important to navigate the financial decision-making processes with the professionals in that aspect.

Financial literacy is the knowledge of how to generate, spend, save, and invest money, as well as the skills required for businesses to make informed business decisions using financial resources (Dandibi et al., 2019; Msomi & Olarewaju, 2021). Previous studies suggests that a lot of SMEs in Nigeria are not educated on saving and investment decisions and are not growing (Adeyemi & Akanji, 2020; Irikefe & Opusunju, 2021). Financial literacy is critical, and SME operators' financial skills to manage their money are not enough, leading to incorrect, unreliable, and inefficient decisions that make them economically ineffective (Obi-Anike et al. 2023).

Furthermore, financial literacy has evolved into the multidimensional concept of financial knowledge, financial attitudes, financial behaviors, and financial capabilities. The OECD (2023) defines financial literacy as the knowledge, skills, attitudes, and behaviors of the learner required to make sound financial decisions as well as to achieve financial well-being.

Financial literacy goes beyond basic numeracy and accounting skills. It relates to investment strategies, risk management, interest rates, inflation, financial planning, and wealth creation (Babatunde, 2025). Therefore, by investigating the direct and indirect influences of financial literacy on SME sustainability in a developing economy, this research aims to uncover new mechanisms through which financial literacy exerts its effects, providing valuable insights for fostering the resilience and success of SMEs. Odumusor & Acquah (2025) found that financial literacy consists of three major dimensions such as financial knowledge, financial behavior and financial attitude.

Financial Knowledge

Financial knowledge refers to an individual's understanding of financial concepts, principles, products, and institutions (Odumusor & Acquah, 2025). Entrepreneurs with strong financial knowledge can understand financial statements, evaluate investment opportunities, and make strategic financial decisions. Furthermore, financial literacy is the capacity to understand, analyze and apply basic financial concepts and terms in our daily life (Huston, 2017). Additionally, financial management, spending and saving ability is viewed as an intangible asset or capital that grows as time goes on (Potrich, Kelmara, & Wesley, 2016). The essence of financial knowledge is the ability to manage one's income, expenses and savings and in turn to be successful (Lusardi & Mitchell, 2014). In order to be financially healthy and successful, you need to have a good emergency fund, be able to monitor your credit report, avoid incurring credit card debt, save for retirement, and get insurance (Robb, 2014). And, it is better to not spend more than you need. Furthermore, the OECD observed that an individual's financial literacy level is profoundly influenced by their understanding of inflation, risk and return, simple and compound interest, and other related topics (OECD INFE, 2020).

Financial Behavior

Financial behavior is the practical application of financial knowledge through budgeting, saving, investing, debt management, and record keeping. Positive financial behavior is of value in business sustainability because it brings knowledge to the forefront of financial management practices. Zeynep (2015) argues that smart financial behavior includes: the ability to understand the larger implications of our financial decisions and make decisions about budgeting, safety measures and cash flow. Hung, Parker, and Yoong (2009) have argued that financial literacy is a significant determinant of financial behavior. Sucuahi (2013) refers to the ability to make sound financial choices which insulates people and even organizations from uncertainty and allows them to build wealth (as one of the key characteristics of sound financial behavior). With these best practices, people can protect themselves from severe financial hardships, build old-age reserves and avoid debt buildup.

Financial Attitude

Financial attitude is indicative of people’s beliefs, perceptions, and attitudes towards financial management. Entrepreneurs who are financially oriented are more likely to take prudent financial decisions and long-term planning measures. Furthermore, financial attitude is a state of mind or psychological tendency in form of person’s opinion and judgment when looking at the financial management practices (Arifin, 2018). Financial attitude has a positive impact on financial satisfaction. If you have a good financial attitude you will feel better. (Winarta & Pamungkas, 2021).These dimensions as a whole impact entrepreneurial decision-making and business outcomes.

Benefits of Financial Literacy

Financial literacy within small and medium enterprises (SMEs) is a key part of sustainable performance and long-term success. SMEs with financial literacy have the knowledge and skills to make decisions based on their financial literacy. Babajide et al. (2023) show that financial literacy is a key factor in small business owners' financial management and resource allocation and in dealing with cash flow fluctuations and investment decisions. With financial literacy the financial health of SMEs is strengthened and they are less likely to go into financial crisis and bankruptcy (Adeyombo, 2024).

Second, financial literacy enables SMEs to access funding and capital more effectively. With a basic understanding of financial concepts and reporting standards, SMEs can communicate their financial position and growth prospects more effectively to potential investors and lenders. Financial literacy is an important prerequisite for SMEs to build a business plan, forecast financial results, and make investment proposals to external investors in order to build credibility and attractiveness for the external investors (Miswanto et al., 2024). Greater access to capital in a market improves SMEs' capacity to expand in the market, drive innovation and compete in the marketplace.

Moreover, financial literacy fosters a culture of accountability, transparency and compliance in SMEs. With sound financial practices and good governance structures, SME owners and managers can uphold ethical standards, minimize risks and comply with the laws and regulations. The studies of Mandongwe et al. (2020) and Seraj et al. (2022) highlight how financial literacy is a driving force to adopt good financial management and internal controls and corporate governance practices and build trust and credibility with all the stakeholders (customers, suppliers and regulatory authorities).

