

FINANCIAL INCLUSION, CORRUPTION, POLITICAL INSTABILITY AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

Financial inclusion, in terms of adoption or usage, is one of the main but challenging priorities in Nigeria. This research work investigates the impact of financial inclusion, corruption and political instability on the economic growth of Nigeria employing the ARDL method of analysis to examine the impact of financial inclusion on economic growth. The findings revealed that financial inclusion and literacy level enhance economic growth in Nigeria whereas political instability dampens growth outcomes. Corruption was found to impede financial inclusion efforts both in the long run and short run, though it is insignificant in the long run but significant in the short run. The study therefore recommends amongst others the promotion of Financial Inclusion through technological innovations Policies, Stabilizing the political environment by ensuring smooth transition of power, combating corruption by strengthening anti-corruption bodies and improving literacy with Financial Education through targeted financial education.

Keywords: Financial Inclusion; Economic Growth; Corruption; Political Instability.

JEL Classification: G20, O40.

1. INTRODUCTION

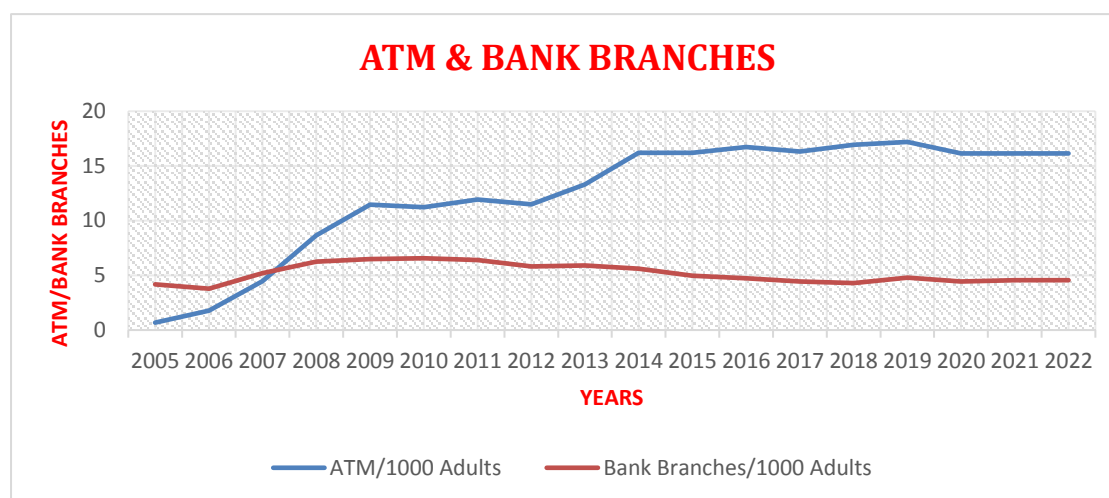
Financial inclusion has recently assumed a critical development policy priority globally, and regionally, especially in developing economies of Sub-Saharan Africa and Nigeria, in particular. In Sub-Saharan Africa it has shown a significant growth over the past decade, much of which is driven by mobile money account acceptance. The region continues to work on encouraging more overall account usage and access as well as more equal access based on income, gender, age and education. Furthermore, digital payments are increasingly becoming common in Sub-Saharan Africa, yet millions of people are still receiving or making common payments in cash (World Bank, 2024). Financial Inclusion is a designed policy to encourage the use of formal financial networks to enhance efficient allocation of resources and thwart inequalities in the society by providing opportunities to the poor (Ajide, 2020). Financial inclusion is seen as the delivery of financial services at an affordable cost to some disadvantaged and low-income segments of the economy. (Nwanne, 2015). Some proponents argued that financial inclusion plays a pivotal role in economic growth and overall

development, emphasizing that financial system's capacity to efficiently acquire and process information thereby increasing investment levels and optimizing fund allocation (Anthony-Orji et al., 2023; Appiah et al., 2023). It describes a process where all members of the economy do not have difficulty in opening bank accounts; can afford to access credit and can conveniently, easily and consistently use financial system products and facilities without difficulty. As individuals become financially included, it increases individual's tax contributions to the government for public welfare (Oz-Yalaman, 2019).

Businesses use financial inclusion as a tool to leverage new potential business opportunities which eventually will lead to an increase in their income (Uruakpa *et al.* 2019). The standard of financial inclusion is anticipated to spur the economy into higher indices of growth and development by making funds available and creating access for investment and economic purposes where they are non-existent (Kama & Adigun 2013). Over the years, financial inclusion as a subject has gained the global attention of the entire world in various discussions on the world's economy and development finance. The major reason for this focus on financial inclusion can be traced to the identified capacity of financial inclusion in propelling economic growth and ensuring sustainable development of an economy. Soyemi *et al.*, (2020) discovered that there has been significant growth in the number of bank branches in the rural areas in Nigeria which explicitly promotes financial inclusion.

