

The Influence of Financial Sector Improvement on Nigeria's Economic Growth: 1987-2018

Oladapo Bolaji Titilope

Abstract:- Nigeria's financial system has undergone several reform policies which are aimed at accelerating growth of the economy. However, despite these policies put in place, growth continues to dwindle overtime. This indicates that Nigeria's financial system is not efficiently performing its expansion parts and presently not in a position to drive growth and development in the economy. This study studied the empirical connection between financial development and economic growth in Nigeria for the period from 1987 to 2018. The study employed secondary data sourced from Central Bank of Nigeria (CBN) statistical bulletin and World Bank Development Indicators (WDI). This study adopted Autoregressive Distributed Lag (ARDL) model estimation technique. Using ADF stationarity test, Variables employed were found to be stationary at level 1(0) and first difference 1(1) respectively. Bound cointegration test indicated a long run link between financial development and Nigeria economic growth. Findings in this study likewise revealed that financial development have no significant influence on Nigeria's economic growth. Specifically, findings indicated the coefficient of stock market capitalization to GDP ratio to be 0.6032 in the long run and 0.1203 in the short run. Real interest rate coefficient was 0.0341 in the long run and 0.0068 in the short run. The coefficient of exchange rate was 0.751 in the long run and 0.149 in the short run. This result showed that stock market capitalization, real interest rate and exchange rate influence economic growth in both the short-run and the long-run. Though, at 5% level of significance stock market capitalization, real interest rate was statistically insignificant. Furthermore, the coefficient of liquid liability to GDP ratio was -1.004 in the long run and -0.2004 in the short run. Coefficient of credit to private sector was 1.1513 in the long run and 0.2296 in the short run. This indicated that credit to private sector contributed positively to growth in both the short run and the long run, while liquid liability has a negative effect on growth in both periods. Further, 19.95% of resulting disequilibrium in the economy is captured each period. On the basis of this empirical evidence, this study recommends that Nigeria's government should focus on improving and strengthening the financial system. As such, this will enhance effective channeling of financial resources for productive investment projects. Furthermore, financial strategies should be geared towards encouraging a more competitive environment which will upsurges effective financial service delivery in Nigeria economy.

Keyword:- Financial Sector Development, Nigeria's Economic Growth, Autoregressive Distributed Lag (ARDL) Model.

I. INTRODUCTION

Over the years, vast body of evidence proposes that financial development contributes a huge role in stimulating economic growth in an economy. Growth is thus stimulated through capital by boostings savings. Increase in savings mobilization rises investment, hence upturn capital formation and accelerate growth level. As opined by Levine (2004), financial development arises when financial instruments, markets and intermediaries decrease. Accordingly, this reduction does not automatically exclude the costs of attaining information, contracts implementation cost and costs of transactions.

The understanding of economists on the nature and interconnection between financial development and growth have gained attention of both policy makers and academic researchers over time. Some of this outcome is established on the work of Schumpeter. He emphasizes that, services conveyed by financial intermediaries are substantial for improvement and expansion of an economy. He also stresses that, effectiveness in service delivery by financial system will result in economic growth. Thus, growth is attained through the process of classifying and funding productive investments in an economy (Schumpeter, 1912).

The role played by financial system in both developed and developing economies cannot be over-emphasis. Its contributions are geared towards an efficient allocation of funds to boost investment and increase growth level. A well-built financial system enhances technological advancement and economic growth (IMF, 2016). Therefore, this is achievable through the delivery of efficient financial services to the real sector. Similarly, a sound financial system creates an enabling environment conducive for the mobilization and allocation of resources. Therefore, this is geared towards increasing patterns of growth and development of an economy.

Achievement of financial system has been built on the introduction of financial reforms. These reforms include the initiation of market-based measures for monetary control, advancement of competitions, and removal of constraints on capital flows (Udude, 2014). Accordingly, these reforms are deliberately initiated to build a more resourceful and steady financial system which will enable optimal performance of the economy.

The introduction of various economic and financial reforms in most developing economies was intended at improving the role of financial sector. Early 1970s, financial liberalization gained attention due to the study of McKinnon and Shaw. Both scholars maintained that financial liberalization support a growth in savings, boost investments and stimulates growth in a hitherto financially repressed economy. Following directive from Washington consensus, financial liberalization turns out to be a useful and essential monetary policy in many developing economies. Therefore, most emerging economies embraced this policy as the way forward to improve their economy. Further, World Bank made it part of the economic policy recommendation by developing “structural adjustment programme (SAP)”.

