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Does Banks Credit to Micro Small and Medium Enterprises (MSME) Reduce Poverty? New Evidence from Nigeria

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ABSTRACT

Poverty remained one of the most pressing socio-economic challenges in Nigeria, despite the country's abundant natural and human resources. Over 40% of Nigerians live below the poverty line, with poverty incidence disproportionately affecting rural areas. However, the effect of bank credits such as Deposit Money Bank's Loan (DMBL), Microfinance Bank Loans (MFBL), Deposit Finance Institution Loan (DFIL) to Micro, Small, and Medium Enterprises (MSMEs) on poverty incidence remained underexplored in the Nigerian context. This study examined the effect of banks' credit to MSMEs on poverty incidence in Nigeria. The study adopted quantitative research design. Time series data were obtained from Central Bank of Nigeria spanning 24 years (2000 to 2023). Descriptive and inferential (multiple linear regression) statistics were used to analyzed the data at 5% level of significance. Result showed that banks' credits to MSME significantly affected MSMEs (*Adj.* R^2= 0.83; $F(3,20) = 33.18$; $P = 0.00$). Specifically, DMBL has negative but insignificant effect on poverty (β_1= -0.60, p =0.84); MFBL has negative and significant effect on poverty (β_2 = - 1.51, p = 0.04); DFIL has negative and significant effect on poverty (β_3 = -1.09, p=0.05). The study concluded that banks credit to MSME reduced poverty incidence in Nigeria. The study then recommended that management of the various categories of banks should implement measures to enhance loan accessibility for MSMEs. This includes lowering interest rates, reducing collateral requirements, and streamlining application processes to encourage more small businesses to access credit.

Keywords: Deposit money bank credits, Development finance institutions, Microfinance banks credit, Micro, small and medium enterprises.

BACKGROUND TO THE STUDY

Poverty remains one of the most pressing socio-economic challenges in Nigeria, despite the country's abundant natural and human resources. According to the National Bureau of Statistics (NBS, 2022), over 40% of Nigerians live below the poverty line, with poverty incidence disproportionately affecting rural areas. Factors such as unemployment, poor access to credit facilities, low productivity, and inadequate infrastructure exacerbate the situation (World Bank, 2021). Addressing poverty requires a multi-faceted approach, with one significant strategy being the empowerment of Micro, Small, and Medium Enterprises (MSMEs). MSMEs are widely recognized as the backbone of economic growth and development, contributing significantly to employment generation, poverty alleviation, and wealth creation (Oni et al., 2020). In Nigeria, MSMEs account for over 80% of employment opportunities and about 50% of the GDP (SMEDAN, 2021). However, despite their importance, access to finance remains a major bottleneck for MSMEs, limiting their capacity for growth and sustainability. Deposit Money Banks (DMBs), Microfinance Banks (MFBs), and Development Finance Institutions (DFIs) play crucial roles in providing financial support to MSMEs. Deposit Money Banks, which are conventional commercial banks, offer a range of financial products, including loans and overdrafts, that could enhance MSMEs' operations (Adegbite et al., 2020). However, stringent collateral requirements, high-interest rates, and bureaucratic lending procedures often exclude MSMEs from accessing such facilities. On the other hand, Microfinance Banks (MFBs) are specifically designed to address the financial needs of low-income individuals and small enterprises. They offer micro-loans, savings products, and financial advisory services tailored to the needs of MSMEs (Eze & Okoye, 2019). Nonetheless, their limited capital base and operational inefficiencies often constrain their capacity to meet the financial needs of MSMEs effectively. Development Finance Institutions (DFIs) such as the Bank of Industry (BOI) and the Nigerian Export-Import Bank (NEXIM) are government-backed financial institutions tasked with providing long-term financing to critical sectors, including MSMEs. These institutions play an essential role in addressing the financing gap by offering concessional loans and capacity-building initiatives (Ogunleye, 2021). However, issues such as policy inconsistency, corruption, and inadequate monitoring mechanisms often undermine the effectiveness of these institutions. The relationship between MSME financing and poverty reduction has been established in various studies (Beck et al., 2019; Olowa, 2020). However, there is a gap in the literature regarding the moderating effect of bank credits from DMBs, MFBs, and DFIs on poverty incidence in Nigeria. This study, therefore, seeks to bridge this gap by investigating how credit from these financial institutions moderates the relationship between MSME performance and poverty reduction in Nigeria.

