



EFFECT OF FINANCIAL INCLUSION ON INCLUSIVE GROWTH IN NIGERIA

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Abstract

Despite various development efforts, a significant portion of Nigeria's population remains financially excluded, hindering the attainment of inclusive growth. This study investigated the effect of financial inclusion on inclusive growth in Nigeria, focusing on the period from 2000 to 2023. To achieve this, the Autoregressive Distributed Lag (ARDL) model was employed to assess both short-run and long-run dynamics, while the causality test was used to examine the direction of causality between financial inclusion and inclusive growth. The findings revealed that financial inclusion significantly and positively influences inclusive growth in both the short and long run. Additionally, secondary school enrolment contributes positively to inclusive growth, whereas inflation exerts a negative impact. The error correction term is significant and correctly signed, confirming the presence of a long-run equilibrium relationship among the variables. However, unemployment was found to be statistically insignificant in explaining variations in inclusive growth within the study period. The causality analysis further supports a unidirectional causality running from financial inclusion to inclusive growth. Based on these findings, the study recommends that policymakers intensify efforts to deepen financial inclusion through increased deployment of digital financial services, improved financial literacy, and strengthened regulatory frameworks. In addition, targeted investment in education and inflation control measures should be prioritized to foster a more inclusive and sustainable growth trajectory for Nigeria.

Keywords: Financial Inclusion, Inclusive Growth, ARDL Model, Causality Test, Nigeria.

JEL Classification: G21, O47, E60

Introduction

In the global development agenda, inclusive growth has emerged as a central objective for both advanced and developing economies (Gidage & Bhide, 2025; Aluko et al., 2024). Inclusive growth refers to economic progress that creates equitable opportunities and benefits for all segments of society, especially the poor and marginalized. This imperative has been strongly emphasized in the United Nations Sustainable Development Goals (SDGs), particularly under Goal 8, which calls for promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Notably, Target 8.10 advocates for strengthening the capacity of domestic financial institutions to expand access to banking, insurance, and financial services for all. To achieve this vision of inclusive development, financial inclusion has gained significant attention as a vital policy instrument. According to Ezeocha (2024), by increasing access to financial services, it is believed that more individuals and businesses, particularly those in rural and disadvantaged communities, can participate meaningfully in the economy, reduce

poverty, and contribute to national development.

Financial inclusion, in essence, involves providing individuals and businesses with accessible, affordable, and appropriate financial products and services such as savings accounts, credit, insurance, and digital payment systems (Rahman & Sadik, 2025). In Nigeria, despite various efforts, financial exclusion remains a substantial challenge. According to data from Enhancing Financial Innovation and Access (EFInA), a considerable percentage of the adult population still lacks access to formal financial services, with women, rural dwellers, and informal workers being disproportionately affected. The country's financial inclusion drive has been confronted by issues such as limited financial literacy, inadequate digital infrastructure, low income levels, and mistrust of formal financial institutions (Ayodeji et al., 2025; Peter & Orser, 2024). Nonetheless, successive Nigerian governments have implemented broader economic policies aimed at achieving inclusive growth. These include the Economic Recovery and Growth Plan (ERGP), the National Social Investment

Programme (NSIP), and the National Development Plan (2021–2025), all of which stress poverty alleviation, job creation, and human capital development

To address financial exclusion more directly, Nigeria has launched several targeted initiatives. Notably, the Central Bank of Nigeria (CBN) developed the National Financial Inclusion Strategy (NFIS) in 2012, which set specific targets for reducing the financially excluded population. Other initiatives include the promotion of agent banking, mobile money operations, the Bank Verification Number (BVN), and various fintech collaborations. While these policies have expanded the reach of financial services, especially in urban centers, challenges remain in ensuring that increased access translates into actual financial empowerment and economic inclusion (Iwedi, 2024; Ediagbonya, & Tioluwani, 2023). Reports have shown that many individuals who own bank accounts or mobile wallets still do not actively use them for savings, credit, or investment purposes, which raises questions about the depth and effectiveness of financial inclusion in achieving its intended developmental goals. These realities point to a critical need to assess not only access but also usage and

impact, especially in terms of contributing to inclusive economic outcomes.

