FINANCIAL INCLUSION AND POVERTY ALLEVIATION IN NIGERIA

[1]OSHODI Rasheed Ayodeji, IBRAHIM Majeed Ajibola[2] DADA Olawale[3] and EKPE Abraham Uwaifor[4]

Dejimd2006@gmail.com[1]ajibolamagaji@gmail.com[2], holawaledada1@gmail.com[3], abrahamekpeu@gmail.com[4]
[1&2]Corresponding Author: majeed.ibrahim@fecolart.edu.ng /holawaledada1@gmail.com , +2347032873780

[1, 2&4]Department of Banking and Finance, Federal Cooperative College, Ibadan, Nigeria
[3]Department of Accountancy, Federal Cooperative College, Ibadan, Nigeria.

ABSRACT

This research analyzes and examines the effect of financial inclusion on reducing poverty in Nigeria. Specifically, it assesses: the extent to which Microfinance Bank Branches increases access to loanable funds for vulnerable households. A quantitative research design was adopted, utilizing secondary data from the Central Bank of Nigeria's Statistical Bulletins, complemented by data from the World Bank Financial Inclusion Index and the World Development Indicators (WDI) published by the International Monetary Fund. The X-ray of the Findings shows that R-square stood at 72% which explained the rate at which financial inclusion is responsible for the variation in poverty index. The F-statistics value of 10.80765 shows that the independent variables are statistically significant at 95% levels. Microfinance Bank Branches (MBB) Coefficient stood at 0.002033 which is statistically significant (p-value 0.00010<0.05) at 95% levels. Also, the estimated coefficient for depositors in microfinance banks (DMB) per 1000 adult is 1.008432 with (p-value 0.00004<0.05), at 95% level of Significant. Automated teller machine (ATM) per 100,000 adults' coefficient estimation of 0.001087 with statistically significant (p-value 0.00008<0.05) at 95% levels and Borrowers of Microfinance banks (per 1000 adults) is 0.002O67 with statistically significant (p-value 0.00005<0.05) at 95% levels. Given credence to the reported coefficient on the adopted surrogate which implies that financial inclusion is a major policy driver for poverty alleviation. The study therefore, recommends among other thing that the government should continue to promote and expand financial inclusion initiatives, particularly in underserved rural areas, to further strengthen economic development and poverty reduction efforts in Nigeria.

Keyword: *Financial Inclusion, Poverty Alleviation, Deposit Mobilization, Access to Credit.*

Jel code: E60, E62, E63, E64, E66, E69

1.1 INTRODUCTION

Poverty remains a pressing socio-economic issue in Nigeria, despite its status as Africa's largest economy. Ibrahim (2024) opined that over twenty (20) Millions Nigerians lack access to essential financial services that could enhance their quality of life. Financial exclusion is particularly severe among rural and low-income populations, contributing significantly to persistent poverty and economic inequality. Recognizing this challenge, the Central Bank of Nigeria (CBN) created the National Financial Inclusion Strategy (NFIS) as an essential instrument for reducing poverty and fostering economic growth. This approach aims to

guarantee that people and small enterprises can access reasonably priced financial services, such as credit, savings, insurance, and digital payment solutions.

Financial inclusion is based on the concept that having access to financial products empowers individuals and small businesses by facilitating investment, savings, and safety against financial disruptions. Research has highlighted that services like loans, savings accounts, and insurance contribute not only to personal economic stability but also encourage national economic development and growth.

It is also noted that lending remains a major channel through which financial institutions generate revenue and contribute to economic intermediation. Despite considerable efforts by government and financial institutions, a large proportion of the Nigerian masses remains unbanked or underbanked due to challenges such as poor banking infrastructure, low digital and financial literacy, high transaction costs, and mistrust of financial institutions.

The historical roots of financial inclusion in Nigeria could be traced back to the 1976 Pius Okigbo Committee and the subsequent establishment of the rural banking programme in 1977, which aimed to integrate rural populations into the formal elite financial system. While these initiatives laid the foundation for financial inclusion, the persistence of financial exclusion especially in rural and marginalized communities continues to undermine efforts at poverty reduction. Although recent innovations such as mobile banking, microfinance, and fintech solutions have expanded financial service outreach, their actual impact on poverty alleviation remains debatable due to various implementation and accessibility issues. Most of the previous studies including Ugbene, Mohammed, and Ahmad (2017); Karimo and Ogbonna (2017); Ekong and Okon (2019); Onaolapo (2023); Segun and Onafowokan (2044) and Oyewo and Oyedayo (204), among others primarily relied on density indicators based on provider-side data, offering limited insight into the gravity and extent of financial inclusion and the exclusion of marginalized groups like the poor and women from formal financial systems. Furthermore, there are few studies that have incorporated user-side data regarding financial inclusion, including the number of bank accounts opened, depositors at microfinance banks (per 1000 adults), automated teller machines in rural regions (ATM/ per 100,000 adults), and borrowers from microfinance banks (per 1000 adults). To address this gap, this research aims to empirically explore the connection between financial inclusion and poverty reduction in Nigeria focusing on the user-side information on financial inclusion. Addressing this gap is crucial for policymakers, financial institutions, and development agencies to evaluate the effectiveness of financial inclusion strategies and identify areas for improvement. By examining the post-policy implementation period, this study provides insights into whether financial inclusion efforts have translated into tangible poverty alleviation outcomes and economic empowerment for marginalized populations in Nigeria.

