



Financial Inclusion and SMEs Performance in Southwest Nigeria: The Mediating Role of Microfinance Bank Financing

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Abstract

Purpose: This study examines how financial inclusion mediates the relationship between microfinance bank (MFB) financing and the performance of small and medium-sized enterprises (SMEs) in Southwest Nigeria. It draws on Transaction Cost Theory, the Theory of Economic Development, and Financial Intermediation Theory. The study integrates these perspectives to explain how diverse financial services drive SME growth.

Method: Purposive and random sampling selected 380 SMEs from seven sectors. Structured questionnaires gathered data. The analysis used descriptive statistics and Path Analysis Structural Equation Modelling (PA-SEM) in STATA version 15.

Result: Descriptive analysis shows widespread access to MFB products, with mean availability scores ranging from 4.38 to 4.58. Path Analysis results reveal that not all MFB financial products contribute equally to SMEs' performance. Transactional and credit-related services—particularly current accounts, joint association accounts, and working capital loans—have a stronger effect on SME performance than basic savings accounts. The results also indicate that financial inclusion partially mediates the relationship between MFBs' funding activities and SMEs' performance. Specifically, current accounts, term deposit accounts, and joint association accounts significantly enhance SME performance through improved financial inclusion. Savings accounts and working capital loans do not exhibit significant mediated effects. The study underscores the vital role of financial inclusion as a bridge between microfinance services and SME success. It offers guidance to policymakers, regulators, microfinance institutions, and entrepreneurs in emerging economies.

INTRODUCTION

Small and Medium Enterprises (SMEs) play a crucial role in driving economic growth and creating employment in both developed and developing economies. They contribute

approximately 50–60% of GDP in advanced economies and 30–40% in emerging economies, while accounting for over 60% of global employment (Sajuyigbe et al., 2021; Gupta & Kanungo, 2022). Beyond job creation, SMEs foster economic diversification, reduce reliance on single industries, and promote inclusive development (Quak, 2022; Hartanti & Kusumajati, 2025; Mazya & Kolopaking, 2022). Despite their importance, SMEs across Africa—and particularly in Nigeria—face persistent challenges in accessing finance. The COVID-19 pandemic exacerbated these difficulties, with more than 80% of SMEs worldwide experiencing financial shocks, and over two billion Africans remaining unbanked (OECD, 2020). These constraints have slowed SME growth and limited their economic contributions. Financial inclusion, defined as affordable access to savings, credit, insurance, and payment services, has emerged as a key strategy to address these challenges. However, commercial banks often view SMEs as high-risk borrowers and impose strict collateral and credit requirements that many SMEs cannot meet. To bridge this gap, Microfinance Banks (MFBs) were established to provide flexible and accessible financial services to underserved enterprises. MFBs offer microloans with lower collateral requirements, faster processing times, and products tailored to SMEs' needs, linking small businesses to the funds necessary for growth and competitiveness (Feyen & Natarajan, 2023; Alifiansyah & Fauzia, 2025; Gunawan et al., 2023; Adeleke & Tijani, 2023). In Nigeria, MFBs have become increasingly vital for post-pandemic economic recovery by providing microloans, savings products, and advisory services. Digital innovations, such as mobile banking and online lending, have further expanded access, particularly in rural areas. Nevertheless, high operating costs, regulatory challenges, and limited capital continue to constrain their ability to meet the growing demand from SMEs. With around 36% of Nigerian adults still financially excluded, many SMEs, often lacking formal financial records, struggle to access conventional credit (Sharma et al., 2022).

Previous research has generally examined financial inclusion and SME performance separately, paying limited attention to the role of Microfinance Banks in linking the two. This study addresses this gap by analyzing the financial products MFBs provide to SMEs, assessing their accessibility, evaluating their impact on SME performance, and exploring how MFBs mediate the relationship between financial inclusion and SME outcomes (Fadeyi et al., 2025). The findings are expected to inform policies aimed at strengthening the financial ecosystem, expanding credit access, and creating a more supportive environment for SME growth. Ultimately, the results will help enhance financial inclusion, improve SME resilience, and support broader economic stability in Nigeria, an urgent priority given ongoing economic pressures. This study poses the following key questions: What financial products do MFBs provide to SMEs? How accessible are MFBs' credit facilities to SMEs? And to what extent do these financial products influence SME performance? Unlike prior studies that examined financial inclusion or SME performance in isolation, this research focuses on the intermediary role of MFBs. It demonstrates that access to finance alone is insufficient; the effectiveness of financial products depends on how MFBs design and deliver loans, savings, and support services that SMEs can practically utilize.

The study contributes to knowledge by making the main argument—that MFBs are the key bridge between broad financial inclusion and tangible SME performance—explicit. It demonstrates in theory that financial inclusion alone is insufficient; effective support for SMEs depends on accessible, relevant financial services from institutions such as MFBs. Practically, these insights can guide policymakers, MFBs, and SME operators to improve financing decisions, enhance access to credit, and design products that truly benefit SMEs. Strengthening MFBs can thus boost SME performance and drive Nigeria's economic growth, especially in the post-pandemic context.

The novelty of this study lies in its explicit examination of Microfinance Banks (MFBs) as an intermediary mechanism linking financial inclusion to SME performance in Nigeria, rather than treating financial inclusion and SME outcomes as parallel or independent constructs. While existing studies largely assess the effects of financial inclusion on SMEs or evaluate SME performance determinants in isolation, this research advances knowledge by integrating the role of MFBs as a mediating institution that translates financial inclusion into tangible business performance outcomes. Specifically, the study moves beyond measuring access to finance to

analyze how the design, accessibility, and suitability of microfinance products—such as microloans, savings schemes, and advisory services—shape SME growth, resilience, and competitiveness. In the Nigerian post-pandemic context, where financial exclusion remains high and SMEs face heightened vulnerability, this study provides empirical evidence that access to finance alone is insufficient without support from institutionally appropriate and context-sensitive financial intermediation. By empirically modeling the intermediary role of MFBs, the study offers a theoretically enriched and policy-relevant framework for understanding how financial inclusion can more effectively drive SME performance in developing economies.

