Journal Homepage: www. ijarpr.com ISSN: 3049-0103 (Online)

International Journal of Advance Research Publication and Reviews

Vol 02, Issue 09, pp 733-753, September 2025

Financial Inclusion and the Performance of Small and Medium Enterprises in Kano State, Nigeria.

[1]Gambo Zakari, [2]Muhammad Maikudi [3]Aisha Adam Zubair, [4]Fatima Talatu Aliyu, [5]Haruna Ibrahim Datti, [6]Rukayya Abubakar Ismail.

[1,2,3,4,5&6]Department of Business Education, Kano State College of Education and Preliminary Studies.

[1]gambo.zakari@yahoo.com, [2]maidalailu85@gmail.com, [3]azaishatu@gmail.com, [4]fatimaaliyu3465@gmail.com, [5]harunaibrahimdatti40@gmail.com, rukayyaaismail@jmail.com

ABSTRACT

This study examined the relationship between financial inclusion and Small and Medium Enterprise (SME) performance in Kano State's metropolitan Local Government Areas, addressing a critical research gap in northern Nigeria. Using a descriptive survey design, primary data was collected from 485 formally registered SMEs across eight metropolitan LGAs through structured questionnaires and analyzed using multiple regression and binary logistic regression models. The research revealed a paradoxical financial inclusion landscape characterized by high basic access (87.2% bank account ownership) but significant usage gaps, particularly for credit services where 39% of SMEs never accessed loans despite widespread availability. Financial inclusion dimensions—access (β = 0.367), usage (β = 0.284), and quality (β = 0.268)—demonstrated strong positive effects on SME performance, explaining 71% of performance variance. Services and manufacturing SMEs achieved higher financial inclusion indices compared to trading and agricultural processing enterprises. Firm size emerged as the dominant predictor of high financial inclusion (marginal effect = 0.412), followed by owner education (0.290), highlighting systematic exclusion of smaller enterprises. Significantly, religious influence revealed barriers for Muslim and sharia'ah compliant entrepreneurs, who experienced 2.61 percentage points lower probability of achieving high financial inclusion compared to non-sharia'ah compliant, attributed to limited Islamic banking infrastructure (50.5% access rate). Owner education emerged as the strongest single performance predictor (β = 1.912), emphasizing human capital importance. The findings provide empirical support for financial intermediation theory while revealing important cultural modifications needed in developing economies. The access-usage paradox indicates supply-side interventions alone are insufficient, necessitating demand-side programs including financial literacy and culturally appropriate product design. The study recommends expanding Islamic banking infrastructure, developing relationship-based lending models for smaller enterprises, and implementing integrated approaches combining financial inclusion with entrepreneurship education to maximize SME performance outcomes in diverse developing economy contexts.

Keywords: Financial Inclusion, SMEs Performance, Islamic Banking and Kano State.

1. Introduction

Small and Medium Enterprises (SMEs) constitute the backbone of Nigeria's economy, representing over 96% of all businesses and contributing significantly to employment generation and GDP growth (Adebayo et al., 2023). In Kano State, being the commercial hub of northern Nigeria, SMEs play a pivotal role in driving economic activities, particularly in trading, manufacturing, and service sectors. However, despite their economic importance, these enterprises face numerous challenges, with limited access to financial services being the most prominent constraint (Ibrahim & Mustapha, 2024).

Financial inclusion, defined as the availability and equality of opportunities to access financial services, has emerged as a critical factor influencing SME performance globally (Demirgüç-Kunt et al., 2024). The concept encompasses access to

credit, savings, insurance, and payment services that are delivered responsibly and sustainably. In Nigeria, the Central Bank's financial inclusion strategy aims to reduce the percentage of adult Nigerians excluded from financial services from 36.8% in 2020 to 20% by 2024 (Central Bank of Nigeria, 2023).

Kano State, with its strategic location and vibrant commercial activities, presents a unique context for examining the financial inclusion-SME performance relationship. The state hosts numerous traditional and modern financial institutions, microfinance banks, and fintech companies, creating a diverse financial ecosystem (Yakubu & Hassan, 2023). However, the extent to which SMEs in the metropolitan areas leverage these financial services and their impact on business performance remains underexplored.

1.2 Statement of the Problem

Despite the proliferation of financial institutions and services in Kano State, many SMEs continue to experience suboptimal performance characterized by limited growth, low profitability, and operational inefficiencies (Garba et al., 2024). Preliminary observations suggest that while financial services are available, their accessibility and utilization by SMEs remain constrained by various factors including collateral requirements, high interest rates, complex documentation processes, and limited financial literacy among SME operators.

The problem is further compounded by the limited empirical evidence on the specific nature of the relationship between financial inclusion and SME performance in the northern Nigerian context. Most existing studies have focused on southern states or have taken a national approach, potentially overlooking regional peculiarities that characterize Kano State's business environment (Adamu & Suleiman, 2023). This research gap necessitates a focused investigation to understand how financial inclusion dimensions affect SME performance in Kano State's metropolitan areas.

1.3 Research Objectives

To examine the relationship between financial inclusion and the performance of Small and Medium Enterprises in the metropolitan Local Government Areas of Kano State, Nigeria.

i. To assess the level of financial inclusion among SMEs in Kano State metropolitan LGAs

ii. To determine the relationship between financial inclusion and SME performance

iii. To identify factors that influence financial inclusion among SMEs in Kano State

1.4 Significance of the Study

This study contributes to the existing literature on financial inclusion and SME development in several ways. First, it provides empirical evidence on the financial inclusion-SME performance nexus in northern Nigeria, addressing the geographical research gap in the literature. Second, the findings will inform policy makers, particularly the Central Bank of Nigeria, Kano State Government, and development agencies, on targeted interventions to enhance SME access to financial services.

Financial institutions will benefit from understanding the specific needs and challenges of SMEs in Kano State, enabling them to design appropriate products and services. SME operators will gain insights into how financial inclusion can be leveraged to improve business performance. Additionally, the study contributes to the theoretical understanding of financial inclusion in developing economies, particularly in sub-Saharan Africa.

1.5 Scope and Delimitation of the Study

This study focuses on SMEs operating in the eight metropolitan Local Government Areas of Kano State: Kano Municipal, Fagge, Dala, Gwale, Tarauni, Nassarawa, Ungogo, and Kumbotso. The research covers SMEs across various sectors including manufacturing, trading, services, and agriculture-related activities. The study period spans from 2020 to 2024,

allowing for the assessment of recent trends and developments in financial inclusion and SME performance. The research is delimited to formally registered SMEs with a minimum of two years of operation, ensuring data reliability and business stability assessment. Microenterprises with annual turnover below ₦5 million are excluded to maintain focus on small and medium-scale operations as defined by the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN).

2. Literature Review

2.1 Conceptual Framework

2.1.1 Financial Inclusion

Financial inclusion represents a multidimensional concept encompassing access, usage, and quality of financial services (Sarma & Pais, 2023). The World Bank defines financial inclusion as individuals and businesses having access to useful and affordable financial products and services that meet their needs delivered responsibly and sustainably (World Bank, 2024). The concept includes four key dimensions: accessibility, availability, usage, and quality of financial services.

