ABSTRACT

This work focused on the impact of Bank Credit on growth of the Nigerian Economy. The study disaggregated growth into agricultural sector, manufacturing sector and growth in commerce. The study adopted the ex-post facts research design and the ordinary least squares regression technique was adopted. Annualized time services for a 35-year period covering 1981 to 2015. Volume of Bank credit represents the major regressor with Growth of Agriculture (GAPI), manufacturing (GDPI), commerce (GDPT) as well as overall economic growth all serving as dependent variables. The research findings show that a positive and significant relationship exist among Growth of Agriculture, Manufacturing and Commerce with Volume of Bank credit while overall growth is positive but non-significant. It is therefore recommended that the government should evolve policies that will not only improve on the overall growth of the economy but also ensure a balanced growth through due contributions from all the sectors of the economy. More so, efficient policies should be made in the areas of improved macroeconomic and regulatory environment which would make the economy move from its present focus on oil to a more inclusive one having focus on agriculture, manufacturing and commerce.

Keywords: Bank Credit, Economic Growth, Credit to the Private Sector.

INTRODUCTION

There has been a renewed interest globally in the study of credit and its ability to generate growth. There is also a shift from the provision of credit to its proper allocation. Studies by [1]; [2] and [3] emphasised the importance of efficiency of the allocation of credit than an all bank intermediation. According to them, credit to the public sector is weak in generating growth within the economy because they are prone to waste and politically motivated programmes which may not deliver the best result. These schools of thought hold that financial development has a positive impact on growth if efficiently channelled. Based on this assertion, it is important to examine whether the above postulation holds for the Nigerian economy. Can we say that the private sector is sufficiently mobilised by availability of credit to generate growth within the economy? This
question is considered very crucial to ensure that financial institutions have the desired effect on the economy.

It is important to note that over the years in Nigeria, the volume of credit into the economy has continued to increase. The volume of credit to the private sector increased from mere N8.57 million in 1981 to N17.13 billion in 2014. Credit to private sector as a percentage of Gross Domestic Product (GDP) increased from 9.1% in 1981 to 19.2% percentage point in 2014. This increased bank credit to the economy is expected to engineer the economy to greater growth. On the other hand, the contributions of the real sectors to the growth of the Nigerian economy have not grown side by side with the growth in the credit volume extended to the private sectors.

According the [4], agriculture value added to the gross domestic product of Nigeria stood at 20.2% in 2014 and 20.9% in 2015 while manufacturing contributed 9.8% in 2014 and dropped to 9.5% in 2014. To show the country as a non-growing and trade-based economy, the Trade sector contributed 31% in 2013 and dropped to 30.9% in 2014. This alarming statistics questions the efficiency and effectiveness of the credit creation and channeling of banks in Nigeria. This clearly shows that the growth in contributions of the sectors does not equilibrate with the volume of credit to the private sector. In addition, it points to the fact that the credits are either wrongly channeled or wrongly used.

Prior to and after the structural adjustment era, the Central Bank of Nigeria has been playing a leading and catalytic role by using direct controls not only to ensure overall credit expansion but also to determine the proportion of bank loans and advances going to different sectors. This sectoral distribution of bank credit is often meant to stimulate the productive sectors such as agriculture, industry and manufacturing and consequently lead to increased overall economic growth in the country.

The Central Bank of Nigeria [5] in line with this noted that the flow of credit to the priority sectors has been falling short of the prescribed targets and has failed to exert the desired positive impact on investment, output and domestic price level. Certainly, these comments have evoked certain questions bothering on the strength, effectiveness, and productivity of bank credit in the Nigerian economy.

There have also been doubts and questions on the contributions of banks credits to not only the development and growth of the Nigerian economy as a whole but specifically the real sectors like agriculture commerce and industry.

It is in an attempt to find answers to these problems, that this work was set to make an inquisition into the role of banks
as drivers of economic growth in Nigeria with particular focus on the real sectors of agriculture, commerce and manufacturing. The rest of the study is divided section two for literature, section three for model specification with section four for data analyses while section five concludes.

REVIEW OF RELATED LITERATURE

Theoretical Framework
One of the debates in growth theory is the extent to which financial development leads to economic growth. It is not implausible to posit a positive correlation between growth in the financial and real sectors. However, the causal relationship is not clear. Which is the cause and which is the effect? Is finance the leading engine for economic development or does it simply follow growth from elsewhere?