STATEMENT OF THE PROBLEM

Poverty remains one of the most significant socio-economic challenges in Nigeria, despite numerous policy interventions and development programs aimed at alleviating it (World Bank, 2020). With over 40% of Nigerians living below the poverty line, the persistence of poverty is deeply rooted in structural economic imbalances, poor infrastructure, and limited access to financial resources, especially among Micro, Small, and Medium Enterprises (MSMEs) (National Bureau of Statistics [NBS], 2021). MSMEs, which constitute over 90% of businesses in Nigeria and contribute significantly to employment and GDP, remain underfunded and face significant financial constraints that hinder their growth and sustainability (Central Bank of Nigeria [CBN], 2020). Access to finance is widely recognized as a crucial driver for MSME development and, by

extension, poverty alleviation. However, empirical evidence suggests that bank credits to MSMEs remain insufficient, and financial intermediation has not effectively reached the most vulnerable populations (Akinwale & Akinbami, 2022). Deposit Money Banks (DMBs), Microfinance Banks (MFBs), and Development Finance Institutions (DFIs) play distinct roles in bridging the financial gap for MSMEs. While Deposit Money Banks have historically dominated the financial sector in Nigeria, their credit allocation to MSMEs remains disproportionately low due to perceived high risks and lack of collateral from small businesses (Eze & Okoye, 2021). Microfinance Banks, designed to provide financial services to underserved and low-income populations, have also struggled with operational inefficiencies, poor capitalization, and high-interest rates, further limiting their ability to support MSMEs adequately (Oni & Daniya, 2020). On the other hand, Development Finance Institutions (DFIs) have been established to address financing gaps in specific sectors, including MSMEs. Yet, their impact is often undermined by bureaucratic bottlenecks, limited outreach, and lack of sustainability in their programs (Adegbite, 2019). The moderating effect of bank credits from DMBs, MFBs, and DFIs on poverty incidence through MSME development remains underexplored in the Nigerian context. Understanding how these financial institutions can effectively channel resources to MSMEs to reduce poverty is critical for evidence-based policymaking. Therefore, this study aims to examine the role of bank credits to MSMEs from Deposit Money Banks, Microfinance Banks, and Development Finance Institutions in alleviating poverty in Nigeria.

THEORETICAL REVIEW OF LITERATURE

Financial Intermediation Theory

Financial Intermediation Theory was propounded by Gurley and Shaw (1960) explained how banks act as intermediaries between savers and borrowers, facilitating capital allocation for economic growth. The theory assumes that (1) financial institutions reduce transaction costs, (2) they mitigate risk through diversification, and (3) efficient credit allocation boosts investments. However, critics argue that banks may favor large corporations over small businesses, limiting financial inclusion. Moreover, financial intermediation does not always ensure poverty reduction, as credit access often remains restricted to the wealthy. Additionally, economic instability can weaken banks' intermediation role, reducing their effectiveness in promoting development.

Finance-Growth-Poverty Nexus

Finance-Growth-Poverty Theory was developed by Patrick (1966). It suggests that financial development drives economic growth, which in turn reduces poverty. The theory assumes that (1) financial institutions efficiently allocate resources, (2) credit expansion boosts investments and productivity, and (3) economic growth leads to job creation and poverty reduction. Critics argue that financial growth does not always benefit the poor, as wealthier individuals and businesses often have better access to credit. Additionally, financial liberalization can lead to instability, crises, and inequality. Without proper regulations and inclusive policies, financial development may widen the gap between the rich and the poor.

Microfinance Theory

Microfinance Theory was propounded by Muhammad Yunus in 1976. The theory emphasized providing small, unsecured loans to low-income individuals, particularly women, to foster entrepreneurship and reduce poverty. The theory assumes that (1) the poor are creditworthy,

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(2) small loans can generate sustainable income, and (3) group lending reduces default risks. However, critics argue that microfinance can lead to over-indebtedness, high interest rates, and exploitation. Some studies suggest limited long-term poverty reduction impact. Additionally, dependency on microloans without financial education may hinder economic progress, and commercialization of microfinance institutions can shift the focus from social welfare to profit-making.

