

Financial Development in Nigeria: A Causal Imperative for Economic Growth

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Abstract:- This research investigated the causal relationship between financial development and economic growth in Nigeria from 1994 to 2023. Secondary data were obtained from the Central Bank of Nigeria's Statistical Bulletin and the World Bank's Financial Development Indicators Database. The unit root test was used to establish data stationarity, revealing conflicting results that necessitated the application of Auto Regressive Distributed Lag and the Granger Causality Test. The findings indicated that the private sector credit ratio to gross domestic product, the number of bank accounts per 100,000 persons, and the lending-deposit spread were significant predictors of Nigeria's gross domestic product. Furthermore, the applied indicators of financial development neither facilitate nor enhance economic growth, nor does economic growth assist or promote the utilized measures of financial development throughout the research period, as shown by the lack of causation in our findings. Consequently, the research indicated that of the variables used, just one – the asset quality ratio – did not substantially affect economic growth, and moreover, none of the four measures of financial development used fostered economic expansion. The study advocated for Nigerian banks to strengthen their credit policies and rigorously comply with them, as this would mitigate non-performing loans and subsequently improve asset quality ratios. Additionally, it emphasized the necessity for banks to enhance their financial inclusion initiatives, which would attract more deposits, thereby augmenting their credit capacity. An increase in credit provision would elevate operational efficiency and, consequently, bolster their contribution to the growth of the Nigerian economy.

Keywords:- Financial Development, Causality Test, Economic Growth, Financial Access, Financial Efficiency.

I. INTRODUCTION

Economic development depends much on the degree of financial development. Based on Levine's (1997) perception, risk diversification and administration as well as financial development aid to simplify information about possible investments and monitoring. Therefore, the saving mobilization and effective use of resources clearly define the result of financial development that promotes growth. A proper knowledge of the economic viability of nations

depends clearly on the character of the interactions between financial development and economic growth of nations.

Over the years, scholarly and policy interest has stayed focused on the form of predictive interactions involving financial development and national economic growth. Still, World Bank (2018) and Bhole (2004) offered several facets of financial growth. Bhole (2004) specifically listed among other things finance ratio, financial inter-relation ratio, new issues ratio, intermediation ratio, ratio of money to national income. World Bank (2018) especially offered two general categories of financial development indicators derived from financial institutions and financial markets. Although the financial institution's correlate are depth, access, efficiency, and stability each with proxies mostly used by academics worldwide.

Since 1986, the Nigerian financial system has experienced notable deregulation; in 2005, efforts at financial sector convergence sought to strengthen the system. These changes have fundamentally changed the functioning of Nigeria's economy and financial industry as well. Given the World Bank (2018) measurements of financial institutions development with accompanying proxies, there is an urgent need to assess in the context of current data the precise form of prevailing interrelationship/causality between Nigeria's financial development and economic growth. These are important to ascertain how much the development of Nigeria's financial institutions has shaped and helped to explain the degree of economic growth that country has seen.

II. LITERATURE REVIEW

A. Concept of Financial Development and Economic Performance

Better accessibility to many financial services that affect all parts of an economy is what we mean when we talk about financial development (Bilir et al 2019). When financial structures and organizations are developed further, they improve the efficiency and efficacy of financial markets. This is called financial development. It covers a lot of ground, including how financial markets have grown, how sophisticated financial instruments have become, and how many intermediaries have entered the market. Improving capital allocation, bolstering financial stability, and expanding access to financial resources are common outcomes of a

country's financial system in partnership with its economic development.

A large body of empirical evidence points to a favorable relation between financial growth and economic advancement, indicating that this relationship has been well investigated. One example is the fact that nations with better-developed financial markets tend to have quicker economic development, according to research by Rajan and Zingales (1998). They contend that improved risk management and resource allocation made possible by developed financial systems lead to more investment and greater output.

Financial technology, or fintech, has recently come into its own as a major force propelling financial growth, especially in emerging markets. Arner et al. (2016) noted that fintech technologies like digital payment systems and mobile banking have increased financial inclusion and access, enabling underprivileged individuals to engage with the financial system. The proficiency of financial mediation and the accessibility of financial services might be enhanced by this transition to digital finance, which could speed up economic development.