Various evidences have shown that effective financial system perform a progressive and substantial role in increasing economic growth in most countries. According to Hicks (1969), financial development played a colossal part in developing United Kingdom through the speeding up of capital mobilization. Lately most Asian economies has employed the role of technology to advance new financial networks and to modify the quality of financial service delivery. Accordingly, improvement in the service delivery by the financial system enhances savings mobilization. As such, the increase in saving is being channeled to the real sector to boost production of goods and service. Therefore, this in turn improve the citizen standard of living, hence accelerate growth. Robert and Madhavi, (2015) revealed that, most Asian countries with fragile financial system are catching up to the Asian standard. These countries include: China, Japan, Republic of Korea, Hong Kong, and Singapore. Statistical evidence showed that, between the period of 2004 to 2011, Singapore had the highest expansion in its financial development with 9.9%, followed by Hong Kong with 9.7%, China with 9.7%; the Republic of Korea with 9.5%. While countries with the lowest growth include Pakistan -16%, the Kyrgyz Republic -11.2%, Bangladesh -1%, and Indonesia 0% (OECD, 2018).

In addition, since early 1990's many Latin American and Caribbean (LAC) economies have undertaken substantial efforts to develop the scope of financial depth to promote financial system diversification and increase growth level. Financial systems in most LAC countries have developed and deepened in recent years (IMF, 2016). However, others continue to lag behind. For instance, the current domestic credit to GDP ratio in Trinidad and Tobago is 39.72%, Mexico 34.52%, Jamaica 32.02%, Brazil 61.78% and Costa Rica 62.58% (WDI, 2018). Accordingly, effective channeling of credit supply to the real sector has increased investments in production activities, hence accelerate growth level of most LAC countries. Non-bank financial institutions such as insurance companies, and pension funds have also contributed significantly to growth of most LAC economies. Statistical evidence revealed that the percentage of pension funds to GDP in countries like Jamaica is 27.8%, Peru 14.6%, Dominican Republic 12.4%, Brazil 12.1%, Costa Rica

18.8% (WDI, 2018). Therefore, non-bank financial institution provides greater opportunities for investment funding, and risk diversification across households and firms in most LAC economies.

In comparison with other economies of the world, most financial system in African countries is relatively less developed and diversified (World Bank, 1989). Preceding the adoption of financial liberalization policy in the 1980's, most financial sectors in Africa were highly repressed. The sector was backward and growth was being retarded as government controls credits, and fixes interest rate. Most African countries now adopt the financial liberalization policy as the key policy instrument to stimulate growth in their economy. In spite of various reform policies embarked upon in many African countries, the impacts are yet to be realized. So far, most financial system in Africa countries remain underdeveloped with growth rate below 5% in countries like Nigeria 1.94%, Congo republic 1.03%, Burundi 1.59%, Angola -2.13%, Equatorial Guinea -2.95%, Angola -2.13%, and Togo 4.88%. Although other countries like Benin republic has a growth rate of 6.86%, Burkina Faso 6.51%, Ivory Coast 7.43%, Niger republic 5.17%, Senegal 6.77%, Gambia 6.59%, and Ghana 6.26% (WDI, 2018)

Historically, in the early 1980's, Nigeria financial system was highly regulated with government regulating and controlling the sector via the Central Bank of Nigeria (CBN). At the time, Nigeria's financial sector was ineffective as it practiced financial repression policy. Reform of the sector became one of the foremost components of 1986 Structural Adjustment Programme (SAP). This programme was designed at driving the economy from austerity to prosperity (Eriemo, 2014). The financial reforms introduced in Nigeria in 1987 comprises of foreign exchange market and interest rates deregulation, credit controls removal, and authorizing of new banks in the economy. Following the reform, both banking industry and non-bank financial institutions witnessed extraordinary growth due to the motivations provided for the growth and development of financial institutions (Ikhide & Alawode, 2002). At the time of banking sector deregulation, number of banks increased from 41 to 115, in 1986 and 1997. It further increased from 64 to 90 in 1997 and 2001 respectively. It however declined from 89 in 2004 to 25 in 2005. Furthermore, the number non-bank financial institutions such as insurance company increase from 280 in 2000, 98 in 2001, 112 in 2007, and 114 in year 2010. In 2017 it decreased from 70 to 60 in 2018. Likewise, the number of pension fund administrators also increased from 13 in 2006, 26 in 2008, and 24 in 2010. Then, it fell from 26 to 21 in year 2013 and 2018 (CBN, 2018). Conversely, the reduction in the banking industry was as a result of merger and acquisition succeeding consolidation exercise in 2004. The exercise required an increase in capital base for all licensed banks from N2 billion to N25 billion minimum capital base for all commercial banks. Therefore, this took effect from January, 2006 and the aim was to strengthen the economy financial sector. Following the

