ABSTRACT: This study investigates the effect of bank lending management on economic growth in Nigeria for the period 1985-2018. The data for the study were obtained from the Central Bank of Nigeria Bulletins, World Development Indicator and National Bureau of Statistics. The variables for the study include Gross Domestic Product, Deposit Interest Rate, Lending Interest Rate, Bank Asset Quality and Deposit Multiplier. Data for the study was analyzed using Descriptive Statistics, Ordinary Least Square method (OLS) and Multiple Regression Analysis. The result of short and long run regression revealed a negative impact of bank lending management on economic growth. The F-statistic (6.67) was also used to test explanatory power of the model with the corresponding probability value of (0.0007) which is statistically significant at 5%, suggesting that the explanatory variables have joint and significant effect on the economic growth of Nigeria. It is recommended that the regulatory authority set up a regulatory framework that will enhance the capacity of deposit money banks in Nigeria to lend to real sector of the economy at a very low interest rate and attract massive deposit by investors through robust deposit interest rate.

KEY WORDS: financial sector, lending, management, economic growth, Nigeria

INTRODUCTION

The financial sector is highly regulated by relevant regulatory authorities because they occupy a very vital and sensitive position in the management and growth of nation’s economy. The study of Khan and Senhadji (2001) regarded economic growth as persistent increase in Gross Domestic Product of the economy. In the same vein, Anyawoncha (1993) described and affirm that economic growth is determine in relation to its per capital income and the gross services produced in a country within a specific period of time. The financial sector is a critical sector of any economy with its impact evident in various productive ventures and this could be seen in
areas such as business environment, investment, economic prospects, and social dimensions and poverty alleviation (World Bank, 2009). Many studies confirm strong association between the financial sector intervention in form of lending and economic growth (Greenwood & Jovanovic, 1990; Bencivenga & Smith, 1991; King & Levine, 1993; Greenwood & Smith, 1997). Lending function of banks is crucial and important in every economy and it is generally accepted that there is positive relationship between bank credit and economic growth (Oluitan, 2012). The financial sector provides credit to other sectors of the economy by creating funds and disbursing it from surplus unit to deficit unit. The bank lending inspires investment opportunities and greatly impact on macroeconomic performance resulting in economic growth and job creation. Levine, (2005) affirm that weakness in the financial sector usually lead to financial crises, economic slowdowns, and fiscal costs. The management and development of the sector has a correlation with economic growth (Esther, 2005).

Sanusi (2012), state that well-functioning financial systems are able to create and rally household savings, distribute resources efficiently, diversify risk, improve flow of liquidity, ease information asymmetry and transaction cost and ensures option in raising resources through personal savings and retained earnings. Soludo (2009) maintains that policy thrust in reform of banking sector should build and promote a competitive and healthy financial system that will prevent distress in the sector.

considerable studies on bank lending and economic growth assesses the impact of the operation of financial system on economic growth and whether the effect is economically large, and play a vital role in encouraging growth at definite stages of economic development. In the same vein, the objective of this study is to examine the impact of financial sector lending management on economic growth using effect of variables such as interest rate, assets quality and deposit multiplier on gross domestic product.

Statement of Problems
There has been frequent complaint from organize private sector in Nigeria on the lack of ability of deposit money bank to grant credit facility to private sector as required. The few banks granting this credit do so at exceptionally high interest rate. The inability to grant long term credit to investors requiring investment in capital project that can impact on economic growth is also a major concern. If banks are unable to lend to the deficit units requiring funds for economic investment, the business sector will not grow, deposits will be limited and this will hamper the capacity of banks to create income (Galac, 2001 & Honohan, 1997). According to Udoka and Offiong, (2006) fund available for lending by most banks account form about fifty percent or even more of their total assets and about half to two-thirds of their revenue. This made lending the first and most important function of banks. Lending affects pattern of production, level of entrepreneurship and consequently, aggregate output and productivity. There are few literatures and studies relating to bank lending and economic growth in Nigeria and almost none or very few that considered the combined effect of deposit interest rate, lending interest rate and
asset quality on economic growth. This study therefore focuses on this gap by looking at the joint effect of these variables on economic growth in Nigeria.