Supply Leading Hypothesis
Modern theories explicitly show how financial intermediaries overcome market frictions and lower the cost to society of transferring information or wealth between households and firms. Many of the arguments inevitably lead to the idea that in one way or another financial intermediary give individuals or firms the opportunity to achieve economies of scale, an option that may otherwise not have been available. Thus, intermediaries enhance economic efficiency and ultimately growth because they help allocate capital to its best possible use. In a world of perfect competition, perfect information, and no market frictions, there would be no role for financial intermediaries.

Intermediaries Financial intermediaries are better at collecting information; providing expertise in evaluating, screening, and sorting prospects; and monitor firms’ actions at a lower cost than individuals can. Financial intermediaries help capital move to its highest value, thus improving allocative efficiency. As [6] argues, the intermediary can offer this service at a lower cost than savers can manage individually. Savers therefore have access to economies of scale not otherwise available to them. A final way that intermediaries help investors is by providing access to long-term projects through funds pooling and liquidity management. As a precaution in case of unexpected demands, savers usually prefer to have investments that are liquid.

Demand Following Hypothesis
In contrast to the supply leading thesis, the demand following thesis argues that financial development primarily follows economic growth and that the engines of growth must be sought elsewhere. Rising incomes from the agricultural or rural sector provide funds for which the financial intermediaries exist to service. Economic growth provides the demand
which the finance sector fulfills. The primary function of intermediaries is to issue indirect debt, solicit funds from surplus units, and allocate it among debt units. [7], contends that if income grows at a warranted pace, then the demand for financial assets also grows at a specifiable pace.

In addition, there is a transactions demand for money to keep up with growing income. The accumulation of assets and rise in income stimulate demand by spending units for financial services in increasing variety. Financial development therefore follows economic development. Economic growth causes financial institutions to change and develop, and financial as well as credit markets to grow. Financial development is thus demand-driven. As the growing scale of economic activities requires more and more capital (liquid and fixed), institutional raising and pooling of funds for industry are substituted for individual fortunes to start up enterprises, and for retained profits for economic expansion.

Theories of Mobilization of Savings

Mobilization of savings is one of the major functions of financial institutions. By mobilizing the savings of millions of savers in an economy and the channelling of same to the deficit spending units, the funds or capital needed for economic growth and development is enhanced. [8], identified capital accumulation as a major determinant factor in the development process in relating the growth rate of an economic output to that of its capital stock. They pointed out the dual role of capital as creating productive capacity and effective demand. In their model, capital stock (investment) was assumed to be equal to saving that is \( I = S \). According to Harrod, who viewed an increase in capital stock as synonymous with investment, is a dependent factor of the rate of growth of income, which determines the level of savings.

**Financial Repression hypothesis**

According to [9], this theory is usually associated with the works of [10], [11] and [12], and holds that financial development would contribute most significantly to economic growth if the authorities were not to interfere in the operations of the financial institutions. Poor performance by banks and other financial institutions is thus often attributed to interest rate regulation, ceilings on deposit and loan rates and official guidelines pertaining to lending operations. Such interference results in a low and often negative real rate of return on financial assets and therefore, in deficient savings being mobilized and channeled into investment projects [13].

The proponents of this hypothesis therefore advocate a positive real interest and financial liberalization. Free market forces would then ensure an optimal financial structure for development and eliminate the fragmentation of markets.
that is financial dualization and all the attendant distortions of the proper operation of the market mechanism. According to the financial repression hypothesis, government legislation and policies may distort the operation of the market mechanism in determining the “prices” of financial resources. As the major effects of such repression are limited savings because of interest ceilings, the hypothesis can be ultimately reduced to official interest rate policies. It is however, recognized that other forms of financial repression might result from such other factors as portfolio regulation and oligopolistic financial markets [14]. The financial repression hypothesis also focuses attention on the level of interest rates on the savings instruments available to the public in relation to the rate of inflation. If real rates of interest have been positive over a period of time, it may be said that there has been no financial repression, but financial deepening.

