

DOES FINANCIAL INTERMEDIATION INDICATORS AFFECT ECONOMIC GROWTH? EMPIRICAL EVIDENCE FROM THE NIGERIAN ECONOMY

ERHIJAKPOR, Andrew E. O.

Department of Accounting, Banking and Finance,
Faculty of Management Sciences, Delta State University, Abraka

and

OKO, Ezekiel O.

Department of Accounting, Banking & Finance,
Faculty of Management Sciences, Delta State University, Abraka

ABSTRACT

This study examined the implications of financial intermediations on the growth of the Nigeria economy. The secondary data employed for the study was obtained from the Central Bank of Nigeria Statistical Bulletin (2020). The econometric regression framework was used to estimate the model for the study. The variables selected for the study were gross domestic product as a proxy for economic growth, while exchange rate, credit to private sector, Savings and time deposit, and currency in circulation represented the regressors. The results of the analysis showed that exchange rate, credit to private sector, Savings and time deposit, and currency in circulation has a significant positive effect on economic growth in Nigeria. The findings also imply that Currency in circulation exerts more influence on gross domestic product than the other variables. It is therefore recommended among others that Government should provide opportunities and support for Small and Medium Enterprises through grants and low-interest loans.

Keywords: Financial Intermediation, Economic Growth, Central Bank of Nigeria, Credit to the Private Sector

INTRODUCTION

Economic systems globally consist of individuals, organizations, or governments which can be dichotomously grouped into surplus and deficit units. While the deficit units need more capital than they own, the surplus units have more than they require at a particular time; hence the need for a system that can in the safest means possible, transfer from surplus to deficit units for continuous economic activities. Financial literature refers to this system as financial intermediation and institutions involved in this shuffle, financial intermediaries. Financial intermediaries such as commercial banks, mobilize funds from savers/depositors, and allocate credit facilities to borrowers/investors for economic productive investment who have need for bank credit both in the public and private sector, which need bank credit to expand and grow their businesses (Takon, John, Ononiwu & Mgbado, 2020).

In 2012, the Central Bank of Nigeria (CBN) brought in the cashless policy in Nigeria to shift the economy away from a cash-driven one to a cashless economy. Alimi and Adeoye (2020) rightly noted that the cashless policy was planned to promote financial intermediation, eliminate the incidence of corruption resulting from ineffectiveness of the credit delivery system and also lessen the volume of cash payment thereby boosting electronic payment and minimize significantly informal savings.

Financial intermediation usually comes at a cost which may potentially impact the goal it seeks to achieve and may also have undesirable implications on the development of the Nigerian economy. This cost is essentially the difference between the gross cost of loan paid by a borrower and the net returns received by a saver or depositor. Obim, John and Orok (2018) asserts that financial intermediation should involve some costs to cover for risks and management of money. Similarly, Takon *et al* (2020) opined that banks incur financial intermediation cost in mobilizing and extending credit facilities to different sectors of the economy which are in turn transferred to borrowers and depositors as the difference between lending and deposit rates.

Takon *et al* (2020) noted that efficient and effective financial intermediation may lead to employment generation and income, which invariably enhances the level of economic development. Alimi and Adeoye (2020) posit that financial intermediaries play important roles in the growth of the real economy by channelling funds from savers to borrowers to facilitate investment for all-round development. Safiat (2013) also noted that the success of economic policy are positively associated with how well financial markets operate to move funds from those who have savings to those who can put them into productive use for

the general benefit of the economy.

Alimi and Adeoye (2020) describe the reform of the Nigerian financial sector as an ongoing process which represents market-oriented economic reforms since the late 1980s. With the recapitalization of the financial sector by the CBN, especially the banking sub-sector and the injection of a total of N600 billion into the system to cushion liquidity crisis and credit crunch caused by excessive lending, extravagance, and sleaze (Alimi & Adeoye, 2020), it is expected that the banks are better positioned to perform their roles of intermediation without fail or potential risk of liquidation. However, loan offerings especially to SMEs are rather cumbersome coupled with economic hardship faced by these entrepreneurs. This call for continuous research with recent available data to provide empirical information to users and policy maker that will ensure the stability of the financial system and the continuous growth of the economy in Nigeria.