2.0 Literature Review

2.1.1 Conceptual Review

In the Nigerian context, financial inclusion becomes especially critical given the prevalence of poverty, income disparity, and the marginalization of rural and low-income populations from formal financial structures. Contributing factors include poor infrastructure, limited literacy, and a pervasive distrust in financial institutions, which have left many citizens reliant on informal mechanisms that often worsen their economic vulnerability (Ugbene et al.,

2017; Ekong & Okon, 2016). Financial inclusion serves as a mechanism for empowering individuals by facilitating savings, investment, and risk management, ultimately enhancing their ability to respond to economic shocks and improve their living conditions. However, access does not suffice; the effectiveness of financial inclusion also depends on whether products are tailored to users' needs and whether service delivery fosters trust and literacy. The literature suggests that although financial inclusion goes along with improvements in income generation and asset accumulation, this relationship is mediated by factors such as consumer protection, awareness, and infrastructural adequacy (Abdullah &Kazou, 2020; Awaworyi et al., 2020).Musa (2023) define financial inclusion as individuals' ability to access proper financial institutions, emphasizing the delivery of financial services at a reasonable price to underprivileged and low-income populations.

Abel, Yakubu, and Ebenezer (2017) cited by Kolade (2024) expand on this by describing financial inclusion as a means that guarantees availability of various financial services, including banking accounts, loans, savings options, money transfers, payment solutions, insurance (like health and home loans), financial counseling, and business financing. These viewpoints highlight the essential role of financial inclusion in fostering economic engagement and financial stability. Omar and Inaba (2025) opined that financial inclusion serves as a means to broaden access to official financial services in society. Similarly, the Bank of India (2024) defines Financial Inclusion as a way for marginalized groups and low-income individuals to access financial services, transparently, and fairly. Overall, the various definitions in the literature share a common theme, financial inclusion ensures that financially exempted and yet to be captured individuals can access a broad-range of financial services without discrimination.

2.1.2 Financial Inclusion and Poverty Alleviation

Financial inclusion has been largely acknowledged as critical to reducing poverty and enhancing inclusive economic growth and development, most importantly in third-world countries considering it impact on economy agent serving as a catalyst for empowering poor households, especially when supported by institutional financial infrastructure such as microfinance institutions (MFIs) and rural banking systems (Kassim., 2024).

Microfinance Bank Branches (MBB)

The presence of microfinance bank (MFB) branches plays a crucial role in deepening financial inclusion at the grassroots level. Bello (2023) opined that the spatial expansion of MFB branches enhances proximity to the financially excluded, the higher the number of MFB branches in a locality, the more likelihood that individuals and small businesses are to participate in formal financial activities leading to increased savings, investment, and ultimately improved livelihoods (Ayoola, 2023). Moreover, branch networks act as platforms for financial literacy and inclusion campaigns that raise awareness among the rural poor.

Depositors with Microfinance Banks (DMB)

Onaolapo (2023) posits that the number of depositors with microfinance banks is a significant indicator of financial inclusion progress. Increasing deposit accounts among the poor population reflects growing trust in the formal financial system and a shift from informal

savings mechanisms. Okpara (2024) suggest that access to deposit facilities enhances financial security, encourages savings mobilization, and provides a safety net against economic shocks. Furthermore, higher deposit volumes also strengthen the capacity of MFBs to extend microloans, thereby reinforcing the poverty alleviation cycle.

Automated Teller Machines (ATM)

The installation of ATMs in rural areas is an innovative dimension of financial inclusion that offers convenience, reduces travel time to financial institutions, and facilitates real-time access to funds (Onaolapo, 2023). Although rural infrastructure limitations exist. Aduda (2014) maintained that a moderate increase in ATM penetration in rural settings leads to increased usage of formal financial services. ATMs empower the rural poor by granting easier access to remittances, government transfers, and savings withdrawals, which are critical for managing household needs and emergencies.