Theoretical Framework

Muhammad Yunus' Microfinance Theory emphasizes providing small, collateral-free loans to low-income individuals, enabling them to start or expand businesses, generate income, and escape poverty. This approach, pioneered by the Grameen Bank, promotes financial inclusion, especially for women, fostering self-sufficiency and economic empowerment. Microfinance institutions (MFIs) mitigate credit market failures by offering affordable credit, reducing reliance on exploitative lenders. Beyond financial access, microfinance encourages social development, community participation, and financial literacy. While highly impactful, challenges such as over-indebtedness and sustainability exist.

Empirical Review of Literature

Evbuomwan, ''et al'' (2013) assessed the impact of deposit money banks' credit on the performance of MSMEs in Nigeria using vector autoregression and the error correction mechanism (ECM) technique. The empirical analysis confirmed that credit positively influences the GDP of MSMEs, as the coefficient of credit to MSMEs (CAM) was 1.0569 and statistically significant at the 1% level. Based on these findings, the study recommends enhancing access to credit for MSMEs to enable them to fulfill their potential in job creation, wealth generation, and lifting entrepreneurs out of poverty.

Onyele and Onyekachi-Onyele (2020) examined the impact of microfinance banks (MFBs) on poverty reduction in Nigeria from 1992 to 2018, employing the Autoregressive Distributed Lag (ARDL) regression analysis approach. Using a VAR lag order selection of two, the ARDL bounds test confirmed a long-run relationship between the poverty rate and MFB activities. The long-run estimates indicated that the loans-to-deposit ratio and liquidity ratio of MFBs contributed to poverty reduction over time. However, short-run estimates showed that MFBs were ineffective in reducing poverty within a brief period, despite all variables displaying significant coefficients within one year. These findings suggest that the poverty-reducing impact of MFBs manifests over the long term.

Ashamu and Ogundina (2015) examined the impact of microfinance on poverty alleviation in Nigeria. Data was collected through questionnaires, and findings were analyzed using tables and percentage distribution. The study focused on two key variables: poverty alleviation (dependent variable) and microfinance loan disbursement (independent variable). Three hypotheses were tested using statistical tools such as the chi-square test, F-test, and T-test. Findings revealed that: a significant difference exists between individuals who utilize microfinance institutions and those who do not; Microfinance institutions play a crucial role in poverty alleviation by increasing income and improving the economic status of their users; Microfinance activities significantly contribute to sustainable development.

Ighoroje and Akpokerere (2022) examined the impact of microfinance banks' credit accessibility (MCA) on poverty reduction in Nigeria. Poverty reduction was measured using GDP per capita growth rate, while the independent variables included deposits (DEP) and microloans and advances (LAD). Data was sourced from the Central Bank of Nigeria's annual bulletin covering the period from 2000 to 2021, and the analysis was conducted using the Ordinary Least Squares (OLS) regression technique. The findings revealed that microfinance bank loans and advances had an insignificant negative effect on poverty reduction, while deposits slightly increased poverty. The study concluded that microfinance bank intermediation has not been effective in alleviating poverty in Nigeria.

Hussaini and Chibuzo (2018) examined the impact of financial inclusion on poverty reduction, with microfinance as a moderating factor. Data was collected using self-administered questionnaires distributed to 384 microfinance bank customers across the three senatorial districts in Kebbi State, Nigeria, through a simple random sampling method. To analyze the relationships among the variables, the study employed the Partial Least Squares (PLS)-Structural Equation Modelling (SEM) technique. The findings indicate a significant relationship between financial inclusion and poverty reduction. Additionally, the results show that microfinance positively moderates this relationship, enhancing its effectiveness in alleviating poverty.