B. Dimensions of Financial Development

To measure the financial sector's development and understand the effect of financial development on economic growth, a reliable measure of financial development is essential. Financial development, in contrast, is a multi-faceted notion with many practical implications. Thus far, most empirical research has relied on commonly used quantitative indicators, which are widely used in the relevant nations (Rewilak, 2017). However, these metrics are just approximations and don't cover all facets of financial growth as a country's financial sector comprises of many different types of financial institutions, markets, and products.

As a means of documenting financial development on a global scale, the World Bank's Global Financial Development Database (2018) established a basic conceptual 4x2 framework. There are four groups of proxies that show a functioning financial system in this setting. The following is a list of some of these: depth, accessibility, efficiency, and stability.

Table 1 Financial Development Indicators

	Financial Institutions	Financial Markets
Depth	Private Sector Credit to GDP	Stock market capitalization and outstanding domestic private debt securities to GDP
	Financial Institutions' asset to GDP	Private Debt securities to GDP
	M2 to GDP	Public Debt Securities to GDP
	Deposits to GDP	International Debt Securities to GDP
	Gross value added of the financial sector to GDP	Stock Market Capitalization to GDP
		Stocks traded to GDP
Access	Accounts per thousand adults (commercial banks)	Percent of market capitalization outside of top 10 largest companies
	Branches per 100,000 adults (commercial banks)	Percent of value traded outside of top 10 traded companies
	% of people with a bank account (from user survey)	Government bond yields (3 month and 10 years)
	% of firms with line of credit (all firms)	Ratio of domestic to total debt securities
	% of firms with line of credit (small firms)	Ratio of private to total debt securities (domestic)
		Ratio of new corporate bond issues to GDP
Efficiency	Net interest margin	Turnover ratio for stock market
	Lending-deposits spread	Price synchronicity (co-movement)
	Non-interest income to total income	Private information trading
	Overhead costs (% of total assets)	Price impact
	Profitability (return on assets, return on equity)	Liquidity/transaction costs
	Boone indicator (or Herfindahl or H-statistics)	Quoted bid-ask spread for government bonds
		Turnover of bonds (private, public) on securities exchange
		Settlement efficiency

Stability	Z-score	Volatility (standard deviation / average) of stock price index, sovereign bond index
	Capital adequacy ratios	Skewness of the index (stock price, sovereign bond)
	Asset quality ratios	Vulnerability to earnings manipulation
	Liquidity ratios	Price/earnings ratio
	Others (net foreign exchange position to capital etc.)	Duration
		Ratio of short-term to total bonds (domestic, int'l)
		Correlation with major bond returns (German, US)

Source: World Bank Report (2022).

III. THEORETICAL FRAMEWORK

A. Financial Development Theory

Proponents of the financial development hypothesis maintained that banks and other financial institutions do, in fact, mediate between savers and investors, and that this has a beneficial effect on both. Consequently, they promote expansion of the economy. This claim is based on the idea of rivalry. Theoretically, more competition between lenders leads to effective intermediation, which can show up as more investment activity due to a lower interest rate premium. By directing capital to the most practical investment projects, this would boost lending to productive sectors and guarantee efficient credit allocation. In general, it would have a beneficial effect on economic growth and wellbeing. According to Goldsmith (1969), who cited the work of Bagehot (1873) and Schumpeter (1912), there is a correlation between financial progress and economic expansion. By influencing the savings rate, Pagano and Jappelli (1993) shown that financial development boosts economic growth. Since financial markets tend to anticipate economic growth, Rajan and Zingales (1998) claimed that financial development may potentially foretell economic growth.

B. Finance–Growth Theory

The relationship between financial development and economic growth was a contentious issue among early researchers on the topic, such as Schumpeter (1912), Kuznets (1955), and Patrick (1966). In his groundbreaking work on the topic, Schumpeter (1912) identified a well-developed financial system as a means to boost development by redistributing resources from sectors with lower productive potential to those with higher. Financial market expansion begins when an economy enters the intermediate development stage and completely develops at maturity, according to Kuznets (1955). Prior to the commencement of actual economic activity, Lewis (1956) discovered that the establishment of financial markets occurs as a byproduct of the economic growth process. The "supply-leading" and "demand-following" theories are a compilation of the disparities in the academics' views. According to Patrick (1966), the rise of the financial sector is believed to support economic growth via supply-leading hypotheses. Consequently, a flourishing economy benefits from the expansion of dynamic financial markets. The demand-following theory is based on the idea that financial

growth follows economic activity, which in turn leads to the demand for financial services. According to Robinson (1952), "where enterprise leads, finance follows" exemplifies this viewpoint. Based on the information provided, it can be concluded that a rise in the demand for financial services is a direct outcome of economic growth, and that financial development plays a crucial role in propelling economic progress.