However, the academic literature presents divergent views on whether financial inclusion indeed drives inclusive growth. Some empirical studies (Ahmad et al., 2021; Adedokun & Ağa, 2023; Chude & Chude, 2022; Mbodj & Laye, 2025) argue that financial inclusion promotes equitable economic growth by expanding credit, reducing inequality, and encouraging entrepreneurship. Others () suggest that without complementary policies addressing structural inequalities, financial inclusion alone may not produce significant growth benefits and may even reinforce existing disparities. These mixed findings place policymakers at a crossroads, especially in countries like Nigeria where achieving inclusive growth, this remains a major developmental challenge. Therefore, the objective of this paper is to determine the short-run and long-run effects of financial inclusion on inclusive growth in Nigeria and the determine the direction of causality between them, with a view to providing evidence-based understandings into the effectiveness of financial inclusion policies and also the dire. The findings are expected to guide policy direction and contribute to

resolving the debate on whether financial inclusion is truly instrumental in achieving inclusive growth in the Nigerian context.

The rest of this paper is structured as follows: the next section reviews relevant literature and theoretical underpinnings; the methodology is described in Section Three; Section Four presents and discusses empirical results; and Section Five concludes with policy implications and recommendations

Literature Review

Conceptual Issues

Inclusive growth refers to economic growth that is sustained over time and broadly shared across all segments of society, particularly the poor, marginalized, and vulnerable groups (Prabhakar, 2025; Iddrisu et al., 2025). It is a type of growth that not only increases the overall wealth of a nation but also ensures that the benefits of that growth are equitably distributed, leading to a reduction in poverty, inequality, and social exclusion. According to the World Bank, inclusive growth focuses on both the pace and pattern of growth, recognizing that rapid growth is necessary but not sufficient unless it also creates opportunities for productive employment and access to essential services

for all. Inclusive growth, therefore, integrates the goals of economic efficiency with those of equity, aiming to build a more resilient, fair, and participatory economy (Aderogba & Aderogba, 2024). Kabeer, (2021), sees it as economic growth that results in a wider participation of people in the growth process and ensures that the benefits of growth are fairly distributed across all income and social groups.

Financial inclusion refers to the process of ensuring access to affordable, timely, and adequate financial products and services for all individuals and businesses, especially the vulnerable and low-income segments of society (Mishra et al., 2024). These services include savings, credit, insurance, pensions, and payment systems delivered in a responsible and sustainable manner by formal financial institutions. According to the World Bank, financial inclusion means that individuals and businesses have access to useful and affordable financial products and services that meet their needs, transactions, payments, savings, credit, and insurance delivered in a responsible and sustainable way. The goal is to eliminate barriers to financial services and promote active usage, which empowers people to manage their money, smooth consumption, invest in

health, education, and income-generating activities, and cope with financial shocks (Kamble et al., 2024; Adegbite et al., 2021).

Theoretical Framework

This study is anchored on the Finance–Growth Nexus, a theoretical framework first systematically advanced by Joseph Schumpeter in 1911, who argued that financial services are essential in fostering innovation and driving economic development. Schumpeter posited that the financial system plays a crucial role in mobilizing savings, evaluating investment opportunities, facilitating the allocation of resources, and enabling technological innovation, all of which are critical for economic growth. Subsequent scholars such as Goldsmith (1969), McKinnon (1973), and Shaw (1973) further developed this theory by emphasizing the importance of financial liberalization and the development of financial institutions in accelerating economic performance. The theory essentially views financial development—through instruments like credit provision, savings mobilization, and efficient payment systems, as a fundamental driver of long-run economic growth.

The relevance of the theory to this study lies in its explanation of how financial inclusion, as a component of financial development, contributes to inclusive economic growth. It is believed that by expanding access to financial services such as savings, credit, and insurance to the previously excluded population, particularly the poor, women, and rural dwellers, financial inclusion enhances their capacity to participate productively in the economy. This aligns with the theoretical view that a well-functioning financial system reduces information and transaction costs, supports investment in human and physical capital, and fosters innovation, all of which are key to promoting inclusive growth. The strength of the theory lies in its ability to provide a conceptual link between financial policies and macroeconomic outcomes, making it an appropriate theoretical framework for examining the short-run and long-run effects of financial inclusion on inclusive growth in Nigeria. The theory stresses the idea that equitable access to finance is not just a social good but a necessary condition for sustainable and inclusive development.