reform, the number of microfinance banks also grow from 169 in 1990 to 695 in 2009, and currently at 1,013 (CBN, 2018). Consequently, deregulation in both banking and non-banking sector encouraged competition in the sector. Subsequent to the reforms most Nigeria financial indicators such as stock market capitalization (MC), credit to private sector (CPS) and liquid liability (M3) experienced an upturn. For instance, credit to private sector to GDP ratio increased from 12.31% in 2004, 13.25% in 2006 and 21.25% in 2009 respectively. But, it decreased from 18.60% in 2010, to 16.93% in 2011. It further rose from 19.67%, 19.84%, 20.77% and 19.43% in 2013, 2015, 2017 and 2018 respectively. Likewise, ratio of liquid liability (M3) to GDP increased from 11.04% to 22.22% in 2004 and 2009. It further increased from 19.52% 19.49%, to 25.21% in 2015, 2016 and 2018 respectively (CBN, 2018). Nevertheless, despite the increase in these financial indicators overtime, Nigeria growth rate continue to dwindle. For instance, the growth rate decreased from 2.65%, in 2015 to -1.62% in 2016, 0.81% in 2017 and 1.94% in 2018 (WDI, 2018). Consequently, this implies that Nigeria's financial system is not efficiently performing its developmental roles and is currently not in a position to achieve its potential as a key driver of economic growth and development.

Since 1999 extensive financial reforms have been initiated in Nigeria. This reform includes the pension fund, 2004; insurance reform, 2007; and capital market reforms. The Nigeria capital market deregulation and pension fund reform (specifically, recapitalization) ushered in a more rapid improvement in the capital market as stock market capitalization rose from ₦10,275.34 billion in 2011, ₦19077.42 billion in 2013, ₦16,185.73 billion in 2016, ₦21,128.90 billion in 2017 and ₦21,904.04 billion in 2018 (CBN, 2018). Consequently, all these reform policies were predictable to improve Nigeria's financial system. Nevertheless, despite all these policies put in place to enhance financial development in Nigeria, the system remains relatively unbalanced and under-developed (Ogujiuba & Obiechina, 2011). Subsequently it's yet to attain that degree of financial intermediation, required to foster growth and development. In light of this observations, this study seeks to examine empirically the contribution of Nigeria's financial development on growth for the period from 1987 to 2018.

II. LITERATURE REVIEWS

It is extensively recognized that financial development is a multi-dimensional concept. Over the years, various scholars have contributed immensely to giving an accurate definition to this term. One of the oldest conceptions was according to Shaw (1973). He defines financial development as the increase in financial assets at a speedy rate than the growth of nonfinancial assets. Gorkem (2015) also expresses financial development as the procedure of causing an improvement in the worth, quantity and proficiency of financial intermediaries' functions. This definition broadly implies an expansions and change in the role of capital and money market in an economy.

This study is anchored on McKinnon-Shaw hypothesis. The hypothesis posits that financial development enhances growth in an economy. Thus, this implies that financial development will help to induce savings, increase credit supply to the productive sector which will allow them carry out a progressive net present worth projects, hence increase growth rate.

Extensive empirical study has been carried out towards understanding the relationship between financial development and economic growth. This includes the study of Beck, Levine, and Loyaza (2000). They investigate the relationship among financial development and the sources of economic growth. Their study examines source of growth in relation to private saving rates, physical capital growth and total factor efficiency. To correct for possible simultaneity bias, GMM and instrumental variable estimators were employed. The result revealed that financial development had a significant impact on growth of the economies studied. They therefore inferred that higher levels of financial development accelerate growth. Hermes and Lensink (2003) also employ panel cointegration to analyze 67 countries. They used data spanning from 1970 to 2000. Their study established that a strong relationship occurs between financial development and economic growth in the economies studied. The result also indicated that 37 countries mostly Latin America and Asia had a satisfactorily developed financial system. Therefore, this attracts FDI influxes which results in the increase in growth level of these economies. Ndebbio (2004) examines financial deepening, economic growth and development in sub-Saharan African countries. He employs broad money supply to GDP ratio (M2/GDP), per capita real money balances to proxy financial deepening. The research work found out that a well-established financial sector stimulates growth level in the country studied.

Christopoulos and Tsionas (2005) investigate the effect of financial sector development on Sudan economic performance for the period from 1970 to 2004. Their study employs Autoregressive distributed lag (ARDL) model. The finding shows a weak relationship between financial development and economic growth in Sudan. This owing to the ineffective distribution of financial resources by banks, the absence of a suitable investment environment which is being required to raise significant private investment.

Odeniran and Udeaja (2010) empirically investigate the relationship between financial sector development and economic growth in Nigeria for the period from 1960 to 2009. Granger causality tests in a VAR framework was employed. The study adopted broad money stock to GDP ratio, domestic credit to GDP ratio, private sector credit to GDP ratio, and banks deposit liability to GDP ratio. They therefore concluded that financial development leads economic growth in Nigeria over the period studied.

Udedu (2014) empirically examines the relationship between financial development and Nigeria economic growth. The study employs ordinary least square method of estimation. Gross domestic product (GDP) was employed

to proxy economic growth. Also, ratio of money supply to GDP and domestic credit to private sector were employed to proxy financial development. The granger causality test showed a unilateral relationship from economic growth to financial development. The study inferred that, financial deepening in Nigeria supports demand following hypothesis.

Taofeek and Olumuyiwa (2016) investigate empirically the relationship between financial development and inclusive growth in Nigeria for the period from 1980 to 2013. Quartile regression analysis was employed in the study to examine the relationship between the variables. The study found that causality runs from inclusive growth to financial development.