Conceptual Framework

Prior studies have used diverse theories to explain links among financial inclusion, microfinance banks (MFBs), and small and medium enterprises (SMEs). These include Resource-Based View, Transaction Cost Theory, Pecking Order Theory, Poverty Reduction Theory, Inclusive Growth Theory, Institutional Theory, Social Business Models, Social Capital Theory, Credit Rationing Theory, Financial Liberalization Theory, Theory of Economic Development, and Financial Intermediation Theory. However, most research applies these theories in isolation rather than integrating them. This study addresses that gap by combining Transaction Cost Theory, the Theory of Economic Development, and Financial Intermediation Theory to examine the Nigerian context and demonstrate how financial inclusion promotes entrepreneurship, poverty reduction, and growth.

Transaction Cost Theory views every financial transaction as carrying hidden costs—searching for information, negotiating terms, and monitoring repayment. For SMEs, such costs make traditional bank borrowing expensive or impractical. MFBs reduce these frictions by operating within communities, using simpler procedures, and leveraging local knowledge or group lending. Lower search, negotiation, and enforcement costs enable SMEs to secure credit, savings, and payment services more easily, thereby improving working capital, cash flow management, and competitiveness (Kamara & Mambo, 2022; Garba et al., 2023; Sharma et al., 2022). In Nigeria and similar economies, where paperwork, collateral demands, and long approval times inflate the “price” of formal finance, these cost savings translate into higher productivity and profitability (Adeleke & Tijani, 2023; Fekete-Farkas et al., 2023).

The Theory of Economic Development, rooted in Schumpeter’s work, highlights the roles of financial institutions in mobilizing savings and funding innovation. When MFBs provide credit and payment services, they turn idle resources into productive investments and broaden access for unbanked entrepreneurs. By financing new products and technologies, MFBs help diversify Nigeria’s economy and expand its entrepreneurial base, reinforcing investment and growth.

Financial Intermediation Theory explains how financial institutions pool deposits, transform maturities, and manage risk. MFBs collect small savings and channel them into loans tailored to SMEs, reducing information asymmetry and collateral requirements that deter commercial banks (Panyam & Zewde, 2023). Reliable intermediation ensures affordable, steady credit flows, enabling SMEs to maintain working capital, invest in equipment, scale operations, and withstand shocks, thereby enhancing productivity and profitability (Mnguni, 2022).

In sum, Transaction Cost Theory clarifies how MFBs lower barriers to financial access; the Theory of Economic Development explains why these services matter for structural transformation and long-term growth; and Financial Intermediation Theory details the mechanism through which savings become productive in SME investment (Mazyra et al., 2022). Combined, they provide a comprehensive framework showing that effective microfinance intermediation fosters financial inclusion, strengthens SME performance, and drives sustainable development in emerging economies such as Nigeria.

The rise of financial inclusion as a global development priority began in the early 1990s with the microfinance movement. Landmark institutions such as the Grameen Bank in Bangladesh, founded by Muhammad Yunus, demonstrated that providing small, collateral-free loans to low-income individuals—particularly women—could stimulate entrepreneurship and enhance livelihoods. These early successes challenged traditional banking paradigms and underscored the

feasibility of extending formal financial services to economically marginalized populations (Demirgüç-Kunt et al., 2022). By the early 2000s, financial inclusion had become a core policy priority for global development institutions, including the World Bank, the International Monetary Fund (IMF), and the United Nations. This global recognition was further reinforced in 2005 when the United Nations declared the year as the “International Year of Microcredit,” thereby amplifying awareness of its developmental significance (Eze et al., 2023).

In the Nigerian context, financial inclusion has been widely recognized by the Central Bank of Nigeria (CBN) and other relevant stakeholders as a vital instrument for promoting economic growth, reducing poverty, and fostering social and financial empowerment. Consequently, successive national strategies and regulatory reforms have been implemented to expand access to formal financial services. Evidence from the Enhancing Financial Innovation and Access (EFInA) survey indicates a gradual improvement in Nigeria’s financial inclusion landscape, despite the persistence of structural, institutional, and socio-economic constraints. More recently, the rapid diffusion of digital technologies—such as mobile telephony, internet connectivity, and digital identification systems—has lowered transaction costs and expanded the reach of financial services, thereby creating new avenues to narrow the financial inclusion gap (Garba et al., 2023).

Relationship between Savings Account and SMEs’ Performance

Existing empirical studies provide convergent evidence on the relationship between savings accounts and SME performance. For instance, Gupta and Kanungo (2022) find that savings accounts are significantly associated with enhanced financial inclusion and improved business performance. Similarly, Arezki et al. (2020) identify savings accounts as a key predictor of financial inclusion and SME growth. Oyelola and Ojo (2022) further demonstrate that a savings account is significantly associated with financial inclusion and SME sustainability in developing economies. Sussan and Obamuyi (2018) also concur with previous studies that there is a significant positive relationship between savings accounts and SME performance. From a theoretical standpoint, savings accounts primarily function as custodial instruments rather than as tools for productive investment. Based on the empirical and theoretical evidence, the following hypothesis is proposed: H1: Saving Account has a significant association with SMEs' Performance

Existing research has shown that the relationship between current accounts and SMEs’ performance is positive and highly significant. For instance, Uzochukwu and Okwu (2023) establish a positive and significant relationship between the current account, financial inclusion, and SMEs’ performance. In another study by Kundid and Ercegovic (2023), it is established that access to current accounts significantly enhances SME financial inclusion, with positive implications for their performance. Kamara and Mambo (2022) likewise corroborate that current accounts drive SME financial inclusion and performance. Kanungo (2022) also reports a significant positive association between current account usage, financial inclusion, and business performance. Similarly, Arezki et al. (2020) highlight current accounts as key predictors of financial inclusion and SME growth. This implies that current accounts facilitate efficient transaction management, enable frequent deposits and withdrawals, support effective cash flow control, and ensure clearer separation of personal and business finances. Theoretically, this aligns with financial intermediation and resource-based perspectives, which underscore efficient financial management as a source of competitive advantage. Hence, the following hypothesis is formulated: H2: Current Account has a significant association with SMEs' Performance