**Empirical Summary**

A summary of some reviewed studies and the findings therefore are presented chronologically (ie in the order of currency of publication) as shown in table 1

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Sample Period</th>
<th>Objective</th>
<th>Methodology</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akansung &amp; Babalola(2012)</td>
<td>1970-2008</td>
<td>Examines the relationship between banking sector credit and economic growth in Nigeria</td>
<td>Granger causality test and a Two-Stage Least Squares (TSLS)</td>
<td>The results of Granger causality test show evidence of unidirectional causal relationship from GDP to private sector credit (PSC) and from industrial production index (IND) to GDP. Estimated regression models indicate that private sector credit impacts positively on economic growth over the period of coverage in this study. However, lending (interest) rate impedes economic growth.</td>
</tr>
<tr>
<td>Author</td>
<td>Time Period</td>
<td>Methodology</td>
<td>Findings</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------</td>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Nwite (2013)</td>
<td>1999-2014</td>
<td>investigated the effect of financial intermediation on economic growth in Nigeria</td>
<td>The study showed that interest rate margin has significantly impacted on economic development in Nigeria. Credit to private sector has significantly impacted economic growth in Nigeria and that the level of lending rate over the years has impacted negatively on economic growth in Nigeria.</td>
<td></td>
</tr>
<tr>
<td>Ogege and Shiro (2013)</td>
<td>1974-2010</td>
<td>examined the role of banks deposit money in the growth of Nigerian economy</td>
<td>Cointegration and the ordinary least square regression analysis. It was discovered that there exist a long-run relationship between the dependent and the explanatory variables.</td>
<td></td>
</tr>
<tr>
<td>Stolbov (2015)</td>
<td>1980-2013</td>
<td>examined the causality between the ratio of domestic private credit to GDP and growth in real GDP per capita is investigated in a country-by-country time-series framework for 24 OECD economies</td>
<td>The proposed threefold methodology to test for causal linkages integrates (i) lag-augmented VAR Granger causality tests, (ii) Breitung-Candelon causality tests in the frequency domain, and (iii) testing for causal inference based on a fully modified OLS (FMOLS) approach. Causality running from credit depth to economic growth is found for the UK, Australia, Switzerland, and Greece. The findings lend no support to the view that financial development shifts from a supply-leading to demand-following pattern as economic development proceeds.</td>
<td></td>
</tr>
<tr>
<td>Aurangzeb (2012)</td>
<td>1981-2010</td>
<td>investigated the contributions OLS and Granger causality test</td>
<td>Regression results indicated that deposits, investments,</td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Period</td>
<td>Methodology</td>
<td>Results</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>---------------</td>
<td>-----------------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Okafor, Ezeaku &amp; Ugwuegbe (2016)</td>
<td>1981-2014</td>
<td>Evaluated the causal relationship between deposit money, bank credit and economic growth in Nigeria</td>
<td>VAR Granger causality test confirmed the bidirectional causal relationship of deposits, advances and profitability with economic growth. The results revealed a unidirectional causality running from private sector credit and broad money supply to economic growth as measured by real gross domestic product (RGDP), whereas there was no feedback system from RGDP to either PSC or M2.</td>
<td></td>
</tr>
<tr>
<td>Giwa &amp; Akinlo (2014)</td>
<td>1980-2010</td>
<td>Examined the impact of bank credit to output growth in the manufacturing and agricultural sub sectors of the economy</td>
<td>ECM results showed that bank credit has significant impact on manufacturing output growth both in the short run and long run but not in the agricultural sub sector.</td>
<td></td>
</tr>
<tr>
<td>Olowofeso, Adeleke &amp; Udoji (2015)</td>
<td>2000:Q1 to 2014:Q4</td>
<td>The impacts of private sector credit on economic growth in Nigeria</td>
<td>FMOLS findings from the error correction model confirmed a positive and statistically significant effect of private sector credit on output, while increased prime lending rate was inhibiting growth.</td>
<td></td>
</tr>
<tr>
<td>Emecheta &amp; Ibe (2014)</td>
<td>1960-2011</td>
<td>Investigates the impact of</td>
<td>VAR results revealed a significant positive relationship.</td>
<td></td>
</tr>
<tr>
<td>Bank credit on economic growth in Nigeria</td>
<td>between bank credit to the private sector, broad money and economic growth.</td>
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<td>-----------------------------------------</td>
<td>--------------------------------------------------</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Bakare (2015).</td>
<td>1990-2013 examined the extent to which banks’ credit affects economic growth in Nigeria Johansen Cointegration</td>
<td>The result showed that the lagged value of credit to the private sector is positively and significantly influencing economic growth in Nigeria while the lagged value of credit to the public sector showed a positively non-significant relationship with GDP. Lagged value of inflation shows a negatively significant relationship with economic growth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timsina (2014)</td>
<td>1975-2013 examined the impact of commercial bank credit to the private sector on the economic growth in Nepal Johansen Cointegration and ECM</td>
<td>The empirical results showed that bank credit to the private sector has positive effects on the economic growth in Nepal only in the long run. Nevertheless, in the short run, it has been observed a feedback effect from economic growth to private sector credit.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oladapo &amp; Adefemi (2015)</td>
<td>intensive regulation (1960-1985), deregulation (1986-1995) and guided deregulation (1996-2010) regime. investigated the impact of sector allocation of Deposit Money Banks’ loans and advances on economic growth in Nigeria OLS</td>
<td>The results show that only the credit allocated to government, personal and professional have significant positive contributions on economic growth during the intensive regulation. However, bank credits generally do not contribute significantly to economic growth.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Affoi (1992-2012) analyzed the impact of the commercial banks credit on economic growth in Nigeria. He used ordinary least squares (OLS) to study the relationship. It was revealed that commercial bank credit has a significant effect on the economic growth in Nigerian.