Monogbe, Nduka, and Needam (2016) likewise investigate empirically the relationship between financial development and economic growth in Nigeria for the period from 1986 to 2014. The result of the parsimonious error correction model shows that credit to the private sector (CPS) is positive and significantly influence growth while other variables are insignificant and has a negative effect on growth. Also, the findings revealed that economic growth granger cause financial development. Therefore, the study inferred that economic growth determines financial sector development in Nigeria.

Above reviewed empirical literature reveals the interconnection of financial development and economic growth in both advanced and emerging economies. Examining closely, it is important to empirically study the effect of financial development on Nigeria’s economic growth. This is because previous studies end at 2016 and most studies concentrated on the causality direction. Thus, this study employ auto regressive distribution lag (ARDL) model. Since this model of estimation allows the authentication of short-run and long-run relationships among variables and it equally permits the use of variables integrated at different levels and produces robust outcome (Narayan 2005). Further, this study seeks to fill the gap using time series data from 1987 to 2018 to empirically examine the impact of financial development on Nigeria economic growth.

III. METHODOLOGY AND DATA

To test and interpret the stated objective to this study, experimental research design is adopted. Conversely, this study seeks to explore the relationship between the dependent and the explanatory variables of study. Auto regressive Distributed Lag (ARDL) Model, ARDL bound test, Error Correction Model (ECM), serial correlation LM test, Normality test and Cusum square stability test were employed in this study. Economic growth is proxy by gross domestic product (GDP), while financial development is measured by liquid liability to GDP ratio (M3/GDP), stock market capitalization to GDP ratio (MC/GDP), credit to private sector to GDP ratio (CPS/GDP). It is believed that additional variables could have great impact on economic growth and that their omission could bias the relationship

between the dependent and independent variables in this study. In understanding of this, we include two control variables: real interest rate (RIR) and exchange rate (EXR) to avoid simultaneous bias in our regression (Gujarati, 2004).

The data employed for this study is sourced mainly from Central Bank of Nigeria Statistical Bulletin (CBN, 2018) and World Bank Development Indicators (WDI, 2018). The data utilized for this research work are annual data which covered the period of 32 years. The data used spans from 1987 to 2018. Thus, this gives a total of 32 observations.

➤ *Model specification*

$$GDP = f (M3, MC, CPS, EXR, RIR) \dots\dots\dots(1)$$

Where:

- GDP = Gross domestic product
- CPS = credit to private sector to GDP ratio
- MC = stock market capitalization to GDP ratio
- M3 = liquid liability to GDP ratio
- EXR = Exchange rate
- RIR = Real interest rate.

Stochastic form of the model is as follows:

$$GDP_t = \beta_0 + \beta_1M3_t + \beta_2MC_t + \beta_3CPS_t + \beta_4EXR_t + \beta_5RIR_t + \mu_t \dots\dots\dots(2)$$

Hence equation (2) can be expressed in natural logarithms for the conventional statistical reasons:

$$\log GDP_t = \beta_0 + \beta_1\log M3_t + \beta_2\log MC_t + \beta_3\log CPS_t + \beta_4\log EXR_t + \beta_5\log RIR_t + \mu_t \dots\dots\dots(3)$$

where:

- β_0 = constant,
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$, = coefficients of the dependent variables
- while μ = error team and t = time trend

➤ *Model Estimation Techniques*

There is the need to examine the stationarity features of the time series data employed in this study. This is important because most time series variables are non-stationary and estimations with these might produce spurious results. Also, testing for the stationarity properties aid in determining the order of integration and hence guide in choosing an appropriate econometric technique. This study employs the Augmented Dickey-Fuller (ADF) test and Zivot-Andrew unit root/ stationarity test.

Further, this study employed Auto-Regressive Distributed Lagged (ARDL) model to investigates the impact of financial development on Nigeria economic growth. The ARDL approach was developed and introduced by Pesaran and Shin (1995 and 1998) and Pesaran, Shin and Smith. (2001). Though, it was later reviewed by Nayaran (2005) for the case of small sample size data of 30-80 observations. The advantage of this technique over others is that it allows the use of variables that becomes stationary at level and first differencing. But, it does not admit variables that become stationary at second differencing.