Borrowers of Microfinance Banks (BMB)

Access to credit is a primary service of microfinance banks, and the number of borrowers is a strong indicator of how well microfinance is meeting its objective of poverty reduction. Akanji (12022) posit that a significant relationship between microcredit and improvements in household income, education, and health outcomes. Borrowing from microfinance institutions enables small entrepreneurs and informal workers to invest in business ventures, farming, and petty trading, thereby creating income-generating opportunities. Moreover, microloans often come with flexible repayment terms tailored to the cash flow cycles of the poor, improving loan sustainability and social outcomes.

2.2   Theoretical Review

2.1.1   The Classical Economic Theory, Adam Smith (1776)

The concept of the free-market economy was initially articulated in Adam Smith's classical work published in 1776. Smith advocated for the "invisible hand" principle, where economic systems should be allowed to function independently, with the forces of supply and demand interacting to achieve equilibrium. According to Smith, the traditional economic theory is based and rooted in the notion of a laissez-faire or free market, where minimal or no government intervention is required for economic efficiency (Wang'oo, 2013). This approach assumes that individuals, acting in their own self-interest, make economic decisions that collectively contribute to market stability and growth. The free-market framework suggests that economic resources are naturally allocated based on the needs and demands of individuals and businesses within the marketplace. By the early 20th century, Schumpeter (1912) expanded on this perspective by emphasizing the critical role of financial intermediaries in economic growth and development. He argued that these institutions are instrumental in mobilizing savings, managing risks, monitoring managerial performance, evaluating investment projects, and facilitating business expansion. Schumpeter asserted that these financial services are fundamental drivers of technological innovation, which, in turn, fosters economic growth. His work highlighted the dynamic relationship between financial intermediation and industrial advancement, reinforcing the idea that a well-structured financial system is essential for sustained economic progress.

2.2.2   Keynesian Economic Theory, John Maynard Keynes (1930)

In the early 1930s, British economist John Maynard Keynes made significant contributions to the discourse on economic growth by emphasizing the crucial role of the banking sector. In his seminal work published in 1930, Keynes argued that bank credit serves as the primary channel through which productive ventures are financed. He contended that if bankers fully understood their responsibilities, they would provide the necessary financial resources to ensure that the productive capacities of the economy operate at full potential. Keynes' perspective positioned banks as pivotal institutions in stimulating economic activity through the provision of credit. The Keynesian economic model introduced a paradigm shift by advocating for government intervention as a means to counter economic downturns. In the light of the above the Classical Economic Theory of Adam Smith (1776) would serve as the theoretical underpinning for this study considering its connectivity and relevance to these papers.

The theory suggest that financial institutions played a pivotal role in mobilizing large-scale funds, thereby providing the necessary capital for industrial expansion. This argument aligns with the objective of financial inclusion, which highlight how cogent financial intermediation is, in fostering economic growth and development. By efficiently allocating resources and supporting productive investments, a well-functioning financial system can serve as a viable means for poverty reduction and promoting sustainable economic advancement.

1.3   Empirical Review

Sharma (2023) explored the relationship between various dimensions of economic growth and financial accessibility in the developing Indian market. Employing Vector Auto-Regression (VAR) models along with the Granger causality test, the research explored data from 2008 to 2022 to investigate the causal relationships between economic growth and financial inclusion. The results revealed a positive link between economic growth and essential aspects of financial inclusion, especially banking penetration, access to banking services, and the utilization of banking services concerning deposits. The Granger causality analysis additionally showed a two-way causality between geographic banking outreach and economic development, along with a one-way causality from the quantity of deposit and loan accounts to gross domestic product (GDP). These findings emphasize the necessity of enhancing banking institutions in India, strengthening the impact of social banking programs focused on increasing financial accessibility

Tita and Aziakpono (2024) examined the relationship between various dimensions of financial inclusion and income inequality in sub-Saharan Africa, utilizing data from the 2023 Findex dataset. The research sought to pinpoint the factors of financial inclusion that have the greatest impact on income inequality. The results showed a positive correlation between income inequality and aspects like the use of formal accounts for business, electronic payments, and formal savings. This result probably indicates the overall low levels of financial inclusion in the area, where availability of financial services is still restricted.

Anwar and Amrullah (2024) examined how financial inclusion affects poverty reduction in Indonesia, studying the connection between financial inclusion, poverty, and inequality through Gini coefficients. The research utilized a Multiple Linear Regression Model incorporating a simultaneous equation methodology, using panel data from 31 Indonesian

provinces covering the years 2013 to 2023. The results reveal that although financial inclusion aids in promoting economic growth and reducing poverty, it may also worsen income inequality concurrently. The study specifically found a significant negative relationship between financial inclusion and poverty, indicating that enhanced access to financial services aids in reducing poverty

Babajide, Adegboye, and Omankhanlen (203) performed an empirical study to explore the causal link between financial inclusion and economic growth in Nigeria. The research sought to pinpoint the main factors influencing financial inclusion and evaluate its effect on economic growth. Employing the Ordinary Least Squares (OLS) estimation method, the researchers explored how financial inclusion impacts economic performance. The results showed that financial inclusion is essential in influencing the overall factor of production, highlighting its importance in promoting economic growth. Their research offers compelling proof that increasing financial access can boost productivity and overall economic growth in Nigeria