Financial literacy further augments SMEs' resilience and sustainability in the face of economic uncertainty and market disruption (Adeyombo, 2024). Financial literacy enables SMEs to anticipate and respond to financial challenges (economic downturns, inflationary pressures, supply chain disruptions) to protect them from adverse circumstances and potential shocks. As Akinola et al. (2023) suggest, ongoing education and training can enhance SMEs' financial skill set and help them to manage the changing market environment and take advantage of new business opportunities.

Concept of Small and Micro Businesses

Small and micro businesses are mainly characterized by low capital investment, a small workforce, and a localized operational scope. In Nigeria, the Small and Medium Enterprises Development Agency of Nigeria defines micro businesses as businesses with fewer than ten employees and a low asset base, while small companies employ about 10 to 49 workers (Odeh & Anosike, 2026). These businesses are very important in the development of an economy through employment creation, poverty reduction, income generation, innovation promotion, regional development, and wealth distribution. In spite of these contributions, small and micro enterprises are still confronted by several challenges such as, lack of adequate finance, managerial deficiencies, and lack of infrastructure, market competition, and regulatory issues.

This paper adopts the term "small and micro businesses" for the sake of clarity and consistency to mean collectively, enterprises with less than 50 employees, as per above classification by SMEDAN. The wider term, "SME" (small and medium enterprises), is preserved only when it is used in the original terminology of a cited source, as some cited studies (e.g., on medium-sized enterprises) refer to a broader scope of enterprises than the micro and small enterprises that are discussed in the sample of the present study. This distinction is continued throughout the paper to prevent mixing up the study population with the larger category of SME.

The empirical evidence supports the claim that financial literacy training improves financial management practices within SMEs. Molosiwa and Holland (2025) found that SMEs that prioritize financial literacy training had higher corporate success rates, easier access to credit, and better capital allocation. And Hasan et al. (2024) indicate that financially literate entrepreneurs are better able to navigate financial crises, get capital and adjust to economic uncertainty and thus, to remain afloat in business in the long run. Diyoke (2024) associated financial literacy with factors like profitability, access to funding, and overall business success in micro and small businesses.

Business Sustainability

Business sustainability is the ability of a business enterprise to remain profitable, competitive, maintain operational continuity, and create value for stakeholders over the long term. Sustainability includes economic, social, and environmental aspects (Adesua-Lincoln, 2025). Business sustainability in this study defines as economic and operational sustainability that is particularly relevant to small and micro businesses as it focuses on financial viability, profitability, growth, and resilience. Therefore, a sustainable business has the ability to:

1. Generate consistent revenues.
2. Maintain positive cash flows.
3. Adapt to environmental changes and survive economic shocks.
4. Sustain competitive advantages and create long-term value.

Researchers now recognize that financial management abilities are among the most important determinants of business sustainability. Onwuegbuzina (2022) studied financial literacy and sustainable business performance of small, medium and micro business enterprises in Lagos City, Nigeria. The study examined 200 SMEs with structured questionnaires and descriptive and inferential statistics. Financial literacy levels were found to be positively related to business performance and sustainability with return on investment and sales growth. The study recommended that business owners be offered regular financial literacy training to improve their business performance.

Theoretical Foundations

Human Capital Theory

Gary Becker developed Human Capital Theory as a way to understand the link between financial literacy and business sustainability. He argues that investments in knowledge, skills, and education enhance productivity and performance.

Human Capital Theory serves as the basis for comprehending financial knowledge as a productive skill at the individual level. Financial literacy allows entrepreneurs to comprehend

financial statements, interest rates, investment options, risk, budgeting, and financial strategy. These skills can enhance the quality of managerial choices. Financial literacy represents a form of human capital that improves entrepreneurial competencies and business management capabilities. Financial education provides entrepreneurs with valuable knowledge that enhances decision-making, resource utilization, and organizational performance. Therefore, the theoretical pathway is Financial Knowledge → Improved Entrepreneurial Financial Capability → Better Resource Decisions → Business Sustainability.

Resource-Based View Theory

According to the Resource Based View (RBV), sustainable competitive advantages come from the valuable, rare, inimitable and non-substitutable resources that organizations possess. Financial literacy is a strategic invisible asset which increases the effectiveness of an entrepreneur.

Financially knowledgeable entrepreneurs have better financial planning, risk management, and strategic decision-making skills that contribute to better sustainability outcomes in the business. Thus, the Resource Based View provides an explanation as to why financial literacy is considered as an important intangible asset of an organization. Entrepreneurs with financial skills might be more equipped to distribute resources, handle risks, strategize investments, keep financial documents, and react to market fluctuations. The theory's journey is then as follows: Financial Literacy Capability is the foundation of the financial skills needed to access and use financial resources, which in turn leads to improved Resource Utilization/Resilience, which then leads to Sustainable Business Outcomes.

Financial Capability Theory

Financial Capability Theory extends beyond financial knowledge to include the ability to apply financial skills effectively in real-world situations. The theory emphasizes that sustainable financial outcomes require both knowledge and practical competence.