The existence of an error-correction term between a number of co-integrated variables indicates that deviations in the dependent variable is a function of both the level of disequilibrium in the co integration connection. Thus, this research explored the error correction model (ECM) within the Autoregressive Distributed Lag (ARDL) model of estimation. This study investigates the short-run parameter estimates using the error-correction model (ECM) within

the ARDL structure. The error correction model (ECM) for this study is expressed as:

$$\Delta \log GDP_t = \beta_0 + \sum_{t-1}^k \beta_1 \Delta \log M3_{t-1} + \sum_{t-1}^k \beta_2 \Delta \log MC_{t-1} + \sum_{t-1}^k \beta_3 \Delta \log CPS_{t-1} + \sum_{t-1}^k \beta_4 \Delta \log EXR_{t-1} + \sum_{t-1}^k \beta_5 \Delta \log RIR_{t-1} + yECM_{t-1} + \mu_t \dots \dots \dots (7)$$

IV. EMPIRICAL FINDINGS AND DISCUSSION

➤ *Stationarity/ Unit Root Test*

Series	Level		First Difference		Order of Integration	Remark
	ADF	Z-V	ADF	Z-V		
LGDP	0.0050	0.01	0.0504	0.0103	1(0)	Stationary at level
LM3/GDP	0.2611	0.01	0.0000	0.01	1(0)	Stationary at level
LMC/GDP	0.6287	0.7479	0.0001	0.01	1(1)	Stationary 1 st diff
LCPS/GDP	0.8376	0.01	0.0004	0.01	1(0)	Stationary at level
LEXR	0.3368	0.0222	0.0000	0.01	1(0)	Stationary at level
LRIR	0.0233	0.1906	0.0000	0.01	1(1)	Stationary 1 st diff

Table 1:- Augmented Dickey Fuller (ADF) and Zivot-Andrew (Z-A) Unit Root Test
Source: Author computation using E-view 10

Result from Table 1 was estimated using Augmented Dickey Fuller and Zivot-Andrew stationarity test. The null hypothesis of the test states that a particular series has a unit root, while the alternative states that there is no unit root. The decision rule has it that null hypothesis should be rejected when the test statistics is less than the critical value. Therefore, the findings in this study revealed that at 5% level of significance, the variables employed are integrated at level 1(0) and at first differencing 1(1) respectively. This indicated that gross domestic product (GDP), liquid liability to GDP ratio (M3/GDP), credit to private sector to GDP ratio (CPS/GDP), and exchange rate

(EXR) are stationary at level. While stock market capitalization to GDP ratio (MC/GDP) and real interest rate (RIR) are stationary at first difference. Equally, Zivot-Andrew unit root test was employed to test for the conformity of the Augmented Dickey Fuller test and the structural break in the time series employed. The result revealed that variables used are integrated at level 1(0) and at first differencing 1(1) respectively. Consequently, this implies that a linear combination of the variables will give a stationary series, hence a pronounced likelihood of co-integration. It is then essential to test for the existence of co-integration.

➤ *ARDL Bound Test*

F-statistic	Critical values		
	Significance	Lower bounds 1(0)	Upper bounds 1(1)
7.2479	1%	3.41	4.68
	5%	2.62	3.79
	10%	2.26	3.35

Table 2:- Bounds test of Co-integration
Source: Author computation using E-view 10

Outcome of the ARDL bound test indicated that at 5% significance level, there is long run relationship between the dependent and independent variables employed in this study. From the result, the calculated F-statistics (7.2479) is greater than the critical values of 4.68, 3.79 and 3.35 at 10%, 5% and 1% respectively. Thus, this result implies that the null hypothesis of no co-integration between financial development and economic growth is refuted and the alternative hypothesis is accepted. Therefore, established

on the result it is inferred that there is cointegration among the dependent variable and the explanatory variables in this study.

Furthermore, the bound test results presented in table 2 specifies that the one period lag has a progressive and significant impact in the long run. Hence, it is imperative to estimate the long-run and short-run influence of the explanatory variables on the dependent variable.

➤ Long-Run Estimation of the ARDL Model

Dependent variable: LGDP				
	Coefficient	Std. Error	t-statistic	Probability
LM3/GDP	-1.0044	0.4785	-2.0989	0.0487
LMC/GDP	0.6032	0.3059	1.9718	0.0626
LCPS/GDP	1.1513	0.5227	2.2024	0.0395
LEXR	0.7509	0.1402	5.3549	0.0000
LRIR	0.03409	0.6222	0.0548	0.9568
Number of observation	32			

Table 3:- Long run effect of financial development on Nigeria economic growth (Source: Author computation using E-view 10)

The outcomes of the long run link are obtainable in Table 3 above. The result showed that at 5% level of significance liquid liability coefficient is -1.004 and the p-value 0.0487. This implies that 1% increase in liquid liability result in 100.4% decrease in economic growth. Thus, this result contradicts a prior expectation of positive influence of liquid liability on Nigeria economic growth. Hence, this may be attributed to huge government borrowing and inability of private firm to pay back the loan borrowed.

The result also revealed Stock market capitalization coefficient to be 0.6032 and p-values 0.0626. This means that 1% rise in stock market capitalization result in 60.32% increase in economic growth. This result confirms a prior expectation of positive impact of stock market capitalization on economic growth. However, the impact is statistically insignificant. Hence, improvement in the Nigeria stock market will enhances economic growth in the long run.

Likewise, credit to private sector was establish to be positive and significant with coefficient of 1.1513 and p-value of 0.0395. Consequently, this confirms a prior

expectation of positive effect of credit to private to economic growth in Nigeria. Hence efficient and effective channeling of funds to private sector enhances investment in profitable project. Hence increase economic growth.