Onalo, Lizam, and Kaseri (2024) investigated how financial inclusion affects the Nigerian economy, focusing on the banking practices of the rural community. The research examined the impact of deposits (RDDEPOSIT) and loans (RDLOAN) from rural residents at microfinance bank branches on Gross Domestic Product (GDP). The research analyzed secondary data from the statistical bulletin of the Central Bank of Nigeria, encompassing a duration of 33 years from 1991 to 2023. To verify the data's reliability, stationarity tests were performed to assess if the variables were stationary or non-stationary, and then a Johansen cointegration test was employed to check for a long-term relationship among the variables. The results showed that although the variables were cointegrated, there was no long-term causality from rural deposits and loans to GDP. In the long term, rural banking initiatives via microfinance banks positively impacted Nigeria's economic growth regarding GDP. Conversely, in the near term, rural dwellers' deposits and loans had no significant effect on GDP. These results hold both theoretical and practical implications for policymakers and the Nigerian government, emphasizing the need for targeted financial inclusion policies. The study recommended that efforts should be directed toward enhancing formal financial service delivery to rural populations, ensuring that financial inclusion strategies effectively contribute to economic development in the long term.

Ousmane, Ismaeel, and Aliyu (2025) examined the effect of financial inclusion on household consumption in Nigeria using data from the Living Standards and Demographic Survey (2023-2024).

The study aimed to assess how access to finance influences household welfare through consumption. To achieve this, a panel data approach was employed while controlling for the endogeneity of financial inclusion.

3.1 Methodology

The study utilized largely quantitative data and as such *ex post facto* research design was employed. Ex post facto design is appropriate where the researcher is seeking to establish the causal link between two or more variables, relying on data that already exist and in the public

domain. Data was obtained from the CBN Statistical Bulletin for a period of eleven years period (2013-2024) using non sampling technique as the study was time-series based. The independent variable selected for financial inclusion are number of account opening, number of depositors, number of microfinance bank branches, total loan size, and volume of ATM transactions while the dependent variable is poverty index of the rural populace.

Foster-Greer-Thorbecke (FGT) poverty indices, developed by Foster, Greer, and Thorbecke (1984) (not 1994), are widely used to assess poverty within a population. These indices help measure the incidence, depth, and severity of poverty. Among the FGT indices, the FGT2 index (also called the squared poverty gap index) is particularly useful because it puts higher weight on the poverty of the poorest individuals. This means it not only considers how many people are poor but also how severe their poverty is.

The FGT poverty measure is defined thus:

$$P_\alpha = \frac{1}{N} \sum_{i=1}^{q} \left(\frac{Z - Y_i}{Z} \right)^\alpha$$

Where:

- **α** is a non-negative parameter (0, 1, or 2) that reflects the **social valuation** of different degrees of poverty:
  - **α = 0**: Measures **poverty incidence** (headcount ratio)
  - **α = 1**: Measures **poverty depth** (poverty gap)
  - **α = 2**: Measures **poverty severity** (squared poverty gap)
- **Yi** is the **per capita expenditure** of the *i-th* household (measured in Naira per person per day).
- **q** is the **number of households** with per capita consumption **below the poverty line**, which is defined by the United Nations as **US$2.00 per person per day** (equivalent to **N720.00** per person per day, at an exchange rate of **US$1 = N360** at the time of the survey).
- **Z** is the **poverty line**, set at **N720.00 per person per day**.
- **N** is the **total number of households in the sample**.

These variables will be classified as follows according to Anad& Kuldip, (2023);
Penetration: Accessibility, measured by the depth of the banking system given by the number of bank account opening (NAOP) and number of bank deposit (NBD).
Availability: Availability has been measured by the number of bank branches and number of ATM transactions (Anad and Kuldip 2013).
Usage: usage of banking services includes outstanding credit percent of GDP (Khalaf and Ali 2017).
Penetration:

- **Number of Account Opening (NAOP):** Number of bank accounts per 1000 adults (Rajani, Bhama & Deepa 2012). This ratio has been used by several authors in the financial literature in measuring financial inclusion towards economic growth including (Rajani, Bhama & Deepa 2012). To obtain number of account opening **NAOP** = Number of bank accounts per 1000 adults.