Empirical Review

Gharib (2025) examined how the evolution of financial inclusion influences real GDP

growth across the Middle East and North Africa (MENA). Using a panel dataset spanning 2000 to 2020, the study adopted the generalized method of moments (GMM) estimation, to capture both short- and long-run effects. Results indicate a strong positive association between increased financial inclusion and higher GDP growth in the region, though the strength of the effect differs across sub-regions.

Jeke (2025) explored the effect of financial inclusion on bank stability. It covers data from 2010 to 2023 and uses a system GMM estimation to analyse panel data. The findings show that a greater number of commercial bank branches (per 100,000 adults) is associated with higher bank stability (measured via z-scores), while increased bank efficiency surprisingly correlates negatively with stability. The results suggest that financial literacy programs are needed to maximize the positive effects of financial inclusion on the stability of the financial sector.

Saranu et al. (2024) examined the relationship between financial inclusion and economic growth in Nigeria using an ex-post facto research design. The study analysed annual time series data spanning 2001 to

2021 with an ordinary least squares (OLS) approach. Their findings revealed that credit to the private sector and ATM transactions positively affects economic growth in Nigeria.

Kumar (2024) assessed the impact of financial inclusion on poverty reduction in developing countries. Drawing on a panel dataset of 68 nations over a 50-year span (1970–2020), the author employs fixed effects panel data regression to control for country-specific factors. The empirical evidence points to a significant negative relationship between financial inclusion and poverty levels. However, the strength of this effect is moderated by the level of banking sector development, suggesting that robust financial infrastructure is necessary for these benefits to fully materialize.

Sun and Scola (2023) analysed whether enhanced financial inclusion can reduce unemployment across African countries. Using panel data from 49 African nations covering the period 2009 to 2020, the researchers adopt a two-step Generalized Method of Moments (GMM) estimator. Their findings demonstrate that financial inclusion significantly lowers unemployment rates,

with the effect being especially pronounced in countries with higher levels of education.

Chude and Chude (2022) investigated the relationship between various financial inclusion indicators and economic growth in Nigeria over the period 1981–2021. Using an ordinary least squares (OLS) technique and an error correction mechanism were employed to analyse the data. According to the findings, increased bank branch density and commercial bank deposits positively influenced economic growth. On the other hand, bank loans negatively impacted economic growth, while the effect of ATM usage is not significant.

Serrao et al. (2021) assessed the socio-economic effects of financial inclusion. Based on primary survey data collected between 2018 and 2020. An ordinary least squares (OLS) regression analysis was used to analyse the data. They find that while improved financial inclusion is associated with better socio-economic outcomes among urban households, the effects in rural areas are mixed.

Erlando et al. (2020) investigated the links between financial inclusion, economic growth, and poverty alleviation in Eastern Indonesia. Covering the period from 2009 to

2015, the research employs both the Toda-Yamamoto VAR bivariate causality model and dynamic Panel VAR (PVAR) to examine interrelationships among key variables. The findings indicated that socio-economic growth has a positive effect on financial inclusion; in turn, enhanced financial inclusion significantly reduces poverty levels. However, the study also notes a positive association between financial inclusion and income inequality.

Methodology

Data Requirement and Source

This study focused on Nigeria for the period 2000 to 2023. The data used for this study were annual time series data on data on inclusive growth measured by GDP per person employed, volume of Web, POS, ATM and Mobile financial transactions, number of automated teller machines available (per 100,000 adults), School enrollment, secondary (% of gross), inflation, consumer price (annual %) and unemployment, total (% of total labor force) (modeled ILO estimate) . Following Khan et al. (2024), a Principal Component Analysis

(PCA) was used to capture the usage of financial services index, comprising volume of Web, POS, ATM and mobile transactions between 2000 and 2023. The data on were sourced from World Development Indicators (2023) and the Central Bank of Nigeria Statistical Bulletin (2023).