Furthermore, exchange rate showed a positive and significant contribution to growth with coefficient of 0.7509 and p-value of 0.0000. Accordingly, this finding negates a prior expectation of negative influence of increasing exchange rate on Nigeria economic growth. Therefore, the positive effect is due to effective utilization of capital inflow in purchasing capital equipment which increases production activities and fosters growth.

Equally, real interest rate was also found to contribute 0.03409 to growth. However, the p-value is 0.9568 which showed that its contribution to economic growth is statistically insignificant. Thus, 1% increase in real interest rate results in 34.09% in economic growth. Consequently, increasing the real interest rate charged on loan facilities does not discouraged investor from borrowing for investment purpose.

➤ Short Run Estimate of ARDL Model

Variable	Coefficient	Std. Error	t-statistic	Prob
C	1.125114	0.436946	2.574948	0.0181
LNGDP(-1)*	-0.199475	0.051073	-3.905719	0.0009
LNM3_GDP(-1)	-0.200350	0.112936	-1.774018	0.0913
LNMC_GDP**	0.120319	0.073449	1.638126	0.1170
LNCPS_GDP(-1)	0.229649	0.138238	1.661262	0.1123
LNEXR(-1)	0.149800	0.044261	3.384448	0.0029
LNRIR(-1)	0.006801	0.124142	0.054784	0.9569
D(LNM3_GDP)	0.015913	0.112274	0.141735	0.8887
D(LNCPS_GDP)	-0.222978	0.115275	-1.934318	0.0673
D(LNEXR)	-0.033737	0.061255	-0.550765	0.5879
D(LNRIR)	0.210569	0.104984	2.005715	0.0586
CoIntEq(-1)*	-0.199475	0.027055	-7.372858	0.0000
R-squared	0.723153	Mean dependent var		0.201249
Adjusted R-squared	0.667784	S.D. dependent var		0.104662
S.E. of regression	0.060325	Akaike info criterion		-2.606153
Sum squared resid	0.090978	Schwarz criterion		-2.328607
Log likelihood	46.39537	Hannan-Quinn criter.		-2.515680
F-statistic	13.06051	Durbin-Watson stat		1.487706
Prob(F-statistic)	0.000003			

Table 4:- Short run influence of financial development on Nigeria economic growth (Source: Author computation using E-view 10)

Table 4 presented the short run connection between financial development and Nigeria economic growth. From Table 4 liquid liability coefficient is-0.200350 and p-value 0.0913. Thus, holding all variable constant, 1% rise in liquid liability will result to 20.06% decrease in economic growth at 5% significance level. By implication liquid liability had a negative and insignificant influence on Nigeria growth in the short run. Thus, increase in bank loans to private sector has no significant effect in stimulating economic growth as most investors has no ability to pay back loans borrowed.

The result revealed further that stock market capitalization had a positive but insignificant influence on Nigeria economic growth with coefficient of 0.1203 and p-value 0.1170. This means that 1% rise in stock market capitalization will lead to 12.03% increase in Nigeria economic growth. Thus, developing Nigeria stock market is vital to the growth of the economic as such this enhance effective channeling of funds to the private sector for investment in profitable ventures which in turn accelerate growth of the economy.

Further, the result also shows that credit to private sector has insignificant but positive impact on economic growth with coefficient of 0.2296 and p-value 0.1123. Thus, holding all variable constant, 1% rises in credits to private sector lead to 22.96% increase in economic growth. This finding supported a prior expectation of positive influence of credits to private sector on growth. Therefore, increasing credits to private sector in the economy increases investment on profitable projects which are required to accelerate growth process. However, non-performing loans and huge government borrowing discourages growth in the economy.

Similarly, the finding indicated that exchange rate had coefficient of 0.1498 and p-values 0.029. This infers that 1% increase in exchange rate will lead to 14.98% rise in

economic growth. Thus, this result disapproves a prior expectation of negative effect on economic growth. This finding means that capital inflow into the economy is being used for purchasing capital equipment which increases production activities and in turn accelerate growth.

Further, real interest rate coefficient is 0.0068 and p-value of 0.9569. Hence, 1% rise in real interest rate result in 6.8% increase in economic growth. Although real interest rate had a positive influence on growth, though it statistically insignificant in accelerating economic growth in the short run. Thus, this indicates that a rise in real interest rate contributed little to growth as it's shown in the result. By implication increase in real interest rate by financial intermediaries discourages investors from borrowing for further investments in profitable project.

The error correction mechanism (ECM) is used to verify the speed of adjustment in this study. The decision rule for the existence of a short-run link between the dependent and explanatory variable is that the coefficient of the error correction term should be negative and significant at 5% level of significant. Thus, the finding confirms this rule. Therefore, it is concluded that there is a return to equilibrium in case of disequilibrium at -0.199475 rate of adjustment. This denotes that 19.95% of previous year errors are corrected within the present year.