Existing research shows that term deposit accounts have a positive, statistically significant effect on SME performance. For example, Oyelola and Ojo (2022) emphasize that term deposit accounts are key drivers of financial inclusion and SME sustainability in developing economies. In the same direction, Adeleke and Tijani (2023) reiterate that term deposit accounts are major determinants of SMEs' financial inclusion and performance. Demirgüç-Kunt et al. (2022) demonstrate that term deposit accounts are drivers of financial inclusion and SME growth. A study by Garba et al. (2023) establishes that term deposit accounts are strong predictors of SMEs'

performance and financial inclusion. Gupta et al. (2022) establish that access to term deposit accounts significantly enhances financial inclusion and SME performance. This suggests that SMEs investing surplus funds in fixed or term deposits can enhance their financial stability and overall performance. Therefore, the following hypothesis emerged:

H3: Term Deposit Account has a significant association with SMEs' Performance

Working capital loans have been proven to have a positive and significant association with SMEs' performance. For instance, Odunjo et al. (2018) prove that working capital loans are vital for SMEs' growth. Similarly, a study conducted by Geoffrey and Emenike (2018) reveals that working capital loans are a major aspect of financial inclusion for SMEs to remain competitive and grow stronger amid crises. In another study, Sussan and Obamuyi (2018) demonstrate that working capital loans are a major financial inclusion and performance for SMEs. Similarly, Arezki et al. (2020) also identify working capital loans as key predictors of financial inclusion and SME growth. In the same direction, Oyelola and Ojo (2022) further demonstrate that working capital loans are significantly associated with financial inclusion and SME sustainability in developing economies. Demirgüç-Kunt et al. (2022) also concur with previous studies that there is a significant positive relationship between working capital loans and SMEs' financial inclusion and performance. Hence, the following hypothesis emerged:

H4: Working Capital Loans have a significant association with SMEs' Performance

Joint association accounts that reduce individual risk exposure, encourage peer monitoring and financial discipline, and strengthen collective bargaining power in interactions with financial institutions have been identified by scholars as strong predictors of SMEs' performance. For instance, Uzochukwu and Okwu (2023) attest that joint association accounts have a significant influence on SME performance. In another study, Kar et al. (2021) argue that joint association accounts are strong predictors of SME performance. In the same vein, Njoku and Okoro (2022) demonstrate that joint association accounts are directly linked to SMEs' financial inclusion and performance. Kamara and Mambo (2022) likewise corroborate that joint association accounts are significantly associated with SME financial inclusion and performance. Kanungo (2022) also reports a significant positive association between joint association accounts, financial inclusion, and business performance. Similarly, Arezki et al. (2020) demonstrate that joint association accounts are major determinants of SMEs' performance. Thus, the following hypothesis emerge:

H5: Joint Association Accounts have a significant association with SMEs' Performance

Financial Inclusion as a Mediating Factor

Financial inclusion functions as an intervening mechanism linking financial products to SME outcomes. Existing empirical literature consistently shows that financial inclusion plays a significant role in shaping the relationship between financial products and SME performance. For instance, Adeleke and Tijani (2023) report that financial inclusion not only has a direct positive effect on SMEs' performance but also mediates the relationship between specific financial products, such as savings accounts, current accounts, term deposit accounts, joint association accounts, and working capital loans, and SME performance. Similarly, Arezki et al. (2020) demonstrate that the performance of SMEs is enhanced through financial inclusion channels that operate via access to and utilization of financial products. In the same vein, Fadeyi et al. (2025) confirm that financial inclusion significantly predicts SMEs' performance through the effective use of financial products, including savings and deposit accounts as well as working capital facilities. Fekete-Farkas et al. (2023) further emphasize that financial inclusion improves SME outcomes by strengthening access to and use of formal financial products. Moreover, Garba and Madu (2023) provide empirical evidence that financial inclusion mediates the relationship between financial products and SME performance. Likewise, Gunawan et al. (2023) establish that financial inclusion enhances SMEs' performance through the availability and utilization of financial products. Finally, Gupta and Kanungo (2022) highlight that financial inclusion serves as a driving force, enabling financial products to positively influence SME performance. Overall, these studies

collectively affirm the mediating role of financial inclusion in translating access to financial products into improved SME performance. Hence, the following hypothesis emerged:
 H6: Financial Inclusion mediates the relationship between the financial products (savings accounts, current accounts, term deposit accounts, joint association accounts, and working capital loans) and SMEs' Performance.

The research model is presented in Figure 1.