The Nigerian government and the monetary authorities have introduced various policies aimed at deepening financial inclusion within the economy. The Central Bank of Nigeria (CBN) also introduced the cashless policy in 2012 to address challenges associated with the high usage of physical cash (CBN, 2012). This policy aimed to reduce the amount of physical cash in circulation, encourage electronic payment channels, improve the efficiency of the payment system, and enhance financial inclusion. The implementation of the cashless policy in Nigeria has had a substantial impact on financial inclusion. One noteworthy outcome has been the significant increase in the number of individuals holding bank accounts. As a result of the emphasis on electronic transactions, many Nigerians, including those in underserved areas, have been motivated to open bank accounts to participate in the formal financial system (CBN, 2024). In addition to the rise in traditional bank accounts, the cashless policy has facilitated the growth of mobile money services. Platforms such as OPay, Moniepoint, and other money wallets have emerged as viable alternatives, providing financial services to those who may have previously been excluded from the formal banking sector. These services have played a pivotal role in extending access to financial tools, especially in areas where traditional banking infrastructure may be limited (CBN, 2024).

Figure 1.1. Number of ATMs and Bank Branches per 1000 Adults



Source: Authors' computation using data from World Bank (2024)

The number of Automated Teller Machines (ATMs) per 1000 adults has also significantly increased from about 0.68 in 2005 to 16.5 in 2022. Likewise, the number of bank branches per 1000 adults increased from 4.17 in 2005 to 4.46 in 2022 as shown in figure 1.1.

Despite all efforts to improve financial inclusion, the problems of political instability and corruption did hinder financial inclusion as various financial inclusion targets could not be met. This in turn limits economic growth and poses a challenge to policymakers who are trying to promote economic development, reduce poverty and low level of financial inclusion. Regarding the state of existing research, this study finds out that previous studies focused on how financial inclusion affects economic growth while others like Kim, (2016) used income inequality; Pradhan *et al.*(2021), ICT development and Emara and El Said, (2021) used some governance factors as moderators on the impact of financial inclusion on economic growth. However, none of these studies used factors like corruption and political instability concurrently in a model to ascertain the impact of financial inclusion on economic growth.

Therefore, this study seeks to contribute to the existing literature on the impact of financial inclusion on economic growth in Nigeria while as a step beyond previous studies seeks to examine the impact of some institutional factors: with specification on corruption and political instability, on financial inclusion and considered it imperative to be investigated as different from other works, since these factors are sacrosanct to the success of financial inclusiveness in Nigeria. The rest of the paper is structured as follows: section two reviews literature, section three outlines the methodology, section four presents the results and discussion, and section five offers conclusions and recommendations.

2. LITERATURE REVIEW

Several studies report a positive effect of financial inclusion on economic growth. Cross-country studies show a positive effect of financial inclusion on economic growth. Van *et al.*, (2021) investigated the relationship between financial inclusion and economic growth in emerging markets. They assessed the effect of the financial inclusion index on real GDP per capita using a dynamic panel generalized method of moments (GMM) regression model. Their findings show a positive relationship between financial inclusion and economic growth, and the effect is stronger in countries with low income and in countries where the level of financial inclusion is low. Saranu et al (2024) studied the impact of financial inclusion on economic growth in Nigeria using an ex-post facto research design and investigated indicator variables for financial inclusion and economic growth. Employing OLS approach, the data were

examined. The study found that credit to the private sector is positively relate to economic growth and is statistically significant, but found ATM transactions to be statistically insignificant with economic growth in Nigeria.

Toby & Dibiah (2023) found indicators of financial inclusion such as currency in circulation, quasi money and currency outside bank to jointly have a causal influence on the real GDP of Nigeria. Ain, *et al.*, (2020) analyzed the effect of financial inclusion on economic growth in 33 developing countries from 2004 to 2016 using commercial bank branches per 100,000 adults and automated teller machines per 100,000 adults to measure financial inclusion, and the data were analyzed using the GMM regression methodology. The study found that financial inclusion has a significant positive effect on economic growth. Sethi and Acharya (2018) investigated the impact of financial inclusion on economic growth in 31 developed and developing countries from 2004 to 2010. Their result shows a long-run relationship between financial inclusion and economic growth and a bi-directional causality between financial inclusion and economic growth. They found that the financial inclusion index has a significant and positive impact on economic growth. Kim *et al.*, (2018) examined the relationship between financial inclusion and economic growth in the Organization of Islamic Cooperation (OIC) countries. Financial inclusion was measured as the diffusion of Islamic finance products in the OIC countries. They found that financial inclusion has a positive effect on economic growth. They also found evidence of mutual causality between financial inclusion and economic growth based on Granger causality tests.