In addition, coefficient of determination (R^2) indicated that 0.723153of the variation in the dependent variables can be expounded by the independent variables. This means that 72.3% of the GDP can be explained by the independent variables, while the remaining 27.7% can be explained by other factors outside the model. Thus, this indicated the goodness of fit of the model. Equally, the overall probability of F-statistic (0.0000) revealed that financial development significantly stimulates Nigeria's growth level.

➤ *Post Diagnostic Test*

F-statistic	0.7055	probs. F (1,24)	0.5070
Obs *R-squared	2.2534	probs. Chi-Square (1)	0.3241

Table 5:- Breusch-Godfrey Serial Correlation LM Test
Source: Author computation using E-view 10

The result from the table 6 showed that there is no serial correlation amid the variables adopted in this research work. The Breusch-Godfrey serial correlation LM test estimated is higher than 5% level of significant. Consequently, the null hypothesis of no serial correlation is not rejected. Thus, we conclude that the model used for this study is good. To further verify the constancy of the model used, CUSUM square test is employed.

➤ *Heteroscedasticity Test*

F-statistic	1.0589	Prob.F (13,16)	0.4347
Obs*R-squared	10.7316	Prob. Chi-square (13)	0.3788
Scaled explained SS	4.7097	Prob. Chi-square (13)	0.9097

Table 6:- Breusch-Pagan-Godfrey Heteroscedasticity Test
Source: Author computation using E-view 10

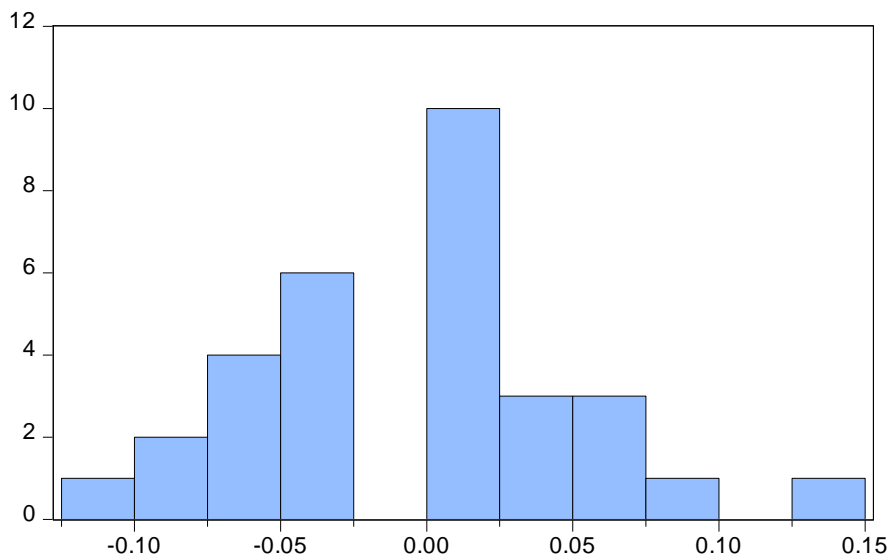
One of the assumptions of Classical Linear Regression Model states that error term should have a constant variance, that is, the variance of the error term about its mean should be constant at times. The decision rule is specified as;

- H₀: There is no Heteroskedasticity in the model
- H₁: There is Heteroskedasticity in the model
- Decision: P < 0.05 rejects H₀ and accept H₁

P > 0.05 accepts H₀ and rejects H₁

The result from the table 7 revealed that the probability of F-statistic is 0.4347 which is greater than 0.05% level of significance. Thus, the null hypothesis of no heteroscedasticity in the model is accepted. Hence, it is concluded that there is no heteroscedasticity in the model. This therefore indicated that for all sets of observation, the variance of the error term is consistent.

➤ *Normality Test*
Jarque-Bera Normality Test



Series: Residuals	
Sample 1988 2018	
Observations 31	
Mean	-3.42e-15
Median	0.006473
Maximum	0.143423
Minimum	-0.106953
Std. Dev.	0.055069
Skewness	0.347065
Kurtosis	3.108715
Jarque-Bera	0.637614
Probability	0.727016

Fig 1:- Normality Test
Source: Author computation using E-view 10

The result from the Figure 1 showed that the model employed for this study is normally distributed. The Jarque-Bera test for normality was carried out at 5% level of significant and the result of this test indicated 0.727016 which is greater than 0.05 significance level. Therefore, it can be inferred that the data is normally distributed.