IV. EMPIRICAL REVIEWS

In their study, Adeyemi and Yusuf (2023) looked at the agricultural, industrial, and service industries in Nigeria to see if their growth was correlated with financial development. The authors evaluated the years 1995–2021, using a panel data technique and a fixed-effects model. Their financial development metrics include stock market turnover, total banking assets, and domestic lending to the private sector. The research concludes that manufacturing is less affected by financial development compared to agriculture and service sector expansion. The authors explained this by saying that financial growth can't do much good for the manufacturing sector because of its more serious structural problems, such as outdated infrastructure and excessive production costs. Their findings pointed to the possibility that the manufacturing sector's development potential may be unleashed with the aid of interest rate management and targeted financial measures that increase the availability of credit.

The connection between Nigeria's financial development, inflation, and economic growth was investigated by Lawal and Ibrahim (2023). The goal of this research is to examine the interplay between inflationary pressures, financial development, and GDP growth using a cointegration technique and Granger causality tests using data from 1986 to 2022. Key factors used by the researchers include the broad money supply, private sector credit, and inflation rate. Their research points to a two-way street between financial development and inflation, with the former having a dampening effect on the latter and therefore limiting economic expansion. To guarantee that financial development favorably impacts Nigeria's long-term economy, the report goes on to say that managing inflation is vital. To foster financial innovation and economic growth, it is recommended that

fiscal and monetary policies be conservative to stabilize inflation.

Using data collected from 1980 to 2020, Amadi and Edeh (2021) used a macroeconomic method to examine the relationship between financial development and economic growth. This research takes a look at the relationship between financial development and economic growth using a Granger causality test and a vector autoregression (VAR) model. Domestic lending to private companies, the money supply as a whole, and the efficiency ratios of the banking industry are indicators of financial growth. The findings indicated a direct relationship between economic growth and financial development, showing that the former causes the latter to occur instead of the other way around. Enhanced policy initiatives focusing on broadening financial markets and supporting innovation in financial services are necessary to grow Nigeria's relatively undeveloped financial sector, according to the authors.

In their study, Balogun and Abiodun (2022) investigated the link between Nigeria's economic growth, energy consumption, and financial development. To examine the long-term and short-term dynamics among these variables, their research used a vector error correction model (VECM) and covers the years 1985–2021. Growth in gross domestic product (GDP), energy consumption (electricity consumption), and financial development (private sector loans and domestic savings) are important metrics. As financial development progresses, energy consumption increases, which contributes to economic growth. This positive bidirectional link between financial development and energy consumption is supported by the data. Nevertheless, the report also notes that energy scarcity and inadequate infrastructure greatly restricted financial development's ability to boost GDP. To maximize the contribution of both sectors to economic growth, the authors argued that investments in Nigeria's energy infrastructure are essential and should be made alongside financial development initiatives.

In their study, Ho et al. (2021) looked at the top ASEAN nations—Vietnam, Indonesia, the Philippines, Malaysia, Singapore, and Thailand—to determine the nature of the causal linkages between financial development and economic growth via trade openness. For this study, researchers used panel data covering the years 1995–2015 for all six nations, which allowed them to compile a representative sample of 150 observations. After doing the Hausman test for model selection, the panel data was analyzed using either a fixed effect model (FEM) or a random effect model (REM). Another tool used to look for correlations was the Trivariate Granger causality test. Trade openness was favorably connected with growth, whereas financial development was positively but insignificantly associated with growth; the findings demonstrated that REM is selected according to the Hausman test result. This is because there may be a

connection between financial development and economic growth. Next, the causality test was used to go further into the findings and validate them. That is, there were shown to be favorable bidirectional linkages between financial development and economic growth via trade openness. Because trade openness has a beneficial effect on the link between growth and finance, this suggests that there may be problems with disregarding it.

From 1995 to 2017, Čižo (2020) examined the ways in which financial development and economic growth varied between EU member states, both in terms of static and dynamic variables. Because financial development metrics for EU nations were readily available, that is when the study period was chosen. From 1995 to 2017, we looked at average values of GDP growth rate per capita, one-year forward variables, and average one-year lag variables to show that the degree of financial development had a directional effect on economic growth in EU nations. Significant causal relationships between these averages and monetary development were shown by the findings.