Country-specific studies analysis also show a positive effect of financial inclusion on economic growth. For instance, Lenka and Sharma (2017) investigated the effect of financial inclusion on economic growth in India from 1980 to 2014. The result of the Autoregressive Distributive lag (ARDL) and Error Correction Model (ECM) models show that financial inclusion has a positive impact on economic growth both in the long run and short run in India. Achugamonu *et al.*, (2020) studied the implication of financial inclusion on the growth of 27 Sub-Saharan African Countries between 2007 and 2017. The study which centered on the financial exclusion of bankable adults made use of ECM and GMM techniques for analysis revealing that financial inclusion has a significant effect on economic growth. Enueshike and Okpebru (2020) examined the effects of financial inclusion on economic growth between 2000 and 2018. Adopting the ARDL technique, it was discovered that financial inclusion as proxy by rural deposits and loans to SMEs exerts a negative effect on economic growth. Obayori and George-Anokwuru (2020) used the ARDL model to assess the impact of financial inclusion on economic growth in Nigeria from 1981 to 2018. The study finds that access to and use of financial services leads to positive improvements in economic growth both in the short-run and long-run.

However, few studies documented a negative relationship between financial inclusion and economic growth. For example, Khan (2011) argued that efforts to increase financial inclusion may create new risks that could affect the stability of the financial system which in turn can negatively affect economic growth. Empirical studies such as Menyelim *et al.*, (2021) examined the effect of financial inclusion on economic growth in 48 countries in Sub-Saharan Africa from 1995 to 2017. They used financial access indicators as a proxy for financial inclusion. They found a negative effect of financial inclusion on the relationship between income inequality and economic growth. Maune (2018) examined the moderating role of financial inclusion on the trade-growth nexus in Zimbabwe. The study examined whether financial inclusion is a passage through which trade openness affects economic growth in Zimbabwe. The study found a negative effect of financial inclusion and trade openness on economic growth in Zimbabwe. Nkwede (2015) examined whether financial inclusion

promotes economic growth in Nigeria from 1981 to 2013. The study found that financial inclusion has a significant negative impact on economic growth in Nigeria. Nwisiennyi and Obi (2020) also investigated the relationship between financial inclusion and economic growth in Nigeria from 2004 to 2018. The study used the ARDL bounds test for cointegration and the ECM method. They found that financial inclusion, measured by the number of borrowers from commercial banks per 1000 adults, hurts economic growth. Chiwira (2021) investigates the relationship between financial inclusion and economic growth in the Southern African Development Community (SADC) from 1995 to 2015. The study used the ARDL model to determine the co-integrating relationship and the direction of causality between financial inclusion and economic growth. The study found that financial inclusion has a negative and long-run relationship with economic growth.

The above studies show that financial inclusion can hurt economic growth. Notwithstanding, the negative effect documented in the literature may be due to the type of variables used to measure financial inclusion and economic growth. The observed negative effect may also be due to model specification problems in the empirical modeling of these studies.

The studies depicting the impact of corruption on financial inclusion have found mixed results. For example, Grundler and Potrafke (2019) re-examine the corruption-growth nexus. They disclose a negative cumulative long-run effect of corruption on real per capita GDP. According to them, the effect is more pronounced in less democratic countries as it decreases the flow of FDI and increases inflation. Corruption is considered to be an impediment to investment and growth (Chan *et al* 2019; Song *et al.* 2020) On a general note, corruption always serve as an antagonist to growth and development (Dankumo, et al 2021 & Dankumo, et al 2023).

Although several studies have been conducted on the impact of financial inclusion on economic growth in Nigeria, none of these studies has concurrently included corruption and political instability within the same framework, considering their significance in the role of financial inclusion in the growth of Nigerian economy, which is the main gap that this study intends to fill.

3. METHODOLOGY

3.1 Theoretical Framework

The theory of finance and growth proposed by Gurley and Shaw (1955), McKinnon (1973), and Levine (2005) explains the relationship between financial inclusion and economic growth. The theory argues that the activities of financial institutions can influence financing conditions which in turn can influence the level of investment, production, and consumption decisions, and subsequently affect economic output and growth. The theory of finance and growth also explains the effect of financial inclusion on economic growth because greater financial inclusion will bring more people and businesses into the formal financial system.

Financial institutions can use the new deposits they receive from banked customers to create new loans that will be issued to deficit units which in turn will stimulate production, investment, and consumption in the economy and lead to an increase in economic output and growth.

