Intermediation Role of Deposit Money Banks (DMBS) and Real Sector Performance in Nigeria

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Abstract: This paper seeks to examine the impact of intermediation roles of deposit money banks on the performance of the real sectors in Nigeria from 1991 to 2015. The research design adopted in this study was ex-post facto, that is, the use of secondary data. The researcher obtained from the Central bank of Nigeria (CBN) Statistical Bulletin and Annual Reports. The main objective is to find out if credits from money deposit banks have any significant effect on the real sectors GDP growth rate. The population and sample of the study was 24 deposit money banks operating in Nigeria. Real sectors are represented by agriculture, manufacturing and mining. The study employs Ordinary Least Square (OLS) regression techniques in data analysis. GDP, sectoral allocations to agriculture, manufacturing, and mining were used as variables. Unit Root test based on Augmented Dickey-Fuller was used to test for data stationarity. The study revealed that there is positive and statistically significant impact of deposit money banks credits on the GDP growth (performance) of agriculture; positive and no statistically significant impact on manufacturing and mining sectors performance. Adequate investment in the real sectors should be encouraged especially, in the agriculture, mining and manufacturing sectors. This measure will create employment as well as reducing the expenditure on food and raw material importations, hence increased GDP growth rate of the economy as a whole.

Keywords: Credits, Deposit Money Banks, GDP, Performance, Real Sectors

I. Introduction

The banking sector plays a very important role in the Nigerian economy as a supplier of credit to the many different sectors which require funds for growth. Soyibo & Adekanye (1992) assert that the role of an efficient banking system in economic growth and development lies in savings mobilization and intermediation. Thus, improved financial intermediation, especially through banking institutions, would not only help bridge the gap between domestic saving and investment in Nigeria, but more importantly facilitate trade and capital formation.

The deposit money banks have traditionally been an extremely important channel of financial intermediation in both developed and emerging economies. It is common knowledge that the strength of any economy is strongly tied to the strength of her banking sector. On the other hand, the state of the economy is strongly impacted on by the operations and performance of her banking industry. Meshach (2003) notes that in the last two decades the link between financial intermediation (FI) and economic growth has generated a great deal of interest among academics, policy makers and economists around the globe both in developed and emerging economies. The development of any economy is often viewed from among others, the perspective of the growth and vibrancy of its financial sector. This is as a result of how important investible funds are to economic growth and development. The role of deposit money banks in economic development cannot be over-emphasized.

The question of whether intermediation roles played by banks still matter for economic growth and development once domestic agents have access to foreign markets has become very important from the perspective of policy makers and private investors. It will not be an over-statement to say that both the public and private sectors of any economy need credits from deposit money banks for more productive activities necessary to enhance the nation’s overall perform. Lucas (1990) noted that the development of any economy is greatly enhanced through a vibrant banking industry. The banking industry serves the function of mobilizing savings from small and large savers in the economy and channels same to the fund users for investment purposes. Banking industry provides credit facilities to individuals, companies, as well as government for one kind of economic activity or the other. It could be for industrialization purpose, agricultural production, execution of contract etc.
According to Onwumere and Suleman (2010), all national economies comprise the public and private sectors, though, the degree and size of each sector differ among countries. They asserted that the development of a country’s economy involves in part the development of the different sectors subsumed in these two main sectors. These different sectors may include some or the following: agriculture, industry, mining, commerce, transportation, communication etc. These sectors need funds to continue in operation and contribute to the nation’s overall performance. For them to effectively perform and survive there must be investment which is synonymous with funding, hence the banking industry becomes a very relevant agent.