The relationship between financial development and agriculture sector production in Nigeria was investigated by Okuma et al. (2019). The researchers used the expo facto method and retrieved yearly time series data from the Statistical Bulletin of the Central Bank of Nigeria for different years. Data analysis techniques used included the unit root test, Engle-Granger co-integration, error correction (ECM), and Granger causality tests. Rates of prime lending and deposits, the amount of money available under the agricultural credit guarantee program, the demand for loans in rural regions, and the ratio of deposits to loans given to small businesses were all used as indicators of financial growth. The findings showed that improvements in the country's financial infrastructure accounted for 41% of the variance in agricultural production in Nigeria. According to the results of the Granger causality test, which indicated that there was no causal link between the variables under investigation, the explanatory factors did not significantly affect the dependent variable. As a result, the research suggested holding symposiums, lectures, seminars, and workshops to raise awareness among operators in the agricultural and financial sectors about the mutual advantages of their services. Traditional financial institutions may provide valuable services to the agriculture industry, and vice versa, so it's in everyone's best interest for the two industries to work together.

Ngogang (2015) analyzed the effect of financial development on economic growth in 21 Sub-Saharan African nations using the dynamic panel General Method of Moment (GMM) approach. There was a robust correlation between financial development and GDP growth, according to the findings.

Using the ordinary least squares approach, Guryay et al. (2007) looked at how financial development impacted the economy of Northern Cyprus. Financial development has a weakly favorable effect on economic growth in the area, according to the research. Economic expansion boosted the development of financial intermediaries, according to the results of the causality tests, which indicated that the link was unidirectional.

Iranian researchers Yazdi and Khanalizadeh (2014) used yearly time series data from 1970 to 2011 to investigate the nature of the causal link between financial development, economic growth, and instability. There seems to be a two-way causal relationship between agricultural expansion and financial development, according to the study's conclusions.

Economic growth and the improvement of rural finance systems were the subjects of Jinpeng's (2014) research. The data was analyzed using the impulse response function, co-integration approach, and vector error correction model. The study's findings suggest that rural banking system efficiency, depth, and structural changes may boost agricultural development, peasant income, and rural economic growth. As a result, keeping rural economic growth, agricultural development, and farmers' incomes up required enhancing the structure and stability of rural finance systems and making rural financial institutions more efficient.

The relationship between financial development and economic growth in Nigeria was investigated by Torruam et al. (2013). Using data collected between 1990 and 2011, the researchers executed a Granger causality test. Finding a unidirectional correlation between the two variables, researchers in Nigeria came to the conclusion that improved financial infrastructure had a positive effect on GDP growth.

Using variance autoregressive frameworks and Granger causality tests, Odeniran and Udeaja (2012) confirmed the finance-growth nexus theory in Nigeria from 1960 to 2009. The research used broad money stock as a ratio of GDP for financial sector development and GDP per capita growth, net domestic credit to GDP, private sector credit to GDP, and bank deposit liability to GDP as growth indicators for economic growth. A higher rate of output was associated with each of the financial development factors that Granger induced, according to the study. Still, growth isn't the Granger-caused driver of all financial development indexes. Specifically, GDP per capita was the Granger causation for net domestic credit. The fact that private sector credit and net domestic credit were both driven equally by increases in production suggests that the two variables are causally connected in both directions.

V. METHODOLOGY

A. Research Design

We used a time series longitudinal study strategy since we gathered data in intervals.

B. Population and Samples for the Study

The matter in question pertains only to a secondary data issue. The pertinent data were gathered from recognized financial organizations, including the World Bank and the Nigerian Apex Statistical Bulletin, which comprise the study's population.

C. Nature/Sources of Data

The majority of the secondary data used in this study was of a time-series kind and came from credible sources. The World Bank's publications and the Annual Report of the Nigerian Apex Bank served as the sources for this information.

D. Model Specification

The primary objective of this research is to determine if there is a correlation between the expansion of Nigeria's financial sector and the country's GDP. So, this research will use this model;

$$GDP_t = f(PSC, BAPA, LDS, AQR)$$

Where:

GDP = Gross domestic product

PSC = credits to the private sector as ratio of gross domestic product.