3.2 Model Specification

Financial inclusion – Economic Growth Model

To achieve the objective of the study which is to examine the impact of financial inclusion on economic growth, the model adopted is that of Obayori and George-Anokwuru (2020), which was in line with the finance – growth theory. The model was modified to accommodate political instability, corruption and literacy rate. The functional form of the model is given as:

$$GDP = f(FIN, POL, COR, LIT) \quad (3.1)$$

Where GDP = Gross Domestic Product, FIN = Financial Inclusion, POL = Political instability, COR = Control of Corruption, LIT = Literacy level. The econometric form of the model is given as:

$$GDP_t = \beta_0 + \beta_1 FIN_t + \beta_2 POL_t + \beta_3 COR_t + \beta_4 LIT_t + \mu_t \quad (3.2)$$

Where GDP_t = Gross Domestic Product, β_0 = constant parameter, β_i = coefficient of the explanatory variables $i = 1, 2, \dots, 4$. μ_t = stochastic disturbance term, FIN_t = financial inclusion, POL_t = political instability, COR_t = corruption, LIT_t = Literacy rate, t = time subscript. β_1 and β_4 are expected to be positive whereas β_2 and β_3 expected to be negative.

3.3. Autoregressive Distributed Lag (ARDL)

From the econometric model in equations 3.2, the study shall employ the Autoregressive Distributed Lag (ARDL) Model of Pesaran *et al.* (2001) to examine the impact of financial inclusion on economic growth in Nigeria and the impact of corruption and political instability on financial inclusion respectively. The ARDL model is given as:

$$\begin{aligned} \Delta GDP_t = & \sum_{i=1} \alpha_1 \Delta GDP_{t-i} + \sum_{i=0} \alpha_2 \Delta FIN_{t-i} + \sum_{i=0} \alpha_3 \Delta POL_{t-i} + \sum_{i=0} \alpha_4 \Delta COR_{t-i} \\ & + \sum_{i=0}^n \alpha_5 \Delta LIT_{t-i} + \theta_0 GDP_{t-i} + \theta_1 FIN_{t-i} + \theta_2 POL_{t-i} + \theta_3 COR_{t-i} \\ & + \theta_4 LIT_{t-i} + \mu_t \end{aligned} \quad (3.9)$$

Where Δ is the first difference operator. α_i, θ_i are parameter coefficients of the variables. μ_t is white noise with zero mean. The terms with the summation signs (\sum) above represent the error correction dynamics while the part of the equation with θ_i corresponds to the long-run relationship. The null hypothesis in the equation is $H_0: \theta_0 = \theta_1 = \theta_2 = \theta_3 = \theta_4 = 0$. This denotes the absence of long-run relationship while the alternative hypothesis is $H_0: \theta_0 \neq \theta_1 \neq \theta_2 \neq \theta_3 \neq \theta_4 = 0$, for existence of cointegration among the variables. If the computed F statistics exceeds the upper critical value, the null hypothesis of no cointegration can be rejected. If it falls below the lower critical value the null hypothesis cannot be rejected. Finally, if the F statistics value falls between the lower and upper critical values the result is inconclusive.

The selection of the ARDL model is based on its numerous advantages over traditional co-integration techniques such as Engle & Granger (1987), Johansen (1988), and Johansen & Juselius (1990). Firstly, it can be applied regardless of whether the underlying variables are purely $I(0)$, first-differenced $I(1)$, or a combination of both. Secondly, the model automatically incorporates an adequate number of lags to capture the data generating process, transitioning from general to specific modeling frameworks. Fourth, the small sample properties of the ARDL approach outperform those of the Johansen and Juselius co-integration technique (Erbaykal, 2008). Lastly, it accommodates the possibility that variables may have different optimal lags, a capability absent in conventional procedures.

This study utilizes annual data from 1996 to 2022. Data on corruption and political instability were sourced from the Worldwide Governance Indicators, while data on GDP proxied by GDP growth rate and Literacy rate were collected from the World Development Indicators, all of the World Bank database. Lastly financial institutions index used as proxy for financial inclusion was sourced from the Financial Development Index Database of the International Monetary fund.

4. RESULTS AND DISCUSSION OF FINDINGS

4.1. Descriptive Statistics

The descriptive analysis is carried out to explain the basic features of the data. Table 1 presents the descriptive statistics of the variables used in the study.