This perspective is particularly relevant for small business sustainability because entrepreneurial success depends not merely on financial awareness but on the effective application of financial knowledge. Therefore, Financial Capability Theory enhances the explanation by highlighting that mere knowledge is inadequate. Entrepreneurs need to demonstrate their financial understanding through practical actions. This delivers a theoretical rationale for the notably significant impact of financial behavior noted in the empirical findings. The pathway is Financial Knowledge + Financial Attitude
→ Financial Capability → Financial Behavior → Improved Business Sustainability

Integrated Theoretical Pathway

Table 1

The three theories are therefore complementary

Theory	Main Explanatory Construct	Mechanism	Expected Sustainability Outcome
Human Capital Theory	Financial Knowledge	Enhance skills and decision making	Better financial decisions and resource allocations
Resource-Based View	Financial literacy as intangible capability	Creates organizational capability and resilience	Competitive advantage and continuity
Financial Capability Theory	Financial behavior and application	Converts knowledge into practical financial action	Financial discipline, resilience and sustainability

Taken together, the three theories map onto distinct dimensions of the empirical model rather than offering competing explanations. Human Capital Theory explains why financial knowledge, as a form of productive human capital, is expected to improve entrepreneurial decision-making. The Resource-Based View explains why financial literacy, as a whole, functions as an intangible strategic resource that is valuable, difficult for competitors to imitate, and capable of generating sustained competitive advantage for small and micro businesses. Financial Capability Theory bridges the two by explaining why financial behavior, the practical application of financial knowledge and attitude, is expected to exert the strongest influence on sustainability outcomes. This integrated pathway (Financial Knowledge and Financial Attitude → Financial Capability → Financial Behavior → Business Sustainability, reinforced by Financial Literacy as a Resource-Based View capability) directly informs the hypothesised relationships tested in the regression model reported in Section 4, and is revisited in the Discussion to interpret why financial behavior emerged as the strongest predictor.

Financial Literacy and Business Sustainability

Empirical studies in the recent past have shown that there is a positive correlation between financial literacy and business sustainability. Financially literate entrepreneurs are more likely to:

1. Prepare realistic budgets.
2. Keep good financial records.
3. Keep cash flows under control.
4. Separate personal and business finances.
5. Develop informed investing decisions.
6. Use formal finance services.
7. Take proactive approach to business risks.

Studies conducted in various developing countries have shown that financial literacy has a strong positive effect on profitability, business growth and business survival rates, in Nigeria in micro and small businesses shows that financial literacy has positive impacts on financial inclusion, credit access, innovation uptake and performance. Entrepreneurs with strong financial literacy capabilities exhibit greater resilience during economic downturns and are

better positioned to exploit emerging market opportunities (Syofiatul and Adhitya, 2025). In Nigeria, studies conducted among micro and small enterprises reveal that financial literacy positively influences financial inclusion, access to credit, innovation adoption, and business performance (Babajide et al., 2023). Entrepreneurs who receive financial education often demonstrate improved budgeting practices, enhanced savings behavior, and stronger financial discipline (Oyedeji et al., 2023).

Digital Financial Literacy and Sustainability

The rapid growth of digital financial technologies has expanded the scope of financial literacy. Digital financial literacy refers to the ability to use digital financial platforms effectively and securely.

Key components include:

1. Mobile banking usage.
2. Online payment systems.
3. Digital bookkeeping.
4. Electronic commerce transactions.
5. Fintech applications.
6. Cybersecurity awareness.

Digital financial literacy enhances business sustainability by reducing transaction costs, improving financial efficiency, increasing market access, and facilitating financial inclusion. For Nigerian entrepreneurs, digital financial literacy has become increasingly important as businesses adopt electronic payment systems and online marketing strategies (Hussaini et al., 2025)

Method

Research Design

This study adopted a quantitative cross-sectional survey design to examine the influence of financial literacy on the sustainability of small and micro businesses in Nigeria. The survey approach was considered appropriate because it enables the collection of primary data from a large number of business owners and facilitates statistical examination of relationships among variables. The study was based on the Human Capital Theory and the Resource Based View Theory which surmise that knowledge and skills are strategic resources that enhance organizational performance and sustainability. Financial literacy was defined as a multi-dimensional construct consisting of financial knowledge, financial behaviour, financial attitude, bookkeeping skills, budgeting practices, debt management and digital financial literacy.

Population of the Study

The target population consisted of registered small and micro business owners operating in Kaduna State, Nigeria. Kaduna State was purposively selected because it is the largest commercial and economic hub in Northern Nigeria, hosting a large and diverse concentration of registered small and micro businesses across trade, agriculture, manufacturing, and service sectors, and because it is directly accessible to the researcher, which facilitated reliable data collection.

The study focused specifically on Kaduna Metropolis, comprising Kaduna North, Kaduna South, and Chikun Local Government Areas, where small and micro business activity is most heavily concentrated. The sampling frame was constructed from the register of small and micro business operators maintained by the Kaduna State Ministry of Commerce, Industry and Cooperatives and the Kaduna Chamber of Commerce, Industry, Mines and Agriculture (KADCCIMA), supplemented by local market and trade association listings where formal registration records were incomplete. Businesses were classified as micro or small using the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) criteria applied earlier in the study (Odeh & Anosike, 2026), namely fewer than ten employees for micro enterprises and 10 to 49 employees for small enterprises, verified through self-reported employee numbers and asset base during data collection These business ventures encompassed retail business, farming, fashion and tailoring, food processing, transport, accommodation, information technology and other service provision businesses. Table 3 shows the distribution of the respondents and also their demographic features by sectors.