LITERATURE REVIEW

Theoretical Foundation: Theory of Financial Intermediation

The theory of financial intermediation was postulated by Goldsmith (1969) and Mckinnon (1973), who view financial markets as pivotal instruments in economic development. They claim that the differences in economic growth across countries stems from the quantity and quality of services provided by financial institutions extant in such locations. Mckinnon (1973) went further to suggest that money supply determines savings and investments in the economy with the assumption that there is free entry and exit in the market. Shaw (1973) also raised that how efficient financial intermediation is, would determine whether savers have incentives (higher interest rates) to save more money that would be pushed to investors to stimulate economic activities and growth. In reality however, financial intermediation is not perfectly efficient because there are ceilings on banking-related rates, foreign transactions and restriction of entry of financial intermediaries, that negate the free entry assumption of the theory.

Financial Intermediation

Financial intermediation consists of a series of activities that transforms mobilized deposit liabilities by financial intermediaries such as banks into bank risk assets or credits, such as loan and overdraft. It is the process that transfers funds between surplus units and deficit units in the economy. Money owners who do not have legal backings to directly lend money to deficit units in need of funds do so through financial intermediaries, who act as middlemen to facilitate

the transfer of funds between these units. The efficiency of financial intermediation is usually determined by cost, convenience and confidence (Afolabi, 1998).

Types of Financial Intermediaries

Efayena (2014) stated different financial intermediaries exist and they include depository intermediaries [such as credit unions, deposit-money banks and mutual savings bank], contractual intermediaries [such as pension funds administrators and insurance companies], and investment intermediaries [such as finance houses and investment banks]. Financial intermediaries pool resources of small savers; provide safekeeping, accounting, and payment mechanisms for resources; provide liquidity through ATMs, cheques, debit cards etc.; diversify risk of investors and; collecting and process information to price the risks of various investments.

The following financial depth indicators were used as proxy for financial intermediation:

a) *Currency in Circulation*

Currency in circulation is the total of physical cash in the hands of individuals in an economy which they use to carry out business transactions. It includes the issued total bills that are not stored in the accounts of any financial institution. Ikpefan, Akpan, Osuma, Evbuomwan and Ndigwe (2018) state that it is the cash available to fund short term spending and is a significant component of a country's financial sector. It is a component that makes up narrow money supply as categorized by the CBN.

b) *Savings & Time Deposits*

Dwivedi (2011) stated that savings and time deposits with banks are components of broad money supply. Savings and time deposits represent surplus units in financial intermediation. While savings account represents deposits that can be done anytime with interest rates subject to withdrawals made strictly by account holders themselves, time deposit has a particular amount saved for a fixed term with fixed interest rates higher than the regular savings account. At the end of the period, the depositor can withdraw, renew and stay for an additional period. Even though withdrawals can be made without notice, early withdrawals are usually subject to a penalty. Banks and other financial institutions in turn provide these deposits to individuals and companies as loans and other financial products. Banks make a profit by lending money held in their

time accounts at higher interest rates than those offered to time account holders.

c) *Exchange Rate*

Exchange rate is defined as the rate at which currency of a country is bought and sold against the currency of another country in the foreign exchange market. This rate is not static but subject to changes due to volatile domestic and external economic conditions (Dwivedi, 2011) such as changes in domestic prices, change in demand and supply conditions of foreign exchange and changes in the real income. Also, changes in the interest rate in different countries also affect the capital flows between nations and cause exchange rates to fluctuate (Dada, 2003).

d) *Credit to Private Sector*

This measures financial resources provided to the private sector. The entities that administer these financial resources include monetary authorities and other financial institutions.