**Objective of the study**
The main objective of the study is to examine the effect of bank lending management on economic growth in Nigeria.

**Hypothesis**
Ho: Bank lending management has no significant effect on economic growth in Nigeria
Hi: Bank lending management has significant impact on economic growth in Nigeria

**LITERATURE REVIEW**

**Conceptual Review**
Economic growth is regarded as an increase in the net national product in a given period of time (Dewett, 2005). According to the study, economic growth is referred to as a continuous quantitative change in economic variables over successive periods. Khan and Senhadji (2001), affirm that the economic growth of an economy may be considered using the Gross Domestic Product of the economy. Therefore, the country’s economic growth is considered increased when GDP increases. Anyawoncha (1993) state that a nation’s economic growth is determined in relation to its per capita income and the total goods and services produced in a country within a given period of time.

Aliyu and Hashin (2014) described bank lending as credit granted to various borrowers by financial institutions. It is an agreement between banks and borrowers where the loaning bank granted resources in trust to a borrower for the money borrowed at a certain interest rate for either a loan, credit card or a credit line repayable at a later date. It is also regarded as money banks lend to customers within a specific time frame in mind. Olowofeso, Adeleke and Udoji (2015) state that bank credit is the aggregate borrowing capacity bank provides to borrowers.

CBN, (2003) described bank lending as the amount of loans and advances given by the banking sector to the various economic agents. CBN, (2010) further, confirm bank credit facilities to include loans, advances, commercial papers, bankers’ acceptance and bills discounted with a bank credit risk. Nzotta (2004), affirm the general consensus that bank credits have positive relationship with the level of economic activities and that it has influence on what is to be produced, who produces it and quantity to be produced. It should be noted that bank credit affects and impact on the level of money supply in an economy. Bank lending is one major way the bank generates income and this activities eventually influence the country’s level of economic growth.
Theoretical Review
There are quite a lot of theories in economics and finance literature. Some relevant theories that deal with financial sector lending management and economic growth are discussed below:

**Neo classical growth model**
The Neo-Classical theory of Growth was pioneered by Robert Solow. The model holds that a continuous increase in capital investment will only increase the growth rate in the short term. The model affirm that although the ratio of capital to labour goes up, the marginal product of additional units of capital is assumed to decline and the economy eventually moves back to a long-term growth path, with real GDP growing at the same rate as the workforce plus a factor to reflect improving productivity. With neo-classical model productivity is deemed to be independent of capital because it is as an exogenous variable investment (IMF, 2001).

**Robinson growth theory**
This is demand-following theory pioneered by Robinson (1952). It is a Keynesian theory which establishes that changes in the real sectors affect financial development. The theory asserts that expansionary fiscal policy will culminate to financial deepening. According to the theory, full employment can be attained through injection of money into the economy and increase in government spending. Stimulation of income and aggregate demand in an economy will lead to increase in demand for money and increased government spending (McKinnon, 1973).

**Financial Repression Theory**
The theory was propounded by Cameron, Crisp, Patrick and Tilly (1973); McKinnon (1973) and Shaw (1973) when they establish that financial development will contribute more laudably to economic growth in a nation with independent financial system. This theory believes that financial sector tends to function well and contribute positively to economic growth when the authority is free from interfering and regulating interest rate regulation, ceilings on deposit and loan rates, guidelines on lending operations or any other official guidelines. It is believe that this intervention could be responsible for the poor performance of some banks and other financial institutions. The theory therefore advocated for a positive real interest rate and financial liberalization.