Model Specification

To examine the impact of financial inclusion on economic growth in Nigeria, this study specifies and estimates the dynamic growth model in the form

$$IG_t = f(FIN_t, SSE_t, INF_t, UEM_t) \quad 1$$

Where:

IG_t = Inclusive Growth

FIN_t = Financial Inclusion proxied with ATM and POS at time t

SSE_t = Secondary enrolment proxied for education level at time t

INF_t = Inflation rate at time t

UEM_t = Unemployment rate at time t

Equation 1 is respecified in its econometric form as

$$IG_t = \beta_0 + \beta_1 FIN_t + \beta_2 SSE_t + \beta_3 INF_t + \beta_4 UEM_t + \varepsilon_t \quad 2$$

Where: β_0 is constant, $\beta_1 - \beta_4$ are coefficient of the independent variables and ε_t is the error term.

The economic model in equation 2 is transformed into a logarithm form as follows:

$$\log IG_t = \beta_0 + \beta_1 \log FIN_t + \beta_2 \log SSE_t + \beta_3 \log INF_t + \beta_4 \log UEM_t + \varepsilon_t \quad 3$$

On a priori, we expect $\beta_1 > 0$; $\beta_1 > 0$; $\beta_2 > 0$; $\beta_3 < 0$; and $\beta_4 < 0$

Estimation Techniques

The study adopts the Autoregressive Distributed Lag (ARDL) model developed by Pesaran et al. (2001). The ARDL approach is suitable for analyzing variables that are integrated of order I(0), I(1), or a combination of both, and it is particularly advantageous for small sample sizes. The short run and long run model is specified as:

$$\begin{aligned} \Delta \log IG_t = & \beta_0 + \sum_{k=1}^n \beta_1 \Delta \log IG_{t-k} + \sum_{k=1}^n \beta_2 \Delta \log FIN_{t-k} + \sum_{k=1}^n \beta_3 \Delta \log SSE_{t-k} + \\ & \sum_{k=1}^n \beta_4 \Delta \log INF_{t-k} + \sum_{k=1}^n \beta_5 \Delta \log UEM_{t-k} + \delta_1 \log IG_{t-1} + \delta_2 \log FIN_{t-1} + \delta_3 \log SSE_{t-1} + \\ & \delta_4 \log INF_{t-1} + \delta_5 \log UEM_{t-1} + \varepsilon_t. \end{aligned} \quad 4$$

In the model, the coefficients β_1 to β_5 represent the long-run relationships, while δ_1 to δ_5 capture the short-run dynamics. The term β_0 denotes the intercept (drift component), Δ signifies the first-difference operator, and ε_t stands for the stochastic error term. To determine whether a long-run equilibrium relationship exists among the variables, the ARDL Bounds testing approach is employed. This test involves comparing the calculated F-statistic with the critical value bounds provided by Pesaran et

$$\Delta \log IG_t = \beta_0 + \sum_{k=1}^n \beta_1 \Delta \log IG_{t-k} + \sum_{k=1}^n \beta_2 \Delta \log FIN_{t-k} + \sum_{k=1}^n \beta_3 \Delta \log SSE_{t-k} + \sum_{k=1}^n \beta_4 \Delta \log INF_{t-k} + \sum_{k=1}^n \beta_5 \Delta \log UEM_{t-k} + \delta_1 \log IG_{t-1} + \delta_2 \log FIN_{t-1} + \delta_3 \log SSE_{t-1} + \delta_4 \log INF_{t-1} + \delta_5 \log UEM_{t-1} + \phi ECM_{t-1} + \varepsilon_t.$$

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al. (2001). If the F-statistic exceeds the upper bound of the critical values, the null hypothesis of no cointegration is rejected, confirming a long-run association among the variables. Conversely, if the F-statistic falls below the lower bound, the null hypothesis cannot be rejected, indicating no long-run relationship. The error correction term, which measures how quickly deviations from short-run disequilibrium adjust back to long-run equilibrium, is expressed as follows.

Results and Discussion

Descriptive Statistics

The descriptive statistics in Table 1 provide key insights into the distribution and variability of the variables used in the study. Inclusive Growth (IG), measured in Nigerian Naira, has an average value of ₦11,441.41 with a standard deviation of ₦1,961.64, indicating a moderate level of dispersion around the mean. The minimum and maximum values for IG are ₦7,284.45 and

₦13,845.66 respectively, suggesting noticeable variation in inclusive growth performance over the period studied. For Financial Inclusion (FIN), which is measured as a proportion or percentage of the population with access to financial services, the mean is 0.038, but it shows high variability with a standard deviation of 1.885. The minimum value is -0.95, which may reflect anomalies or negative changes in inclusion metrics, while the maximum is

7.086, indicating periods of significantly higher inclusion.