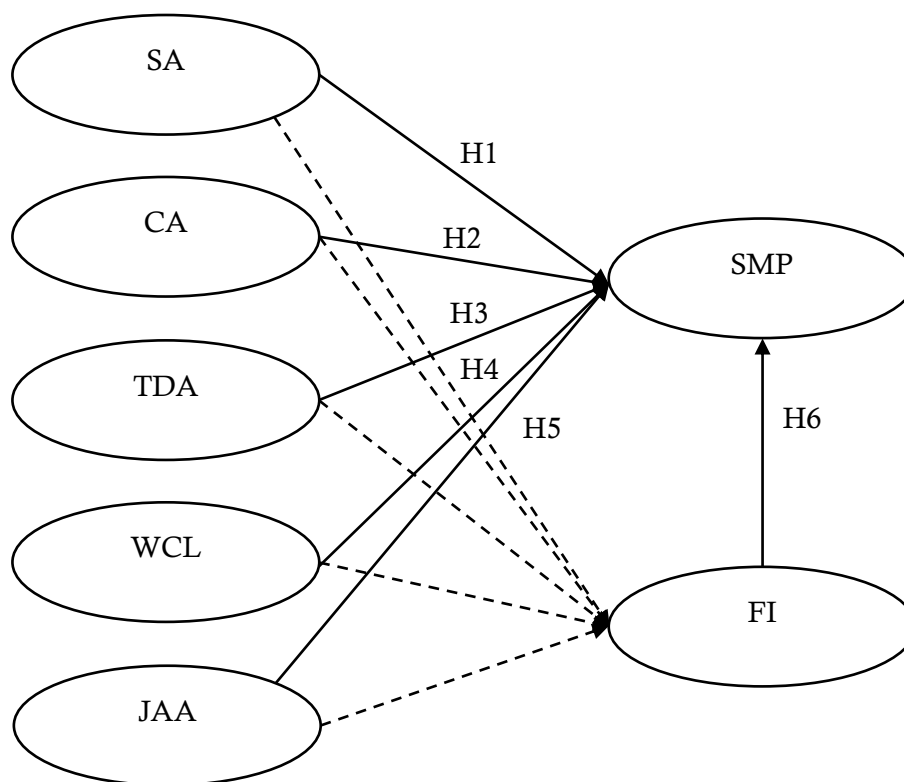


Figure 1.
Research Model

RESEARCH METHODS

Research Design: This study uses a quantitative, explanatory (causal) research design. The quantitative, explanatory (causal) research design is appropriate because the study aims to test theory-driven cause-and-effect relationships among variables. Quantitative methods allow for objective measurement using structured questionnaires and Likert scales, while the explanatory design supports hypothesis testing and causal analysis. The use of Structural Equation Modelling (SEM) enables the simultaneous examination of direct and mediating effects, providing statistically rigorous and generalizable findings that align with the study's theoretical framework.
Study Area: This research was carried out among established SMEs in the South-Western geopolitical zone of Nigeria. South-Western Nigeria comprises Lagos State, Ogun State, Oyo State, Osun State, Ondo State, and Ekiti State. The choice of these states is based on their status as centres of business activity.

Sampling Method and Sample Size: A purposive sampling technique was employed to identify 7,474 SMEs registered with the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN). From this population, a simple random sampling method was used to select 380 respondents across all seven SME sectors in South-West Nigeria. The sample size was determined using Slovin's (1963) formula.

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

Where;

n = total sample size

N = total population

α . = 5% level of significance

$$n = \frac{7,474}{1+(0.05)^2.7,474} = 380$$

Therefore, the study's sample size is 380 respondents.

The study adopted a two-stage sampling procedure. First, a purposive sampling technique was used to identify 7,474 Small and Medium Enterprises (SMEs) registered with the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN), ensuring that only relevant and formally registered enterprises were included. Second, a simple random sampling method was employed to select 380 respondents from the identified population across the seven SME sectors in South-West Nigeria, thereby ensuring fair representation and reducing sampling bias.

The research instruments were reviewed by a panel of experts from the Federal University, Lokoja (Kogi State), and the University of Ilorin (Kwara State). The panel conducted a content analysis of the questionnaire items, removing those deemed irrelevant to the study. Following necessary revisions, the experts provide recommendations regarding the suitability and use of the instruments for data collection. After necessary modifications, the panel of experts recommended using the instruments for the study.

To test the hypothesis, a quantitative study was conducted using a structured questionnaire. Saving account was measured using a scale developed and validated by Garba et al. (2023), consisting of five items in statement format, Sample items include: 1) our business has easy access to a savings account with a Microfinance Bank, 2) the savings account helps us set aside funds for future business needs, 3) depositing money into the savings account is convenient and affordable, 4) the interest earned on our savings account encourages us to save regularly, and 5) the savings account improves our financial discipline and planning.

The current account was measured using a scale developed and validated by Gupta and Kanungo (2022). This scale also uses five items in statement form, Sample items include: 1) our business operates a current account with a Microfinance Bank, 2) the current account allows us to carry out frequent business transactions easily, 3) transaction charges on the current account are affordable for our business, 4) the current account improves cash flow management in our business, and 5) access to cheque or transfer facilities through the current account supports our daily operations.

The Term Deposit Account was assessed using a scale developed and validated by Arezki et al. (2020). Sample items include: 1) our business uses term deposit accounts to invest surplus funds, 2) term deposit accounts provide better returns than regular savings accounts, 3) the minimum deposit requirements for term deposits are affordable, 4) term deposits help our business plan for medium- to long-term financial goals, and 5) we feel confident locking funds in term deposits for a fixed period.

Working Capital Loans were measured using a scale developed and validated by Oyelola and Ojo (2022). Sample items include: 1) Our business can easily access working capital loans from Microfinance Banks, 2) working capital loans help us purchase raw materials and inventory on time, 3) loan processing time is short and suitable for business needs, 4) interest rates on working capital loans are affordable, and 5) working capital loans improve the smooth running of our business operations.

Joint Association Account was measured using a scale developed and validated by Uzochukwu and Okwu (2023). Sample items include: 1) our business operates a joint association account that allows multiple partners or members to participate in financial decision-making, 2) the joint association account has improved transparency and accountability among

partners/members of our enterprise, 3) access to a joint association account has enhanced our ability to mobilize savings and pool financial resources for business activities, 4) the joint association account has made it easier for our enterprise to access loans or other financial services from microfinance banks, and 5) overall, the use of a joint association account has positively contributed to the growth and financial stability of our enterprise.

Financial Inclusion was measured using a scale developed and validated by Kamara and Mambo (2022). Sample items include: 1) Our business has access to formal financial services through Microfinance Banks, 2) financial services are affordable for our business operations, 3) we can easily open and operate bank accounts when needed, 4) access to finance has improved our ability to grow the business, and 5) our business is no longer financially excluded from the formal financial system.

SMEs' Performance was measured using a scale developed and validated by Kundid and Ercegovac (2023). Sample items include: 1) Our business sales have improved over the past few years, 2) profitability of our business has increased since accessing financial services, 3) our business has expanded in size or operations over time, 4) we are better able to meet customer demand than before, and 5) overall, the performance of our business has improved compared to competitors.