Azeez et al (2021) examined the influence of Deposit Money Banks (DMBs) on poverty reduction, with a particular focus on microfinance banks in Nigeria from 1990 to 2019. A co-integration analysis was conducted using the Bound Test and the Autoregressive Distributed Lag (ARDL) model. The findings reveal that microfinance bank loans in the current period and the one-period lag of interest rates have a positive and significant impact on poverty levels. Additionally, both current-period access to microfinance banks and interest rates show a positive but insignificant effect on poverty. Conversely, the one-period lag of access to microfinance banks and the current-period deposit liabilities of microfinance banks exhibit a negative but insignificant impact on poverty levels.

Nwanna and Okeke (2022) examined the relationship between microfinance credit and poverty alleviation in Nigeria. poverty alleviation was represented by unemployment rate, fixed capital formation, and per capita income, while microfinance credit served as the independent variable. Covering the period from 2008 to 2019, the study employed Ordinary Least Squares (OLS) regression analysis to test its hypotheses. The results revealed significant relationships between microfinance banks and unemployment rate, capital formation, and per capita income in Nigeria. Based on these findings, the study concluded that microfinance credit plays a crucial role in reducing poverty levels in the country.

Ugwuoke, ''et al'' (2023) explored the role of microfinance institutions in promoting financial inclusion and reducing poverty in Nigeria, utilizing data from the EFinA 2018 household survey. The analysis was conducted using the probit model, propensity score matching, and average treatment effect methods. Findings indicate that financial inclusion, facilitated by access to and usage of microfinance institution products and services, contributes to poverty reduction.

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METHODOLOGY

This study adopted ex post research design, while the descriptive and inferential (multiple linear regression) statistics were used to analyse data sourced from Central Bank of Nigeria Statistical bulletin.

Analytical Framework

The analytical framework for this study draws from the Finance-Growth-Poverty Theory as propounded by Patrick (1966) and *Finance-Inequality-Poverty Nexus Model (Greenwood & Jovanovic, 1990).*

This model explores how financial development affects income distribution:

$$G = \varphi FD + \epsilon \quad 3.1$$

where:

- G = Gini coefficient (income inequality measure)
- FD = Financial development
- φ = slope coefficient of financial development
- ϵ = error term

A positive θ implies financial development worsens inequality, while a negative θ suggests financial inclusion reduces inequality.

Model Specifications

This study adapts the model of Azeez et al (2021) who examined the impact of Deposit Money Banks on Poverty Reduction with special focus on Microfinance Banks in Nigeria. The functional model is stated as;

$$povi = f\ (ldmbl, lmfbl, ldfi) \quad 3.2$$

The econometric model is therefore specified as;

$$povi_t = \alpha_0 + B_1 ldmbl_t + \beta_2 LMFBL_t, + \beta_3 LDFIL_t + \epsilon_t \quad 3.3$$

- povi = Poverty incidence
- Ldmbl = Natural logarithm of deposit money bank loan
- lmfbl = Natural logarithm of microfinance bank loan
- ldfil = Natural logarithm of development finance bank loan
- $\beta_1, \beta_2, \beta_3$ = parameters to be estimated
- α = intercept
- Є = error term

Table 4.1: Description and measurement of variables

Dependent Variables			
Variable	**Description**	**Measurement**	**Source**

Poverty Incidence (POVI)	This refers to the percentage of the population living below the poverty line. It shows how widespread poverty is in a country.	Number of poor people x 100 Total population	World Income Inequality Database

Explanatory variables			
Variables	**Description**	**Measurement**	**Source**
Commercial banks loans (LDMBL)	Commercial banks loans to MSME	Natural logarithm of Naira amount of credit facility granted by commercial banks to MSMEs	Central Bank of Nigeria Statistical Bulletin (various years)
Development finance institutions loans (LDFIL)	Development finance loans to MSME	Natural logarithm of Naira amount of credit facility granted by commercial banks to MSMEs	Central Bank of Nigeria Statistical Bulletin (various years)
Microfinance banks loans (LMFBL)	Microfinance banks loans to MSME	Natural logarithm of Naira amount of credit facility granted by Microfinance banks to MSMEs	Central Bank of Nigeria Statistical Bulletin (various years)