Table 1: Descriptives

	FIN	COR	LIT	POL	GDP
Mean	0.198425	-1.178397	37.30797	-1.733352	4.846524
Median	0.202329	-1.160613	38.49903	-1.873889	5.015935
Maximum	0.244224	-0.900949	54.88297	-0.588244	15.32916
Minimum	0.152360	-1.502068	23.54534	-2.211123	-1.616869
Std. Dev.	0.030815	0.136475	8.983437	0.415329	3.379285
Skewness	0.042770	-0.628794	-0.160083	1.391460	0.829822
Kurtosis	1.489325	3.101285	1.943850	4.068284	4.707663
Jarque-Bera	2.575640	1.790761	1.370204	9.996612	6.379349
Probability	0.0275872	0.408452	0.504039	0.006749	0.041185

Source: Authors' Computation

The mean value of financial inclusion is 0.198. The minimum value is 0.152 and the maximum value is 0.244. The mean value generally reflects low levels of financial inclusion in the country indicating that a significant portion of the population has limited access to financial services such as banking, savings, or credit. The average value of GDP growth rate (4.85%) reflects the average economic output across country whereas the minimum growth rate was -1.62% and the maximum is 15.33%. Corruption has a mean score of -1.178 indicating a generally high level of corruption in the country, as lower values signify higher levels of corruption. The mean political instability score of -1.733 highlights a high level of political instability in Nigeria, as lower values indicate worse instability. The standard deviation (0.415) is moderate, showing that political instability values are more spread out compared to other variables like financial inclusion and corruption. The mean literacy rate is 37.31%, which points to relatively low literacy rates on average across the country, indicating a need for substantial educational improvements.

Table 2: Correlation Analysis

Correlation	GDP	FIN	COR	LIT	POL
GDP	1.000				
FIN	0.898	1.000			
COR	0.500	0.549	1.000		
LIT	0.940	0.776	0.346	1.000	
POL	-0.808	-0.590	-0.276	-0.786	1.000

Source: Authors' Computation

Table 2 presents the results of the correlation analysis which shows the magnitude and direction of association between the dependent variable and the explanatory variables. The coefficients of the variables show that except for political instability, all other variables are positively related with economic growth. Economic growth is strongly linked with higher financial inclusion, better literacy rates, and lower political instability. This indicates that there would be a possibility of relationship between the dependent and explanatory variables. It also means that the observed relationships are unlikely to be due to random chance. This strengthens the reliability of the findings and suggests that these variables are meaningfully related in the context of this study.

4.2. Unit Root Test

In order to avoid the issue of spurious regression, this study employed the Augmented Dickey Fuller (ADF) Test in comparison with the Phillips-Perron (PP) Test.

The ADF and PP results are presented in table 3. Panel A of the table shows the results of the ADF test. In Panel A, Gross Domestic Product and financial inclusion are stationary at level whereas corruption, political instability, and literacy rate are stationary at first difference.

Table 3: ADF and PP Tests

Panel A: Augmented Dickey Fuller (ADF) Test				
Variables	Level		First Difference	
	Intercept	Intercept/Trend	Intercept	Intercept/Trend
GDP	-3.883***	-2.353	-2.474	-2.431
POL	-1.783	-2.327	-4.727***	-5.599***
COR	-2.477	-3.527*	-4.305***	-4.227*
FIN	0.610	-4.538***	-6.077***	-6.109***
LIT	-1.238	-2.070	-5.890***	-5.819***
Panel B: Phillips-Perron Test				
GDP	-3.472**	-5.998***	-2.987**	-3.345*
POL	1.751	-0.895	-4.751***	-10.391***
COR	1.897	-2.245	-4.340***	-4.265**
FIN	-0.941	-2.727	-5.721***	-5.462***
LIT	-1.214	-2.190	-5.833***	-5.771***

Source: Authors' Computation

Hence the ADF test presents a mixed order of integration. Panel B presents the results of the Phillips and Perron Unit root test. Only Gross Domestic Product was stationary at level, all other variables were stationary at first difference, thus the PP test also supports the mixed order of integration of the variables.

4.3. Impact of Financial Inclusion on Economic Growth in Nigeria

To achieve the objective of examining the impact of financial inclusion on economic growth in Nigeria, the ARDL model was utilized. The ARDL bounds test is used to determine if long run relationship exists between financial inclusion and economic growth and the long and short run impact is also examined.

4.3.1 ARDL Bounds Cointegration Result

Having established a mixed order of integration from the unit root results, the next step is to test for the existence of a long run relationships among the variables in the models. The result for the model is presented table 4.

Table 4: Bounds Test

Model	K	F-Stat.	Significance	Critical Values	
			Level	I(0)	I(1)
GDP	4	8.809	1%	3.74	5.06
			5%	2.86	4.01
			10%	2.45	3.52

Source: Authors' Computation

The value of the F-statistics (8.809) is above the lower and upper bounds critical values at 1% level of significance hence the null hypothesis of no cointegration is rejected. This shows that there is a long run relationship among the variables.