The scales were subjected to further item analysis to determine their psychometric soundness as indicated in Table 1 below:

Table 1.
Summary of Results of the Measurement Instruments Validation

Scale	No of Items	Meaning Bartlett	KMO	Eigenvalue of the principal Component	% of the variance	α of Cronbach
Financial Inclusion Questionnaire	5	p = .000 (significant)	0.829	3.608	72.13%	0.86
Saving Account Questionnaire	5	p = .000 (significant)	0.805	2.555	85.16%	0.81
Current Account Questionnaire	5	p = .000 (significant)	0.840	3.472	92.56%	0.80
Term Deposit Account Questionnaire	5	p = .000 (significant)	0.744	2.078	71.89%	0.78
Joint Association Account Questionnaire	5	p = .000 (significant)	0.784	2.172	72.09%	0.79
Working Capital Loans Questionnaire	5	p = .000 (significant)	0.779	2.872	74.14%	0.82
SMEs Performance Questionnaire	5	p = .000 (significant)	0.813	3.890	76.29%	0.84

Table 1 shows that all measurement instruments are valid and reliable. Bartlett's Test of Sphericity ($p = .000$) confirms the variables are suitable for factor analysis. All Kaiser–Meyer–Olkin (KMO) values exceed 0.70, proving strong sampling adequacy. Each scale has eigenvalues above 1 and explains more than 70% of total variance, confirming clear factors and strong construct validity. Cronbach's Alpha values from 0.78 to 0.86 confirm good internal consistency. Overall, the questionnaires are unidimensional, statistically sound, and appropriate for assessing financial inclusion, SME performance, and related constructs.

Table 2.
Confirmatory Factor Analysis (CFA)

Indicators	Value
Chi-square (χ^2)	0.076; p = 0.000
the root mean square error of approximation (RMSEA)	0.0390
The comparative fit index (CFI)	0.98
The Tucker-Lewis index (TLI)	0.97
The standardized root mean square residual (SRMR)	0.050

Table 2 reports the results of the Confirmatory Factor Analysis (CFA), which assesses the extent to which the observed variables adequately represent their underlying constructs. Model fit was evaluated using several goodness-of-fit indices, including the chi-square statistic (χ^2), Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), and Standardized Root Mean Square Residual (SRMR). In line with the thresholds recommended by Pituch and Stevens (2016), an acceptable model fit is indicated when the chi-square probability exceeds 5%, RMSEA is below 0.05, TLI and CFI are 0.95 or higher, and SRMR is below 0.05. The results show a chi-square value of 0.076, CFI of 0.98, TLI of 0.97, RMSEA of 0.039, and SRMR of 0.050. Overall, these indices suggest that the measurement model demonstrates a good fit with the observed data, consistent with the criteria proposed by Pituch and Stevens (2016).

Data were analysed using descriptive statistics and Path Analysis–Structural Equation Modelling (PA-SEM) with the aid of STATA version 15. PA-SEM is a multivariate statistical technique that enables the simultaneous examination of direct and indirect relationships among variables. In this study, PA-SEM was employed to assess the effects of Microfinance Banks' financial products on SMEs' performance, while also examining the mediating role of financial inclusion. The method is appropriate because SME performance is influenced by multiple financial products concurrently, and PA-SEM allows these complex relationships to be modelled within a single analytical framework. It facilitates the estimation of both direct effects of financial products on SME performance and indirect effects transmitted through financial inclusion. In addition, PA-SEM produces standardized path coefficients that indicate the strength and direction of relationships and enable evaluation of the overall model fit. The choice of PA-SEM is further justified by the study's confirmatory and theory-driven orientation, its specific focus on mediation analysis, and the prior validation of measurement models, making it a more efficient and suitable approach than CB-SEM and PLS-SEM. By estimating all structural relationships simultaneously, PA-SEM minimizes estimation bias and provides a clearer understanding of how each financial product influences SME performance. Finally, the use of STATA version 15 ensures reliable and efficient estimation of direct and indirect effects, formal testing of mediation, and assessment of model fit, thereby enhancing the robustness and reproducibility of the study's findings.

RESULTS & DISCUSSION

The demographic profile of Microfinance Bank (MFB) operators shows that almost one-quarter are between 31 and 40 years old, about three-fifths are between 41 and 50 years old, and roughly one in six is older than 50. Their average age is about forty-eight, which means most are still relatively young, energetic, and able to play an active role in strengthening Nigeria's financial institutions. Men dominate the group, accounting for close to 9 out of every 10 operators, while women represent a much smaller share. All of the respondents are married, and the majority are well educated and experienced, providing the knowledge base needed to manage and grow microfinance activities effectively. Among the SME operators, roughly seventeen percent fall between twenty and thirty-five years of age, thirty-eight percent are between thirty-six and forty-five, thirty-five percent are between forty-six and fifty-five, and only about ten percent are older than fifty-six. Their average age is about 45, again indicating a youthful, vigorous workforce that can drive economic growth, create jobs, and help reduce poverty. Just over half of the respondents are men, while women account for almost half. Most are married, around four-fifths of the total, with a smaller share who are single or divorced. Education levels are high: more than eighty-five

percent have schooling beyond the secondary level. The businesses they represent are diverse, including manufacturing, services, agro-allied activities, and construction, giving them a wide range of industry experience.

Both microfinance operators and SME owners are largely middle-aged, highly educated, and experienced, enabling them to contribute meaningfully to Nigeria's financial sector and broader economic progress.

Table 3.
Financial products MFBs offer to Small and Medium Enterprises (SMEs)

Products/ Services Availability	Mean	Chi-Square	Remark
Microloans (Microcredit)	4.5304	124.993 (P<.05)	Accepted
Group Lending	4.4696	117.980 (P<.05)	Accepted
Mobile Banking and Digital Lending	4.4730	110.682 (P<.05)	Accepted
Government-Led Schemes	4.4966	120.047 (P<.05)	Accepted
Term Deposit Accounts	4.4998	121.619 (P<.05)	Accepted
Credit Facilities for the Informal Sector	4.4257	113.783 (P<.05)	Accepted
Women and Youth Empowerment Programs	4.4189	102.739 (P<.05)	Accepted
Housing Loans	4.5822	123.258 (P<.05)	Accepted
Consumer Loans	4.4783	127.215 (P<.05)	Accepted
Agricultural Financing	4.5738	112.867 (P<.05)	Accepted
Asset Financing	4.4088	127.213 (P<.05)	Accepted
SME Financing	4.4728	125.687 (P<.05)	Accepted
Savings Products	4.4431	99.993 (P<.05)	Accepted
Current Accounts	4.4521	97.639 (P<.05)	Accepted
Working Capital Loans	4.382	110.712 (P<.05)	Accepted

Table 3 shows that all the financial products and services assessed are widely offered by microfinance institutions (MFIs). Respondents gave high mean scores (4.38 to 4.58 out of five), indicating strong availability of products such as microloans, group lending, agricultural financing, and working capital loans. All chi-square results were significant at $p < 0.05$. This confirms that these ratings are meaningfully different from neutral scores and not random. Notably, housing loans (mean 4.58) and agricultural financing (mean 4.57) were the most available. While working-capital loans still received strong ratings, they had the lowest mean at 4.38. Overall, microfinance in the study area has moved beyond offering only basic microcredit. It now includes savings, digital lending, consumer and asset finance, and sector-specific facilities.