Accessibility refers to the ability to use available financial services, determined by factors such as affordability, physical proximity, and eligibility criteria (Ozili, 2024). Availability encompasses the supply side of financial services, including the presence of financial institutions, products, and delivery channels. Usage dimension captures the actual adoption and utilization of available financial services, while quality refers to the appropriateness of financial products to consumer needs and the service delivery experience.

2.1.2 Small and Medium Enterprises (SMEs)

SMEs are typically defined based on criteria such as number of employees, annual turnover, and asset base, with definitions varying across countries and institutions (OECD, 2023). In Nigeria, SMEDAN classifies small enterprises as businesses with 10-49 employees and annual turnover of ₦5-100 million, while medium enterprises employ 50-199 workers with annual turnover of ₦100 million to ₦1 billion (SMEDAN, 2024). SMEs are characterized by their flexibility, innovation capacity, and ability to create employment opportunities. However, they often face constraints including limited access to finance, inadequate infrastructure, regulatory challenges, and market limitations (Akinwale & Adebayo, 2023). These enterprises play crucial roles in economic development through job creation, innovation, and contribution to GDP.

2.1.3 SME Performance

SME performance is a multifaceted construct measured through various indicators including financial performance, operational efficiency, and strategic outcomes (Ahmad et al., 2024). Financial performance measures include profitability ratios, revenue growth, return on assets, and liquidity indicators. Operational efficiency encompasses productivity measures, capacity utilization, and cost management effectiveness. Growth-related performance indicators include market expansion, employee growth, asset expansion, and new product development (Santos & Silva, 2023). Non-financial performance measures such as customer satisfaction, market share, and innovation capability also contribute to comprehensive performance assessment.

2.2 Theoretical Literature

2.2.1 Financial Intermediation Theory

The financial intermediation theory, developed by Gurley and Shaw (1960) and later extended by Diamond (1984), provides a theoretical foundation for understanding the role of financial institutions in economic development. The theory posits that financial intermediaries facilitate efficient allocation of resources from surplus units to deficit units, reducing transaction costs and information asymmetries.

In the SME context, financial intermediaries play crucial roles in bridging the financing gap by pooling resources, diversifying risks, and providing specialized services tailored to small business needs (Berger & Udell, 2024). The theory

explains how financial inclusion enhances SME performance by improving access to capital, reducing borrowing costs, and enabling better financial management.

2.2.2 Pecking Order Theory

The pecking order theory, proposed by Myers and Majluf (1984), suggests that firms have a preferred hierarchy for financing sources, prioritizing internal funds, followed by debt, and finally external equity. This theory is particularly relevant to SMEs, which often face information asymmetries and higher costs of external financing (Frank & Goyal, 2023).

The theory explains how financial inclusion can alter SME financing patterns by providing access to diverse funding sources, reducing reliance on internal funds, and enabling optimal capital structure decisions. Enhanced financial inclusion may allow SMEs to move beyond the constraints of the pecking order, accessing external financing more efficiently.

2.2.3 Resource-Based View (RBV) Theory

The Resource-Based View theory, developed by Barney (1991), emphasizes the importance of firm-specific resources and capabilities in achieving competitive advantage. From this perspective, access to financial resources through financial inclusion can be viewed as a valuable, rare, and difficult-to-imitate resource that enhances SME performance (Chen & Wang, 2024). Financial inclusion provides SMEs with access to various financial resources and services that can be leveraged to build competitive advantages, invest in growth opportunities, and improve operational efficiency. The theory suggests that SMEs with better financial inclusion are better positioned to acquire and deploy resources effectively.

2.3 Empirical Literature Review

Recent international studies have consistently demonstrated positive relationships between financial inclusion and SME performance. Mushtaq and Bruneau (2024) conducted a comprehensive study across 45 developing countries and found that a 10% increase in financial inclusion indicators was associated with 15-20% improvement in SME productivity measures. The study utilized firm-level data from the World Bank Enterprise Surveys spanning 2015-2022.

In Asian economies, Li et al. (2024) examined 2,500 SMEs across China, India, and Indonesia, revealing that financial inclusion significantly enhanced SME performance through three main channels: improved access to working capital, enhanced investment capacity, and better risk management. The study employed a mixed-methods approach combining quantitative analysis with qualitative interviews. European evidence from González-Torres and López (2023) analyzed 1,800 SMEs across Spain, Italy, and Portugal, finding that digital financial inclusion had stronger performance effects compared to traditional banking relationships. The study highlighted the importance of fintech innovations in driving SME performance improvements.

African studies have provided mixed but generally positive evidence on the financial inclusion-SME performance relationship. Osei-Assibey et al. (2024) conducted a multi-country analysis covering Ghana, Kenya, and South Africa, finding significant positive effects of mobile money adoption on SME sales growth and employment creation. The study utilized longitudinal data from 3,200 SMEs over a five-year period. In East Africa, Mwangi and Kiprotich (2023) examined 800 SMEs in Kenya and found that access to credit increased SME revenues by 23% on average, while savings services enhanced business resilience during economic shocks. The study employed randomized controlled trial methodology to establish causal relationships.

West African evidence from Djellal and Benhabib (2024) analyzed SMEs in Senegal and Mali, revealing that financial inclusion effects varied significantly across sectors, with manufacturing and services SMEs benefiting more than agricultural enterprises. The study emphasized the importance of sector-specific financial products. Nigerian research on financial inclusion and SME performance has shown growing interest in recent years. Adeleke et al. (2024) examined 1,200 SMEs across six states, finding that access to formal credit increased SME profitability by 18% on average. However, the study noted significant regional variations, with northern states showing different patterns compared to southern states. Lagos-focused research by Ogundimu and Adesanya (2023) analyzed 600 SMEs and found strong positive relationships

between digital financial services and SME performance. The study revealed that SMEs using digital payment platforms experienced 25% higher revenue growth compared to cash-only businesses.

However, Kano-specific research remains limited. Yakubu and Hassan (2023) conducted a preliminary study of 200 SMEs in Kano State, finding moderate levels of financial inclusion with significant performance implications. The study identified cultural factors, Islamic banking preferences, and language barriers as important considerations in the northern Nigerian context.

2.4 Research Gaps

Despite the growing literature on financial inclusion and SME performance, several gaps remain. First, there is limited research specifically focused on northern Nigeria, particularly Kano State, where cultural, religious, and economic contexts differ from southern regions. Most Nigerian studies have concentrated on Lagos, Abuja, and other southern commercial centers.

Second, existing studies have not adequately addressed the role of Islamic banking and Sharia-compliant financial services in SME performance, despite the predominance of Islamic financial institutions in northern Nigeria. Third, the impact of recent fintech innovations and digital financial services on SMEs in traditional commercial centers like Kano remains underexplored.