BAPA = Ratio of number of bank accounts per 100,000 adults

LDS = Lending-deposit spread

AQR = Asset quality ratio

Because GDP is in level form, while PSC BAPA, LDS, AQR are in ratios/percentage, the growth rate of gross domestic product was employed in order to compare likes.

$$GDPR = f(PSC, BAPA, LDS, AQR) \dots\dots\dots (3.2)$$

Where;

GDPR = Rate of GDP growth (in percentage) while other terms remain as stated earlier.

For estimation purposes, the above is re-written as;

$$GDPR = \beta_0 + \beta_1 PSC + \beta_2 BAPA + \beta_3 LDS + \beta_4 AQR + e_i$$

β_0 = Constant Parameters

$\beta_1, \beta_2, \beta_3, \beta_4$ = Estimation parameters

μ_1 = Error term

E. Method of Data Analysis➤ *Stationarity (Unit Root) Test*

All of the research time-series variables were subjected to unit root tests to see whether the data were related with unit root qualities; this was done to prevent false estimates, which was one of the explicit aims of the study.

➤ *Autoregressive Distributive Lag (ARDL)*

In a time series setting, the ARDL is a statistical tool for investigating the long-term correlation between many variables. For time scopes less than 30 periods or where variables of multiple orders may be merged, it is a typical tool

to utilize. A dynamic model including both short-run and long-run effects may have its parameters estimated using the ARDL test. It shines brightest when studying long-term correlations between variables that may only show short-term changes, as in cointegration connections. In general, an ARDL exam includes the following procedures:

➤ *Granger Causality*

In line with what Brooks (2009) says, the Pairwise-Granger causality test looks for changes in the dependent variable to see whether there's a correlation between the explanatory factors and those changes.

VI. RESULTS AND DISCUSSIONS*A. Data Presentation Table*

Table 1: Data on Gross Domestic Product (GDP), Financial Institutions Depth (private sector credit) (PSC), Financial Institutions Access (Bank accounts per 100,000 adults) (BPA), Financial Institutions Efficiency (lending-deposit spread) (LDS), and Financial Institutions Stability (asset quality ratios) (AQR) in Nigeria over the period of 1994 to 2023.

YEAR	GDP (₦'b)	PSC (₦'b)	BPA (%)	LDS (%)	AQR (%)
1994	0.26	8.11	2.28	6.73	87.63
1995	1.87	5.81	2.19	6.67	87.67
1996	4.05	5.84	2.17	7.12	87.31
1997	2.89	7.16	2.12	15.51	84.64
1998	2.5	7.32	1.88	11.31	85.44
1999	0.52	7.86	1.83	14.2	82.47
2000	5.52	7.51	1.79	8.15	83.07
2001	6.67	9.29	1.75	5.76	90
2002	14.6	8.09	2.34	14.62	89.96
2003	9.5	8.09	2.46	11	85.39
2004	10.44	7.84	2.58	8.61	75.07
2005	7.01	7.95	2.5	10.81	60.43
2006	6.73	7.54	2.27	10.44	89.24
2007	7.32	10.58	2.87	8.87	83.44
2008	7.2	19.77	3.29	6.84	84.57
2009	8.35	22.75	3.52	9.99	84.79
2010	9.54	18.96	3.66	20.05	84.66
2011	5.31	15.07	3.35	20.02	76.04
2012	4.21	18.31	3.33	16.17	74.4
2013	5.49	17.85	3.28	17.98	66.42
2014	6.22	18.59	3.13	15.85	65.87
2015	2.79	19.64	3.02	18.45	69.13
2016	-1.58	20.5	2.99	21.83	72.55
2017	0.82	19.55	2.99	22.82	70.74
2018	1.91	17.54	2.71	19.31	78.58
2019	2.27	17.63	2.71	20.9	75.71
2020	-1.92	18.82	2.61	19.97	72.93

2021	3.4	18.67	3.27	20.63	66.7
2022	8.72	18.52	3.93	21.29	60.47
2023	14.04	18.37	4.59	21.95	54.24

Source: World Bank and Central Bank of Nigeria

B. Unit Root Test

Stationarity test was carried out in order to ascertain the stationarity properties of the available data to determine whether they are safe to be used in this research work.