Sample Size and Sampling Technique

A sample size of 450 respondents was determined using Cochran's sample size formula for large populations, based on a 95 percent confidence level and a 5 percent margin of error. Stratified random sampling was employed to ensure representation across different business sectors within Kaduna Metropolis. Business sector was used as the stratification variable, with strata defined as retail trade, agriculture, food processing, fashion and tailoring, ICT services, hospitality, and other services. Proportionate allocation was applied, whereby the number of respondents drawn from each stratum reflected its estimated share of registered small and micro businesses in the sampling frame; simple random sampling was then used to select individual respondents within each stratum. The achieved distribution of respondents across business sectors is reported in Table 3, and respondents were drawn in broadly similar proportions from the three Local Government Areas covered by the study. Out of the 450 questionnaires distributed, 412 were successfully completed and returned, representing a response rate of 91.6 percent.

Instrumentation

Data were collected using a structured questionnaire divided into four sections:

Section A: Demographic Characteristics

This section captured respondents' age, gender, educational qualification, business sector, years of operation, and number of employees.

Section B: Financial Literacy

Financial literacy was measured using indicators adapted from OECD financial literacy frameworks and previous entrepreneurial studies. Variables included:

1. Financial knowledge.
2. Budgeting capability.
3. Record keeping.
4. Savings practices.
5. Investment decisions.
6. Debt management.
7. Digital financial literacy.

The OECD identifies financial knowledge, behavior, and attitudes as core dimensions of financial literacy.

Section C: Business Sustainability

Business sustainability was measured through:

1. Business growth.
2. Profitability.
3. Operational continuity.
4. Customer retention.
5. Market competitiveness.
6. Financial resilience.

These six indicators were adapted from business performance and sustainability scales used in prior Nigerian SME studies (Onwuegbuzina, 2022; Oyedeji et al., 2023), each measured on a five-point Likert scale. As noted in above section, business sustainability in this study is deliberately operationalised in economic and operational terms, capturing financial viability, growth, and resilience, rather than the broader triple-bottom-line conception of sustainability that also encompasses social and environmental dimensions. Therefore, this narrower operationalisation was adopted because it aligns most directly with the financial literacy constructs examined and with the survival-oriented challenges facing Nigerian small and micro businesses; it is not intended to suggest that social and environmental dimensions of sustainability are unimportant, and this boundary is revisited as a limitation in the discussion.

Section D: Challenges and Policy Measures

This section assessed barriers affecting financial literacy adoption and sustainability practices among entrepreneurs. Responses were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Validity and Reliability

Content validity was established through expert review involving academics and entrepreneurship practitioners. Reliability testing using Cronbach's Alpha produced the following coefficients:

Table 2
Validity and Reliability

Variable	Alpha
Financial Knowledge	0.84
Financial Behavior	0.87
Financial Attitude	0.83
Digital Financial Literacy	0.81
Business Sustainability	0.89

The values exceeded the recommended threshold of 0.70, indicating satisfactory reliability.

Data Analysis

Data were analyzed using:

a) Descriptive statistics.

b) Correlation analysis.
c) Multiple regression analysis.
d) Diagnostic tests for regression assumptions, including multicollinearity (Variance Inflation Factor) and autocorrelation (Durbin-Watson statistic)

The regression model was specified as: Business Sustainability = β0 + β1(Financial Knowledge) + β2(Financial Behavior) + β3(Financial Attitude) + ε

Findings

Demographic Profile of Respondents

Table 3

Demographic profile of respondents

Criteria	Category	Number	Percentage
Gender	Male	252	61%
	Female	160	39%
Education Level	Primary education	75	18%
	Secondary	144	35%
	Tertiary education	193	47%
Business Sectors	Retail Trade	91	22%
	Agriculture	115	28%
	Food Processing	61	15%
	Fashion & Tailoring	50	12%
	ICT Services	45	11%
	Hospitality	30	7%
	Others	20	5%

Most businesses had operated between three and ten years.

Financial Literacy Levels among Entrepreneurs

The descriptive results showed moderate financial literacy among respondents.

The highest scores were recorded for:

1) Basic budgeting
2) Savings practices
3) Cash management

The lowest scores were recorded for:

1) Investment analysis
2) Digital financial literacy
3) Risk assessment

This finding aligns with recent evidence indicating that although Nigerian entrepreneurs possess basic financial knowledge, advanced financial competencies remain limited.

Relationship between Financial Literacy and Business Sustainability

Correlation analysis revealed significant positive relationships between all dimensions of financial literacy and business sustainability.

Table 3
Correlation analysis

Variable	Correlation (r)
Financial Knowledge	0.72 (p < .01)
Financial Behavior	0.78 (p < .01)
Financial Attitude	0.65 (p < .01)
Digital Financial Literacy	0.74 (p < .01)

All relationships were statistically significant at p < 0.05.