The strong presence of SME financing, savings options, and working-capital support suggests that MFBs can boost financial inclusion and help small and medium enterprises grow. While this study aligns with Sussan and Obamuyi (2018), who state that products such as SME financing, working capital loans, and asset financing are major drivers of financial inclusion for SMEs, Odunjo et al. (2018) found these products vital to SME growth. In a similar vein, Geoffrey and Emenike (2018) found that such products are key to enabling SMEs to remain competitive and thrive despite crises. Policymakers and regulators can use this breadth of services to deepen financial penetration. Meanwhile, MFBs might focus on expanding and tailoring their product offerings, especially working-capital loans, to meet varied client needs. Furthermore, the notable availability of agricultural and housing loans underscores microfinance's potential to advance rural development, food security, and improved living standards. This also aligns with Nigeria's goals for poverty reduction and economic diversification.

Table 4.
The Level of Accessibility of Microfinance Banks' Credit Facilities by SMEs

Products	Highly Accessible	Accessible	Fairly Accessible	Not Accessible
Savings account	48%	40.2%	28%	-
Current account	44%	33.6%	22.4%	-
Business loans	12%	15%	26%	47%
Local purchase order	10%	25%	30%	35%
Daily contributions	60%	35%	5%	-
Hire purchase financing	18.5%	20.3%	24.1%	37.1%
Emergency loans	20%	24%	26%	30%
Financial advisory	53.8%	38.5%	7.7%	-
Import and export Financing	5.7%	11.5%	35%	52%
Funds transfer	45%	35%	12%	8%
Cheque discounting	34%	42%	19%	15%
Overdraft	35%	40%	20%	5%
Fixed deposit	50%	40%	10%	-
Equipment leasing	5%	15%	30%	50%
Asset financing	10%	20%	25%	55%

Table 4 highlights differences in how SMEs in Southwest Nigeria access microfinance bank (MFB) products. Nearly 90 percent of respondents say savings accounts are accessible, with similar access to current accounts, daily contributions, financial advisory services, funds transfers, overdrafts, cheque discounting, and fixed deposits. These services help SMEs manage daily transactions and short-term cash flow. Credit products remain a major obstacle. Almost half of SMEs say business loans are not accessible, and many say the same for LPO financing, hire-purchase loans, import/export finance, equipment leasing, and asset financing. These gaps limit SMEs' ability to grow, acquire equipment, or join larger trade opportunities. Microfinance banks offer many services, but core growth financing—especially business loans and asset-based credit—remains out of reach for many SMEs. Policymakers and regulators must broaden access to these facilities. They should simplify loan procedures, tailor credit products to sectors like agriculture and manufacturing, and intensify financial literacy and outreach. Addressing these barriers will enable SMEs to obtain the funding they need to drive local growth.

Table 5.
Results of the Structural Equation Modelling Without Mediation
(Direct Effect of MFBs funding activities on SMEs performance)

Path	Coef.	t-value	p-value
Saving Account → SMEs' Performance	-.0311147	-0.72	0.472
Current Account → SMEs' Performance	.2012783	3.93	0.000
Time Deposit Account → SMEs' Performance	.1009353	2.89	0.045
Joint Association Account → SMEs' Performance	.310261	5.43	0.000
Working Capital Loans → SMEs' Performance	.1236805	2.28	0.022

Table 5 presents the results of the path analysis examining the direct effects of Microfinance Banks' (MFBs) funding activities on the performance of SMEs (SMP). The reported path coefficients, t-values, and p-values indicate the direction, magnitude, and statistical significance of the relationships under study. The analysis shows that the coefficient for savings accounts is negative and statistically insignificant ($\beta = -0.031$, $t = -0.72$, $p = 0.472$), suggesting that SMEs' utilization of savings accounts does not have a meaningful direct impact on their performance. This finding implies that simply maintaining savings accounts with MFBs is insufficient to enhance SME performance. It contrasts with the results of Sussan and Obamuyi (2018), who reported a significant positive relationship between savings accounts and SME performance. From

a theoretical standpoint, savings accounts primarily function as custodial instruments rather than as tools for productive investment. In the context of Nigerian SMEs, many micro-entrepreneurs use savings accounts primarily for safekeeping funds or to meet regulatory requirements, rather than for capital accumulation or business investment. Furthermore, low interest returns, inflationary pressures, and frequent withdrawals to meet household consumption needs may constrain the capacity of savings accounts to drive business growth. This outcome reflects broader socio-economic realities in developing economies, where SMEs often adopt survival-oriented financial practices rather than long-term accumulation strategies. In contrast, the relationship between current accounts and SMEs' performance is positive and highly significant ($\beta = 0.201$, $t = 3.93$, $p < 0.001$), indicating that SMEs that actively operate current accounts tend to achieve superior performance. Current accounts facilitate efficient transaction management, enable frequent deposits and withdrawals, support effective cash flow control, and ensure clearer separation of personal and business finances. Theoretically, this aligns with financial intermediation and resource-based perspectives, which underscore efficient financial management as a source of competitive advantage. In practice, SMEs that actively use current accounts are better positioned to manage cash flows, maintain accurate financial records, and signal credibility to financial institutions. Within the Nigerian institutional environment, where access to formal credit often depends on transaction histories, current account usage enhances SMEs' visibility and legitimacy, thereby improving access to complementary financial services and growth opportunities. These advantages increase SMEs' credibility with microfinance banks and other financial institutions, facilitating greater access to credit and other financial resources. Consequently, SME operators are encouraged to actively utilize current accounts as a strategic financial management tool to promote operational efficiency, business growth, and overall performance. This finding is consistent with Kanungo (2022), who reports a significant positive association between current account usage, financial inclusion, and business performance. Similarly, Arezki et al. (2020) highlight current accounts as key predictors of financial inclusion and SME growth.