Fourth, there is insufficient evidence on sector-specific effects of financial inclusion on SME performance in the northern Nigerian context. Finally, the mediating and moderating factors that influence the financial inclusion-SME performance relationship in Kano State require further investigation.

3. Research Methodology

3.1 Research Design

This study adopts a descriptive survey research design to examine the relationship between financial inclusion and SME performance in Kano State metropolitan LGAs. The descriptive survey design is appropriate for this study as it enables systematic collection and analysis of data from a representative sample to describe characteristics of the population and examine relationships between variables (Creswell & Creswell, 2023). However, Ordinary least squares regression to determine the joint effects of financial inclusion on SME performance while controlling for firm and environmental characteristics.

The survey design allows for efficient data collection from a large number of SMEs across multiple locations, facilitating statistical analysis to test hypotheses and draw generalizable conclusions. The cross-sectional nature of the survey enables examination of current status and relationships at a specific point in time, while retrospective questions capture historical performance trends.

3.2 Study Area

The study is conducted in the eight metropolitan Local Government Areas of Kano State: Kano Municipal, Fagge, Dala, Gwale, Tarauni, Nassarawa, Ungogo, and Kumbotso. These LGAs constitute the core commercial and industrial hub of Kano State, hosting the majority of formal SMEs and financial institutions. Kano State, located in northwestern Nigeria, serves as the commercial center of northern Nigeria with a population of approximately 13.4 million people. The metropolitan LGAs are characterized by high population density, diverse economic activities, and concentration of financial institutions including commercial banks, microfinance banks, development finance institutions, and fintech companies.

The choice of metropolitan LGAs is justified by the concentration of formal SMEs, availability of diverse financial services, and representativeness of urban SME operations in northern Nigeria. These areas provide sufficient variation in SME characteristics, financial institution presence, and business environments necessary for comprehensive analysis.

3.3 Population of the Study

The target population comprises all formally registered Small and Medium Enterprises operating in the eight metropolitan LGAs of Kano State. Based on data from the Kano State Ministry of Commerce and Industry and SMEDAN regional office, the population includes approximately 12,500 registered SMEs across various sectors. The SMEs range from small enterprises with 10-49 employees and annual turnover of ₦5-100 million to medium enterprises with 50-199 employees and annual turnover of ₦100 million to ₦1 billion, following SMEDAN classification criteria.

3.4 Sample Size Determination

The sample size is determined using the Taro Yamane formula for finite populations:

$$n = \frac{N}{(1 + N(e^2))}$$

Where:

n = required sample size

N = population size (12,500)

e = margin of error (5% or 0.05)

$$n = \frac{12,500}{(1 + 12,500(0.05^2))}$$

$$n = \frac{12,500}{(1 + 12,500(0.0025))}$$

$$n = \frac{12,500}{(1 + 31.25)}$$

$$n = \frac{12,500}{32.25}$$

$$n = 387.6 \approx 388$$

To account for potential non-response and ensure adequate representation across sectors and LGAs, the sample size is increased by 25% to 485 SMEs. This sample size provides sufficient statistical power for multivariate analysis and subgroup comparisons.

3.5 Sampling Technique

The study employs a multi-stage stratified random sampling technique to ensure representative coverage across LGAs, sectors, and enterprise sizes. The sampling process involves three stages: Stage one, stratification by LGA. The sample is

proportionally allocated across the eight metropolitan LGAs based on the number of registered SMEs in each area as Kano Municipal 85 SMEs (17.5%), Fagge: 78 SMEs (16.1%), Gwale: 68 SMEs (14.0%), Dala: 58 SMEs (12.0%), Tarauni: 58 SMEs (12.0%), Nassarawa: 49 SMEs (10.1%), Ungogo: 44 SMEs (9.1%) and Kumbotso: 45 SMEs (9.3%)

Stage two stratification by sector whereby within each LGA, SMEs are stratified by sector following the population distribution as Manufacturing 22.4% of LGA allocation, Trading/Commercial 49.6% of LGA allocation, Services: 20.0% of LGA allocation, Agricultural processing 8.0% of LGA allocation Stage three stratification by Enterprise Size, SMEs are further stratified into small and medium enterprises based on employee numbers and annual turnover, maintaining proportional representation.

3.6 Data Collection

Primary data is collected through structured questionnaires administered to SME owners, managers, or senior executives responsible for financial decisions. The questionnaire is designed in English with Hausa translations for key sections to accommodate local language preferences. Data collection is conducted by trained research assistants with local knowledge and language skills. Face-to-face interviews are conducted at business premises to ensure high response rates and data quality.

3.8 Data Analysis Techniques

Data analysis involves both descriptive and inferential statistical techniques using SPSS version 29 and STATA 17 software packages.

3.8.1 Descriptive Statistics

Level of Financial Inclusion Assessment

Descriptive analysis includes: Frequency distributions and percentages for categorical variables. Moreover, Means, medians, and standard deviations for continuous variables, Cross-tabulations for examining relationships between categorical variables, and Charts and graphs for data visualization.

3.8.2 Inferential Statistics

Multiple Regression Analysis: Ordinary least squares regression to determine the joint effects of financial inclusion on SME performance while controlling for firm and environmental characteristics.

Financial Performance

Multiple Regression Models:

$$\text{Financial\_Performance} = \beta_0 + \beta_1(\text{Access}) + \beta_2(\text{Usage}) + \beta_3(\text{Quality}) + \beta_4(\text{Availability}) + \beta_5(\text{Firm\_Age}) + \beta_6(\text{Firm\_Size}) + \beta_7(\text{Owner\_Education}) + \beta_8(\text{Religious\_Influence}) + \varepsilon_i$$

Factors Influencing Financial Inclusion

Binary Logistic Regression Model:

$$\text{Logit}(\text{High\_Financial\_Inclusion}) = \beta_0 + \beta_1(\text{Firm\_Age}) + \beta_2(\text{Firm\_Size}) + \beta_3(\text{Owner\_Education}) +$$

$$\beta_4(\text{Owner\_Gender}) + \beta_5(\text{Religious\_Influence}) + \beta_6(\text{Digital\_Literacy}) + \varepsilon$$

4.1 Results and Discussions

This section presents a comprehensive analysis and interpretation of the research findings on the relationship between financial inclusion and Small and Medium Enterprise (SME) performance in Kano State's metropolitan Local Government Areas. The results are discussed in relation to existing literature and theoretical frameworks to provide meaningful insights into the financial inclusion-SME performance nexus in northern Nigeria.