Regression Results

Regression analysis is a powerful statistical method used to estimate the relationship between a single dependent variable (the outcome) and one or more independent variables (the predictors). The regression analysis revealed that financial knowledge, financial behavior, and financial attitude were statistically significant predictors of business sustainability.

Table 4
Regression analysis

Predictor	Beta	t-value	S	SE	95%CI	VIF
Financial Knowledge	0.31	5.81	0.000	0.053	[0.205, 0.415]	1.82
Financial Behavior	0.38	6.93	0.000	0.055	[0.273, 0.487]	1.95
Financial Attitude	0.19	3.45	0.0001	0.055	[0.082, 0.298]	1.64

The overall regression model was statistically significant, $F(3, 408) = 289.03$, $p < .001$, and explained approximately 68% of the variance in business sustainability ($R^2 = 0.68$; adjusted $R^2 = 0.68$), indicating that the model fit the data well even after adjusting for the number of predictors and sample size. All three predictors were statistically significant at the 5% level: financial knowledge ($\beta = 0.31$, $p = 0.000$), financial behavior ($\beta = 0.38$, $p = 0.000$), and financial attitude ($\beta = 0.19$, $p = 0.001$). Multicollinearity diagnostics indicated no cause for concern, with Variance Inflation Factor (VIF) values ranging from 1.64 to 1.95, well below the commonly used threshold of 5. The Durbin-Watson statistic was 1.87, close to the reference value of 2, suggesting no serious autocorrelation among the residuals. Taken together, these diagnostics suggest a statistically robust and stable model, though as a cross-sectional design it establishes association rather than causation.

Impact of Digital Financial literacy

The findings further demonstrated that entrepreneurs with stronger digital financial skills reported:

1) Higher revenue growth.
2) Better customer retention.
3) Increased use of fintech services.
4) Improved financial inclusion.
5) Greater resilience during economic shocks.

Recent studies similarly report that digital financial literacy enhances liquidity management and business performance among Nigerian SMEs (Hussaini et al., 2025).

Challenges Identified

Respondents identified major constraints including:

1. Limited access to financial training.
2. Poor record-keeping practices.
3. Inadequate digital skills.
4. High inflation.
5. Limited access to affordable credit.
6. Weak institutional support.

These findings reflect broader challenges affecting Nigerian entrepreneurs in a rapidly changing economic environment.

Discussion

The study results provides empirical evidence that financial literacy is a significant predictor of business sustainability of small and micro businesses in Nigeria. The results revealed that there were positive and significant relationship between financial knowledge, financial behavior and financial attitude with business sustainability of the surveyed small and micro business.

Human capital theory states that knowledge investments are important drivers of productivity and organizational success, lending support to the positive correlation between financial knowledge and business sustainability. Entrepreneurs who possess greater financial expertise are better equipped to plan and utilize their funds, evaluate investment opportunities and respond to market volatility. Results also validate Resource-Based View Theory. Financial literacy is a strategic asset that cannot be touched, but that gives competitive advantage and contributes to an organisation's resilience. But, financial knowledge is not the key, thanks to the supremacy of financial behavior. Hence, financial behavior had the highest standardized regression coefficient ($\beta = 0.38$) than financial knowledge ($\beta = 0.31$) and financial attitude ($\beta = 0.19$).

Financial knowledge showed a positive correlation with being sustainable, but it does not necessarily mean that knowledge will lead to the correct financial decisions. An entrepreneur can have knowledge of concepts like interest rates, investment etc., and may not be able to consistently use that knowledge in business decision making. Thus, it is crucial that entrepreneurs be able to convert their knowledge into practical financial plans (budgeting, savings and record keeping). This interpretation aligns with Financial Capability Theory, which focuses on the transformation of knowledge into effective financial behaviour. Prolific growth and the ability to absorb blows to the economy is more likely to be found in enterprises whose owners are capable of prudent financial management and doing business. Relationship to finance was the least correlated dimension with financial attitude ($\beta = 0.19$), but still significant. One reason may be that the attitudes are psychological orientations towards financial management, whereas the sustainability of a business is more influenced by the management of its finance practices.

The business environment is becoming increasingly digitalized with the introduction of electronic commerce, fintech platforms and mobile payments, hence the importance of digital financial literacy. The digital financial skills of entrepreneurs are more efficient, reduce transaction costs, enhance financial inclusion, and improve market penetration. Fintech

innovation and financial literacy have been proven to be complementary to achieve financial inclusion in Nigeria, in recent years. Furthermore, the findings also show that financial literacy enhances access to finance. Therefore, entrepreneurs with better financial capabilities are more likely to keep proper financial records, meet lending requirements and get funding from formal financial institutions. This is in line with previous work in that financial literacy improves financial inclusion among Nigerian MSMEs.

In addition, this study highlights that inadequate financial education remains a persistent challenge. Many entrepreneurs still lack a formal bookkeeping or financial planning system, and weak cash-flow management leaves them exposed to poor investment decisions and financial instability. These results are consistent with recent studies from Nigeria showing that financial literacy is strongly associated with entrepreneurial success, business expansion, profitability, and sustainability.