**Empirical Review**
The key role being played by financial institutions has given rise to many authors in studying the relationship between bank lending and growth of the economy. The study of Shan and Jianhong (2006) examined the effect of financial sector development on economic growth in China. The study revealed that except for labour input contribution, financial sector comes as the second in leading economic growth in China. Ben Salem and Trabelsi (2012) examined the importance of financial sector development as a determinant of growth. They used data for the period 1970-2006 and applied the Pedroni’s panel cointegration analysis. The study found the existence of a long-run relationship between bank credit finance and economic growth.
In Nigeria, the study of Fadare (2010) used the data from 1999 – 2009 to conclude that there is negative and insignificant relationship between economic growth and bank credit management. Balogun, (2007) investigates the influence of banking reform on economic growth. The results revealed that recapitalization has significant impact on banking services and to the growth of economy. Akpansung and Babalola (2009) study examined the effect of bank lending on the economic growth and found that bank credit has a negative impact on the growth of Nigerian economy with causation running from GDP to bank credit. Nwanyanwu (2010) used OLS econometrics techniques to determine the impact of bank lending on the growth of Nigerian economy. The study discovered that bank credit positively and significantly impact on the growth of Nigerian economy.

Kolapo, Ojo and Olaniyan (2018) study investigate the connection between deposit money banks’ credit to private-public sectors and economic development in Nigeria over the period 1970-2016 using Toda and Yamamoto Granger causality test. The results revealed that Deposit Money Banks’ credit to government sectors leads to economic development in Nigeria. Olowofeso et al. (2015) examined the impacts of private sector credit on economic growth in Nigeria using the Gregory and Hansen (1996) cointegration test. The results of the long run model confirmed a significant and positive impact of private sector credit growth on output.

Yakubu and Affoi (2014) examine the role of bank credit in economic growth of Nigeria and found that bank credit has significant impact on the economic growth in Nigerian. However, Odufuye (2017) investigates the impact of bank credit on Nigerian economy growth for the period 1992-2015 and discovered that bank lending has insignificant impact on economic growth Maiga (2017), study explore the impact of interest rate on economic growth and the result revealed that the interest rate has a slight impact on economic growth. Udoka and Roland (2012), focus their study on the effects of interest rate on the growth of the Nigeria economy. The result concluded that there is a connection between interest rate and economic growth in Nigeria.

**METHODOLOGY**

This study made use of secondary data obtained from the publications of the Central Bank of Nigeria, World Development Indicator and National Bureau of Statistics. Analyses of the results contain the presentation and interpretation of the scores obtained from descriptive statistics, (OLS) and multiple regressions at 5% level of significance

This study examined the impact of financial sector lending management on economic growth in Nigeria for the period of 1985-2018. In order to accomplish this task, a log form of OLS and multiple regression model was used to analyse the data obtained.

**Model Specification**

Howell (1995), stated the multiple regression model in the following way:
Y = b0 + b1x1 + b2x2 + Ut. However, this model is modified for the purpose of the study as follows:

\[
\text{GDP} = f(DIR, LIR, BAQ, DM) \quad \Rightarrow \quad \text{GDP} = \beta_0 + \beta_1\text{DIR} + \beta_2\text{LIR} + \beta_3\text{BAQ} + \beta_4DM + Ut \quad \Rightarrow \quad \text{(1)}
\]

The log form of the model is stated as follows.

\[
\text{Log(GDP)} = \beta_0 + \beta_1\log(\text{DIR}) + \beta_2\log(\text{LIR}) + \beta_3\log(\text{BAQ}) + \beta_4\log(\text{DM}) + Ut \quad \Rightarrow \quad \text{(2)}
\]

Where

GDP = Gross Domestic Product
DIR = Deposit Interest Rate
LIR = Lending Interest Rate
BAQ = Bank Asset Quality
DM = Deposit Multiplier
\(\beta_0\) = Constant term
\(\beta_1\) - \(\beta_4\) = Coefficient of independent variables
Ut = Error Term
Theoretically the coefficient will take the following outcome: 
\(\beta_1\) - \(\beta_4\) > 0