Secondary School Enrollment (SSE), expressed as a percentage, averages 40.10% with a standard deviation of 7.85%, ranging from a low of 24.75% to a high of 54.88%, highlighting improvements in education access over time. Inflation (INF), measured as the annual percentage change in consumer prices, has a mean of 13.13% with a relatively high standard deviation of 4.46%, showing

considerable fluctuation from a minimum of 5.39% to a maximum of 24.66%. Unemployment (UEM), also expressed as a percentage, shows a more stable distribution with a mean of 4.10%, a low standard deviation of 0.67%, and values ranging from 3.07% to 5.74%. These descriptive statistics collectively reveal that while some variables such as unemployment and education levels show moderate dispersion, others like financial inclusion and inflation display significant variability over the study period.

Table 1: Descriptive statistics of variables

Statistic	IG	FIN	SSE	INF	UEM
Mean	11441.41	0.038	40.099	13.127	4.099
Maximum	13845.66	7.086	54.883	24.660	5.742
Minimum	7284.45	-0.95	24.749	5.388	3.074
Std. Dev.	1961.644	1.885	7.848	4.462	0.668
Jarque-Bera	2.770	69.849	0.889	1.022	5.608
Probability	0.250	0.000	0.641	0.600	0.061

Source: Researcher, 2025

Unit Root Test

Table 2 presents the unit root test results using both the Phillips-Perron (PP) and Augmented Dickey-Fuller (ADF) methods to determine the stationarity of the variables. The results indicate that inclusive growth (IG), secondary school enrollment (SSE), and unemployment (UEM) are stationary at level,

that is., they are integrated of order zero $I(0)$, as their test statistics are significant at level in both PP and ADF tests. In contrast, financial inclusion (FIN) and inflation (INF) are not stationary at level but become stationary after first differencing, indicating they are integrated of order one $I(1)$. These findings imply that the variables used in the

study are a mix of I(0) and I(1), making the Autoregressive Distributed Lag (ARDL) model an appropriate estimation technique for examining the relationship between financial inclusion and inclusive growth in Nigeria.

Table 2: Unit Root Test

	Phillip Perron			Order of	ADF			Order of
	Level	First Diff	Int		Level	First Diff	Int	
IG	-4.071*** (0.000)		I(0)		-4.002 (0.002)		I(0)	
		-						
FIN	-1.140 (0.338)	5.102*** (0.000)	I(1)		-1.210 (0.320)	-5.495 (0.000)	I(1)	
SSE	-3.364*** (0.001)		I(0)		-3.881 (0.001)		I(0)	
INF	-1.822 (0.456)	-4.113 (0.000)	I(1)		-1.602 (0.344)	-4.983 (0.000)	I(1)	
UEM	-5.233** (0.013)		I(0)		-5.624 (0.000)		I(0)	

Source: Researcher, 2025

Cointegration Test

Table 3 presents the results of the ARDL Bound Test for cointegration. The computed

F-statistic of 6.231 exceeds the upper bound critical values at all conventional levels of significance—10% (3.52), 5% (4.01), 2.5% (4.49), and 1% (5.06). Since the F-statistic is

greater than the I(1) bound at even the 1% level, the null hypothesis of no long-run relationship is rejected. This indicates the

presence of a statistically significant long-run cointegrating relationship among the variables in the model.