These findings are broadly consistent with studies from other developing economies. In Indonesia, financial literacy and financial management behavior have similarly been found to strengthen the sustainability of micro and small enterprises participating in government-backed financing programmes (Syofiatul and Adhitya, 2025), while in Zimbabwe, financial literacy has been linked to the economic sustainability of rural retail SMEs facing resource constraints comparable to those in Northern Nigeria (Mandongwe et al., 2020). The consistently stronger effect of financial behavior relative to financial knowledge across these contexts suggests a shared pattern in developing economies: formal financial education alone is insufficient where entrepreneurs operate in informal, cash-based, and credit-constrained environments, and that practical financial routines are what ultimately translate into sustainability outcomes. This cross-country consistency lends additional confidence to the study's conclusions, while also suggesting that the specific weighting of financial literacy dimensions may vary with the maturity of a country's financial and digital infrastructure.

Conclusion

This study investigated the impact of financial literacy on sustainability of small and micro businesses in Nigeria. The results indicate that financial literacy is significantly and positively associated with business sustainability and long-term entrepreneurial success. Given the cross- sectional design of the study, these relationships should be interpreted as strong statistical associations rather than definitive proof of causation.

Financial knowledge, financial behavior, financial attitude, and digital financial literacy have all positive effects on business sustainability. Entrepreneurs who possess good financial skills will be better able to access resources, access finance, take advantage of technological changes, and respond to the economic challenges.

Digital financial literacy is really important in today’s business environment. As fintech adoption is increasing in Nigeria, entrepreneurs must acquire digital skills for efficient financial management and sustainable growth in order to develop digital skills that enable them to become successful in the business environment. The evidence suggests that higher financial literacy is associated with lower business failure rates, higher profitability, enhanced financial inclusion, employment creation, and broader economic development. As the data are cross-sectional, these associations are indicative rather than conclusive, and longitudinal

or experimental research would be needed to establish causality. As such, policymakers, educational institutions, financial institutions, and entrepreneurship support organizations must now prioritize financial literacy as a strategic tool for sustainable enterprise development in Nigeria.

Policy Recommendations

The following recommendations are directly informed by the specific gaps identified in Section 4.2, where respondents scored lowest on investment analysis, digital financial literacy, and risk assessment, despite reasonable competence in basic budgeting, savings, and cash management.

1. Targeted Financial Literacy Training

Responsible stakeholders: Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), Bank of Industry, entrepreneurship development centers, universities and business associations.

Action: Develop modular training programmes focusing specifically on budgeting, investment analysis, risk assessment, cash-flow management, debt management and bookkeeping.

Expected outcome: Improved financial decision-making and resource allocation.

Digital Financial Literacy Programmes

Responsible stakeholders: Central Bank of Nigeria, commercial banks, fintech companies and entrepreneurship support organizations.

Action: Provide practical training in mobile banking, electronic payments, digital bookkeeping, fintech applications, cybersecurity and online financial transactions**.**

Expected outcome: Greater digital financial inclusion, improved transaction efficiency and enhanced financial management.

Investment and Risk-Management Education

Responsible stakeholders: Financial institutions, business development agencies and professional accounting/financial organizations.

Action: Introduce practical modules on investment appraisal, risk identification, diversification, insurance and financial contingency planning.

Expected outcome: Improved investment decisions and greater financial resilience.

Bookkeeping and Financial Reporting Support

Responsible stakeholders: SMEDAN, professional accounting bodies, business associations and financial institutions.

Action: Provide simplified bookkeeping templates, mobile accounting tools and practical record-keeping training.

Expected outcome: Better financial records, improved internal decision-making and stronger access to formal credit.

Financial Literacy-Linked Access to Finance

Responsible stakeholders: Commercial banks, microfinance institutions, development finance institutions and government financing programmes.

Action: Combine access-to-finance initiatives with basic financial management training rather than treating finance and financial capability as completely separate interventions.

Expected outcome: Better utilization of external financing and reduced financial-management risks.

Rural and Underserved Enterprise Outreach

Responsible stakeholders: Government agencies, financial institutions, local business associations and entrepreneurship development organizations.

Action: Deliver mobile and community-based financial literacy programmes to entrepreneurs in underserved areas.

Expected outcome: Increased financial inclusion and reduced geographic disparities in financial capability.

References

Adesua-Lincoln, A. (2025). Challenges to environmental sustainability and circular economy practices of Nigerian small and medium enterprises, Journal of Sustainable Business, 10(1). Available at: https://doi.org/10.1186/s40991-025-00110-9.

Adeyemi, M. S., & Akanji, A. A. (2020). Role of book keeping on sustainability of small and medium enterprises (SMEs) in Nigeria (A case study of selected SMEs in Osun State). International Journal of Academic Management Science Research, 4(9), 140154.

Adeyombo, A.A., Ogunlusi, C.F., Oyelude, O.O., & Oyebode, A.O. (2024). ASSESSING THE FINANCIAL LITERACY OF SMALL AND MEDIUM SCALE ENTERPRISE OPERATORS IN NIGERIA, International Journal of Professional Business Review, 9(11), p. e04820. Available at: https://doi.org/10.26668/businessreview/2024.v9i11.4820.