**Result and Interpretation**

**Descriptive Statistics**

**Table 4.1 Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs</th>
<th>GDP</th>
<th>DIR</th>
<th>LIR</th>
<th>BAQ</th>
<th>DM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>34</td>
<td>16550.31</td>
<td>12.05495</td>
<td>18.37111</td>
<td>13.69486</td>
<td>69.20313</td>
</tr>
<tr>
<td>Median</td>
<td>34</td>
<td>4434.23</td>
<td>12.39083</td>
<td>18.06625</td>
<td>12.9</td>
<td>70.8</td>
</tr>
<tr>
<td>Maximum</td>
<td>34</td>
<td>89043.62</td>
<td>23.24167</td>
<td>31.65</td>
<td>37.25329</td>
<td>85.7</td>
</tr>
<tr>
<td>Minimum</td>
<td>34</td>
<td>110.06</td>
<td>5.699167</td>
<td>3.3</td>
<td>42.9</td>
<td></td>
</tr>
<tr>
<td>Stddev</td>
<td>34</td>
<td>25606.77</td>
<td>3.946008</td>
<td>4.767879</td>
<td>7.885556</td>
<td>11.38994</td>
</tr>
<tr>
<td>Skewness</td>
<td>34</td>
<td>1.754402</td>
<td>.7255343</td>
<td>.2469484</td>
<td>.7311402</td>
<td>-.5545197</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>34</td>
<td>4.716003</td>
<td>3.536731</td>
<td>3.790072</td>
<td>3.532223</td>
<td>2.669561</td>
</tr>
<tr>
<td>Variance</td>
<td>34</td>
<td>6.56e+08</td>
<td>15.57098</td>
<td>22.73267</td>
<td>62.18199</td>
<td>129.7306</td>
</tr>
</tbody>
</table>

**Source**: Author’s Computation (2019) STATA output

The table 4.1 above revealed a mean GDP value of about 16550.31 for the period under consideration. Similarly, the explanatory variables of DIR, LIR, BAQ, and DM maintain average mean distribution value of 12.05495, 18.37111, 13.69486 and 69.20313 respectively. It was established that all the variables exhibited a high level of consistency as their median values falls within the minimum and maximum values of the series. In addition, all the variables
of the series showed that they are positively skewed as their mean values were greater than their median values for all the series except DIR and DM.

**Regression Analysis**

**Table 4.2 Short Run Effects of Bank Lending Management on Economy Growth**

| Dependent variable | Independent variables | Coefficient | Standard Error | T   | P>|t| | [95% Conf. interval] |
|--------------------|-----------------------|-------------|----------------|-----|-----|---------------------|
| GDP                | DIR                   | -6052.534   | 1498.793       | -4.71 | 0.000 | -10127.8 -3977.265 |
|                    | LIR                   | 5735.408    | 1377.495       | 3.44 | 0.002 | 1909.023 7561.793  |
|                    | BAQ                   | -1278.723   | 501.0292       | -2.37 | 0.025 | -2216.75 -160.6961 |
|                    | DM                    | -47.76204   | 353.4583       | -0.22 | 0.828 | -802.9985 647.4744 |
|                    | constant              | 36234.3     | 35061.47       | 1.03 | 0.311 | -35705.89 108174.5 |

R-squared = 0.5405
Adj R-squared = 0.4265
Prob> F (4, 27) = 0.0007
F-statistic = 6.76
Root MSE = 19391

**Source:** Author’s Computation (2019) STATA output

Table 4.2 showed that a unit rise in DIR, BAQ and DM reduces the level of GDP by -6052.534, -1278.723 and -47.76204 units, indicating a negative relationship between them and economic growth. However, the relationship between economic growth and LIR is positive. This shows that a unit increase in LIR increases GDP of the country by 5735.408 units. The result is significant for the relationship between GDP and DIR, LIR and BAQ since their P-value is less than 0.05 while not significant for the relationship between GDP and DM with p-value of more than 5%.