Korkmaz (2015) to ascertain whether domestic credits created by the banking sector have any effect on macro-economic variables such as inflation and economic growth for 10 chosen European countries. He used Panel OLS and it was proved that domestic credits created by the banking sector for 10 European countries did not affect inflation but did affect economic growth.

**METHODOLOGY**

The data for this work is drawn from the statistical bulletin of the Central Bank of Nigeria for the range of years 1981 to 2015. Dataset covering a 35-year period is to be collected and studied. Figures for Bank Credit and GDP (proxy for economic growth) will be used as drawn from the said Central Bank of Nigeria publications. The growth of the real sectors is to be measured and studied through their contributions to their respective contributions to the gross domestic product.

**Model Specification**

Models for this study are patterned after the work of [15]. The functional relationships for the Models one to four are presented thus:

\[
\log GDP_t = \beta_0 + \beta_1 \log VBC_t + \beta_2 \log CPS_t + \beta_3 \log IR_t + \epsilon_t \tag{2}
\]

\[
\log GDP_A_t = \beta_0 + \beta_1 \log VBC_t + \beta_2 \log CPS_t + \beta_3 \log IR_t + \epsilon_t \tag{3}
\]

\[
\log GDP_M_t = \beta_0 + \beta_1 \log VBC_t + \beta_2 \log CPS_t + \beta_3 \log IR_t + \epsilon_t \tag{4}
\]

\[
\log GDP_C_t = \beta_0 + \beta_1 \log VBC_t + \beta_2 \log CPS_t + \beta_3 \log IR_t + \epsilon_t \tag{5}
\]

Where:

\( RGDP \) = Real Gross Domestic Product
GDPA = Agriculture Sector Contribution to Gross Domestic Product
GDPM = Manufacturing Sector Contribution to the Gross Domestic Product
GDPC = Commercial Sector Contribution to the Gross Domestic Product
VBC = Volume of Bank Credit
CPS = Credit to Private Sector
IR = Interest Rate used as a moderator
$\beta_0$ = Intercept or constant
$\beta_1, \beta_2, \beta_3$ = Coefficients of the parameter estimates or independent variables
$\epsilon$ = Error or stochastic term

Necessary econometrics and statistical techniques were employed for the purposes of analyzing the collected data and drawing conclusions, with the aim of properly examining the effect of bank credit on selected sectors of the economy for the period 1981 to 2015. These tests are in the following order. This is a test for the data behavior and goodness for the purposes of using them for the model estimation. This covers basic or descriptive statistics like skewness, kurtosis, normality, mean, median, variance, standard deviation etc. The mean, median and mode were used to test the aggregative tendencies of the data set while variance, standard deviation, minimum and maximum tested spread and variability of the data sets.

Stationarity test is done to ensure that the results are not spurious. This is done using the Augmented Dickey Fueller Test developed by [16]. The Classical Linear Regression Model (CLRM) was used as the fundamental technique of data analyses in this work. Regression analyses is basically concerned with the study of the dependence of one variable (dependent variable) on one or more other explanatory or independent variables (regressors) with the view to finding out or estimating/predicting value of the former in terms of known or repeated values of the latter. [17].