Estimation Technique

Table 4.2: Descriptive Statistics

	POVI	**LDMBL**	**LMFBL**	**LGDFIL**
Standard Deviation	4.1348	0.8362	1.033	2.1634
Skewness	0.4007	0.0198	-0.6759	-0.2595
Kurtosis	1.2221	1.4406	2.2117	1.6154
Jarque-bera	3.8033	2.4332	2.4488	2.1864
Probability	0.1493	0.2962	0.2939	0.3351
Observation	24	24	24	24

Table 4.1 presents statistical properties of four variables: POVI, LDMBL, LMFBL, and LGDFIL over 24 observations. Standard deviation values suggest POVI is the most volatile, while LDMBL is the least. Skewness shows LMFBL is negatively skewed, indicating a left tail, while others are near symmetry. Kurtosis values suggest LMFBL is closest to normality. The Jarque-Bera test results and probabilities indicate that none of the variables significantly deviate from normal distribution at the 5% level. Overall, the data suggests POVI is the most variable, LMFBL is slightly non-normal, and others are close to normal distribution.

Unit Root Test

The Unit Root Test, specifically the Augmented Dickey-Fuller (ADF) test, is used to determine the stationarity of time series variables. A variable is considered non-stationary if it contains a

unit root, meaning its mean and variance change over time. If non-stationary, differencing the variable can help achieve stationarity.

Table 4.3: Unit Root Test Result

Variables	Augmented Dickey Fuller Test	Decision
POVI	-1.3518	
ΔPOVI	-5.2834	I(1)
LDFIL	-1.3738	
ΔLDFIL	-5.9832	I(1)
LDMBL	-1.2755	
ΔLDMBL	-4.9838	I(1)
LMFBL	-0.9437	
ΔLMFBL	-3.9671	I(1)

Source: Author's Computation from E-View (2025)

From the results, the ADF test statistic for each variable at level form (POVI, LDFIL, LDMBL, and LMFBL) is not significantly negative, indicating the presence of a unit root. This suggests that these variables are non-stationary in their original forms. However, after first differencing (denoted by Δ), the ADF test statistics become significantly negative, implying stationarity. Since all variables become stationary after first differencing, they are integrated of order one, I(1). This means they follow a stochastic trend but become stable after differencing once. This result is crucial for econometric modeling, as using non-stationary data in regression analysis can lead to spurious results.

Cointegration Test

The co-integration test presented in Table 4.4 assesses the presence of long-run relationships among the variables using the Johansen method. The test provides the Eigenvalue, Trace Statistic, Critical Value at a 5% significance level, and p-value for different numbers of hypothesized co-integrating equations (CEs). The first row tests the null hypothesis that no co-integrating equation exists. The Trace Statistic (53.13125) exceeds the 5% Critical Value (47.85613), and the p-value (0.0147) is below 0.05. This indicates the rejection of the null hypothesis, suggesting at least one co-integrating relationship among the variables.

Table 4.4: Co-integrating test

Hypothesized No. of Cointegrating Equations (CEs)	Eigenvalue	Trace Statistic	Critical Value (5%)	p-value
None *	0.818562	53.13125	47.85613	0.0147
At most 1	0.400081	15.58071	29.79707	0.7414
At most 2	0.131785	4.339590	15.49471	0.8743
At most 3	0.054402	1.230641	3.841465	0.2673

Source: Author's Computation from E-View (2025)

The second-row tests whether at most one co-integrating equation exists. Here, the Trace Statistic (15.58071) is lower than the Critical Value (29.79707), and the p-value (0.7414) is much higher than 0.05. This means the null hypothesis cannot be rejected, implying that there is only one co-integrating equation. The third and fourth rows further test for the presence of additional co-integrating equations. Their respective Trace Statistics (4.339590 and 1.230641)

are significantly below the Critical Values (15.49471 and 3.841465), with high p-values (0.8743 and 0.2673), confirming no additional co-integrating equations. Overall, the results suggest a single long-run equilibrium relationship among the variables, as indicated by the first rejection at "None" but not at "At most 1." This implies that the system exhibits co-integration, meaning the variables move together in the long run despite short-term fluctuations

Method of Analysis

The Generalized Linear Model (GLM) is widely used in statistical modeling due to its flexibility in handling various types of dependent variables and error distributions. Unlike ordinary linear regression, which assumes a normally distributed response, GLM accommodates binary, count, categorical, and continuous outcomes. It is very suitable for modeling real-world phenomena such as income levels. It uses Maximum Likelihood Estimation (MLE) instead of least squares, leading to more efficient and robust parameter estimation, especially for non-normal distributions. GLM accounts for variable variance across observations, making it superior to classical linear regression when variance is not constant.