The findings further indicate that term deposit accounts have a positive, statistically significant effect on SMEs' performance ($\beta = 0.101$, $t = 2.89$, $p = 0.045$). This suggests that SMEs investing surplus funds in fixed or term deposits can enhance their financial stability and overall performance. Participation in term deposit schemes promotes financial discipline, reduces the likelihood of misusing idle funds, and generates interest income that can be reinvested in business activities. By temporarily locking in surplus funds, term deposits discourage impulsive spending and encourage structured financial planning. In a macroeconomic environment marked by volatility and limited access to long-term financing, term deposits offer a modest but stable buffer that supports reinvestment and business resilience. While the magnitude of the effect is relatively modest, consistent utilization of term deposits fosters a savings culture, improves long-term financial planning, and provides a financial cushion that underpins sustainable operations and growth. This finding is consistent with Oyelola and Ojo (2022), who emphasize that term deposit accounts are key drivers of financial inclusion and SME sustainability in developing economies.

Joint association accounts demonstrate the strongest, statistically significant positive effect on SME performance ($\beta = 0.310$, $t = 5.43$, $p < 0.001$), highlighting the crucial role of group-based financial arrangements in enhancing SME performance. These accounts enable SME operators to pool resources, increase savings capacity, and improve collective creditworthiness, thereby facilitating better access to finance from microfinance banks.

Joint association accounts do more than offer financial benefits. They lower individual risk, encourage peer monitoring and discipline, and give groups greater bargaining power with banks. By pooling resources and using social accountability, members overcome collateral issues and help each other stay disciplined. So, these accounts act as both financial tools and support systems to improve SME performance, especially where formal support is weak. These findings suggest SME owners should consider joining or forming groups to access finance and improve results. This agrees with Uzochukwu and Okwu (2023), who find that group accounts help SME performance.

Finally, the results indicate that working capital loans have a positive, statistically significant effect on SMEs' performance ($\beta = 0.124$, $t = 2.28$, $p = 0.022$), highlighting the importance of access to short-term credit from MFBs for supporting SMEs' daily operations, liquidity management, and growth. Working capital loans enable SMEs to cover operational expenses, manage cash flow fluctuations, purchase inventory, and respond promptly to market opportunities. When used prudently, these loans help ensure business continuity, minimize operational disruptions, and support incremental growth. SMEs often operate under tight cash constraints and face frequent demand variability. Access to short-term credit allows them to finance inventory, meet operational obligations, and respond quickly to market opportunities. Theoretically, this aligns with the literature on working capital management and financial inclusion, which emphasizes liquidity as a critical driver of operational continuity. In Nigeria's credit-constrained environment, working capital loans provided by MFBs play a crucial role in smoothing cash flow cycles and reducing vulnerability to shocks. Consequently, SME operators are encouraged to maintain strong relationships with MFBs, uphold good credit histories, and adopt sound financial management practices to fully leverage the performance benefits of working capital financing. This finding is consistent with Kundid and Ercegovac (2023), who report that access to working capital loans significantly enhances SMEs' financial inclusion and performance. Similarly, Kamara and Mambo (2022) confirm that working capital financing has a positive impact on SME performance.

Overall, the results indicate that not all MFB financial products contribute equally to SMEs' performance. Transactional and credit-related services, particularly current accounts, joint association accounts, and working capital loans, have a stronger effect on SME performance than basic savings accounts. Consequently, MFBs should prioritize the design and promotion of financial products that directly support business operations and collective financing mechanisms. For SME operators, the findings suggest that greater engagement with active financial products, rather than reliance on passive savings alone, is more likely to yield improved performance outcomes. Collectively, the evidence highlights the strategic role of MFBs in SME development through targeted financial services that address operational and liquidity needs.

Table 6.
Results of the Structural Equation Modelling with Mediation
(Indirect Effect of MFBs funding activities between financial inclusion on SMEs
performance)

Path	Coefficient	t-value	p-value
Saving Account → Financial Inclusion → SME' Performance	.0109715	0.94	0.346
Current Account → Financial Inclusion → SME' Performance	.063446	3.22	0.001
Time Deposit Account → Financial Inclusion → SME' Performance	.067914	4.27	0.000
Joint Association Account → Financial Inclusion → SME' Performance	.1315219	5.25	0.000
Working Capital Loans → Financial Inclusion → SME' Performance	.0276176	1.58	0.113

Table 6 shows SEM mediation results on Microfinance Banks' (MFBs) funding activities affecting SMEs' performance (SMP) through financial inclusion (FI). The coefficients, t-values, and p-values directly indicate the strength, direction, and statistical significance of the mediated relationships. The indirect effect of savings accounts on SMEs' performance through financial inclusion is positive but statistically insignificant ($\beta = 0.011$, $t = 0.94$, $p = 0.346$). This means savings accounts do not significantly improve SME performance via financial inclusion. Although savings accounts offer basic financial access, they alone do not yield measurable performance gains for SMEs.

The mediated effect of current accounts is positive and statistically significant ($\beta = 0.063$, $t = 3.22$, $p = 0.001$). The significant mediated effect of current accounts implies that SME operators who actively maintain and use current accounts can improve their business performance by becoming more financially included. Regular use of current accounts strengthens SMEs'

integration into the formal financial system, improves transaction visibility, and builds a verifiable financial history. This enhanced financial inclusion increases SMEs' access to other financial services, such as credit, payment platforms, and advisory support, ultimately translating into better operational efficiency and improved business outcomes. Therefore, SME operators are encouraged to consistently utilize current accounts as a pathway to deeper financial inclusion and sustained performance improvement. This indicates that current accounts indirectly improve SME performance by strengthening financial inclusion through enhanced access, use, and integration into the formal financial system, thereby improving business outcomes.