Gross Domestic Product (GDP)

GDP is the total monetary value of all finished goods and services produced within an economy (Abdulrasheed, 2008). It is the totality of goods and services made or rendered in Nigeria without regards to whether income generated during the reference period accrues to or are paid to nationals of foreign countries. Kimberly (2008) defined it as everything produced by all the people and all the companies within an economy. The GDP of an economy is a key policy variable that has implications for government policies, economic planning, investment decisions and economic management.

Empirical Review

Ogwumike and Salisu (2009) examined the short-run and long-run relationship between financial development and economic growth 1975-2008 and they found the proxies of financial development positively impacted economic growth. Shittu (2012) employed time series data to ascertain the impact of financial intermediation on Nigerian economic growth. Findings from analyses showed that financial intermediation significantly impacts the Nigerian economy. Emecheta and Ibe (2014) used the Vector Autoregressive Model approach to examine the role of bank credit on GDP for 1960-2011. Their results showed that there is an impactful linear connection between economic growth and bank credit.

Ogege and Boloupremo (2014) studied the effect of sectoral credit allocation by deposit money banks in accelerating GDP growth in Nigeria. Error correction results showed that credit allocation of deposit-money banks significantly affected only the manufacturing sector was. Other sectors such as the service and general commerce sectors were not significantly affected. Murtala, Ahmad, Siba and Mohammed (2015) investigated the roles of financial intermediation institutions in the sustainable economic growth of Nigeria. Variables were tested for stationarity and analysed for relationships. It was found that economic growth, insurance development and stock market had direct relationships both in the short and long run. However, economic growth and bank development were indirectly related in the short and long-run relationship. Error correction term suggests that about 0.37% disequilibrium in economic growth in a particular year is corrected in the next year.

Olowofeso, Adeleke and Udoji (2015) examined the impacts of private sector credit on economic growth in Nigeria cointegration test. Findings from the error correction model confirmed a statistically significant relationship between private sector credit and economic growth. Nwanne (2015) ascertained the effect of the cost of financial intermediation on Nigerian economic growth using OLS regression. Cost of financial intermediation significantly influenced economic growth. Deposits had negative effect on growth. Furthermore, loans and interest rates were found to positively affect economic growth. Gisanabagabo and Ngalawa (2016) empirically investigated the relationship between Rwandan financial intermediation and economic growth from 1966 to 2010. The study found that economic growth and financial intermediation have a strong relationship.

Oluwasogo, Princess, Oluwatoyin and Folasade (2017) examined how much financial intermediation influences Nigerian economic growth for 1980-2014 years. The study used Error Correction Model and found long term relationship between study variables. Usman, Alimi and Onayemi (2018) conducted a study on bank intermediation activities and Nigerian economic growth. Data analysis was conducted using least squares regression and co-integration. Results showed that economic growth is positively affected by bank loans and advances.

Alimi and Adeoye (2020) studied financial intermediation and Nigerian economic growth using relevant data between 1983 to 2018 fiscal years sourced from statistical bulletins. Retrieved data were analysed using descriptive statistics, multiple regression and other time series analytical tools. It was found that size of credit, broad money supply and credit to private sector have positive effects on economic growth. Long term relationship was also found

METHODOLOGY

Time series data extracted from the statistical bulletins published by CBN were used. The data covered 15 years period, that is, from 2005 to 2019. Data analysis tools comprised unit root test, Johansen co-integration test and VAR estimates calculated with the e-views version 9 application. Results interpreted at a 5% level of significance. Dependent and independent variables were economic growth and financial intermediation respectively and formed the model of the study.

Table 1: Study Variables

	Study Variables	Proxy
Dependent Variable	Economic Growth	<i>Gross Domestic Product</i>
Independent Variable	Financial Intermediation	<i>Credit to Private Sector</i>
		<i>Currency in Circulation</i>
		<i>Exchange Rate</i>
		<i>Savings and Time Deposit</i>

The model can be stated as follows:

$$GDP = f(Ex, CrP, Dep, Curr) \text{-----(I)}$$

The model is assumed to have a linear relationship and is expressed as follows:

$$GDP = \beta_0 + \beta_1 Ex + \beta_2 CrP + \beta_3 Dep + \beta_4 Curr + \mu \text{-----(II)}$$

(+) (+) (+) (+) ----- *apriori expectations*

Where:

Ex = Exchange Rate

GDP = Gross Domestic Product

CrP = Credit to private sector

Dep = Savings and time deposit

Curr = Currency in circulation (*Curr*).