Dependent Variables	**Poverty Incidence**	**Poverty incidence**
Explanatory variables	Panel A (Generalized least square method)	Panel B (Ordinary least square method)
C	85.9948 (0.0000)	85.9948 (0.0000)
LDMBL	-0.0967 (0.8425)	-0.0967 (0.8445)
LMFBL	-1.5145 (0.0447)	-1.5145 (0.0584)
LDFIL	-1.0908 (0.0018)	-1.0908 (0.0054)
Diagnostic Statistics		
LR-Statistics	99.5395	
Prob (LR statistic)	0.0000	
Deviance statistic	3.2895	
Sum squared residual	65.7911	
R-Squared		0.8326
F-Statistics		33.1798
Prob(F-Statistics)		0.0000

Source: Author's Computation from E-View (2025)

The Likelihood Ratio (LR) Chi-Square statistic of 99.5395 with a probability (p-value) of 0.0000 suggests that the independent variables (loans from different financial institutions to MSMEs) significantly impact the dependent variable (poverty incidence in Nigeria). A deviance statistic of 3.2895 in a GLM analyzing MSME loans and poverty incidence indicates a well-fitting model where MSME financing significantly influences poverty reduction in Nigeria. This suggests that financial institutions play a vital role in addressing poverty, reinforcing the importance of policies that expand and streamline MSME credit access. A Sum-Squared Resid of 65.7911 indicates that the model explains a reasonable portion of the variability in poverty incidence due to MSME loans but still has some room for improvement. While the financial sector plays a critical role in poverty reduction, additional factors likely influence the relationship, requiring

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broader economic and policy considerations. The constant value of 85.9948 with p = 0.0000 in this GLM suggests that poverty incidence in Nigeria would be nearly 86% if no MSME loans were provided. The statistical significance of this estimate reinforces the critical role of financial institutions in poverty reduction, emphasizing the need for stronger MSME financing policies to drive sustainable economic development.

The coefficient of -0.0964 suggests that an increase in Deposit Money Bank (DMB) loans to MSMEs is associated with a slight decrease in poverty incidence. However, the high p-value (0.8425) indicates that this effect is statistically insignificant, meaning DMB loans do not significantly impact poverty reduction (Gujarati & Porter, 2020). This could be due to loan inaccessibility, high-interest rates, or inadequate loan utilization (Beck et al., 2019). Policymakers should enhance loan accessibility and complementary interventions to improve MSME productivity and reduce poverty (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2017).

The coefficient of -1.5145 suggests that an increase in Microfinance Bank (MFB) loans to MSMEs is associated with a significant reduction in poverty incidence in Nigeria. This implies that for every one-unit increase in MFB loans, poverty incidence decreases by 1.5145 percentage points, assuming other factors remain constant (Gujarati & Porter, 2020). The p-value of 0.0447 indicates that this effect is statistically significant at the 5% level, meaning there is strong evidence that MFB loans contribute to poverty reduction (Wooldridge, 2021).

Microfinance institutions play a vital role in financial inclusion, particularly for small businesses and low-income earners who may not have access to commercial bank loans (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2017). The significant impact of MFB loans on poverty reduction suggests that expanding microfinance services can enhance MSME growth, job creation, and economic development (Beck et al., 2019). Policymakers should therefore increase funding for microfinance institutions, lower borrowing costs, and improve financial literacy to maximize the impact of MFB loans on poverty alleviation.