In the context of this work, this implies that the regression model used bank credit as a variable that explains changes in Economic Growth. Hence, Bank credit is the regressor or independent variable while Economic Growth (GDP) is the dependent variable. These tests were conducted to confirm the reliability and validity of the regression estimates. The tests include the following:

- Test for goodness of fit of the model.
- Tests for the significance of the overall regression.
- Test for autocorrelation.
DATA PRESENTATION AND ANALYSIS

Summary Statistics

The variables under study were subjected to descriptive analysis. The descriptive analyses present the aggregative averages like mean, median as well as measures of spread and variation like standard deviation. It also shows the Jarque-Bera statistics which is a combination of skewness (a measure of the degree of symmetry) and kurtosis (a measure of the degree of peakness) of the observation. The descriptive results are presented in table 4.1 below:

Table 2: Descriptive Statistics of the variables under study

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Median</th>
<th>Std dev.</th>
<th>JB-Stat</th>
<th>Prob. (JB)</th>
<th>No of observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>LGDP</td>
<td>8.06</td>
<td>8.34</td>
<td>2.29</td>
<td>2.46</td>
<td>0.29</td>
<td>35</td>
</tr>
<tr>
<td>LCPS</td>
<td>5.91</td>
<td>5.86</td>
<td>2.58</td>
<td>2.61</td>
<td>0.27</td>
<td>35</td>
</tr>
<tr>
<td>LVBC</td>
<td>5.75</td>
<td>5.78</td>
<td>2.56</td>
<td>3.19</td>
<td>0.20</td>
<td>35</td>
</tr>
<tr>
<td>LITR</td>
<td>11.88</td>
<td>12.00</td>
<td>4.86</td>
<td>5.67</td>
<td>0.06</td>
<td>35</td>
</tr>
<tr>
<td>LGDPA</td>
<td>6.79</td>
<td>7.20</td>
<td>2.39</td>
<td>3.19</td>
<td>0.20</td>
<td>35</td>
</tr>
<tr>
<td>LGDPM</td>
<td>6.86</td>
<td>7.07</td>
<td>2.14</td>
<td>2.82</td>
<td>0.24</td>
<td>35</td>
</tr>
<tr>
<td>LGDPC</td>
<td>6.34</td>
<td>6.76</td>
<td>2.44</td>
<td>2.85</td>
<td>0.24</td>
<td>35</td>
</tr>
</tbody>
</table>

From the descriptive analysis in table 1 above, the standard deviation which is a measure of dispersion from the mean indicates that there is a close dispersion among the series of the dataset while the Jarque-Bera goodness-of-fit statistics and associated probabilities greater than 0.05 shows no significant departure from normality.

The Augmented Dickey-Fuller unit root test shows the stationarity properties of the series. The test was performed to avoid running a spurious regression and drawing a misleading conclusion. The judgment was based on 5% level of significance. The result is presented in table 2 below:
Table 3: Summary of Results of ADF unit root test

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF-Stat</th>
<th>Critical value @5%</th>
<th>p-value</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(LITR)</td>
<td>-6.82</td>
<td>-1.95**</td>
<td>0.0000</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LGDPA)</td>
<td>-3.77</td>
<td>-2.95**</td>
<td>0.0073</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LGDP)</td>
<td>-5.36</td>
<td>-2.95**</td>
<td>0.0001</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LGDPM)</td>
<td>-4.57</td>
<td>-2.95**</td>
<td>0.0009</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LGDPC)</td>
<td>-3.71</td>
<td>-2.95**</td>
<td>0.0086</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LVBC)</td>
<td>-5.20</td>
<td>-2.95**</td>
<td>0.0002</td>
<td>I(1)</td>
</tr>
<tr>
<td>D(LCPS)</td>
<td>-4.21</td>
<td>-2.95**</td>
<td>0.0024</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

** Indicates stationarity at 5% level of significance

The result above shows that the variables are integrated of order 1 (i.e. I(1)) as the ADF-statistic values were more negative than the critical value at 5% level of significance. This confirms the running of a non-spurious regression analysis.