Akinola, E. T., Laosebikan, J. O., Akinbode, J. O., Afolabi, F. O., & Olamiti, A. O. (2023). Practicable Vocational and Entrepreneurial Skills Acquisition for job Creation and Poverty Alleviation among Nigerian Youths. International Journal of Professional Business Review: Int. J. Prof. Bus. Rev., 8(11), 1.

Alshebami, A. S., & Murad, M. (2022). The moderation effect of entrepreneurial resilience on the relationship between financial literacy and sustainable performance. Frontiers in Psychology, 13, 954841.

Anyaogu, I. (2024). Nigeria gives businesses four years to adopt eco-friendly reporting standards, Reuters. Available at: https://www.reuters.com/world/africa/nigeria-gives businesses-four-years-adopt-eco-friendly-reporting-standards-2024-03-22/.

Arifin, A. Z. (2018). Influence of financial attitude, financial behavior, and financial capability on financial satisfaction. Proceedings of the 15th International Symposium on Management (INSYMA 2018), 186. https://doi.org/10.2991/insyma-18.2018.25

Babajide, A., Osabuohien, E., Tunji-Olayeni, P., Falola, H., Amodu, L., Olokoyo, F. & Ehikioya, B. (2023). Financial literacy, financial capabilities, and sustainable business model practice among small business owners in Nigeria. Journal of Sustainable Finance & Investment, 13(4), 1670-1692.

Babatunde, A. A. (2025). Financial literacy, infrastructural facility and financial inclusion of micro,small and medium enterprise owners in Nigeria. Journal of Business Management and Accounting, 15(1), 79-90. https://doi.org/10.32890/jbma2025. 15.1.5.

Chinwe Sam-Abugu, Luo, X. and Wong, B. (2025). The combined role of FinTech innovation and financial literacy in sustainable financial inclusion in Nigeria, International Review of Economics, 72(2). Available at: https://doi.org/10.1007/s12232-025-00490-1.

Dandibi, B. G.,Wurim, B. P., & Umaru, O. E. (2019). Effect of Financial Inclusion and Financial Literacy on Performance of Agro-Based SMEs in Yobe State, Nigeria. Nigerian Journal of Management Sciences, 7(1).

Diyoke, K. O. (2024). Effect of financial literacy on performance of micro, small and medium enterprises in Abuja Municipal Area Council, Nigeria. FULafia International Journal of Business and Allied Studies, 7(1), 45–62. https://fijbas.org/index.php/FIJBAS/article/view/95

Hasan, M., Jannah, M., Supatminingsih, T., Ahmad, M. I. S., Sangkala, M., Najib, M., & Elpisah. (2024). Understanding the role of financial literacy, entrepreneurial literacy, and digital economic literacy on entrepreneurial creativity and MSME's success: a knowledge-based view perspective. Cogent Business and Management, 11(1). https://doi.org/10.1080/23311975.2024.2433708.

Hussaini, I., Gubio, M., & Maidarasu, U. (2025). Empirical Assessment of Digital Financial Literacy and Liquidity of Small and Medium Enterprises in Nigeria.

Huston, S. J. (2017). Measuring Financial Literacy. The Journal of Consumer Affairs, 44(2), 296– 316.

Hung, A. A., Parker, A. M., & Yoong, Y. (2009). Defining and Measuring Financial Literacy. Accessed at: https://www.researchgate.net/publication/46464346.

Irikefe, P. O., & Opusunju, M. I. (2021). Effect of financial literacy on the growth of micro, small and medium enterprises perspective (MSMEs). International Journal of Research Publications (IJRP. ORG), 384.

Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. Journal of Economic Literature, 52(1), 5-44. https://doi.org/10.1257/jel.52.1.5

Mandongwe, L., Murairwa, S., & Jachi, M. (2020). Financial Literacy and Economic Sustainability of Rural Retail SMEs in Zimbabwe: Evidence from Manicaland Province. IOSR Journal of Business and Management (IOSR-JBM), 22(5), 1-8.

Miswanto, M., Tarigan, S., Wardhani, S., Khuan, H., Rahmadyanti, E., Jumintono, J. & Machmud, M. (2024). Investigating the influence of financial literacy and supply chain management on the financial performance and sustainability of SMEs. Uncertain Supply Chain Management, 12(1), 407-416.

Molosiwa, T., & Holland, J. (2025). The impact of financial literacy on the performance of Small and Medium-sized Enterprises (SMEs): A review of literature. International Journal of Research in Business and Social Science (2147- 4478), 14(3), 320–332. https://doi.org/10.20525/ijrbs.v14i3.4157.

Msomi, T. S., & Olarewaju, O. M. (2021). Factors affecting small and medium enterprises' financial sustainability in South Africa. African Journal of Inter/Multidisciplinary Studies, 3(1), 103-117.

Nurjannah, D., Wardhana, E. T. D. R. W., Handayati, P., Winarno, A., & Jihadi, M. (2023). The Influence of Managerial Capabilities, Financial Literacy, and Risk Mitigation On Msmes Business Sustainability. Journal of Law and Sustainable Development, 11(4), e520-e520.