Term deposit accounts exhibit a positive and highly significant indirect effect on SMEs' performance ($\beta = 0.068$, $t = 4.27$, $p < 0.001$). The strong positive mediated effect of term deposit accounts implies that SME operators who consistently invest surplus funds in term deposits can enhance their business performance through deeper financial inclusion. Engagement in term deposit schemes helps SME operators build long-term relationships with financial institutions, demonstrate financial discipline, and establish credible savings records. These factors improve access to a wider range of financial services, including credit and investment opportunities, thereby supporting business stability and growth. Therefore, SME operators are encouraged to adopt term deposit accounts not only as a savings instrument but also as a strategic tool to strengthen financial inclusion and improve overall business performance. This implies that engagement in term deposits deepens SMEs' financial inclusion by promoting sustained relationships with financial institutions, savings discipline, and access to broader financial services, thereby supporting performance.

Joint association accounts show the strongest positive and significant mediated effect on SMEs' performance ($\beta = 0.132$, $t = 5.25$, $p < 0.001$). The strong and significant mediated effect of joint association accounts implies that SME operators can substantially enhance their business performance by participating in group-based financial arrangements. By joining or forming associations that operate joint accounts, SME operators deepen their financial inclusion through collective savings, shared financial records, and stronger relationships with financial institutions. This collective approach improves access to finance, enables risk-sharing among members, and enhances group credibility when seeking loans or other financial services. Consequently, SME operators are encouraged to leverage joint association accounts as a strategic pathway to financial inclusion and improved business performance. This highlights the critical role of group-based financial arrangements in enhancing financial inclusion, which, in turn, translates into improved SME performance through better access to finance, risk-sharing, and collective credibility.

Although the coefficient is positive, the indirect effect of working capital loans through financial inclusion is statistically insignificant ($\beta = 0.028$, $t = 1.58$, $p = 0.113$). The insignificant mediated effect of working capital loans through financial inclusion suggests that SME operators should not rely solely on these loans to improve performance. While working capital loans remain important for directly supporting day-to-day operations, managing cash flow, and meeting short-term business needs, they do not significantly enhance SMEs' integration into the formal financial system. Therefore, SME operators are encouraged to combine working capital loans with other financial products, such as current accounts, term deposits, or joint association accounts, to more effectively strengthen financial inclusion and, in turn, support long-term business performance. This suggests that while working capital loans directly support SME operations, their performance benefits are not strongly transmitted through the financial inclusion pathway.

The results indicate that financial inclusion partially mediates the relationship between MFBs' funding activities and SMEs' performance. Specifically, current accounts, term deposit accounts, and joint association accounts significantly enhance SME performance by improving financial inclusion, whereas savings accounts and working capital loans do not exhibit significant mediating effects. For SME operators, the findings imply that deeper engagement with MFB products that promote sustained participation in the formal financial system, particularly current accounts, term deposits, and joint association accounts, can enhance business performance by strengthening financial inclusion. For MFBs and policymakers, the results suggest the need to design and promote inclusive financial products that go beyond basic access, emphasizing usage,

continuity, and integration. Group-based financial products and deposit-oriented services appear especially effective in translating financial inclusion into tangible performance gains for SMEs. Overall, the evidence underscores the importance of financial inclusion as a transmission mechanism through which certain MFB financial services influence SMEs' performance, reinforcing the strategic role of inclusive finance in SME development.

CONCLUSION

This study examined the impact of Microfinance Banks' (MFBs) funding activities on SME performance, considering both direct effects and indirect effects via financial inclusion. Direct effects refer to the immediate influence of financial products on SME outcomes, while indirect effects are improvements in SME performance that result from financial products increasing financial inclusion first, ultimately leading to better performance. The findings reveal a mixture of significant and non-significant relationships, clarifying how MFB interventions produce results. The hypotheses that current accounts, term deposit accounts, joint association accounts, and working capital loans directly enhance SME performance were accepted, with joint association accounts showing the strongest impact. However, the hypothesis regarding savings accounts was rejected, as they demonstrated no significant direct effect. For indirect effects through financial inclusion, the hypotheses that current accounts, term deposits, and joint association accounts enhance SME performance via their role in financial inclusion were accepted, indicating that these products help bring SMEs into the formal financial system, which, in turn, improves performance. In contrast, hypotheses for savings accounts and working capital loans showing significant indirect effects were rejected. This highlights that simply offering capital or basic accounts is insufficient; their effectiveness depends on how much they foster financial inclusion, which serves as a bridge to better SME outcomes. The study concludes that MFBs enhance SME performance not only by providing capital but also by reducing financial exclusion, mitigating information asymmetry, and lowering transaction costs through targeted, inclusive financial products.

The findings carry specific theoretical, practical, and policy implications. Theoretically, this study advances financial intermediation and institutional theory by conceptualizing and empirically validating financial inclusion as a mediating mechanism, rather than a standalone outcome. This refines existing models by demonstrating that financial services do not automatically translate into improved firm performance; their impact depends on the degree to which they foster inclusion. Methodologically, the study contributes by decomposing the influence of MFB financial products into direct and indirect pathways, offering a nuanced understanding of why some products (such as working capital loans) succeed directly but fail to promote inclusion, while others (such as joint accounts) are effective through both routes. In practice, for SME operators, the findings imply that merely holding a savings account is insufficient; they must strategically use current accounts, term deposits, and, especially, group-based accounts to build credibility and access wider services. For microfinance banks, the implication is clear: product design must prioritize features that encourage sustained use, group participation, and long-term engagement to maximize both business performance and financial inclusion.

This study has several limitations that suggest areas for future research. First, the study focused only on SMEs in South-Western Nigeria. Therefore, the findings may not apply to other areas with different business climates. Future research should expand to include more regions in Nigeria and other developing countries to test whether the results hold elsewhere. Second, the cross-sectional design limits the ability to prove cause-and-effect or track changes over time. Longitudinal studies tracking SMEs across multiple periods are needed to find causal links and long-term outcomes. Third, the study reviewed only a few financial products, excluding digital payments, insurance, and long-term credit. Future research should include these services for a fuller view of MFB offerings. Finally, only financial inclusion was tested as a mediator. Since some products had non-significant indirect effects, future studies should consider additional mediators, such as managerial skills, technology use, or market access, to better understand how financial products shape SME performance.

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