** BANK CREDIT AND OVERALL GROWTH OF THE ECONOMY **

Presentation of the ordinary least squares result

\[
LGDP = 2.41 + 0.685 LCPS + 0.206 LVBC + 0.035 LITR
\]

\[
\begin{align*}
SE & = (0.233) & (0.235) & (0.011) \\
t^* & = [2.940] & [0.877] & [3.204]
\end{align*}
\]

\[
F\text{-}stat. = 791.0008; \text{Prob}(F\text{-}stat) = 0.000000; \\
R^2 = 0.987; \text{Adj. R-square} = 0.986; D-W = 1.63
\]

The ordinary least squares (OLS) multiple regression result shown above indicates that a 100% increase in the volume of bank credit will increase the lead to a corresponding 20.6% growth of the economy in Nigeria. The result also shows that volume of bank credit (LVBC) with a coefficient value of 0.206; t-statistic value of 0.877 and the corresponding probability value of 0.3870 > 0.05 indicates that controlling for private sector credit (LCPS) and interest rate (LITR) which are the moderating variables in this study, LVBC has a non-significant positive effect on the LGDP in Nigeria. The adjusted R-square value of 0.986 indicates that after series of adjustment, the LVBC in combination with the LCPS and LITR accounts for about 98.6% of the total variations in growth in the economy of Nigeria. The remaining 1.4% can be attributed to other relevant variables not included in the model. The
F-statistics result revealed the joint significant influence of the explanatory variables while the Durbin-Watson statistic value of 1.63, following the rule of thumb suggest that there is no presence of serial correlation in the model. Since the p-value of coefficient of LVBC of 0.3870 > 0.05, we do not reject the null hypothesis hence, volume of bank credit have positive and non-significant effect on the growth of the Nigeria economy.

**BANK CREDIT AND GROWTH OF THE AGRICULTURAL SECTOR**

Presentation of the ordinary least squares result

\[
LGDPA = -0.197 + 1.144LVBC - 0.208LCPS + 0.68LITR
\]

<table>
<thead>
<tr>
<th>SE</th>
<th>t*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.244</td>
<td>4.685</td>
</tr>
<tr>
<td>0.242</td>
<td>-0.858</td>
</tr>
<tr>
<td>0.130</td>
<td>5.242</td>
</tr>
</tbody>
</table>

F-stat. = 777.8571; Prob(F-stat) = 0.000000; 
R² = 0.987; Adj. R-square = 0.986; D-W = 1.55

The ordinary least squares (OLS) multiple regression result shown above indicates that a unit increase in the volume of bank credit will increase the productivity of the agricultural sector by about 144%. The result shows that volume of bank credit (LVBC) with a coefficient value of 1.44; t-statistic value of 4.68 and the corresponding probability value of 0.0001 < 0.05 indicates that controlling for private sector credit (LCPS) and interest rate (LITR) which are moderating variables in this study, LVBC has a significant positive effect on the LGDPA in Nigeria. The adjusted R-square value of 0.986 indicates that after adjusting the degrees of freedom, the LVBC in combination with the LCPS and LITR accounts for about 98.6% of the total changes in the Nigerian gross domestic product. The remaining 1.4% is attributed to other relevant variables not included in the model. The F-statistics result revealed the joint significant effect of the explanatory variables while the Durbin-Watson statistic value of 1.55, following the rule of thumb suggest there is no presence of autocorrelation in the model.

Since the p-value of coefficient of LVBC of 0.0001 < 0.05, we reject the null hypothesis and conclude that volume of bank credit have positive and significant impact on the growth of the agricultural sector in Nigeria.

**BANK CREDIT AND GROWTH OF THE MANUFACTURING SECTOR**

Level of significance \((\alpha) = 0.05\)

Presentation of the ordinary least squares result

\[
LGDPM = 1.581 + 0.520LVBC + 0.317LCPS + 0.035LITR
\]

<table>
<thead>
<tr>
<th>SE</th>
<th>t*</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.234</td>
<td>2.221</td>
</tr>
<tr>
<td>0.232</td>
<td>1.369</td>
</tr>
<tr>
<td>0.011</td>
<td>3.216</td>
</tr>
</tbody>
</table>

F-stat. = 700.2602; Prob (F-stat) = 0.000000; 
R² = 0.985; Adj. R-square = 0.984; D-W = 1.987