4.3.2 ARDL Long Run Analysis

Table 5 shows the long run coefficients of the model that examines the impact of financial inclusion on economic growth in Nigeria.

Table 5: Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob
FIN	3.998	1.291	3.097	0.007
COR	-0.022	0.169	-0.132	0.897
POL	-0.481	0.113	-4.245	0.000
LIT	0.012	0.005	2.725	0.016

Source: Authors' Computation

Financial inclusion (FIN) has a positive impact on economic growth and is statistically significant at 1%. This shows that a unit increase in financial inclusion will increase economic growth by an average of 3.99 units. Similar studies in Nigeria, such as Nkwede (2015) and Obayori and George-Anokwuru (2020), corroborate these results, emphasizing the need for targeted financial policies. It is also in line with studies such as Van *et al.* (2021), who found stronger financial inclusion-growth links in low-income countries and Ain *et al.* (2021) who highlighted the transformative potential of financial inclusion in developing economies, that leads to financial development. Financial development (FD) is a pertinent component of a modern economy, as it is in globally acknowledged. It is also an important yardstick for measuring the progress or otherwise of a state (Akinpelumi, et al, 2024). Additionally, all financial development indicators can exhibit impact on the inclusive growth (Joseph, et al. 2024).

Corruption has a negative effect on economic growth but it is not statistically significant, which is in line of the studies of Malik *et al* (2012) and Dankumo et al (2021) that found corruption to negatively affect financial inclusion and economic growth. Political instability also has a negative impact on economic growth in Nigeria and it is statistically significant at 1%. A unit increase in political instability will decrease economic growth by an average of 0.48 units. This is in line with the previous studies (e.g. Cumming *et al.*, (2016) and Dankumo *et al.*, 2023 who found that political instability has negative effects on financial inclusion and economic growth respectively. Enueshike and Okpebru (2020) also found similar evidence, suggesting that persistent instability disrupts investment and economic planning.

Literacy rate has a positive and significant impact on economic growth. A unit increase in the literacy rate will increase economic growth by an average of 0.12 units. As more people get educated in the economy, their level of productivity is enhanced thus increasing national productivity. This result coincides with that of Desai et al., (2023) who found that literacy impacts economic growth positively. Similar patterns are observed in studies on India by Lenka and Sharma (2017), demonstrating the universal applicability of literacy as an economic driver.

4.3.3. ARDL Short Run Analysis

The short run coefficients are presented in table 6. The error correction term (ECT) which measures the speed of adjustment is negative, less than one and significant at 1%. It means that about 28.4% of the disequilibrium which occurs in the short run is corrected for and reverts back to the long run equilibrium in every year.

Table 6: Short Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.489	0.327	7.605	0.000
D(POL)	-0.043	0.020	-2.125	0.050

D(POL(-1))	0.045	0.025	1.778	0.096
D(FIN)	0.584	0.308	1.895	0.078
D(FIN(-1))	-0.813	0.295	-2.749	0.015
ECT(-1)	-0.284	0.038	-7.469	0.000

Source: Authors' Computation

The results show that immediate impact of political instability is negative but only significant at 10%. However, the first lag of political instability is positive and statistically significant at 10%. Financial inclusion also has a positive impact on economic growth but it is only significant at 10%.

4.3.4. Diagnostics Tests

Various diagnostics tests were carried out to determine the adequacy of the model and the results are presented in table 9. The Breusch-Godfrey LM test for serial correlation shows that the model is free from serial correlation. The Breusch-Pagan-Godfrey test shows that there's no heteroskedasticity in the model. The Ramsey Reset test confirms that the model is correctly specified while the Jarque-Bera shows that the residuals are normally distributed.

Table 7: Diagnostic Tests

Diagnostic Test	Chi-Square	P-value
Breusch-Godfrey LM	2.806	0.116
Breusch-Pagan-Godfrey	10.877	0.284
Jarque-Bera	3.215	0.200
Ramsey RESET	0.923	0.353
CUSUM (CUSUMSQ)	Stable	Stable

Source: Authors' Computation

5. CONCLUSION AND RECOMMENDATIONS

The study explored the relationship between financial inclusion and economic growth in Nigeria using the ARDL (Autoregressive Distributed Lag) model. The analysis considered the effects of corruption, political instability, literacy and financial inclusion on economic growth. The results from the ARDL bounds test indicate a long-run relationship between the variables. Financial inclusion and literacy positively influence economic growth, with a statistically significant impact. On the contrary, political instability significantly reduces economic growth, and corruption negatively impacts growth but is not statistically significant.