μ = Stochastic or random error term, which represents other variables that affects economic growth.

RESULTS AND FINDINGS

The data employed for the study are presented in Table 2:

Table 2: Study Data

	GDP @ Current prices N' billion	Credit to Private Sector N' billion	Savings and Time Deposits N' billion	Currency in Circulation N' billion	Exchange Rate N
2005	22,269.98	1,838.39	1,316.96	642.39	132.1470
2006	28,662.47	2,290.62	1,739.64	779.25	128.6516
2007	32,995.38	3,668.66	2,693.55	960.77	125.8331
2008	39,157.88	6,920.50	4,118.17	1,155.33	118.5669
2009	44,285.56	9,102.05	5,763.51	1,181.54	148.8802
2010	54,612.26	10,157.02	5,954.26	1,378.13	150.2980
2011	62,980.40	10,660.07	6,531.91	1,566.05	153.8616
2012	71,713.94	14,649.28	8,062.10	1,631.72	157.4994
2013	80,092.56	15,751.84	8,606.61	1,776.41	157.3112
2014	89,043.62	17,131.45	11,936.93	1,797.98	158.5526
2015	94,144.96	18,675.47	11,403.22	1,857.94	193.2792
2016	101,489.49	21,082.72	12,146.91	2,179.17	253.4923
2017	113,711.63	22,092.04	12,758.16	2,157.23	305.7901
2018	127,736.83	22,521.95	14,822.20	2,049.02	306.0802
2019	144,210.49	24,922.94	16,794.15	2,153.64	306.9206

Source: 2019 CBN Statistical Bulletins

Table 3: Descriptive Statistics

	GDP @ Current prices	Credit to Private Sector	Savings and Time Deposits	Currency in Circulation	Exchange Rate
Mean	73807.16	13431	8309.885	1551.106	186.4776
Median	71713.94	14649.28	8062.105	1631.717	157.3112
Maximum	144210.5	24922.94	16794.15	2179.174	306.9206
Minimum	22269.98	1838.39	1316.957	642.3882	118.5669
Std. Dev.	37636.29	7698.164	4841.439	512.5946	69.91107
Jarque-Bera	0.866837	1.048636	0.825654	1.108841	2.587065
Probability	0.648289	0.591959	0.661777	0.574405	0.2743
Observations	15	15	15	15	15

Source: E-Views 9

Table 3 contains the average, maximum and minimum values of the five study variables. All data sets negate the normal distribution as seen in p value of Jacque-bera statistics ($p > .05$). The absence of normality in the distribution does not affect analytical tools as normality is not a requirement for regression and time series analyses.

For time series, data are expected to be stationary for robust results. The Augmented Dickey-Fuller (ADF) unit root test was conducted to determine the stationarity of the study variables.

Table 4: Unit Root Test Results

Unit Root Test at 1st difference			
Variable	Augmented Dickey Fuller	Critical Value @ 5%	Remarks
GDP	-3.4519	-3.1199	S
EX	-2.0337	-3.1199	NS
CrP	-4.3964	-3.1754	S
Dep	-4.8334	-3.2127	S
Curr	-4.1423	-3.1449	S

Source: Collated by the Author, 2021. Note: S=Stationary, NS=Non-Stationary

From Table 4, all variables except exchange rate were found to be stationary at first difference 1(1) as depicted by the greater absolute calculated values when compared with absolute critical values. The non-stationarity of exchange rate led to the variable excluded from the model and subsequently regressed against the dependent variable.

Exchange Rate and GDP which were to be regressed had to be tested for suitability of regression using the multicollinearity and equal variance/homoscedasticity tests.