The $R^2$ coefficient (0.5405) indicates that the explanatory variables accounted for approximately 54% of the variation in the GDP. The F-statistic, the test of explanatory power of the model is 6.76 with the corresponding probability value of 0.0007, is statistically significant at 5%, suggesting that the explanatory variables have joint and significant effect on the economic growth of Nigeria using GDP as a proxy.
Table 4.3 Long Run Effect of Bank Credit Management on Economic Growth

| Dependent variable | Independent variables | Coefficient | Standard Error | T     | P>|t|  | [95% Conf. interval] |
|--------------------|-----------------------|-------------|----------------|-------|------|---------------------|
| LOGGDP             | LOGDIR                | -7.228916   | 1.13028        | -5.51 | 0.000 | -8.548059 - 3.909773 |
|                    | LOGLIR                | 8.011244    | 1.498923       | 4.68  | 0.000 | 3.935708 - 10.08678  |
|                    | LOGBAQ                | -.1843698   | .5044153       | -.37  | 0.071 | -1.219344 - .8506048  |
|                    | LOGDM                 | -3.259193   | 1.707799       | -1.32 | 0.197 | -5.763307 - 1.244921  |
|                    | constant              | 13.18476    | 9.242108       | 1.43  | 0.165 | -5.778484 - 1.244921  |

R-squared = 0.5971
Adj R-squared = 0.5881
Prob>F = 0.0001
F(4, 27) = 9.64
Root MSE = 1.4688

Source: Author’s Computation (2019) STATA output

Table 4.3 revealed the effects of bank credit management practices on economic growth. A unit rise in LOGDIR, LOGBAQ and LOGDM reduces the level of LOGGDP by -7.2289, -.1843698 and -3.259193 units, suggesting that there is negative relationship between GDP and these variables. However, the relationship between LOGGDP and LOGLIR is positive. This shows that a unit increase in LOGLIR increases LOGGDP of the country by 8.011 units.

The result is significant for the relationship between LOGGDP and LOGDIR, LOGLIR since their P-value is less than 0.05 while not significant for the relationship between LOGGDP and LOGBAQ, LOGDM since their p-value is greater than 5%. The R² coefficient (0.5971) indicates that the explanatory variables accounted for approximately 60% of the variation in the GDP. The F-statistic of 9.64 with the corresponding probability value of 0.0001, is statistically significant at 5% indicating that the explanatory variables proxied by LOGDIR, LOGLIR, LOGBAQ and LOGDM have joint significant effect on the economic growth.

Augmented Dickey Fuller test
Table 4.4 Augmented Dickey Fuller test

<table>
<thead>
<tr>
<th>Statistic</th>
<th>1% Critical Value</th>
<th>5% Critical Value</th>
<th>10% Critical Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Z(t)</td>
<td>-1.463</td>
<td>-2.539</td>
<td>-1.729</td>
</tr>
</tbody>
</table>

MacKinnon approximate p-value for Z(t) = 0.0799

Source: Author’s Computation (2019) STATA output

The ADF test in table 4.4 relies on rejecting a null hypothesis of unit root in favour of the alternative hypothesis of stationarity. Since the absolute value of Adf t-stat is greater than absolute critical value of 1.328 at 10 %, the null hypothesis can be rejected i.e LOGGDP has no unit root or the variable LOGGDP is stationary. From the table above L1 is considered valid because it was negative.

SUMMARY AND RECOMMENDATION

The study examined the effect of financial sector lending management on economic growth in Nigeria. The research made use of descriptive statistics, OLS and multiple regressions in analyzing the data obtained from secondary sources. The study investigates the influence of the independent variables of deposit interest rate, lending interest rate, bank asset quality and deposit...
multiplier on economic growth. The result revealed short and long run negative impact of bank lending management on economic growth in Nigeria. The F-statistic (9.64) with the corresponding probability value (0.0001), revealed statistically significant relationship between the independent variables and economic growth at 5% level of significance. The result of this study is in agreement with the ones carried out by Maiga (2017) and Fadare (2010) while it differed with some other similar studies that found positive relationship between bank lending and economic growth (Nwanyanwu, 2010; Odufuye, 2017; Kolapo et al, 2018; Abubakar & Gani, 2013). The study therefore recommended that the regulatory authority formulate a policy framework that will guarantee credit to real sector of the economy at a low, reasonable and economical lending interest rate.

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