The financial sector occupies a strategic position in every economy because of the important function it plays in the flow of funds. Economists have long recognised that financial markets in general, and banks in particular, play a vital role in the efficient functioning and development of any economy (Guzman, 2000). Finance is relevant for growth and development because efficient financial systems resolve agency problems better, thus enabling firms to borrow at cheaper rates and invest more. As a rule, economic activities increase when savings-surplus units are able to channel funds to the savings-deficit units. This intermediation role of the financial sector actually provides the basis for capital formation and other activities necessary for economic growth. Literature is replete with studies carried out in the finance-growth nexus. Levine (1997) noted that finance promotes growth principally by the efficiency of capital allocation, and not necessarily by increasing investment. The consensus view of academics is that properly functioning financial intermediaries improve the efficiency of capital allocation, encourage savings, and lead to more capital formation (Wachtel, 2003; Santomero, 1997; Frolov, 2004; Aziakpono, 2005). Banks intermediate by first generating deposits which they subsequently lend to these sectors, thereby taking different risks including that of non-repayment of such loans.

Deposit money banks remain the largest financial intermediaries in the Nigerian economy, moving funds from surplus sector to the deficit sectors. Desai (1995) explains that banking industry is an indispensable element in any economy’s intermediation drive. It provides the bulk of the money supply as well as the primary means of facilitating the flow of credits especially to the real sectors. McCauley and Rama (1992) submit also that the economic well-being of a nation is a function of advancement and development of her banking industry. Banking is being described by Schumpeter (1934) ‘as a conductor focal point for economic growth has important role to play in the funds intermediation between surplus and the deficit sector, hence the over-all growth of the economy’. Indeed, there is ample evidence to show that countries that have enjoyed or are enjoying economic prosperity have been linked with an efficient mechanism for mobilising financial resources and allocating same for productive investment in the real sector like agriculture, manufacturing, mining etc. The real sectors contribute over 60% employment opportunity in Nigeria and contribute immensely to the country’s GDP. However, it is pertinent to state here that the real sectors were neglected with the discovery of oil and this led to the decline in in GDP. In the wake of the declining trend in the real sectors’ contribution to GDP as a result of neglect in terms of finances leading to insignificant contribution to the overall GDP vis-à-vis poor output, there is every need for joint efforts to enhance productivity in these sectors. This supports the importance of deposit money banks credits as a means for improving capital investment in the real sectors.

Soludo (2004) explains that banks influence the savings–investment process in order to accelerate the rate of economic growth and poverty reduction. Towards this goal, the soundness of intermediation is as important as its volume, hence the need to have an efficient banking system that will impact positively to the development of the entire economy. Ogunleye (1999) noted that government has from the formative years of the nation’s financial market up to the mid-1980s even till now made enough effort to encourage banking sector to extend enough credits to the real sectors. In those years, banks were required to allocate the bulk of their loanable funds to agriculture, manufacturing, mining, residential building construction, solid minerals at concessionary rate of interest, in the belief that a low interest rate structure would promote investments and output growth in the economy.

Ekundayo (1994) in his own work describes banking as a life wire, blood vessel and heartbeat of any economy. This means that every other sectors of the economy especially the real sectors like agriculture, manufacturing, mining, communication, transportations, commerce, etc., revolve around banking for their survival. Hence, financial support from banking sector has become a major component of strategy for the survival and effective performance of other sectors of the economy. The role of deposit money banks in the economy of any nation cannot be over emphasized especially, in financial intermediation and credit extension to other sectors of the economy to enhance economic growth and development.

1.1 Statement of the Problem

There has been a problem of how to conduct a successful research that can determine the impact of the intermediation role of deposit money banks on the performance of the real sectors in an emerging economy like Nigeria. Banking sector as the engine and prime mover of economy is supposed to be playing a leading role in empowering the other sectors of the economy especially the real sector to contribute to economic growth and development through improved GDP. Over the years, one of the major problems facing the banking industry in
its intermediation role is how to ensure that loans/funds reach various sectors of the economy especially the real sectors and significantly impact on them in a positive way. This has not be easy because Nigerian economy is viewed as being monoculture due to the predominant effect of oil sector especially in the resources generation to the government as such the other real sectors - agriculture, manufacturing, mining, building/construction, services, communication, commerce and industry seem to be behind in respect of the generation of revenues to the government. Banking industry is expected to play a catalytic role of extending enough loans and advances to the real sectors in order to ensure their growth and contributions to the Gross Domestic Product (GDP) of the economy. The government has adopted so many policies to influence the flow of credits to the real sectors of the economy since early 1980’s, but to the best of my knowledge, sufficient literature has not been in place as to assess the impact of such credits on the performance of the real sector’s GDP growth rate. The assessment is necessary because the conventional economic thinking relates banking sector performance to the extent to which it has inherent impacts on the transformation and improvement of real sectors performance as well as the entire economy. But unfortunately the roles of banks in expansionary credit extension to the real sectors of the economy have not been given adequate attention in the discussion of performance of GDP in Nigerian context. It is important to know the impact of these credit extension roles of banking industry on the performances of the real sectors as well as on the entire economy which can only be understood through a well-researched empirical study, hence this study. In other words, there is insufficient empirical work on the intermediation roles of the banking industry on the developing nation’s economy like Nigeria; has created the necessity for this work.