- **Number of Bank Deposits (NBD):** Depositors with microfinance banks are reported number of deposit holders at microfinance banks (Babajide, Abiola, Adegboye Folasade &Mankhanlen Alexander (2015) and Chibba, M. (2009). It has been used by numerous authors in measuring financial inclusion such as (Yanlin & Chenyu 2019 Khalaf & Ali, 2017; Sanjaya & Arun 2016; Olaniyi 2015; Anand & Kuldip 2013 among others).
  NBD = Number of depositors with microfinance banks

Availability:
- **Number of Microfinance Bank Branches (NMB):** Number of microfinance bank branches per 100, 000 adults, this indicates how accessible the banks are to the bank user. This variable has been used by several authors in empirical studies.
- **NMB =** Number of microfinance bank branches per 100, 000 adults
- **Volume of ATM transactions (ATM):** Total value of ATM transactions. It has been used by Sanjaya and Arun (2016); Khalaf and Ali (2015); Anad and Kuldip (2013); Rajani, Bhama and Deepa (2012) among others.
- **ATM:** Value of ATM transactions

Usage:
- **Loans size (LOANSIZE):** the volume of credit related to gross domestic products (GDP).
  This variable has been in similar studies such as Jiang, Tong, Hu & Wang 2019; Yanlin and Chenyu (2019)
  Loans size: Natural logarithms of Total loans and advances.

3.2 Model Specification

In line with the approach by similar studies, specifically Vitenu-Sackey &Hongli (2020) which studied that impact of Financial inclusion on Poverty reduction in Sub-Sahara Countries whose study's model was specified as follows:

$$LF = \alpha_0 + \alpha_1 LDR_t + \alpha_2 LQR_t + \alpha_3 IR_t + u_t \dots\dots\dots\dots\dots\dots (1)$$

Where;
LF= Loan Fund
LDR = Loan to deposit ratio
LQR= Liquidity ratio of Microfinance banks
IR= Interest rate
α_1 To α_4 represent coefficient of the parameters of estimation and T represent the period of the study.

We therefore, adapts, re-modifies and specified the above model to become as follows:
Poverty Alleviation = F (financial inclusion)

$$PI = \alpha_0 + \alpha_1 MBB_t + \alpha_2 DMB_t + \alpha_3 ATM_t + \alpha_4 BMB_t + u_t \dots\dots\dots\dots\dots\dots\dots\dots\dots. (2)$$

Where,
PI = Poverty Index (proxy for poverty level)

MBB = Microfinance bank branches (per 100,000 adults).

DMB = Depositors with Microfinance banks (per 1000 adults).

ATM = Automated teller machines in the rural areas (ATM/ per 100.000 adults).

BMB = Borrowers of Microfinance banks (per 1000 adults).

α_1 To α_4 = coefficient of the parameters of estimation

T = period, 2013 – 2024

µ = stochastic error term

3.3 Method of Data Analysis

The Ordinary Least Squares (OLS) technique is utilized to estimate the models. The signs and meanings of the regression coefficients will be used to clarify the relationship and effect of the independent variable on the dependent variable to ascertain both size (as indicated by the respective p-values) and direction (as indicated by the coefficients) of impact. The study adopted the following statistical indices; Correlation Coefficient (r) which measures magnitude as well as relationship, Coefficient of Determination (R^2) and adjusted R-squared, which indicates how much of the variation in the dependent variable is attributed to the changes in the independent variables, probability and the student (t) test, which measures significance or magnitude. The hypotheses will be tested at 0.05 (5%) level of significance. Also, the F-statistic and the Durbin-Watson Statistic which shows the OLS regression involving the differenced data of the variables will be utilized.

4.1 Results Presentation

This section presents the findings derived from both descriptive and inferential statistics. Poverty alleviation, represented by the poverty index, serves as the dependent variable, while financial inclusion acts as the independent variable. Financial inclusion is measured through various proxies, including loans and advances to rural areas, the liquidity ratio of microfinance banks in these areas, interest rates charged by microfinance banks, the number of microfinance bank branches, total deposits in rural microfinance banks, the total number of borrowers from these banks, and the number of Automated Teller Machines (ATMs) available in rural regions.

Table 1

The Unit Root Test of the Parameters at (5%)

Parameters	ADF-Statistics	Prob	T-critical values	Remark
MBB	-2.285886	0.0397	-3.14492	Stationary
DMB	-5.83663	0.9999	-3.212696	Stationary
ATM	-2.904698	0.0738	-3.23492	Stationary
BMB	-1.429108	0.1532	-3.11991	Stationary

Source: *Authors Compilation (E-view 10 Output) (2025)*

The result of the Augmented Dickey-Fuller statistic unit root test results, compared with the t-critical values at 5% level of significance are shown in Table 1.

The results show that the adopted regressors are stationary at level (0) which suggest the absence of multi-correlation of the variables which usually lead to spurious regression in violation of the supposed Best Linear Unbiased Estimation (BLUE). The microfinance banks branches (MBB) per 1,000 adults, the depositors of microfinance banks (DMBs) per 1000 adults, borrowers of microfinance banks (ATM/ per 1000 adults) and the automated teller machines (BMB/ per 1,000 adults) were all stationary this implies that the model is suitable for estimating the long-run model.