This study contributes to literature on the impact of financial inclusion on economic growth in Nigeria, by concurrently including corruption and political instability in a single framework to measure the impact of financial inclusion in the growth of Nigerian economy. The result on the financial inclusion-growth model confirms that financial inclusion greatly enhances economic growth in Nigeria. Therefore the finance growth theory holds for Nigeria.

Based on the findings, the study recommends that financial inclusion policies should be promoted. The CBN in collaboration with fintech companies and financial institutions should implement mobile banking initiatives such as mobile wallets and mobile money targeting underserved population, particularly in rural areas. Government should enhance political stability by strengthening democratic institutions such as the Independent National Electoral Commission (INEC) to ensure transparency and credible elections, and a smooth transition of power so as to reduce political uncertainty. The Government should enhance the capacity of anti-corruption bodies such as the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices Commission (ICPC) through technology-enabled transparency in financial systems so as to adequately tackle corruption.

REFERENCES

- Achugamonu, U.B., Adetiloye, K.A., Adegbite, E.O., Babajide, A.A., & Akintola, F.A. (2020). Financial exclusion of bankable adults: Implication on financial inclusive growth among twenty-seven ssa countries. *Cogent Social Sciences*, 1(6), 1-15.
- Ain, N., Sabir, S., & Asghar, N. (2020). Financial Inclusion and Economic Growth: Empirical Evidence from Selected Developing Economies. *Review of Economics and Development Studies*, 6(1), 179-203.
- Ajide, F. (2020). Financial inclusion in Africa: Does it promote entrepreneurship? *Journal of Financial Economic Policy*, 12(4), 687-706.
- Akinpelumi, D.M., Aworinde, O.B., Onakoya, A & Rufai, A.A. (2024). Financial Development, Urbanization and the Environmental Nexus in Nigeria: A Non-Linear analysis. *Journal of Economics and Allied Research*, 9(2), 1-15
- Anthony-Orji, O.I., Orji, A., Ogbuador, J.E. & Uka (2023). Money matters a lot empirical analysis of financial development, financial inclusion and economy growth in Nigeria. *International Journal of economics*, 17(1), 100-117
- Appiah, M., Gyamfi, B. A., Adebayo, T. S. & Bekun, F. V. (2023). Do financial development, foreign investment, and economic growth enhance industrial development? Fresh evidence from Sub-Saharan African countries. *Portuguese Economics Journal* 22 (2), 203-227.
- CBN(2012). National financial inclusion strategy. CBN Bullion. Available <https://www.cbn.gov.ng/Out/2012/publications/reports/dfd/CBNSummary%20Report%20of-Financial%20Inclusion%20in%20Nigeria-final.pdf>
- Chan, K. S., Dang, V. Q. T (2019). The evolution of corruption and development: Evidence Economies from China, Economic modelling: <http://doi.org/10.1016/1010.16bj.Econmod.2019.09.001>, 85(4), 346-363 .
- Chiwira, O. (2021). The Co-Integrating Relationship between Financial Inclusion and Economic Growth in the Southern African Development Community. *Eurasian Journal of Economics and Finance*, 9(3), 170-188.
- Cumming, D., Rui, O., & Wu, Y. (2016). Political instability, access to private debt, and innovation investment in China. *Emerging Markets Review*, 29, 68–81. <https://doi.org/10.1016/j.ememar.2016.08.013>
- Dankumo, A. M., Ishak, S., Auta, Y. & Denthe, H. A. (2023). Impact of Public Expenditure on Poverty: Role of Governance. *Jurnal Ekonomi Malaysia*, 57(1), 113-126.
- Dankumo, A.M., Ishak, S., Bani, Y. & Hamzah, H.Z. (2021) Governance, Public Expenditure, Trade and Poverty Reduction in Sub Saharan Countries. *Jurnal Ekonomi dan Studi Pembangunan (JESP)* 13(1), 16-35.
- Emara, N., & El Said, A. (2021). Financial Inclusion and Economic Growth: The Role of Governance in Selected MENA Countries. *International Review of Economics & Finance*, 75(C), 34-54.
- Enueshike, P., & Okpebru, O. O. (2020). Effects of financial inclusion on economic growth in Nigeria (2000-2018). *IOSR Journal of Research and Methods in Education*, 10(1), 44-49.
- Grundler, K., Potrafke, N., & Wochner, T. (2019). Corruption and economic growth. *ifo Schnelldienst*, 72 (18), 27-33.
- Gurley, J. G. & E. S. Shaw (1955). Financial Aspects of Economic Development. *American Economic Review*, 45 (4), 515-538.