4.2 Demographic and Business Characteristics

Table 4.1: Owner/Manager Characteristics

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	298	61.4
	Female	187	38.6
Age Group	20-30 years	73	15.1
	31-40 years	165	34.0
	41-50 years	147	30.3
	Above 50 years	100	20.6
Education Level	No formal education	42	8.7
	Primary	68	14.0
	Secondary	156	32.2
	Tertiary	219	45.2
Business Experience	2-5 years	134	27.6
	6-10 years	187	38.6
	11-15 years	98	20.2
	Above 15 years	66	13.6

The demographic profile of SME owners/managers reveals significant insights about the entrepreneurial landscape in Kano State. With 61.4% male and 38.6% female ownership, the results indicate a moderate gender imbalance that is consistent with findings from other developing economies (Mushtaq & Bruneau, 2024). However, the 38.6% female participation rate is notably higher than the 25% reported in similar studies across West Africa (Djellal & Benhabib, 2024), suggesting relatively progressive gender dynamics in Kano's business environment.

The age distribution shows that 64.3% of owners/managers are between 31-50 years, representing the prime working-age population. This finding aligns with Li et al. (2024), who noted that SMEs in developing economies are predominantly managed by individuals in their middle-age years, bringing valuable experience while maintaining innovation capacity. The concentration in this age group suggests a mature entrepreneurial ecosystem with experienced business operators.

The educational profile is particularly noteworthy, with 45.2% holding tertiary education and only 8.7% having no formal education. This educational attainment is significantly higher than the national average for northern Nigeria and mirrors patterns observed in urban commercial centers (Adeleke et al., 2024). The high education levels among SME operators have important implications for financial inclusion, as González-Torres and López (2023) demonstrated that education is a critical determinant of financial service adoption and usage effectiveness.

Table 4.2: SME Distribution by Sector

Sector	Frequency	Percentage (%)	Cumulative %
Trading/Commercial	241	49.7	49.7
Manufacturing	109	22.5	72.2
Services	97	20.0	92.2
Agricultural Processing	38	7.8	100.0
Total	**485**	**100.0**	**100.0**

The sectoral distribution reveals that trading/commercial activities dominate (49.7%), followed by manufacturing (22.5%) and services (20.0%). This pattern reflects Kano State's historical role as a commercial hub and is consistent with the broader West African SME landscape (Osei-Assibey et al., 2024). The predominance of trading activities aligns with Kano's position along traditional trans-Saharan trade routes and its function as a distribution center for northern Nigeria and the broader Sahel region. The significant manufacturing presence (22.5%) is encouraging for economic diversification efforts and suggests a relatively mature industrial base compared to other northern Nigerian states. This finding supports the work of Yakubu and Hassan (2023), who noted Kano's emerging manufacturing capabilities in textiles, food processing, and consumer goods.

Table 4.3: Access to Financial Services

Access Indicator	Yes	No	Percentage with Access
Bank Account Ownership	423	62	87.2%
Proximity to Bank (≤5km)	389	96	80.2%
Mobile Banking Access	356	129	73.4%
ATM Access	441	44	90.9%
Internet Banking Access	267	218	55.1%
Microfinance Institution Access	298	187	61.4%
Islamic Banking Access	245	240	50.5%

The access indicators reveal a mixed picture of financial inclusion in Kano State. Bank account ownership at 87.2% is remarkably high, exceeding the national average of 45% reported by the Central Bank of Nigeria (2023) and approaching levels found in more developed economies. This finding suggests successful financial inclusion initiatives and the effectiveness of digital banking expansion in urban centers. The 80.2% proximity to banking services (within 5km) indicates reasonable physical accessibility, though this falls short of the 90%+ levels found in major commercial centers

like Lagos (Ogundimu & Adesanya, 2023). The geographic concentration of banking services in metropolitan areas likely explains this pattern.

Mobile banking access at 73.4% demonstrates the growing influence of digital financial services, aligning with continental trends documented by Mwangi and Kiprotich (2023) in their East African study. However, the lower internet banking penetration (55.1%) suggests infrastructure and digital literacy constraints that limit advanced digital financial service adoption. The Islamic banking access rate of 50.5% is particularly significant given the predominantly Muslim population of Kano State. This moderate penetration suggests room for expansion in Sharia-compliant financial services, which could enhance financial inclusion among religiously-conscious entrepreneurs who may otherwise avoid conventional banking products.

Table 4.4: Usage of Financial Services

Service Type	Never Used	Rarely Used	Sometimes Used	Frequently Used	Always Used
Savings Services	47 (9.7%)	83 (17.1%)	156 (32.2%)	134 (27.6%)	65 (13.4%)
Credit/Loan Services	189 (39.0%)	127 (26.2%)	98 (20.2%)	54 (11.1%)	17 (3.5%)
Payment Services	23 (4.7%)	45 (9.3%)	134 (27.6%)	187 (38.6%)	96 (19.8%)
Insurance Services	267 (55.1%)	134 (27.6%)	56 (11.5%)	21 (4.3%)	7 (1.4%)
Investment Services	298 (61.4%)	87 (17.9%)	67 (13.8%)	25 (5.2%)	8 (1.6%)
Mobile Money	134 (27.6%)	89 (18.4%)	123 (25.4%)	98 (20.2%)	41 (8.5%)

The usage patterns reveal concerning disparities between access and actual utilization. While savings services show reasonable usage (41% using frequently or always), credit/loan services exhibit extremely low utilization, with only 14.6% using these services frequently or always, and 39% never using them at all.

This credit usage pattern is consistent with findings from other sub-Saharan African studies (Djellal & Benhabib, 2024) and reflects several factors including:

i. High collateral requirements and interest rates

ii. Complex documentation processes

iii. Limited financial literacy

iv. Cultural and religious preferences for debt avoidance

The low insurance penetration (only 5.7% using frequently or always) mirrors continental patterns and represents a significant gap in SME risk management capabilities. This finding supports Chen and Wang's (2024) argument that comprehensive financial inclusion requires balanced development across all service categories, not just basic banking. Payment services show stronger adoption (58.4% using frequently or always), reflecting the practical necessity of payment solutions in commercial operations and the growth of digital payment platforms. This usage pattern aligns with the mobile money revolution documented across Africa (Osei-Assibey et al., 2024).

Table 4.5: Availability of Financial Services

Availability Indicator	Mean Score	Std. Deviation	Interpretation
Number of Bank Branches in Area	3.42	1.23	Moderate
Variety of Financial Institutions	3.18	1.34	Moderate
Digital Financial Services	2.89	1.41	Below Average
Islamic Banking Options	2.76	1.38	Below Average
Microfinance Institutions	3.23	1.29	Moderate
Financial Service Points	3.35	1.25	Moderate

The moderate scores across availability indicators (ranging from 2.76 to 3.42 on a 5-point scale) suggest systematic challenges in financial service supply. The below-average ratings for digital financial services (2.89) and Islamic banking options (2.76) highlight specific areas requiring policy attention. These availability constraints likely reflect infrastructure limitations, regulatory barriers, and market development challenges common in developing economies. The findings support the theoretical arguments of Diamond (1984) regarding the importance of well-developed financial intermediation systems for economic development.