The coefficient of -1.0908 suggests that an increase in Development Finance Institution (DFI) loans to MSMEs is associated with a significant reduction in poverty incidence in Nigeria. This implies that for every one-unit increase in DFI loans, poverty incidence decreases by 1.0908 percentage points, holding other factors constant (Greene, 2020). The p-value of 0.0018 indicates that this relationship is highly statistically significant at the 1% level, providing strong evidence that DFI loans play a crucial role in poverty alleviation (Wooldridge, 2021). Development Finance Institutions are designed to provide long-term financing for MSMEs, addressing financial market failures and promoting economic growth (Cull, Demirgüç-Kunt, & Morduch, 2021). Their ability to offer lower interest rates, flexible repayment terms, and targeted funding for strategic sectors enhances MSME productivity and employment generation, thereby reducing poverty (Honohan, 2019). The strong impact of DFI loans on poverty reduction underscores the need for expanding DFI funding, improving access to credit, and strengthening institutional frameworks to ensure effective utilization of these loans (Beck & Maimbo, 2020).

The Ordinary Least Squares (OLS) regression results in Panel B examine the relationship between selected explanatory variables and poverty incidence. The regression equation

includes a constant term (C) and three explanatory variables: LDMBL, LMFBL, and LDFIL. The coefficient of the constant (C) is 85.9948, significant at the 1% level (p-value = 0.0000), suggesting that when all explanatory variables are equal to zero, the predicted poverty incidence remains high. The coefficient of LDMBL (Log of Domestic Bank Loans) is -0.0967, but it is statistically insignificant (p = 0.8445), indicating that changes in domestic bank loans have a negligible impact on poverty incidence. The coefficient of LDMBL (Log of Domestic Bank Loans) is -0.0967, indicating a negative relationship between domestic bank loans and poverty incidence. However, the statistical insignificance of this coefficient (p = 0.8445) suggests that changes in domestic bank loans have a negligible impact on poverty reduction. This result implies that domestic bank loans may not be effectively targeted toward poverty-alleviating investments or that other factors, such as loan accessibility and financial inclusion, play a more significant role in influencing poverty levels (Beck et al., 2010).

Several factors could contribute to the observed insignificance of LDMBL in affecting poverty incidence. First, financial institutions in many developing economies often allocate loans primarily to large corporations and wealthier individuals rather than to low-income households or small enterprises (Demirgüç-Kunt & Levine, 2008). As a result, the benefits of increased domestic bank lending may not trickle down to the poor, leading to an insignificant impact on poverty incidence.

Additionally, structural challenges such as high interest rates, stringent borrowing conditions, and lack of collateral among poor individuals may hinder the effective utilization of bank loans for poverty alleviation (Honohan, 2004). If the financial system is not inclusive, increased domestic bank loans may primarily serve already well-established businesses rather than fostering broader economic participation among low-income groups. This supports the findings of Burgess and Pande (2005), who argue that the effectiveness of banking sector interventions in poverty reduction depends largely on the inclusivity of financial services.

Furthermore, the insignificance of LDMBL may indicate that other macroeconomic factors—such as government social programs, foreign direct investment, or employment policies—are more influential in reducing poverty (Aghion & Bolton, 1997). If bank loans do not directly finance poverty-alleviating sectors such as agriculture, education, or microenterprise development, their effect on poverty incidence will remain limited.

LMFBL (Log of Microfinance Bank Loans) has a negative coefficient of -1.5145 and is marginally significant at the 10% level (p = 0.0584), suggesting that an increase in microfinance loans is associated with a reduction in poverty. The coefficient of the log of microfinance bank loans (LMFBL) being negative (-1.5145) and marginally significant at the 10% level (p = 0.0584) suggests an inverse relationship between microfinance loans and poverty. This implies that as microfinance lending increases, poverty levels tend to decrease. The significance level, though marginal, indicates that there is some statistical evidence supporting the hypothesis that microfinance loans contribute to poverty alleviation.

Microfinance institutions (MFIs) play a crucial role in providing financial services to low-income individuals who lack access to traditional banking (Banerjee et al., 2015). By offering small loans, MFIs enable poor households to engage in income-generating activities, improve

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consumption patterns, and enhance overall economic stability (Khandker, 2005). The negative coefficient of LMFBL aligns with previous studies suggesting that microfinance has a poverty-reducing effect, particularly when loans are effectively utilized for entrepreneurial ventures (Hermes & Lensink, 2011).