Table 2
Descriptive Analysis of the Variables

	MBB	**DMB**	**ATM**	**BMB**
Mean	2150.026	6754.814	1246	83.488
Median	3828.939	0	4454	4.312
Maximum	7398.19	71513	6809	454.86
Minimum	0	0	4233	0.044
Std. Dev.	2042.833	21163.34	555.9137	207.38
Skewness	1.260175	2.37127	-2.001399	2.222116
Kurtosis	2.60021	3.12801	2.418283	3.445738
Jarque-Bera	1.44906	81.35146	17.17549	3.189868
Probability	0.511197	0	0.000023	0.201813
Sum	49990.39	85422.22	76790	1212.32
Sum Sq. Dev.	1.14E+05	6.03E+06	6231030	234525.6
Observations	13	P13	13	13

Source: *E-views 10 Output (2025)*

Table 2 shows that the average value of MBB per 1000 adults was (2150.02%) with maximum value of (7398.19%). DMB per 1,000 adults' average was (6754.81%), with the maximum value of (71513%).

ATM per 1000 adults' average value was (1246%), with the maximum value of (6809%) while BMB per 1,000 adults average was (83.49%), with the maximum value of (454.86%). The coefficient of Skewness measure symmetry in terms of data distribution normality. The result ranges from +1 and +2 indicate that the time series data were normally distributed this was further confirmed with the coefficient of kurtosis which measured the tailedness of the data distribution normality which stood between +2 and +3. In the light of the foregoing we hereby draw a conclusion that the date is normally distributed.

Table 3
OLS Regression Results
OLS Regression Output Summary
Dependent Variable: DM
Method: Least Squares

Date: 10/06/2025
Time: 16:05
Sample: 114
Included Observations: 11
Regression Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MBB	0.00203	0.00053	3.82863	0.00008
DMB	1.00843	0.02199	45.8649	0.00004
ATM	0.00207	0.00054	2.00924	0.00008
BMB	0.00109	0.00346	1.00352	0.00005
C (Constant)	2.86330	4.10954	0.69725	0.30008

Regression Statistics
- **R-squared:** 0.725322
- **Adjusted R-squared:** 0.680876
- **Standard Error of Regression:** 1.812265
- **Sum Squared Residuals:** 25.77002
- **Log Likelihood:** -24.44432
- **F-statistic:** 10.80765
- **Prob (F-statistic):** 0.000202
- **Durbin-Watson Statistic:** 1.510987
- **Mean Dependent Variable:** 4.518760
- **Standard Deviation of Dependent Variable:** 2.985439
- **Akaike Info Criterion:** 3.097509
- **Schwarz Criterion:** 5.587569
- **Hannan-Quinn Criterion:** 4.078212

Source: *E-views 10 Output (2025)*

The result of the OLS, as shown in Table 3, financial inclusion explains approximately 72% variation in growth rate of deposit mobilised from the rural areas by microfinance banks, using the R-square. The F-statistics value of 10.80765 shows that the independent variables are statistically significant at 95% levels.

Moreover, the estimated coefficient for microfinance bank branches (MBB) is 0.002033 which indicates that a unit increase in the number of microfinance bank branches (MBB) per 1000 adults has a positive impact on growth rate of deposit mobilized from the rural areas and is statistically significant as (p-value 0.00010<0.05) at 95% levels. Also, the estimated coefficient for depositors in microfinance banks (DMB) per 1000 adult is 1.008432, an indication that depositors in microfinance banks exerts a positive effect on growth rate of deposits mobilized by microfinance banks from rural areas. The coefficient is also statistically not significant (p-value 0.00004<0.05), at 95% levels.

In the same vein, the estimated coefficient for automated teller machine (ATM) per 100,000 adults' coefficient estimation is 0.001087 which indicate that a unit change in automated teller machine (ATM) results to an expansion of financial service accessibility among rural dwellers and this is statistically significant (p-value 0.00008<0.05) at 95% levels. Finally, the estimated coefficient for Borrowers of Microfinance banks (per 1000 adults) is 0.002O67 which indicate that a unit change in Borrowers of Microfinance banks (per 1000 adults). would results to an expansion of financial service accessibility among rural dwellers and thisis statistically significant (p-value 0.00005<0.05) at 95% levels.

Overall, the result showed that financial inclusion exerts a significant impact on deposits mobilised from rural areas by microfinance banks in Nigeria. These findings align with prior studies by Omojolaibi (2017), Okoye, Kehinde, and Olayinka (2017), and Soyemi et al. (2020), which examined the link between financial inclusion and the volume of loans and advances in rural areas. A rise in loanable funds directly increases credit access for entrepreneurs, strengthening their productive capacity and contributing to poverty reduction in rural Nigeria.An increase in financial inclusion in Nigeria will expand access to loanable funds for vulnerable households and enhance rural dwellers' ability to engage with formal financial services. This growth in financial access will lead to a higher proportion of financially included adults while reducing the rate of exclusion. As more individuals gain access to credit, economic activities will intensify, fostering increased productivity and income generation. Ultimately, this will contribute to poverty reduction and drive overall economic growth in the country.