Table 4.6: Financial Inclusion by Sector

Sector	Low FI	Moderate FI	High FI	Mean FI Index
Trading/Commercial	89 (36.9%)	98 (40.7%)	54 (22.4%)	2.76
Manufacturing	28 (25.7%)	45 (41.3%)	36 (33.0%)	3.18
Services	25 (25.8%)	39 (40.2%)	33 (34.0%)	3.24
Agricultural Processing	14 (36.8%)	16 (42.1%)	8 (21.1%)	2.67

The sectoral analysis reveals important variations in financial inclusion levels. Services (3.24) and manufacturing (3.18) SMEs demonstrate higher financial inclusion indices compared to trading/commercial (2.76) and agricultural processing (2.67) enterprises. This pattern contradicts conventional expectations, as trading activities typically require more financial services for inventory management and cash flow. The higher inclusion in services and manufacturing may reflect:

i. Greater sophistication in business operations requiring formal financial services

ii. Better alignment with conventional banking products and requirements

iii. Higher educational levels among operators in these sectors

iv. Greater formalization and documentation practices

The relatively low financial inclusion in agricultural processing aligns with global patterns showing rural and agriculture-related enterprises facing greater financial access challenges (Ahmad et al., 2024).

Table 4.7: Multiple Regression Models on the Financial Performance

Financial_Performce	Coefficient	Std. err.	t	P>t	[95% conf.	interval]
Access	.3665958	.076399	4.80	0.000	.2164764	.5167152
Usage	.2839994	.0353725	8.03	0.000	.2144946	.3535041
Quality	.2682064	.0328838	8.16	0.000	.2035918	.3328211
Firm_Age	.0280764	.0105536	2.66	0.008	.0073391	.0488136
Firm_Size	-.1340978	.0156153	-8.59	0.000	-.1647809	-.1034147
Owner_Edu	1.912475	.1524223	12.55	0.000	1.612974	2.211975
Religious_Influence	.0048867	.0012195	4.01	0.000	.0024905	.007283
_cons	-26.02509	4.115079	-6.32	0.000	-34.11097	-17.93921

Number of obs = 485

Prob > F = 0.0000

R-squared = 0.7110

Adj R-squared = 0.7068

The multiple regression model demonstrates strong explanatory power with an R-squared of 0.7110, indicating that the model explains approximately 71% of the variance in SME financial performance. This high explanatory power exceeds levels reported in similar studies and suggests robust model specification.

Access of Financial Service (β = 0.367, p < 0.001)

The significant positive coefficient for access indicates that a one-unit increase in the access dimension of financial inclusion is associated with a 0.367-unit improvement in financial performance. This finding strongly supports the financial intermediation theory and aligns with empirical evidence from Mushtaq and Bruneau (2024), who found similar magnitudes of access effects across developing economies. The statistical significance and magnitude suggest that physical and economic accessibility to financial services represents a fundamental constraint for SME performance in Kano State. This finding has important policy implications for branch expansion, agent banking, and digital service point development.

Usage of Financial Service (β = 0.284, p < 0.001)

The usage coefficient demonstrates that actual utilization of financial services has significant performance implications. The positive relationship supports the Resource-Based View theory, suggesting that SMEs leveraging financial services as strategic resources achieve superior performance outcomes. This finding is consistent with Li et al.'s (2024) multi-country analysis, which found that usage intensity was a stronger predictor of SME performance than mere access availability. The implication is that financial inclusion initiatives must focus not only on access provision but also on usage promotion through financial literacy, product design, and incentive alignment.

Quality of Financial Service (β = 0.268, p < 0.001)

The quality coefficient indicates that service quality significantly influences performance outcomes. This finding supports contemporary financial inclusion literature emphasizing the importance of service quality alongside quantity (Sarma & Pais, 2023). The result suggests that SMEs benefit more from high-quality, appropriate financial services than from merely having access to numerous but poorly-designed products. The quality effect magnitude is substantial and aligns with European findings from González-Torres and López (2023), who emphasized that service quality differentiated successful financial inclusion programs from those with limited impact.

4.4.2 Control Variables Analysis

Firm Age (β = 0.028, p = 0.008)

The positive relationship between firm age and performance, while statistically significant, shows a relatively small magnitude. This finding suggests that experience and business maturity contribute modestly to performance improvements, consistent with learning curve effects and relationship capital development documented in SME literature (Santos & Silva, 2023).

Firm Size (β = -0.134, p < 0.001)

The negative coefficient for firm size is counterintuitive and warrants careful interpretation. This finding may reflect several factors:

i. Diseconomies of scale in the SME context

ii. Resource constraints becoming more binding as firms grow

iii. Market limitations constraining larger SMEs

iv. Sample composition effects if larger SMEs face different competitive environments

This result contrasts with conventional expectations but aligns with some developing economy studies that found optimal firm sizes for performance in constrained environments (Akinwale & Adebayo, 2023).

Owner Education (β = 1.912, p < 0.001)

The large positive coefficient for owner education represents the strongest single predictor in the model. This finding strongly supports human capital theory and is consistent with extensive literature linking entrepreneurial education to business performance (Ahmad et al., 2024). The magnitude suggests that education effects operate through multiple channels:

i. Improved financial management capabilities

ii. Better strategic decision-making

iii. Enhanced ability to access and utilize financial services

iv. Greater market awareness and opportunity recognition

This finding reinforces the importance of entrepreneurship education and business development services as complements to financial inclusion initiatives.

Religious Influence (β = 0.005, p < 0.001)

The small but significant positive coefficient for religious influence reflects the unique cultural context of northern Nigeria. This finding suggests that religious considerations, rather than constraining business performance, may provide frameworks for ethical business conduct, community support networks, and market access. The positive relationship may also reflect the growing sophistication of Islamic financial products that align with religious preferences while meeting business needs. This finding supports arguments for culturally-appropriate financial product development (Ozili, 2024).

Table 4.8: Marginal effects after logit y = Pr(High_Financial_Inclusion) (predict)= .10848501

variable	dy/dx	Std. err.	z	P>z	[95% C.I.]		X
Firm_Seze	.4124301	.06175	6.68	0.000	.291402	.533459	.449485
Firm_Age	.0282263	.01071	2.64	0.008	.007234	.049219	4.09897
Owner_Gend	.0086538	.00295	2.93	0.003	.00287	.014438	32.8165
Owner_Edu	.2896054	.06044	4.79	0.000	.171153	.408058	1.30515
Digita_Liter	.0469141	.01456	3.22	0.001	.018381	.075448	30.0412
Relig_Influ*	-.0261079	.0061	-4.28	0.000	-.038059	-.014156	32.7299

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Based on the marginal effects results from the logistic regression addressing Research Objective 3 (to identify factors that influence financial inclusion among SMEs in Kano State), the following detailed interpretation incorporates extensive literature support using the specified coding for gender (1 = Male, 0 = Female) and religious influence (1 = Sharia'ah compliant, 0 = non-Sharia'ah compliant):

Firm Size as the Primary Determinant

The strongest predictor of high financial inclusion is firm size (dy/dx = 0.412, $p < 0.001$), where a one-unit increase in firm size increases the probability of achieving high financial inclusion by 41.24 percentage points. This finding strongly aligns with Berger and Udell's (2024) updated financial intermediation theory, which emphasizes that larger firms face lower information asymmetries and transaction costs when accessing financial services.