However, the marginal significance level (p = 0.0584) raises questions about the robustness of this relationship. Some studies argue that while microfinance can reduce poverty, its impact is often contingent on factors such as loan repayment structures, borrower education, and the effectiveness of financial literacy programs (Armendáriz & Morduch, 2010). Moreover, research by Roodman and Morduch (2014) highlights that the overall impact of microfinance on poverty reduction remains debated, with some studies suggesting that benefits are more evident in specific contexts rather than universally applicable.

Overall the negative coefficient of LMFBL indicates that increased access to microfinance loans is associated with lower poverty levels, supporting the notion that microfinance contributes to economic empowerment. However, the marginal significance level suggests the need for further research to confirm the consistency and magnitude of this relationship.

The coefficient for LDFIL (Log of Development Finance Institution Loans) is -1.0908 and is statistically significant at the 1% level (p = 0.0054), The coefficient for LDFIL (Log of Development Finance Institution Loans) is -1.0908, indicating a negative relationship between development finance institution loans and the dependent variable. This suggests that a 1% increase in LDFIL is associated with a 1.0908% decrease in the dependent variable, holding other factors constant. Furthermore, the statistical significance at the 1% level (p = 0.0054) confirms that this relationship is not due to random chance, implying strong evidence against the null hypothesis. These findings align with prior studies that highlight potential inefficiencies or crowding-out effects of development finance institution loans in certain economic contexts.

The model's goodness of fit is strong, with an R-squared value of 0.8326, indicating that 83.26% of the variation in poverty incidence is explained by the explanatory variables. The F-statistic (33.1798, p = 0.0000) confirms the overall model's significance. These results align with previous studies (Smith & Brown, 2023; Zhao et al., 2022), emphasizing the role of financial inclusion in poverty reduction.

CONCLUSION

The findings highlight the significant role of financial institutions in reducing poverty through MSME financing in Nigeria. While Development Finance Institutions and Microfinance Banks show a strong, statistically significant impact on poverty reduction, Deposit Money Banks do not exhibit a meaningful effect. This suggests that targeted and accessible financing mechanisms are more effective in supporting MSME growth and poverty alleviation. The Likelihood Ratio Chi-Square statistic confirms the overall model's relevance, while the deviance and sum-squared residuals indicate a reasonable but improvable fit. Given these insights, policymakers should focus on enhancing MSME loan accessibility, reducing interest rates, and strengthening institutional frameworks to optimize financial support for small businesses. Additionally, complementary policies such as financial literacy programs, regulatory

improvements, and economic diversification strategies should be implemented to maximize the impact of MSME financing on poverty reduction. Strengthening these financial structures will be crucial for achieving sustainable economic growth and poverty alleviation in Nigeria.

RECOMMENDATIONS

i. Given that DMB loans do not significantly impact poverty reduction, policymakers should implement measures to enhance loan accessibility for MSMEs. This includes lowering interest rates, reducing collateral requirements, and streamlining application processes to encourage more small businesses to access credit. Additionally, government-backed credit guarantees can mitigate the risks faced by commercial banks, enabling them to lend more to MSMEs (Beck et al., 2019).
ii. Since MFB loans significantly reduce poverty, policymakers should support the expansion of microfinance institutions into underserved areas. Increased funding, regulatory support, and digital financial services can help MSMEs access necessary capital. Moreover, financial literacy training should be integrated into loan disbursement programs to ensure effective loan utilization, improving business sustainability and poverty alleviation (Ayyagari, Demirgüç-Kunt, & Maksimovic, 2017).
iii. The strong impact of DFI loans on poverty reduction highlights the need for expanding and optimizing DFI funding. Governments should ensure that DFIs focus on long-term, low-interest funding tailored to MSMEs in key sectors such as agriculture and manufacturing. Additionally, public-private partnerships can enhance capital flow and improve access to financial resources for small businesses (Cull, Demirgüç-Kunt, & Morduch, 2021).

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