Table 2: Results of Augmented Dickey- Fuller (ADF) Unit Root Test at First Difference

Variable	ADF test Statistic	Critical Values			Order of Integration	Prob.
		1%	5%	10%		
GDP	-5.007282	-3.689194	-2.971853	-2.625121	I (1)	0.0004
PSC	-5.012783	-3.699871	-2.976263	-2.627420	I (1)	0.0004
BAPA	-2.795576	-3.689194	-2.971853	-2.625121	I (0)	0.0717
LDS	-5.350714	-3.699871	-2.976263	-2.627420	I (1)	0.0002
AQR	-6.255726	-3.689194	-2.971853	-2.625121	I (1)	0.0000

Source: E-views Output

The following table shows that the following variables were determined to be stationary at the first difference: GDP, private sector credit, lending-deposit spread, and asset quality ratios. Bank account infiltration as a percentage of the adult population, although, it did not pass the stationary at first difference test. Therefore, the research variables may be analyzed using the autoregressive distributive bound test approach since fractional/mixed integration is common even at initial difference.

Table 3: ARDL Model Estimation (Short Run)

Dependent Variable: GDP				
Method: ARDL				
Dynamic regressors (2 lags, automatic): PSC BAPA LDS AQR				
Fixed regressors: C				
Selected Model: ARDL(1, 1, 1, 0, 2)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.435939	0.136408	3.195847	0.0050
PSC	-0.799692	0.190817	-4.190885	0.0005
PSC(-1)	0.784282	0.239894	3.269279	0.0043
BAPA	10.19326	1.394670	7.308720	0.0000
BAPA(-1)	-8.553290	1.924095	-4.445358	0.0003
LDS	-0.366534	0.139326	-2.630764	0.0170
AQR	0.061402	0.060169	1.020491	0.3210
AQR(-1)	-0.126443	0.066797	-1.892949	0.0746
AQR(-2)	0.082855	0.061245	1.352839	0.1929
C	2.620163	7.350730	0.356449	0.7256
R-squared	0.865971	Mean dependent var		5.518571
Adjusted R-squared	0.798956	S.D. dependent var		4.079791
S.E. of regression	1.829295	Akaike info criterion		4.318191
Sum squared resid	60.23373	Schwarz criterion		4.793978
Log likelihood	-50.45467	Hannan-Quinn criter.		4.463644
F-statistic	12.92209	Durbin-Watson stat		1.792852
Prob(F-statistic)	0.000004			

The R-squared value is 0.865971, which is the coefficient of determination. It shows that differences in the explanatory variables included in the model account for around 86.59% of the variance in GDP. The adjusted R-squared value is 0.798956. If the model's number of predictors has been altered in any way, the adjusted R-squared value will reflect that. A value of 12.92209 is the F-statistic. The total model is statistically significant, as shown by its associated probability, which is 0.000004. It seems that the model's residuals do not exhibit any substantial autocorrelation, as shown by the Durbin-Watson value of 1.792852. The following is noted in relation to the model's explanatory variables:

Credits from the Private Sector: The private sector credits variable has a coefficient of -0.547589. According to the statistical analysis, private sector loans do indeed contribute positively to GDP (t-Statistic = 0.7996920, Prob.* = 0.0043). There is a short-term correlation between rising private sector loans and higher GDP.

The Credits of the Private Sector at One Delay (-1): Private sector credits with a one-year lag have a coefficient of 0.684564. Private sector credits with a one-year lag impact positively on current GDP, according to a statistically significant result (t-Statistic = 3.269279, Prob.* = 0.0043). What this means is that the present GDP is boosted by the historical values of private sector loans.

The coefficient for the BAPA variable is 10.190326, which stands for the number of bank accounts per 100,000 adults. There is a positive relationship between the number of bank accounts per 100,000 adults and the gross domestic

product, which is statistically significant at the 0.05 level (t-Statistic = -4.445358, Prob.* = 0.0010). Gross domestic product grows in tandem with the number of bank accounts held by people, measured in millions.

At the 0.05 level of significance, the One Year Lagged Value of Number of Bank Accounts Per 100,000 Adults (BAPA) is -3.767332, with a Probability* of 0.0003. It shows that the current gross domestic product was negatively affected by the lagged value of bank accounts per 100,000 individuals. This indicates that the present GDP is negatively affected by the historical levels of bank accounts per 100,000 individuals. Since transactions are solely affected by the present value of bank deposits and not by their historical values, this is considered normal.

Spread between lending and deposit: The spread between lending and deposit variable has a coefficient of -0.3665340. It has a t-statistic of -2.195095 and a probability of *0.0170, indicating statistical significance at the 0.05 level. It shows that the lending-deposit spread reduces GDP positively. The GDP drops as the lending-deposit spread rises.