The magnitude of this effect is consistent with Mushtaq and Bruneau's (2024) comprehensive study across 45 developing countries, which found that firm size was the most consistent predictor of financial access across different institutional environments. Their research demonstrated that larger SMEs benefit from economies of scale in financial service utilization, better collateral capacity, and more sophisticated financial management systems that align with bank requirements.

Li et al. (2024) provided further support in their Asian economies study, showing that firm size effects on financial inclusion operate through multiple channels: enhanced creditworthiness assessment by lenders, greater ability to meet minimum transaction thresholds, and improved capacity to navigate complex documentation requirements. In the African context, Osei-Assibey et al. (2024) found similar patterns across Ghana, Kenya, and South Africa, noting that larger SMEs could better absorb the fixed costs associated with formal financial service adoption.

Owner Educational Effects and Human Capital

Owner education emerges as the second strongest predictor (dy/dx = 0.290, $p < 0.001$), increasing the probability of high financial inclusion by 29.0 percentage points per unit increase in education level. This finding strongly supports human capital theory as articulated by Ahmad et al. (2024), who argued that entrepreneurial education enhances both the demand for and effective utilization of financial services.

González-Torres and López's (2023) European study provided compelling evidence that educated entrepreneurs demonstrate superior financial management capabilities, enabling them to meet lender requirements and utilize complex financial products effectively. Their research showed that education effects on financial inclusion operate through improved financial literacy, better business record-keeping, and enhanced communication with financial service providers. Djellal and Benhabib's (2024) West African analysis found that educational attainment was particularly crucial in environments with limited financial infrastructure, as educated entrepreneurs could better navigate institutional barriers and identify appropriate financial solutions. Adeleke et al.'s (2024) Nigerian study corroborated these findings, showing

that educational effects were especially pronounced in northern states where financial infrastructure development lagged behind southern regions.

Owner Digital Literacy in the Modern Financial

Digital literacy shows a significant positive effect (dy/dx = 0.047, p = 0.001), increasing the probability of high financial inclusion by 4.69 percentage points. While smaller in magnitude than other factors, this finding reflects the growing importance of digital financial services documented extensively in recent literature. Mwangi and Kiprotich's (2023) randomized controlled trial in Kenya demonstrated that digital literacy was becoming a prerequisite for accessing modern financial services, particularly mobile banking and digital payment platforms. Their research showed that digitally literate entrepreneurs could access a broader range of financial products and benefit from lower transaction costs.

Ogundimu and Adesanya's (2023) Lagos-focused research provided evidence that digital financial services adoption was fundamentally transforming SME financial inclusion patterns in Nigerian urban centers. Their findings showed that digitally literate SMEs experienced 25% higher revenue growth, primarily through improved access to working capital and payment solutions. The relatively modest magnitude in the Kano study suggests that digital financial infrastructure may still be developing in northern Nigeria compared to southern commercial centers.

Owner Experience and Business Maturity

Firm age demonstrates a modest positive effect (dy/dx = 0.028, p = 0.008), with each additional year of operation increasing the probability of high financial inclusion by 2.82 percentage points. This finding aligns with Santos and Silva's (2023) longitudinal analysis of SME development, which showed that business relationships and credit history development require time and consistent performance.

The relationship capital theory, as discussed by Chen and Wang (2024), explains how established firms develop trust-based relationships with financial service providers, reducing information asymmetries and transaction costs over time. Their research demonstrated that firm age effects were particularly pronounced in relationship-based financial systems common in developing economies.

Owner Gender Dynamics in Financial Access

The gender effect (dy/dx = 0.009, p = 0.003) reveals that being male increases the probability of achieving high financial inclusion by only 0.87 percentage points compared to female owners. This surprisingly small gender gap contradicts many conventional assumptions about women's financial exclusion in developing economies and requires careful interpretation against existing literature. Mushtaq and Bruneau's (2024) cross-country analysis found much larger gender gaps in financial inclusion across most developing economies, typically ranging from 15-25 percentage points. The modest gender gap in Kano State may reflect several factors supported by recent literature:

Osei-Assibey et al.'s (2024) multi-country African study noted that urban commercial centers often exhibit smaller gender gaps than rural areas, as women entrepreneurs in cities have better access to business networks, education, and supportive infrastructure. Their research suggested that concentrated commercial activity creates more equitable competitive environments that reduce gender-based discrimination.

However, the persistent positive coefficient for males aligns with Djellal and Benhabib's (2024) findings that structural barriers still favor male entrepreneurs even in relatively progressive environments. These barriers include:

i. Cultural expectations regarding business leadership and financial decision-making

ii. Informal network effects that favor male business relationships

iii. Collateral ownership patterns that historically disadvantage women

iv. Time allocation constraints affecting women's ability to engage with formal financial institutions

The small magnitude suggests that while gender barriers exist, they may be less pronounced in Kano State's metropolitan areas than in other regional contexts, possibly due to successful financial inclusion initiatives targeting women or cultural evolution in urban business environments.

Owner Religious Influence and Islamic Finance

The religious influence coefficient ($dy/dx = -0.026$, $p < 0.001$) shows that being Sharia'ah compliant decreases the probability of achieving high financial inclusion by 2.61 percentage points compared to non-Sharia'ah compliant. This finding has significant implications for understanding financial inclusion in northern Nigeria's predominantly Muslim context and aligns with several theoretical and empirical perspectives in Islamic finance literature.

Ozili's (2024) comprehensive analysis of financial inclusion in Islamic contexts identified several structural factors that could explain this negative relationship:

i. Product-Market Mismatch Theory: The availability analysis in the study showed Islamic banking access at only 50.5%, suggesting insufficient supply of Sharia-compliant financial products. Classical Islamic finance theory, as articulated by contemporary scholars, emphasizes prohibition of riba (interest), gharar (excessive uncertainty), and haram (forbidden) investments. When conventional banking products dominate the financial landscape, religiously-conscious Muslim entrepreneurs face a fundamental conflict between religious compliance and business financing needs.

ii. Incomplete Islamic Financial Infrastructure: Recent research by Islamic finance scholars has shown that partial Islamic banking penetration can actually reduce overall financial inclusion when conventional alternatives are rejected for religious reasons but Islamic alternatives are inadequately developed. The 50.5% Islamic banking access rate in Kano State suggests this infrastructural gap may be constraining Muslim SME financial inclusion.

iii. Preference for Alternative Financial Systems: Anthropological studies of West African Muslim communities have documented strong preferences for traditional Islamic financial mechanisms such as mudarabah (profit-sharing partnerships), musharakah (joint ventures), and community-based financing systems. While these systems provide important financial services, they may not be captured in conventional financial inclusion metrics that focus on formal banking relationships.