Table 3: Bound Test

Significance	I(0) Bound	I(1) Bound	F-Statistics
10%	2.45	3.52	8.231***
5%	2.86	4.01	
2.50%	3.25	4.49	
1%	3.74	5.06	

Source: Researcher's Computation (2025)

Short-run Result and Long run Result

The short-run dynamics presented in the cointegrating form of Table 4 revealed important relationships between the independent variables and inclusive growth in Nigeria. Specifically, financial inclusion (D(FIN)) has a positive and statistically significant effect on inclusive growth in the short run, with a coefficient of 0.007 and a ρ -value of 0.050. This indicates that a marginal increase in financial inclusion positively influences inclusive growth in the short term. Similarly, secondary school enrolment (D(SSE)) is also positively and significantly related to inclusive growth, with a coefficient of 0.109 ($\rho < 0.05$), suggesting that improved access to education fosters inclusive development. Inflation (D(INF)) appears twice in the output—likely due to a

typographical duplication—with both entries showing a statistically significant negative impact on inclusive growth, implying that rising prices erode the benefits of growth in the short run. Unemployment (D(UEM)), however, is not statistically significant ($p = 0.646$), indicating it does not exert a short-run effect on inclusive growth within the period studied. The error correction term (CointEq(-1)) is negative and significant (-0.211, $\rho < 0.05$), confirming the existence of a long-run relationship and indicating that about 21.1% of the short-run disequilibrium is corrected in each period toward long-run equilibrium.

In the long-run estimates, financial inclusion (FIN) remains positively and significantly associated with inclusive growth, with a coefficient of 0.034 and $\rho < 0.05$. This suggests that sustained improvements in

financial access and usage contribute meaningfully to broader economic participation and welfare over time. Similarly, secondary school enrolment (SSE) exhibits a strong and statistically significant positive effect (0.517, $\rho < 0.05$), reinforcing the critical role of education in promoting inclusive growth in Nigeria. Inflation (INF), on the other hand, shows a statistically significant negative impact (-0.254, $\rho < 0.05$), indicating that high inflation undermines long-run inclusive growth by reducing purchasing power and distorting resource allocation. The coefficient for unemployment (UEM) is negative (-0.058) but statistically insignificant ($\rho > 0.05$), implying that, although theoretically expected to hinder growth, unemployment

has not had a measurable long-run impact within the model's estimation period.

Overall, the results indicated that both in the short and long run, financial inclusion and education are vital drivers of inclusive growth in Nigeria. Inflation consistently poses a threat to inclusive development across both horizons, while unemployment does not show a significant direct effect in this specific context. The significance and correct sign of the error correction term further validate the long-term equilibrium relationship among the variables, emphasizing that policy efforts directed at financial inclusion and educational development will not only yield immediate benefits but also promote sustained inclusive economic advancement.

Table 4: Short Run and Long Run effect on inclusive Growth

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(FIN)	0.007	0.003	2.127	0.050
D(SSE)	0.109	0.040	2.728	0.016
D(INF)	-0.032	0.013	-2.361	0.032
D(INF)	-0.035	-0.012	2.784	0.014
D(UEM)	-0.012	0.026	-0.469	0.646
CointEq(-1)	-0.211	0.041	-5.129	0.000
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

FIN	0.034	0.009	3.778	0.003
SSE	0.517	0.135	3.818	0.002
INF	-0.254	0.089	-2.871	0.012
UEM	-0.058	0.128	-0.452	0.657
C	3.851	0.271	14.194	0.000

Source: Researcher's computation, 2025

Causality Test

The causality test results indicate a unidirectional causality running from financial inclusion (FIN) to inclusive growth (IG) at the 5% level of significance, as the null hypothesis that “FIN does not Granger cause IG” is rejected (F-statistic = 4.872, $\rho < 0.05$). This implies that changes in financial inclusion significantly predict changes in

inclusive growth in Nigeria. Conversely, the test fails to reject the null hypothesis that “IG does not Granger cause FIN” (F-statistic = 1.239, $\rho > 0.05$), indicating that inclusive growth does not significantly cause financial inclusion within the study period. This finding underscores the policy importance of strengthening financial inclusion as a driver of inclusive economic growth.

Table 5: Causality Test

Null Hypothesis	F-Statistics	Prob.	Decision
FIN does not Granger Cause IG	4.872	0.035	Reject Null Hypothesis
IG does not Granger Cause FIN	1.239	0.31	Do Not Reject Null Hypothesis

Diagnostic Test

The diagnostic tests presented suggest that the estimated model is statistically sound and

well-specified. The Breusch-Pagan-Godfrey heteroskedasticity test yields an F-statistic of 0.453 with a probability value of 0.564, indicating the absence of heteroskedasticity,

as the null hypothesis of constant variance cannot be rejected. Similarly, the Breusch-Godfrey Serial Correlation LM test returns an F-statistic of 3.998 with ($\rho > 0.05$), suggesting no evidence of serial correlation in the residuals at conventional significance levels. Also, the Ramsey RESET test, which checks for model misspecification, has an F-statistic of 4.021 and ($\rho > 0.05$), implying that there is no strong evidence against the functional form of the model, though the result is marginally close to the 5% level.