Table 5: Variance Inflation Factors

Date: 06/17/21 Time: 11:53			
Sample: 2005 2019			
Included observations: 15			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
EXCHANGE_RATE	3820.252	8.622979	1
C	1.50E+08	8.622979	NA

Source: E-Views 9

Table 6: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.370682	Prob. F(1,13)	0.5531
Obs*R-squared	0.415852	Prob. Chi-Square(1)	0.519
Scaled explained SS	0.171804	Prob. Chi-Square(1)	0.6785

Source: E-Views 9

The VIF and Breusch-Pagan-Godfrey's heteroskedasticity tests reveal that the assumptions of multicollinearity and homoscedasticity (equal variances) which are necessary for minimised errors in regression results are not violated. Thus, the regression id fit for GDP and Exchange Rate.

Table 7: Linear Regression of GDP and Exchange Rate

Dependent Variable: GDP
 Method: Least Squares
 Date: 05/16/21 Time: 23:34
 Sample: 2005 2019
 Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EX_RATE	487.6856	61.20732	7.967766	0.0000
C	-17380.62	12176.36	-1.427407	0.1770
R-squared	0.830033	Mean dependent var	73807.16	
Adjusted R-squared	0.816958	S.D. dependent var	37636.29	
S.E. of regression	16102.07	Akaike info criterion	22.33485	
Sum squared resid	3.37E+09	Schwarz criterion	22.42926	
Log likelihood	-165.5114	Hannan-Quinn criter.	22.33384	
F-statistic	63.48530	Durbin-Watson stat	0.557662	
Prob(F-statistic)	0.000002			

Source: E-Views 9

The OLS regression was estimated for the purpose of establishing the relationship between GDP and Exchange rate. The t-Statistics show a value of 7.9677 at a p-value of 0.0000 which indicates that exchange rate has a positive and significant effect on Gross Domestic Product (GDP) of Nigeria.

Johansen Co-integration Test

After the confirmation of stationarity of study variables, the Johansen co-integration test was conducted for the long run relationships among the variables.

Table 8: Unrestricted Co-integration Rank Test (Trace)

Date: 05/16/21 Time: 19:52				
Sample (adjusted): 2007 2019				
Included observations: 13 after adjustments				
Trend assumption: Linear deterministic trend				
Series: GDP CREDIT2PRIV_SECTOR SD_TD Curr				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.958582	80.05195	47.85613	0.0000
At most 1 *	0.860404	38.65953	29.79707	0.0037
At most 2	0.579591	13.06253	15.49471	0.1125
At most 3	0.129147	1.797666	3.841466	0.1800
Trace test indicates 2 cointegrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: E-Views 9

Table 8 shows the estimated number of co-integration equations using the Trace statistics test. As stated on the table, there are two co-integrating equation in the model ($p < 0.05$). It is a rule of thumb to add 1 to the last figure with significant p values. This implies that financial intermediation has both short-run and long-run implications for economic growth in Nigeria.

Table 9: The Normalized Co-Integrating Coefficients.

GDP	CrP	Dep	Curr
1.000000	0.566437	-8.149447	-0.864155
	(0.57701)	(0.84628)	(0.51818)
	[0.98168]	[-9.62973]	[-1.66767]

Source: Estimated by the Authors using E -views, 2021. Note: () repr esents the standard error values and [] represents the t-stat values.

Source: E-Views 9

The result shows that currency in circulation and credit to private sector has no significant effect on economic growth in Nigeria in the long run. However, a rise in savings and time deposits have positive impact on economic growth in the long run. Having established co-integration in the model, the vector autoregression model (VAR) was conducted to determine the short run dynamics of the model.

Vector Autoregressive Test

The Vector Autoregressive test measures the relationship among multiple variables as changes occur in their values over time.