The findings contribute to the growing literature on financial inclusion heterogeneity, supporting arguments that universal financial inclusion strategies must be adapted to local institutional, cultural, and economic contexts. The results particularly support theoretical arguments for culturally-appropriate financial product development and the importance of addressing religious and cultural barriers to financial inclusion in diverse societies.

5. Discussion of Findings

5.1 Financial Inclusion in Kano State

The study reveals a complex financial inclusion landscape in Kano State's metropolitan areas, characterized by high basic financial service access but significant variations in usage patterns. The 87.2% bank account ownership rate substantially exceeds Nigeria's national average of 45% (Central Bank of Nigeria, 2023), indicating successful urban financial inclusion initiatives. However, this high access rate contrasts sharply with actual service utilization, particularly for credit products where 39% of SMEs never access loan services despite widespread availability.

This access-usage gap aligns with findings from similar developing economy contexts (Demirgüç-Kunt et al., 2024) and suggests that supply-side interventions alone are insufficient for meaningful financial inclusion. The disparity between 87.2% account ownership and only 14.6% frequent credit usage indicates structural barriers that prevent SMEs from leveraging available financial infrastructure effectively.

The sectoral variations in financial inclusion, with services (3.24) and manufacturing (3.18) SMEs showing higher inclusion indices compared to trading/commercial (2.76) and agricultural processing (2.67) enterprises, challenge conventional expectations about financial service needs. Trading activities, which typically require extensive working capital and inventory financing, surprisingly show lower financial inclusion levels. This paradox may reflect misalignment between traditional banking products and the specific financial flow patterns of trading enterprises in West African commercial contexts.

5.2 Financial Inclusion Impact on SME Performance

The multiple regression analysis provides strong evidence for positive financial inclusion effects on SME performance, with the model explaining 71% of performance variance. This high explanatory power exceeds most comparable studies in the literature and suggests robust relationships between financial inclusion dimensions and business outcomes.

The access dimension coefficient ($\beta = 0.367$, $p < 0.001$) confirms that physical and economic accessibility to financial services represents a fundamental constraint for SME performance in northern Nigeria. This finding supports financial intermediation theory predictions and aligns with policy emphasis on branch expansion and agent banking networks. However, the substantial effect size suggests that current access levels remain suboptimal for many SMEs.

The usage coefficient ($\beta = 0.284$, $p < 0.001$) demonstrates that actual service utilization matters more than mere availability, supporting arguments for demand-side interventions including financial literacy programs and appropriate product design. The quality coefficient ($\beta = 0.268$, $p < 0.001$) reinforces contemporary financial inclusion literature's emphasis on service quality alongside quantity, suggesting that poorly designed or inappropriate financial products may actually harm rather than help SME performance.

The counterintuitive negative relationship between firm size and performance ($\beta = -0.134$, $p < 0.001$) warrants careful interpretation. While contradicting conventional expectations, this finding may reflect market constraints that become more binding for larger SMEs, or optimal firm size effects in resource-constrained environments. Similar patterns have been observed in other developing economy contexts where infrastructure limitations and market size constraints create diseconomies of scale for larger enterprises.

5.3 Determinants of Financial Inclusion

The logistic regression analysis reveals firm size as the dominant predictor of high financial inclusion ($dy/dx = 0.412$), consistent with international evidence on SME finance. However, the magnitude of this effect raises concerns about systematic exclusion of smaller enterprises from formal financial services, potentially perpetuating inequality in business development opportunities.

The strong education effect ($dy/dx = 0.290$) underscores human capital importance in financial inclusion, supporting arguments for integrated approaches combining financial service provision with entrepreneurship education and business development services. The significant digital literacy effect ($dy/dx = 0.047$), while smaller in magnitude, indicates the growing importance of technological capabilities in modern financial ecosystems.

The modest gender gap ($dy/dx = 0.009$) is encouraging from an equity perspective but may mask deeper structural barriers that affect women's business development more broadly. The small effect size could reflect successful gender-targeted financial inclusion initiatives or urban environments that provide more equitable opportunities compared to rural contexts.

5.4 Religious and Cultural Considerations

The negative coefficient for religious influence (dy/dx = -0.026) represents one of the study's most significant findings for policy and practice. The finding that being Sharia'ah compliant reduces the probability of high financial inclusion compared to non-Sharia'ah compliant highlights systematic gaps in Sharia-compliant financial service provision.

This result has profound implications for financial inclusion strategy in northern Nigeria, where religious considerations significantly influence financial behavior. The finding suggests that current financial inclusion initiatives may inadvertently exclude a significant portion of the population due to religious constraints on conventional banking products.

The moderate Islamic banking access rate (50.5%) indicates substantial room for expansion in religiously appropriate financial services. Given Kano State's predominantly Muslim population, this gap represents both a market failure and a social equity issue that requires targeted policy intervention.

5.5 Theoretical Implications

The findings provide strong empirical support for financial intermediation theory in the developing economy context, demonstrating that improved financial intermediation enhances SME performance through multiple channels. The significant effects of all financial inclusion dimensions support theoretical arguments for comprehensive rather than narrow approaches to financial sector development.

The results also contribute to Resource-Based View theory application in developing economies, showing how access to financial resources can provide competitive advantages for SMEs. However, the negative firm size coefficient suggests that resource accumulation may not always translate to performance improvements in constrained environments, indicating potential modifications to RBV theory applications in developing economies.

The strong human capital effects support arguments for integrated development approaches that combine financial inclusion with education and capacity building initiatives. The religious influence findings contribute to growing literature on cultural factors in financial inclusion, demonstrating the need for culturally sensitive financial product development.

6. Conclusion

This study examined the relationship between financial inclusion and SME performance in Kano State's metropolitan areas, addressing a significant gap in northern Nigerian business development research. The findings provide compelling evidence that financial inclusion significantly enhances SME performance while revealing important contextual factors that shape these relationships.

6.1 Summary of Key Findings

i. Financial Inclusion Status: Kano State's metropolitan SMEs demonstrate high basic financial service access (87.2% bank account ownership) but significant usage gaps, particularly for credit services. Sectoral variations indicate that services and manufacturing enterprises achieve higher financial inclusion levels compared to trading and agricultural processing SMEs.

ii. Performance Impact: Financial inclusion dimensions (access, usage, and quality) demonstrate strong positive effects on SME financial performance, with the comprehensive model explaining 71% of performance variance. Access emerged as the most important dimension, followed by usage and quality, confirming the multidimensional nature of financial inclusion benefits.

iii. Determinants of Inclusion: Firm size dominates financial inclusion determinants, followed by owner education, highlighting potential inequality in financial access. The modest gender gap suggests relatively equitable access across genders, while the negative religious influence coefficient reveals systematic barriers for Muslim entrepreneurs due to limited Islamic banking options.

iv. Contextual Factors: Owner education emerges as the strongest single predictor of SME performance, emphasizing human capital importance. Religious considerations significantly influence financial inclusion patterns, indicating the need for culturally appropriate financial service development.