- Joseph, E., Tella, S. & Obiakor, R. (2024) Financial Development and the Attainment of Inclusive Growth in Africa. *Journal of Economics and Allied Research* 9(1) 291-303
- Kama, U., & Adigun, M. (2013). Financial inclusion in Nigeria: Issues and challenges (No. 45).1– 45. Abuja. Retrieved from: [http://www.cenbank.org/Out/2014/RSD/Occasional Paper No. 45 Issues and Challenges.pdf](http://www.cenbank.org/Out/2014/RSD/Occasional%20Paper%20No.%2045%20Issues%20and%20Challenges.pdf).
- Khan, H. R. (2011). Financial inclusion and financial stability: are they two sides of the same coin. Address by Shri HR Khan, Deputy Governor of the Reserve Bank of India, at BANCON, 12(3), 1-2.
- Kim, D. W., Yu, J. S., & Hassan, M. K. (2018). Financial inclusion and economic growth in OIC countries. *Research in International Business and Finance*, 43(3), 1-14.
- Kim, J. H. (2016). A study on the effect of financial inclusion on the relationship between income inequality and economic growth. *Emerging Markets Finance and Trade*, 52(2), 498-512.
- Lenka, S. K., & Sharma, R. (2017). Does financial inclusion spur economic growth in India? *The Journal of Developing Areas*, 51(3),215-228.
- Levine, R. (2005). Finance and growth: theory and evidence. *Handbook of economic growth*, 1, 865-934.
- Maune, A. (2018). Financial Inclusion and the Trade-Growth Nexus: Evidence from the Emerging Zimbabwean Economy. *Journal of Economics and Behavioral Studies*, 10(6A),43-55.
- McKinnon, R. I. (1973). *Money and Capital in Economic Development*. Washington, DC: Brookings Institution.
- Menyelim, C. M., Babajide, A. A., Omankhanlen, A. E., & Ehikioya, B. I. (2021). Financial inclusion, income inequality and sustainable economic growth in sub-Saharan African countries. *Sustainability*, 13(4), 1780.
- Nkwede, F. (2015). Financial inclusion and economic growth in Africa: Insight from Nigeria. *European Journal of Business and Management*, 7(35), 71-80.
- Nwanne, T. F. I. (2015). Relationship between financial inclusion and economic growth in Nigeria rural dwellers. *International Journal of Small Business and Entrepreneurship Research*, 3(7), 17–27.
- Nwisiennyi, K. J. & Obi, O. A. (2020). An Analysis of Financial Inclusion and Economic Growth in Nigeria; an ARDL Approach. *International Journal of Research and Innovation in Social Science*, 4(10), 126-134.
- Obayori, J. B., & George-Anokwuru, C. C. (2020). Financial Inclusion and Economic Growth in Nigeria. *Business Perspective Review*, 2(2), 46-56.
- Obayori, J. B., & George-Anokwuru, C. C. (2020).Financial Inclusion and Economic Growth in Nigeria. *Business Perspective Review*, 2(2), 46-56.
- Onaolapo, A.R. (2015). “Effects of Financial Inclusion on the Economic Growth of Nigeria (1982-2012). *International Journal of Business and Management Review*, 3(8), 11-28
- Pradhan, R. P., &Sahoo, P. P. (2021). Are there links between financial inclusion, mobile telephony, and economic growth? Evidence from Indian states. *Applied Economics Letters*, 28(4), 310-314.
- Saranu S., Yusuf T.I., Gambo N., & Maitala F.H. (2024) Financial Inclusion and Nigerian Economic Growth: An Empirical Investigation (2001-2021), *International Journal of Quantitative and Qualitative Research Methods*, 12(1), 76-86
- Soyemi, K. A., Olowofela, O. E., &Yunusa, L. A. (2020). Financial inclusion and sustainable development in Nigeria. *Journal of Economics & Management*, 39(1), 105-131.
- Song, C. Q., Chang, C.P. & Gong, Q (2020). Economic growth, corruption and financial development: Global evidence; *Economic Modelling*, doi: <https://doi.org/10.1016/j.econmod.2020.02.022>.

- Toby, A.J. & Dibiah, S. (2023). Financial Inclusion and Economic Growth in Nigeria *International Journal of Economics and Financial Management* 7(5), 21-35
- Uruakpa, N.I., Kalu, U.E., & Ufomadu, O.A. (2019). Impact of financial inclusion on economic growth of Nigeria. *International Journal of Sustainable Development*, 2(12), 46-58.
- Van, L. T. H., Vo, A. T., Nguyen, N. T., & Vo, D. H. (2021). Financial inclusion and economic growth: International evidence. *Emerging Markets Finance and Trade*, 57(1), 239-263.
- World Bank, (2024). Financial Inclusion in Sub-Saharan Africa—Overview. <https://www.worldbank.org/en/publication/globalindex/brief/financial-inclusion-in-sub-saharan-africa-overview>