Collectively, these results affirm the reliability and adequacy of the model for policy and analytical inferences.

Table 6. Test for Heteroskedasticity, Serial Correlation and Model Specification.

Test	F-statistic	Prob.
Heteroskedasticity Test: Breusch-Pagan-Godfrey	0.453	0.564
Breusch-Godfrey Serial Correlation LM Test:	3.998	0.111
Ramsey RESET Test	4.021	0.077

Source: Researcher's Computation (2025)

Stability Test

Figures 1 and 2 display the results of the Cumulative Sum of Residuals (CUSUM) and the Cumulative Sum of Squares (CUSUMSQ) tests, respectively. In both figures, the plotted CUSUM and CUSUMSQ

lines remain within the critical bounds (indicated by the two red lines), signifying the structural stability of the model over the sample period. This indicates that the parameters of the model did not experience significant shifts, and thus, the model can be considered stable and reliable for inference.

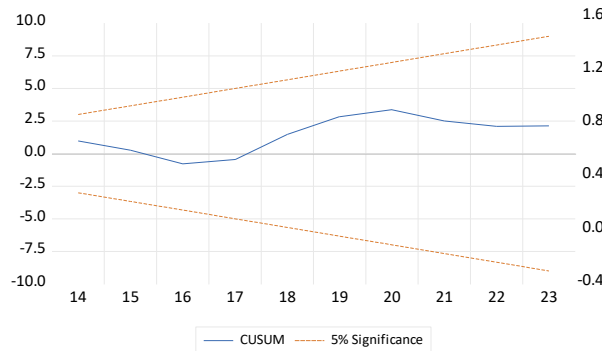


Figure 1. Cumulative Sum of Residuals.

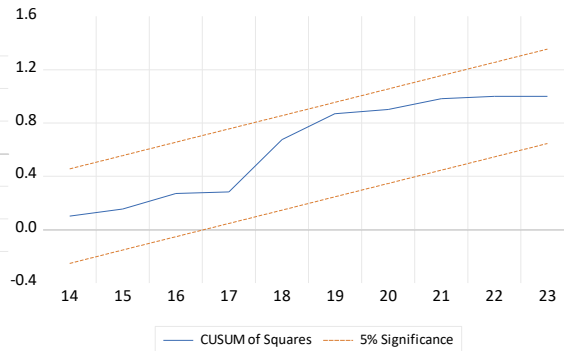


Figure 2. Cumulative Sum of Squares of Residuals.

Conclusion and Recommendations

This study investigated the effect of financial inclusion on inclusive growth in Nigeria for the period covering 2000 to 2023. Utilizing the Autoregressive Distributed Lag (ARDL) model and causality test, the study examined both the short-run and long-run relationships between financial inclusion and inclusive growth. The findings revealed that financial inclusion, measured through access indicators, has a statistically significant and positive impact on inclusive growth in both the short and long run. Additionally, secondary school enrollment positively influenced inclusive growth, while inflation exerted a negative effect. Unemployment, however, showed no significant impact. The error correction term was also significant and correctly signed, confirming the presence of

long-run equilibrium among the variables. These results support the finance–growth nexus theory, suggesting that enhanced access to financial services facilitates economic activities that promote broader economic participation and equitable growth.

Based on these findings, the study recommends that policymakers in Nigeria should strengthen financial infrastructure by expanding access to banking services, particularly in rural and underserved areas, through digital innovations such as mobile banking and agent banking. Government and financial institutions should also implement policies that promote financial literacy to enable individuals to effectively utilize financial services. Moreover, efforts should be made to reduce inflation through sound monetary policies, as persistent inflation

undermines the gains of financial inclusion on growth. Furthermore, improving educational enrollment and outcomes should remain a priority, as human capital development is critical in translating financial access into productive economic activities that foster inclusive growth.

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