1.2 Objectives of the Study
The central objective of this study is to empirically examine the impact of banking industry credits on the performances of the real sectors of the Nigerian economy.

The specific objectives are:
(i) To determine the impact of banking industry credit on the performance of the agricultural sector of the Nigerian economy;
(ii) To find out the extent to which credits from banking industry has influenced on the manufacturing sector of the Nigerian economy;
(iii) To ascertain if banking industry credit has significant positive influence on the mining sector of the Nigerian economy.

1.3 Research Questions
Based on the above objectives which this study aims to achieve the following research questions were extracted as guide to achieve the research objectives:
(i) What is the impact of banking industry credit on the performance of agricultural sector of the Nigerian economy?
(ii) To what extent has the banking industry credit influenced the performance of manufacturing sector of the Nigerian economy?
(iii) Is there any significant influence of banking industry credit on the performance of mining sector of the Nigerian economy?

1.4 Significance of the Study
This paper assesses the relevance of intermediation roles of banking industry credits on the performance of real sectors. The study will play a significant role in addressing the gap in the existing literature and will serve as a guide by the regulatory authorities to encourage banking industry to extend more credits to the real sectors as this will pave way for overall growth of the economy. This study will be of immense benefit to government and other policy makers in making policies that will enhance to the relevance of the intermediation roles played by deposit money banks in moving the economy forward. The study will be of significance to the general public as it will enable them know the roles of banks in transferring funds from surplus sector to the deficit sector. The knowledge will enable them to know that such funds are available for them to access and how to go about it.

II. Literature Review

2.1 Theoretical Literature
The Role of banking industry to the growth and the development of the real sectors can be traced to the emergence of intermediation theories. In other words, our understanding of the role or roles played by banks as intermediaries both in the financial sector and real sector is found in the many and varied models in the areas known as intermediation theories, (Gurley and Shaw 1960). The proponents of these theories expressed that the
banking sector of the economy could impact real sector’s economic growth through the catalytic effect of adequate fund injection, regulation, technological innovation and capital accumulation. Pioneer contribution of
Schumpeter (1934) is of the view that financial institutions are necessary conditions for economic development. This view has been variously corroborated by other scholars like Gibson (1995), Cameron (1972), Desai (1995) and Gorton and Frank (2000). Bagehot (1991) gave explicit examples of how money market developments in England could make capital flows across the country in search of the highest rate of return.

Contrary to these models, the traditional Arrow-Debreu model theory of resource allocation stated that firms and households interact through markets and financial intermediaries (banks) play no role. This theory states that when markets are perfect and complete, the allocation of resources is efficient and there is no scope for intermediaries to improve welfare.

Moreover, the Modigliani-Miller theorem applied in this context asserts that financial intermediation does not matter in the growth and development of the real sectors: households can construct portfolios which offset any position taken by an intermediary and intermediation cannot create value (Fama, 1980). A traditional criticism of this standard market-based theory is that a large number of credit facilities are needed for it to hold except in special cases. However, the development of continuous time techniques for option pricing models and the extension of these ideas to general equilibrium theory have negated this criticism. Dynamic trading strategies allow markets to be effectively complete even though a limited number of facilities exist. Such an extreme view – that financial markets allow an efficient allocation and that intermediaries have no role to play – is clearly at odds with what is observed in practice. Historically, banks as major financial intermediaries have played a central role in the growth and development of the real sectors.