86

The ordinary least squares (OLS) multiple regression result shown above indicates that a 100% increase in the volume of bank credit will increase the growth of the manufacturing sector by about 52%. The result also shows that volume of bank credit (LVBC) with a coefficient value of 0.520; t-statistic value of 2.221 and the corresponding probability value of 0.0338 < 0.05 indicates that controlling for private sector credit (LCPS) and interest rate (LITR) which are the moderating variables in this study, LVBC has a significant positive effect on the LGDPI in Nigeria. The adjusted R-square value of 0.984 indicates that after series of adjustment, the LVBC in combination with the LCPS and INTR accounts for about 98.4% of the total variations in the output of manufacturing sector in Nigeria. The remaining 1.6% can be attributed to other relevant variables not included in the model. The F-statistics result revealed the joint significant influence of the explanatory variables while the Durbin-Watson statistic value of 1.987, following the rule of thumb suggest no presence of serial correlation in the model. Since the p-value of coefficient of LVBC of 0.0338 < 0.05, we reject the null hypothesis and conclude that volume of bank credit have positive and significant effect on the growth of manufacturing sector in Nigeria.

BANK CREDIT AND GROWTH OF THE COMMERCIAL SECTOR

Presentation of the ordinary least squares result

\[
LGDPC = 0.319 + 0.647LVBC + 0.308LCPS + 0.041LITR
\]

\begin{align*}
\text{SE} & \quad (0.258) \quad (0.256) \quad (0.012) \\
\text{t*} & \quad [2.509] \quad [1.206] \quad [3.365]
\end{align*}

F- stat. = 749.8863; Prob(F-stat) = 0.000000; 
R² = 0.987; Adj. R-square = 0.986; D-W = 1.718

The ordinary least squares (OLS) multiple regression result shown above indicates that a 100% increase in the volume of bank credit will increase the growth of the agricultural sector by about 64.7%. The result also shows that volume of bank credit (LVBC) with a coefficient value of 0.647; t-statistic value of 2.509 and the corresponding probability value of 0.0176 < 0.05 indicates that controlling for private sector credit (LCPS) and interest rate (LITR) which are the moderating variables in this study, LVBC has a significant positive effect on the LGDPC in Nigeria. The adjusted R-square value of 0.985 indicates that after adjusting the degrees of freedom, the LVBC in combination with the LCPS and LITR accounts for about 98.5% of the total variations in the output of commercial sector in Nigeria. The remaining 1.5% can be attributed to other relevant variables.
not included in the model. The F-statistics result revealed the joint significant influence of the explanatory variables while the Durbin-Watson statistic value of 1.718, following the rule of thumb suspects no presence of serial correlation in the model. Since the p-value of coefficient of LVBC of 0.0176 < 0.05, we reject the null hypothesis and conclude that volume of bank credit have positive and significant influence on the growth of commercial sector in Nigeria.

**Summary and Comparism of the Sectoral Results**

The results representing the impact of the forms of credit on the respective contributions of the sectors to economic growth are summarised in table 4 below:

<table>
<thead>
<tr>
<th>Variable of Impact</th>
<th>Overall Economy</th>
<th>Agriculture</th>
<th>Manufacturing</th>
<th>Commerce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direction</td>
<td>Magnitude</td>
<td>Direction</td>
<td>Magnitude</td>
</tr>
<tr>
<td>Volume of Bank credit</td>
<td>+2.06</td>
<td>0.877</td>
<td>+1.14</td>
<td>4.7</td>
</tr>
<tr>
<td>Credit to the Private Sector</td>
<td>+0.233</td>
<td>2.94</td>
<td>+0.13</td>
<td>0.858</td>
</tr>
</tbody>
</table>

**CONCLUSION**

This work is set out as an investigation into the role that bank credits play in the performance of the various real sectors of the Nigerian economy. Agriculture, manufacturing, commerce were studied side by side with the overall growth of the Nigerian economy. The results recorded from the study are in conformity with preexisting findings and theoretical evidence and they all unanimously agree that there is a relationship between the growth of the sectors of the economy and the volume of bank credit at the disposal of such sectors.

The findings are designed to make the government should evolve policies that will not only improve on the overall growth of the economy but also ensure a balanced growth through due contributions from all the sectors of the economy.

In addition, it is expected to trigger efficient policies frameworks that should be advanced in the areas of improved macroeconomic and regulatory environment which would make the economy move from its present focus on
oil to a more inclusive one having focus on agriculture, manufacturing and commerce.

REFERENCES