Table 10: Vector Autoregression Estimates

Date: 05/16/21 Time: 20:52

Sample (adjusted): 2007 2019

Included observations: 13 after adjustments

Standard errors in () & t-statistics in []

	LN_GDP	LN_CrP	LN_Curr	LN_Dep
LN_GDP(-1)	0.621190 (0.16586) [3.74516]	-0.861135 (0.38248) [-2.25147]	1.274606 (0.52652) [2.42082]	-1.388569 (1.81467) [-0.76519]
LN_GDP(-2)	0.202523 (0.15324) [1.32161]	-0.560298 (0.35337) [-1.58561]	-0.198689 (0.48644) [-0.40845]	0.920148 (1.67655) [0.54883]
LN_CrP(-1)	0.224765 (0.09102) [2.46947]	0.169049 (0.20988) [0.80545]	-1.235369 (0.28892) [-4.27576]	-0.702875 (0.99579) [-0.70585]
LN_CrP(-2)	-0.069858 (0.03406) [-2.05131]	-0.167493 (0.07853) [-2.13286]	0.469199 (0.10810) [4.34025]	0.154203 (0.37259) [0.41387]
LN_Curr(-1)	0.171614 (0.04668) [3.67653]	0.375358 (0.10764) [3.48724]	0.071694 (0.14817) [0.48385]	0.114860 (0.51069) [0.22491]

LN_Curr(-2)	-0.338113 (0.05914) [-5.71743]	0.223577 (0.13637) [1.63951]	-0.102523 (0.18772) [-0.54614]	0.415932 (0.64700) [0.64286]
LN_Dep(-1)	0.130058 (0.04550) [2.85822]	0.341218 (0.10493) [3.25193]	0.347006 (0.14444) [2.40236]	0.552735 (0.49783) [1.11028]
LN_Dep(-2)	-0.095570 (0.07193) [-1.32865]	0.080542 (0.16587) [0.48558]	1.056349 (0.22833) [4.62632]	0.404936 (0.78697) [0.51455]
C	-0.322280 (0.20806) [-1.54899]	0.764341 (0.47977) [1.59313]	3.742872 (0.66046) [5.66711]	1.196066 (2.27629) [0.52544]
R-squared	0.981275	0.999298	0.995944	0.973249
Adj. R-squared	0.943824	0.997894	0.987831	0.919746
Sum sq. resids	0.000754	0.004008	0.007594	0.090211
S.E. equation	0.013726	0.031652	0.043573	0.150176
F-statistic	26.20161	711.7649	122.7605	18.19074
Log likelihood	44.96469	34.10326	29.94824	13.86238
Akaike AIC	-5.533030	-3.862040	-3.222806	-0.748058
Schwarz SC	-5.141911	-3.470921	-2.831688	-0.356939
Mean dependent	0.255299	9.342308	8.881538	9.027692
S.D. dependent	0.057914	0.689736	0.394986	0.530112

Source: E-Views 9

Note: 2.16= critical value of t at 13 d.f.

Table 10 that contains the VAR results reveal that credit to private sector has a positive and significant effect on GDP in the short run with a 1-year lag ($t = |2.46947| > |2.16|$). In other words, the credit given to private sector in a preceding year will cause GDP to rise or fall depending on whether credit was high or low. However, after 2 years, a defined credit accessed by the private sector has an insignificant effect on GDP ($t = |-2.05131| < |2.16|$). Increased credit to private sector in 2010 will drive economic growth (improved GDP value) in 2011 but no effect on GDP by 2012. The same results were recorded for Savings and time deposit ($t = |2.85822| > |2.16|$) and Currency in circulation ($t = |3.67653| > |2.16|$) in the first lagged period. However, while savings and time deposits returned negative and insignificant when lagged twice ($t = |-1.32865| <$

|2.16|), currency in circulation was negative and significant when lagged twice ($t = |-5.71743| > |2.16|$).

From the above results, it can be seen that the independent variables have short term positive and significant effect on Nigeria's economic growth. The findings also imply that Currency in circulation (Curr) exerts more influence on GDP than the other variables. Table 10 also revealed that GDP as the dependent variable had adjusted R-squared of 0.9813 implying that the changes in explanatory variables are responsible for about 98% of changes in GDP. The model is of good fit at 0.05 level of significance (F-statistic= 26.2).