The role played by Deposit Money Banks as intermediaries both in the financial sector and real sector is found in the many and varied models in the areas known as intermediation theories. These theories of intermediation have built on the models of resource allocation based on perfect and complete markets. Knowing this fact would be of great important in understanding intermediation role of banking industry in moving the economy forward. Gurley and Shaw (1960) and many subsequent authors have stressed the role of banking industry credit in transforming the real sectors. Other numerous authors have stressed the role of banking industry credit as an alternative rationalization for the performance of the real sectors. Diamond (1984) has argued that intermediaries not only inject funds to the real sector but also act as “delegated monitors” as to ensure that such funds are not miss-channelled to other non-uses. In another development, Bhattacharya and Thakor (1993) have provided an excellent survey of the current state of the literature on banking sector intermediation role on the performance of the real sectors.

Here in Nigeria, there are also a number of theoretical papers that explored the role and benefits of banking sector credits to the growth and development of the real sectors. In other words, the role of banking industry in economic growth and development has been richly articulated in the local literatures. For instance, Sanusi (2002) notes that availability of investible funds is a key factor in the growth process of any economy. He explains that efficient financial intermediation contributes to higher levels of output, employment, and income which invariably enhance the living standards of the population. He further expresses that the banking sector remains at the centre of this process, even in economies with highly developed financial markets.

### 2.1.1 Functions of Deposit Money Banks

Jensen and William (1976) explain that the principal economic functions performed by commercial banks are as follows:

(i) To act as a financial intermediary between lenders and borrowers, by originating loans and performing the necessary monitoring of borrowers. In playing the credit intermediation roles, banks borrow and lend back-to-back on their own account as middle men;

(ii) To engage in valued asset transformation, i.e., from highly liquid deposit accounts to a portfolio of less liquid, generally larger denomination, riskier assets; and

(iii) To play a central role in the economy’s payments system. These economic functions are carried out through the traditional banking activities of providing highly-liquid demand accounts, and aggregating those funds into larger, less liquid, risky loans;

(iv) To act as both collection and paying agents for customers, participating in interbank clearing and settlement systems to collect, present, be presented with, and pay payment instruments. This enables banks to economise on reserves held for settlement of payments, since inward and outward payments offset each other.

### 2.1.2 Roles of Banking Industry in the Economy

Oboh (2005) noted that Finance sector in general and banking sector in particular contributes to the growth/development of particularly the real sectors and other sectors through fund intermediation. He observes that financial intermediation is an area which banks have the professional expertise of matching the interest of...
depositors with those of borrowers by providing more or less a coordination functions for the two groups. This implies that in the absence of banking institution, individuals or corporate bodies that want to invest for instance in real sector production would first accumulate enough funds over time to be able to meet their fixed and variable cost of investments. In a similar fashion, those individuals or institutions investors with surplus funds would have to search and identify the deficit unit that needs their funds. The two processes would be too cumbersome, expensive and very inefficient. The banking system has become the veritable agent well placed to perform this vital function efficiently. The rate of growth of any economy is a function of the capital formation and the pace at which such economy is moved into the productive investment projects in the real sector, (Demirgüç-Kunt, and Erica (1998), Boyd and Prescott, (1986). In support of this notion, Diamond (1984) expresses that the relevance of banking industry in the economy of any nation cannot be over-emphasized as it is the cornerstone, the linchpin of the economy of a country. Allen and Santomero (1998) succinctly put the position thus: “economic activity as it is known could not be smooth sailing without the continuing flow of money and credit”.