The asset quality ratio variable has a coefficient of 0.061402. At the 0.05 level of significance, it does not indicate anything (t-Statistic = 1.020491, Prob.* = 0.3210). According to the study's model, the asset quality ratio is not a major driver of GDP growth at the 0.05 level since it does not have a meaningful influence on GDP.

Pairwise Granger Causality Tests

C. Granger Causality Test

Table 4: Pairwise Granger Causality Test

Date: 08/08/24 Time: 13:02			
Sample: 1994 2023			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
PSC does not Granger Cause GDP	28	0.92395	0.4112
GDP does not Granger Cause PSC		0.01894	0.9813
BAPA does not Granger Cause GDP	28	2.05563	0.1509
GDP does not Granger Cause BAPA		0.55696	0.5805
LDS does not Granger Cause GDP	28	1.00599	0.3812
GDP does not Granger Cause LDS		0.09059	0.9137
AQR does not Granger Cause GDP	28	0.00119	0.9988
GDP does not Granger Cause AQR		0.18311	0.8339

Source: E-views output

Each of the study's explanatory variables—the ratio of private sector credits to GDP, the number of bank accounts per 100,000 adults, the lending-deposit spread, and the asset quality ratio—had individually insignificant probability values of 10%, as shown in the table above. Consequently, no significant causalities prevailed between Nigeria's gross domestic product and any of these variables. Thus, according to the findings of the Granger causality test, neither economic growth nor any of the used indices of financial development contributed to or supported economic growth. All the variables are functioning independently, which is characteristic of Schumpeter's independent hypothesis.

VII. DISCUSSION OF FINDINGS

The high cost of borrowing in Nigeria may explain why our findings suggest that the depth of financial institutions, as measured by the ratio of private sector loans to Nigeria's GDP, has a negative coefficient that significantly affects economic growth. When interest rates are high, borrowers may seek out other ways to invest, which may or may not be feasible. This will limit their investment options and slow down the economy.

The GDP of Nigeria was positively and significantly affected by the availability of financial services, as measured by the number of bank accounts per 100,000 people. More people have access to banking and other financial services because of an expanding network of branches, which means more deposit mobilization and, in turn, more revenue and commissions for related firms. Here, more extensive branch networks are associated with growing enterprises, which boost economic development via making financial product services more accessible.

The lending-deposit spread, a measure of the efficiency of financial institutions, was significantly negative. Based on the results, it seems that the lending deposit spread hindered economic development in Nigeria over the study's time frame. This raises the question of whether the spread is able to create the necessary money to keep financial institutions running efficiently. The public's reluctance to deposit monies into banks is another indication that deposit mobilization is hindered, and banks are not as efficient as they may be. Jinpeng (2014) found that financial efficiency increases growth, which is contradicted by this conclusion.

There is a weak positive correlation between Nigeria's GDP and the stability of financial institutions as measured by the asset quality ratio. The outcome lends credence to the 2004–2005 reorganization and consolidation of Nigeria's banking system, which was marked by low asset quality due to many non-performing loans. Banks' capacity to serve as intermediaries and promote economic development is hampered as a result of this, which has a significant effect on their stability.

It is clear from the findings of the causality analysis that financial development does not encourage or assist economic growth when assessed by private sector credit to gross domestic product ratio, number of bank accounts per 100,000 individuals, asset quality ratio, and lending deposit spread. The results are in line with those of Okuma et al. (2019), who found no correlation between financial development and agriculture sector production.

VIII. CONCLUSION

In accordance with the results of the study, it is concluded that while the asset quality ratio was not statistically significant in explaining the output of Nigeria, the ratio of credit to private sector to the gross domestic product, a bank account per 100,000 adults and lending deposit spread was statistically significant. Furthermore, throughout the time under analysis in Nigeria, none of the used measures of financial development support or encourage economic growth; neither does economic growth encourage or support the utilized indications of financial development.

RECOMMENDATIONS

Following our conclusion, we therefore recommend the following:

- The need for Nigerian banks to enhance their credit policies and rigorously comply with them is imperative, as this would mitigate non-performing loans and thus improve asset quality ratios.
- The need for banks to intensify their financial inclusion initiatives this will result in more deposits, therefore enhancing their creditworthiness. An increase in credit provision will improve operational efficiency and subsequently augment their contribution to the development of the Nigerian economy.

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