DISCUSSION OF FINDINGS

Exchange rate was found to have a positive relationship with GDP, the measure of the Nigerian economy. In other words, higher exchange rates caused the value of nominal value of GDP to increase. Banks also churn out more money to deficit units when exchange rates increase. Savings and Time Deposit was found to have a negative relationship with GDP. GDP would fall when deposits in banks increase. This is attributed to the non-diversion of the deposits to the real sector of the economy. It also gives a justification for the low interest rate on savings account to discourage large amount kept in banks and instead used for investment in real activities. The results of Nwanne (2015) agrees with this as the study recorded that deposits had negative effect on growth.

Currency in circulation as a measure of financial intermediation was found to have an indirect relationship with the economy. In other words, increased amount of the naira in the country will cause the economy to dwindle. This is not far-fetched as increased currency in circulation spells inflation (too much money purchasing too few goods) which is a major economic problem. Alimi and Adeoye (2020) however had an opposing view. They found that money supply (which currency in circulation is a sub-set of) has a direct relationship with the Nigerian economy.

Credit to Private Sector was also found to improve the economy. The financial intermediation role of banks causes them to finance businesses through loans for better private sector development inclusive of Micro, Small and Medium enterprises, being key contributors of GDP. However, this was only significant in the short term as no significance was found after a 2-year lag period. In other words, the credit given to private sector in a year only influences the economy positively for two years after which the economy is unaffected except by current/ immediate past year's loans. The findings are consistent with Olowofeso *et al* (2015), Alimi and Onayemi (2018), Takon *et al* (2020) and Alimi and Adeoye

(2020). They all found that loans to private sector establishments were significantly and positively related to GDP.

Financial intermediation is therefore a strong predictor of economic growth in Nigeria. Gisanabagabo and Ngalawa (2016) as well as Shittu (2012) got same findings. This study also found that influence is majorly short term as found in the analysis, making it a very crucial matter for financial institutions to sustain growth in short cycles for a long time.

CONCLUSION AND RECOMMENDATION

The study has examined the impact of financial intermediation on economic growth in Nigeria using time series data from 2005-2019. Based on the result from the analysis, it has been established that financial intermediation has a long-run effect on the growth of the Nigerian economy. There is evidence to suggest a long-run relationship between the measures of financial intermediation in the Nigerian economy which include exchange rate, credit to private sector, and economic growth. It therefore implies that an effective and efficiently regulated financial sector will translate to long-run sustainable economic growth in Nigeria. In line with study findings, the following recommendations were made:

1. Government should support the small and medium enterprises (SMEs) by setting regulations on lending and cost of loans to ensure financial intermediaries provide credit to this teeming section of the economy.
2. Regulatory authorities in the banking sector such as Nigeria Deposit Insurance Corporation (NDIC) and Central Bank of Nigeria (CBN) should drive financial intermediaries to cause circulation of money such as reducing the maximum cash-reserve ratio.
3. Interest rate on deposits should be maintained at a level to encourage more deposits from surplus units for increased flow of resources to deficit units.

The findings of this study will be beneficial to regulatory authorities, government and management of institutions that carry out financial intermediation to aid decision making and policy formulation. The study uses limited measures of financial intermediation. Therefore, generalizing findings should be done with requisite prudence. Further research can be conducted on the impact of financial intermediation on micro enterprises. Other economic indicators such as inflation and Income Per Capita can also be examined for an extended view of the effect of financial intermediation.