Conclusion and Recommendations

The findings reveal a significant inverse relationship between financial inclusion and the poverty index in Nigeria. Specifically, an increase in microfinance bank branches, both in urban and rural settings, enhances access to financial services, especially for marginalized and low-income groups. Similarly, a rise in the number of depositors and borrowers with microfinance banks reflects improved access to savings and credit facilities, which are critical for small-scale business development, household welfare, and income generation. Furthermore, the deployment of ATMs in rural areas was found to significantly reduce financial exclusion by offering ease of transaction, promoting a cashless economy, and reducing the cost and time of accessing banking services. These measures collectively contribute to lifting individuals and communities out of poverty by fostering financial empowerment, enhancing entrepreneurial activities, and promoting inclusive economic growth. In conclusion, financial inclusion, when adequately pursued through strategic expansion of microfinance institutions, wider deployment of financial infrastructure like ATMs, and encouragement of savings and borrowing among the rural dwellers will serve as a powerful tool for reducing poverty in Nigeria. The study, therefore, recommends strengthened policy frameworks and stakeholder collaboration to expand the reach of financial services, particularly to the underserved rural areas, as a sustainable path to poverty alleviation.

REFERENCE

Abel, M. *Yakubu* A. and *Ebenezer*, B: (2017) Financial inclusion and Monetary Policy. Ghana Journal of Development 14(1):231

Abimbola, D., Olukoyo, Y., Babalola, D. &Farank S.O. (2018). Analysis of financial sector reforms on economic growth in Nigeria. *European journal of business, economics and accountancy,*6(4):1-12.

Abdullah, O. &Kazou, I. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. Journal of Economic Structures. 9 (1), 1-25.

Adewale, A, Ataul,.H and Ahmed, K: A Measurement Model of the Determinants of Financial Exclusion among Muslim Micro-entrepreneurs in Ilorin, Nigeria

Adu, G. Marbuah, G. and Mensah,.J.T. (2023), Financial Development and Economic Growth in Ghana: Does the Measure of Financial Development Matter? Review of Development Finance, 3, 192-203

Aduda, J. and Kalunda, E. (2012): Financial Inclusion and financial sector Stability with References to Kenya. Journal of Applied finance and Banking 2 (6), 95:

Anand, S.K. & Kuldip, S.C. (2013). A theoretical and quantitative analysis of financial inclusion and economic growth. *Management and labour studies,* 38(1&2), 103-133.

Awaworyi Churchill, S., Nuhu, A. S., & Smyth, R. (2020). Financial inclusion and poverty: Micro-level evidence from Nigeria. Moving from the millennium to the sustainable development goals: Lessons and recommendations, 11-36.

Aribaba, F. O., Adedokun, O. J., Oladele, R., Babatunde, A. D., Ahmodu, O. A., &Olasehinde, S. A. (2020). Financial inclusion scheme and poverty alleviation in Nigeria (2004–2019). Acta Universitatis Danubius. Œconomica, 16(4).

Babajide, Abiola, A., Folashade B. Adegboye, Alexander E. O. (2015). Financial inclusion and economic growth in Nigeria: *Journal of economic and finance,* 5(3): 629-637.

Central Bank of Nigeria (2012), '*National Financial Inclusion Strategy*' Summary Report, Central Bank of Nigeria, Abuja

Chibba, M. (2009). Financial inclusion, Poverty Reduction and the Millennium Development Goals. European journal of Development Research Vol 21 page 213 - 230,

Demirguc, - Kunt, Klapper & Singer, Policy Research Working Paper 8040: Financial Inclusion and Inclusive Growth

Dinabandhnad, M., &Debashiy, K. (2017). Impact of Financial Intermediation on Economic Growth in Nigeria: a Disaggregate Approach. *Journal of Economic and Sustainable Development,* 8(22):9 — 14.

Diniz, E., Birochi, .R,.&Pozzebon,.M, Triggers and barriers to financial inclusion: The use of ICT-based branchless banking in an Amazon county Electronic and Commerce Research and Applications, volume 11: Pages 484-494 Electronic and Commerce Research and Applications, volume 11:

Dogan, E., Madaleno, M., & Taskin, D. (2022). Financial inclusion and poverty: evidence from Turkish household survey data. Applied Economics, 54(19), 2135-2147.

Gutiérrez-Romero, R., & Ahamed, M. (2021). COVID-19 response needs to broaden financial inclusion to curb the rise in poverty. *World Development*, *138*, 105229.