➤ *CUSUM Square Test*

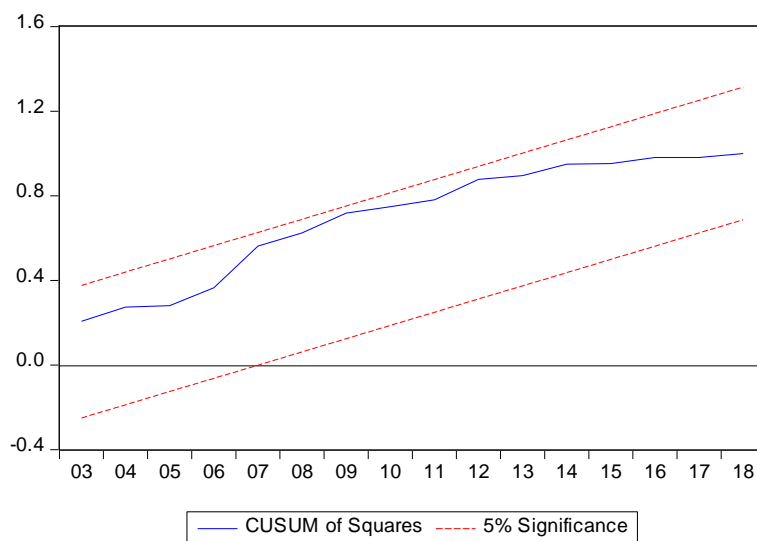


Fig 2:- Stability Test

To evaluate the stability of both the long-run and short-run relationship between the dependent and independent variable, CUSUMSQ tests was explored at 5% level of significance. Figure 1 revealed that the CUSUM square test line lies within the 5% level of significance. Therefore, it is established that there is a long-run stability between the variables employed. Consequently, the model is stable.

➤ Hypothesis Testing

In order to test for the stated hypothesis in this study, Wald test and ARDL bound test was being employed.

H_0 : There is no significant impact of financial development on Nigeria economic growth.

H_1 : There is significant impact of financial development on Nigeria economic growth.

Decision rule: $P < 0.05$ reject H_0 and accept H_1

$P > 0.05$ accept H_0 and reject H_1

Test Statistic	Value	Df	Probability
F-statistic	2.049930	(3, 20)	0.1392
Chi-square	6.149789	3	0.1045
Null Hypothesis: $C(2)= C(4)= C(5)=0$			
Null Hypothesis Summary:			
Normalized Restriction (= 0)		Value	Std. Err.
C(2)		0.015913	0.112274
C(4)		0.120319	0.073449
C(5)		-0.222978	0.115275
Restrictions are linear in coefficients.			

Table 7:- Wald Test

Source: Author computation using E-view 10

From Table 7, the probability of liquid liability (C2) is 0.015913, stock market capitalization (C3) is 0.120319 and credit to private sector (C4) is -0.222978. Thus, these finding implies that financial indicators employed are statistically insignificant. Further, the probability of the F-statistic is 0.1392 and is greater than 0.05 level of significance. Hence, we accept the null hypothesis and reject the alternative. Consequently, it is inferred that financial development has no significant impact on Nigeria economic growth.

Based on the empirical findings stated above, financial development has no significant effect on Nigeria economic growth. This insignificant influence of financial development on Nigeria economic growth rate may be owed to institutional problem, huge non-performing loans, huge government borrowing and non-conductive business environment. These challenges therefore have a colossal influence on the ability of the Nigeria financial system to be able to channel funds to investors for productive purpose in the economy. This finding is thus supported by the study of Adekunle, Ganiyu and Adedipe (2013) who inferred that financial development has no significant effect in accelerating Nigeria economic growth. However, it contradicts the earlier study of Saibu, Nwosa, and Agbeluyi (2011) who concluded that financial sector development has a significant influence on Nigeria economic growth.

Further, the long run estimate indicated that there is a significant link between financial development and Nigeria economic growth. As highlighted by Mandiefe (2015), economies with well-built financial system tend to converge towards long-run equilibrium quicker than economies with less established financial system. Thus, improving and strengthening Nigeria financial sector will enhance growth level in the long run.

V. CONCLUSION AND POLICIES RECOMMENDATION

One of the main aim in every economy is to attain an increasing and sustained economic growth. Accordingly, the part played by an efficient financial system is therefore crucial to achieving this aim. As evidenced by the findings in this study, financial development has no significant outcome on Nigeria economic growth. This therefore infers that Nigeria financial system is not in the position to drive Nigeria's economic growth. Hence, this failure is owed to the underdevelopment of the Nigeria financial system and instability in government policies. Precisely, the findings revealed that stock market capitalization, credit to private sector, exchange rate and real interest rate influence economic growth positively in the long run. While liquid liability impedes growth in both short run and long run respectively. Further, stock market capitalization, credit to private sector, exchange rate and real interest rate impact growth in the short run. Furthermore, the findings indicated a long run connection between financial development and

Nigeria economic growth. This implies that financial development will boost economic growth by accelerating and facilitating diversification in the long run.

Established on this findings, the study recommends that Nigeria government should pay more attention on improving and strengthening the financial system. As such, this will enhance effective channeling of financial resources for productive investment projects, hence accelerate growth. Furthermore, financial strategies should be geared towards encouraging a more competitive environment which will upsurges effective financial service delivery in Nigeria economy.

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