REFERENCES

- Abdulrasheed, O. (2008). *The effect of Inflation on GDP*. Lagos: Abu Printing Press.
- Afolabi, L. (1998). An econometric investigation into financial intermediation, domestic investment and economic growth in Cameroon. *Journal of Finance and Economics*, 4(1), 1-9.
- Alimi, A. A. & Adeoye, M. A. (2020). Analysis of financial intermediation activities on economic growth in Nigeria: Vector error correction model approach. *International Journal of Finance and Accounting*, 9(1), 7-12.
- Ayadi, R., Arbak, E., Naceur, S. B. & De-Groen, W. P. (2015). Financial development, bank efficiency, and economic growth across the Mediterranean. In *Economic and Social Development of the Southern and Eastern Mediterranean Countries* (219-233). Springer International Publishing.
- Dada, I. O. (2003). *The Nigeria Capital Market: Development, Issues and Policies*. 1st edition. Ibadan: Spectrum Books Publishers Ltd.
- Dwivedi, D.N. (2011). *Macroeconomics Theory and Policy*. 3rd Edition. New Delhi: Tata McGraw Hill Education Private Ltd.
- Efayena, O. (2014). Financial intermediaries and economic growth: The Nigerian evidence. *Economica*, 10(3), 125-135.
- Emecheta, B. C. & Ibe, R. C. (2014). The impact of bank credit on economic growth in Nigeria: Application of reduced vector auto-regression (VAR) technique. *European Center for Research, Training and Development, UK*, 2(9), 111-121.
- Gisanabagabo, S. & Ngalawa, H. (2016). Financial intermediation and economic growth: Evidence from Rwanda. *Journal of Economics and Financial Science*, 10(2), 253-273
- Goldsmith, R.W. (1969). *Financial Structure and Development*. New Haven: Yale University Press.
- Ikpefan, O. A., Akpan, E., Osuma, G. O., Evbuomwan, G. & Ndigwe, C. (2018). Electronic banking and cashless policy in Nigeria. *International Journal of Civil Engineering and Technology*, 9(10), 718-731.
- Kimberly, D. (2008). *Fundamentals of National Income*. New York: Mc Graw-Hill Inc.
- Mckinnon, R. (1973). *Money and Capital in Economic Development*. Washington: The Brooking

- Murtala, B.U., Siba, D., Ahmad, U.G., Muhammad, R.D. & Ali, U.A. (2015). An empirical study on the relationship between financial intermediation and economic growth in Nigeria: A cointegration and causality analysis. *LOSR Journal of Economic and Financial*, 6(4) 15-31.
- Nwanne, T. F. I. (2015). Implications of financial intermediation cost on economic growth in Nigeria. *International Journal of Small Business and Entrepreneurship Research*, 3(5), 23-32.
- Obim, E. N., John, J. I. & Orok, A. B. (2018). Interest rate policy and the growth of the Nigerian economy. *Journal of Banking and Financial Dynamics*, 2(1), 16-23.
- Ogege, S., & Boloupremo, T. (2014). Deposit money banks and economic growth in Nigeria. *Financial Assets and Investing*, 5(1), 41-50.
- Ogwumike, F. O. & Salisu, A. A. (2009). Financial development and economic growth in Nigeria. *Journal of Monetary and Economic Integration*, 12(2), 91-105.
- Olowofeso, E. O., Adeleke, A. O. & Udoji, A. O. (2015). Impact of private sector credit on economic growth in Nigeria. *CBN Journal of Applied Statistics*, 6(2), 81-101
- Oluwasogo, A., Princess, E. C., Oluwatoyin, M. A. & Folasade, A. B. (2017). Co-integration analysis of financial intermediation and economic growth in Nigeria. *Journal of Internet Banking and Commerce*, 22(S8), 1-12.
- Safiat A.S (2013). Financial intermediation and economic growth in Sudan. An empirical investigation, 1970-2010. *International Journal of Banking and Finance Research*, 1(2), 1-17.
- Shaw E. (1973) *Financial Depending in Economic Development*. New York: Oxford Press.
- Shittu, A. I. (2012). Financial intermediation and economic growth in Nigeria. *British Journal of Art and Social Sciences*, 4(2), 164-179.
- Takon, S. M., John, J. I., Ononiwu, E. & Mgbado, M. (2020). Determinants of the cost of financial intermediation in Nigeria's pre-consolidated and post-consolidated banking sector. *International Journal of Economics and Financial Management*, 5(1), 30-41.
- Usman, O. A., Alimi, A. A. & Onayemi, M. A. (2018). Analysis of bank intermediation activities on economic growth in Nigeria – a Cointegration Approach. *Journal of Accounting and Financial Management*, 4(6), 1-8.