Gharbi, I., & Kammoun, A. (2023). Developing a multidimensional financial inclusion index: a comparison based on income groups. *Journal of Risk and Financial Management*, *16*(6), 296.

Hariharan, B. &Marktanner, S. (2012) The Role of Financial Inclusion on Economic Growth: . *Journal of Business & Financial Affairs,* 7(4), 1-5.

Hussaini, L. &Imo, A. (2018). Financial intermediation and economic growth. *William Davidson institute working paper number 1091.* 1-28.

Jiang, R. Tong, D. Ilu, M. &Wang, F (2019). The impact of the inclusive financial development index on farmer entrepreneurship. *Research article,*12(3):1-18.

Khalaf,. A. H. and Ali,. A (2017). Financial Inclusion and Economic Development in Iraq

Mbutor,. M., and Uba,.I (2023 The Impact of Financial Inclusion on Monetary Policy in Nigeria. *Journal of Economic and International Financ*e,5, 318 – 326

Nwafor, M.C & Yomi, A.I. (2018). The nexus between financial inclusion and economic growth: evidence from Nigeria. *International journal of research and innovation in social sciences,* 2(4),143-149.

Okoye, L. Adetiloye, K. Erin, O. &Modebe, N. (2022). Financial Inclusion: A Panacea forBalanced Economic Development. *Journal of Business, 1(2), 130-151.*

Olukoede, M.O. (2017). An assessment of impact of banking reforms on Economic Growth and bank performance in Nigeria. *CBN journal of applied statistics,*8(2): 143- 161.

Onalo,.U. Lizam,.M and Kaseri,.A (2017) Financial Inclusion and the Nigerian Economy: Empirical Evidences

Omenihu, C. M., Brahma, S., Katsikas, E., Vrontis, D., Siachou, E., &Krasonikolakis, I. (2024).

Financial Inclusion and Poverty Alleviation: A Critical Analysis in Nigeria. Sustainability, 16(19), 8528. https://doi.org/10.3390/su16198528

Otikwu, F. (2018). Financial inclusion and economic growth of Nigeria: the microfinance option. *International journal for innovation education and research,* 6(2), 61-74.

Ousaye, N. Ismael, U., & Kaseri, O. (2017). Impact of Financial Inclusion on Economic Growth of Nigeria. *Journal of development*, 9(3):54-65

Ouechtati, I. (2020). The contribution of financial inclusion in reducing poverty and income inequality in developing countries. *Asian Economic and Financial Review*, *10*(9), 1051.

Omar, M. A., & Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. Journal of economic structures, 9(1), 37.

Rajani, G., Bhama, V., and Deepa,. G. (2012) computation of financial inclusion index for India Social and Behavioral Science 37 (2012) 133 -149:

Sanya, A. & Olumide, K. (2017) Financial development and economic growth in West African economic union (WAEMU). *African journal of business management,* 9(17): 624-632.

Sarma M., (2008). Index of financial inclusion, Working paper N0. 215, IndianCouncil for research on international relations (ICRIER), New Delhi.

Sarma, M. and Pais, J. (2011) Financial Inclusion and Development. Journal of International Development, 23, 613-625

Shashank, B. (2014) Perspective of Technology in Achieving Financial Inclusion in Rural India. Procedia Economics and Finance volume 11, Pages 472-480.

Saha, S.K., Qin, J. Financial inclusion and poverty alleviation: an empirical examination. Econ

Change Restruct 56, 409–440 (2023). https://doi.org/10.1007/s10644-022-09428-x

Tita, U. &Aziakpono, A. (2017). Financial intermediation and economic growth in Nigeria. *International journal of advanced education and research,*1(12):1- 14.

Tsouli, D. (2022). Financial inclusion, poverty, and income inequality: Evidence from European

Countries. Ekonomika, 101(1), 37-61.

Tran, H. T. T., & Le, H. T. T. (2021). The impact of financial inclusion on poverty reduction. *Asian Journal of Law and Economics*, *12*(1), 95-119.

World Bank (2014), Global Financial Development Report 2014: Financial Inclusion. Washington, DC.

World Bank (2015) Global Financial Development Report 2015 | 2016: Long-Term Finance

Xu, F., Zhang, X., & Zhou, D. (2024). Does digital financial inclusion reduce the risk of returning to poverty? Evidence from China. International Journal of Finance & Economics, 29(3), 2927-2949.

Yanlin, Y. & Chenyu, F. (2019). Inclusive financial development and multidimensional poverty reduction: an empirical assessment from rural China. *Sustainability MDPI,* 18(4)*:*1-17.

Zin,. A., and Weill,.L. 2013 The determinants of financial inclusion in Africa. Review of

Development Finance: volume 6 issue 1 page 46 – 57