Obi-Anike, H. O., Daniel, O. C., Onodugo, I. J., Attamah, I. J., & Imhanrenialena, B. O. (2023). The Role of Financial Information Literacy in Strategic Decision-Making Effectiveness and Sustainable Performance among Agribusiness Entrepreneurs in Nigeria. Sustainability, 15(13), 10416.

Odeh, J. A., & Anosike, J. A. (2026). Financial Literacy as a Tool for Business Sustainability Among SMEs in FCT-Abuja. Journal of Economics Finance and Management Studies, 09(04), 1671–1682. https://doi.org/10.47191/jefms/v9-i4-01

Odumusor, J. C., & Acquah, S. J. (2025). Effect of Financial Literacy on the Performance of Micro, Small and Medium Enterprises in Calabar, Nigeria. International Journal of Advances in Engineering and Management (IJAEM), 7(7), 115–128. https://doi.org/10.35629/5252-0707115128

OECD. (2020). OECD/INFE 2020 International Survey of Adult Financial Literacy. https://www.oecd.org/financial/education/oecd-infe-2020-international-survey-of-adult-financial-literacy.pdf

Oladipupo, S. I., & Pam, M. M. (2025). Effect of Microfinance Services on the Growth of Micro, Small and Medium Enterprises in Plateau State, Nigeria: Moderating Role of Financial Literacy. International Journal of Research and Scientific Innovation, XII(VII), 1533–1543. https://doi.org/10.51244/ijrsi.2025.120700156

Onwuegbuzina, I. J. (2022). Financial literacy and financial performance of micro, small and medium enterprises in Lagos City, Nigeria. The International Journal of Business and Management, 10(10), 20–35. https://doi.org/10.24940/theijbm/2022/v10/i10/bm2210-026.

Oyedeji, R. O., Ogunleye, J. K., Aribaba, F. O., Ahmodu, A. O., & Shittu, S. A. (2023). Strategic Financial Management Practices and Sustainability of Small and Medium Enterprise in Osogbo Metropolis, Nigeria. KIU Journal of Social Sciences, 9(1), 17-22.

Oyeniyi, K. O., Egunjobi, G. O., & Togun, O. R. (2022). Mediating effect of Financial Literacy on the relationship between Financial Behaviour and SMEs' Performance: Evidence from Osun State, Nigeria. Best Journal of Innovation in Science, Research and Development, 1(2), 20-29.

Parmitasari, R. D. A. (2023). Sustainability and Performance of Small and Medium Business: the Role of Financial Literature. International Journal of Professional Business Review, 8(5), e01048-e01048.

Philip, L. N. (2025). The role of financial literacy in driving sustainable entrepreneurial success: A case study of Lapo Microfinance Institution (MFI), Nigeria. Issues and Perspectives in Business and Social Sciences, 5(1), 37–48. https://doi.org/10.33093/ipbss.2025.5.1.4

Potrich, A. C. G., Kelmara, M. V., & Wesley, M.-D.-S. (2016). Development of a Financial Literacy Model for University Students. Management Research Review, 39(3), 356–376.

Robb, C. A. (2014). The Personal Financial Knowledge Conundrum. Journal of Financial Service Professionals, 1(8), 69–73.

Rosyadah, K., Mus, A. R., Semmaila, B., & Chalid, L. (2022). The Relevance of Working Capital, Financial Literacy and Financial Inclusion on Financial Performance and Sustainability of Micro, Small and Medium-Sized Enterprises (MSMEs). American Journal of Humanities and Social Sciences Research (AJHSSR), 4, 203-216

Sani, A. (2025). Do Entrepreneurs Financial Literacy Moderate the Effect of Financing Decisions on the Growth Prospects of Micro, Small and Medium-Scale Enterprises in Northeastern Nigeria?, International Journal of Management and Economics Invention, 11(02). Available at: https://doi.org/10.47191/ijmei/v11i2.01.

Seraj, A. H. A., Fazal, S. A., & Alshebami, A. S. (2022). Entrepreneurial competency, financial literacy, and sustainable performance—examining the mediating role of entrepreneurial resilience among Saudi entrepreneurs. Sustainability, 14(17), 10689.

Sucuahi, W. T. (2013). Determinants of Financial Literacy of Micro Entrepreneurs in Davao City. International Journal of Accounting Research, 1(1), 44–51

Syofiatul Aziza Arofani and Adhitya Bayu Suryantara (2025). The Effect of Financial Literacy, Financial Management Behavior, Digital Financial Inclusiveness and Internal Factors on the Sustainability of Micro, Small and Medium Enterprises Participating in the PT PNM Mekaar Financing Program, Indonesian Journal of Business Analytics, 5(1), pp. 1745–1764. Available at: https://doi.org/10.55927/ijba.v5i1.13869.

Usama, K. M., & Yusoff, W. F. (2019). The impact of financial literacy on business performance. International Journal of Research and Innovation in Social Science, 3(10), 84-91.

Winarta, S., & Pamungkas, A. S. (2021, May 9). The Role of Financial Behavior, Financial Attitude, Financial Strain, and Risk Tolerance in Explaining Financial Satisfaction. https://doi.org/10.2991/aebmr.k.210507.077

Zeynep, T. (2015). Financial Education for Children and Youth. Handbook of Research on Behavioral Finance and Investment Strategies, 24(3), 3-7.