6.2 Theoretical Contributions

The study contributes to financial inclusion literature by demonstrating the multidimensional nature of inclusion effects in a developing economy context. The findings support financial intermediation theory while revealing important contextual modifications required for developing economy applications.

The research contributes to SME development literature by providing empirical evidence from northern Nigeria, addressing geographical gaps in existing research. The strong education effects support arguments for integrated development approaches combining financial inclusion with human capital development.

The religious influence findings contribute to growing literature on cultural factors in financial inclusion, demonstrating quantitatively how religious considerations affect financial behavior in diverse societies.

7. Recommendations

i. Develop Comprehensive Islamic Banking Infrastructure: The Central Bank of Nigeria and relevant regulatory authorities should prioritize Islamic banking development in northern states. This includes establishing licensing frameworks for Islamic banks, developing Sukuk (Islamic bond) markets, and creating regulatory guidelines for Islamic SME financing products.

ii. Expand Islamic Banking Product Offerings: Commercial banks and microfinance institutions should develop Sharia-compliant products including Murabaha (cost-plus financing), Ijarah (leasing), and Musharakah (partnership) arrangements. These products can serve both religious requirements and business financing needs.

iii. Implement Relationship-Based Lending Models: The firm size effects suggest that smaller enterprises face systematic barriers in accessing formal credit. Relationship-based lending models that rely on business relationships and cash flow analysis rather than collateral requirements could expand access.

iv. Develop Digital Financial Service Capabilities: The growing importance of digital literacy suggests that financial institutions should invest in digital platforms and mobile banking capabilities while providing customer education and support for digital service adoption.

v. Implement Demand-Side Financial Inclusion Interventions: While supply-side infrastructure has expanded significantly, the usage gaps indicate need for financial literacy programs, business development services, and product awareness campaigns. These interventions should be tailored to different sectors and cultural contexts.

vi. Establish Targeted SME Development Programs: The strong education effects suggest that financial inclusion initiatives should be integrated with entrepreneurship education and business development services. Programs should specifically target smaller enterprises that face systematic exclusion from formal financial services.

References

Adamu, M. S., & Suleiman, A. B. (2023). Regional disparities in SME development: Evidence from northern Nigeria. *Journal of African Business*, 24(3), 145-162.

Adebayo, R. O., Okafor, C. N., & Ibrahim, H. Y. (2023). Small and medium enterprises in Nigeria: Economic contribution and policy challenges. *African Development Review*, 35(2), 87-104.

Adeleke, T. A., Ogundipe, S. E., & Adebayo, M. K. (2024). Financial inclusion and SME performance: Multi-state evidence from Nigeria. *International Journal of Emerging Markets*, 19(4), 892-915.

Ahmad, S., Rahman, M. M., & Ali, S. (2024). Measuring SME performance in developing economies: A comprehensive framework. *Small Business Economics*, 62(3), 1123-1148.

Akinwale, S. O., & Adebayo, T. R. (2023). SME constraints and performance in sub-Saharan Africa: A systematic review. *Journal of Small Business Management*, 61(2), 245-278.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99-120.

Berger, A. N., & Udell, G. F. (2024). The economics of small business finance: The roles of private equity and debt markets in the financial growth cycle. *Journal of Banking & Finance*, 58, 613-628.

Central Bank of Nigeria. (2023). National financial inclusion strategy 2024: *Implementation framework*. CBN Press.

Chen, L., & Wang, H. (2024). Resource-based view and SME performance in emerging markets: The role of financial inclusion. *Strategic Management Journal*, 45(7), 1823-1851.

Creswell, J. W., & Creswell, J. D. (2023). Research design: Qualitative, quantitative, and mixed methods approaches (6th ed.). Sage Publications.

Demirgüç-Kunt, A., Klapper, L., & Singer, D. (2024). Financial inclusion and economic development: Global evidence and policy implications. *World Bank Economic Review*, 38(2), 287-315.

Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies*, 51(3), 393-414.

Djellal, A., & Benhabib, A. (2024). Financial inclusion and SME performance in West Africa: Sectoral analysis from Senegal and Mali. *African Economic Research Consortium Working Paper*, No. 147.

Frank, M. Z., & Goyal, V. K. (2023). Pecking order theory and SME financing in developing economies. *Journal of Corporate Finance*, 82, 102-118.

Garba, M. I., Hassan, U. F., & Mohammed, A. S. (2024). SME performance challenges in northern Nigeria: An empirical investigation. *Nigerian Journal of Management Sciences*, 25(1), 34-52.

González-Torres, M., & López, P. (2023). Digital financial inclusion and SME performance in Southern Europe: Evidence from Spain, Italy, and Portugal. *European Business Review*, 35(4), 567-589.

Gurley, J. G., & Shaw, E. S. (1960). *Money in a theory of finance*. Brookings Institution.

Ibrahim, S. A., & Mustapha, L. K. (2024). Financial constraints and SME growth in Kano State: A survey analysis. *Kano Journal of Commercial and Industrial Law*, 12(2), 78-95.

Li, X., Zhang, Y., & Kumar, R. (2024). Financial inclusion and SME productivity: Evidence from Asian emerging economies. *Asia Pacific Journal of Management*, 41(3), 789-821.

Mushtaq, R., & Bruneau, C. (2024). Financial inclusion and firm productivity: Cross-country evidence from developing economies. *Journal of Development Economics*, 168, 103-125.

Mwangi, P. K., & Kiprotich, S. (2023). Mobile money and SME performance in Kenya: A randomized controlled trial. *Economic Development and Cultural Change*, 71(4), 1487-1523.

Myers, S. C., & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics*, 13(2), 187-221.

OECD. (2023). *SME and entrepreneurship policy in developing countries*. OECD Publishing.

Ogundimu, A. T., & Adesanya, B. O. (2023). Digital financial services and SME performance: Lagos State evidence. *Lagos Business School Review*, 19(3), 156-178.

Osei-Assibey, E., Bokpin, G. A., & Twerefou, D. K. (2024). Mobile money adoption and SME performance in Sub-Saharan Africa: Multi-country analysis. *Journal of African Business*, 25(2), 234-259.

Ozili, P. K. (2024). Financial inclusion and economic growth in Islamic economies: Theory and evidence. *Islamic Economic Studies*, 32(1), 45-67.

Santos, F., & Silva, M. (2023). SME performance measurement in developing economies: A multidimensional approach. *International Small Business Journal*, 41(5), 623-648.

Sarma, M., & Pais, J. (2023). Financial inclusion and economic development: A critical review. *Journal of Economic Surveys*, 37(4), 1123-1156.

Small and Medium Enterprises Development Agency of Nigeria. (2024). *SME classification and registration guidelines*. SMEDAN Publications.

World Bank. (2024). Global financial inclusion database: Country profiles and methodology. World Bank Group.

Yakubu, M. N., & Hassan, I. U. (2023). Financial inclusion patterns among SMEs in Kano State: Preliminary findings. *Bayero Journal of Commercial and Property Law*, 8(1), 67-84.