This implies that the economies of all market-oriented nations depend largely on the efficient flow of money and credit from surplus to the deficit sector of the economy through intermediation role played by banking industry. Azge (2008) supporting Keshab (2004) concurs that financial intermediation is an important activity in the economy because it allows funds to be channelled from people who might otherwise not put them to productive use to people who will. In this way financial intermediation helps promote a more efficient and dynamic economy. Marquis (2004) submits that as the non-bank financial sector in transition countries is still nascent and does not compensate for limited bank intermediation, the banks play a key role in channelling savings into the productive investment necessary for improved GDP.

### 2.2 Empirical Literature

The process that facilitates the transferring of the savings of some economic units to others for consumption or investment at a price is generally referred to as financial intermediation Blum, Federmair, Fink, and Haiss (2002). The financial intermediaries in an economy are saddled with the primary responsibilities of financial resource mobilization and intermediation. They redirect funds from surplus spending units to deficit spending units. The impact of the delivery of these financial services in the form of capital to the producers is felt both in the short-run and in the long-run. Thus, the financial sector, especially the banking system, is important in the smooth functioning of the real sectors of the economy. Similarly, the real sectors of the economy form the main driving force of the economy. It is the engine of economic growth and development. Essentially, the real sectors rely on the banking sector for the provision of required funds for investment purposes. To this end therefore, it is assumed that an increases in the bank lending to the real sector will increase the activity of the real sectors, and vice versa (Blum, et al., 2002).

Some researchers such as Allen and Santomero (1998) and Lucas (1990) hold the view that the banking industry plays a crucial role in the mobilization of capital for industrialization and development. They have argued that intermediaries overcome real sector finance problems by acting as “suppliers of loan-able funds.” Many others followed in expanding on these three contributions and advancing the literatures in substantive ways as found Jensen and William (1976), McCauley and Rama (1997), Boyd and Prescott (1986), Milton (2001), Levine (1996) and, Carey and Mitch and Steve (1998), Winton (1997) expressed that obviously, private sector credit responds in a positive way to the real rate of interest on deposits as well as the real rate of growth in output. Moreover, that the volume of credit to the private sector of the economy is positively related to the growth rate of the economy.

In the McKinnon-Shaw literature, the relationship between economic growth and financial development is based on the debt-intermediation theory of Gurley and Shaw (1955). According to the result of their studies, an increase in savings relative to the real economic activities leads to an increase in the level of financial intermediation and consequently leads to an increase in investment. Gorton and Andrew (2000) noted that the importance of the banking system intermediation role to economic growth and economic development is a clear-cut. According to their report based on the credit view of monetary transmission, it is through changes in loans and advances that the banking system has its biggest short-run impact on the macro economy. To support this assertion, some researchers like Hoshi and Anil and David (1990), Shaw (1973), and McKinnon (1973) hold the view that the banking industry plays a crucial role in the mobilization of capital for industrialization and development. Both McKinnon (1973) and Shaw (1973) agreed that economic growth is severely hindered in a repressed financial system by the low level of credit to the private sector rather than by the lack of investment opportunities. On the other hand, there are those, who hold a contrary view. Dahl and Shrives (1990) have posited that Policymakers often argue that financial development and economic growth are positively related. The only unresolved debate is about the mechanism and direction of causality, (Smith, 2000).
Intermediation Role Of Deposit Money Banks (DmbS) And Real Sector Performance In Nigeria

In one of the earliest and most cited papers, Jensen and William (1976) suggested that banking industry through her intermediary role can signal its informed status by investing its wealth in assets of the real sectors like manufacturing, agriculture, mining, transportation etc. about which it has special knowledge. Purim (1999) in his work expresses that the modern economic production system is fuelled by money and that production unit in an economy organizes its production by purchasing the necessary factors of production which normally include, in broad terms, labour, land, capital and entrepreneurship. The factors are purchased paid for in money, combined and processed to produce the desired output. The outputs are valued and sold in money terms. The returns to the factors of production are reckoned in money: companies realize profit, labour receives wage rate, and land receives rent while capital receives interest, all in money terms as income. To support this, Fama (1980) in his study titled “Banking and the Theory of Finance,” stresses that all income earners use their current income to satisfy their immediate consumption needs.

The studies of Alawode (2001) represent efforts to explore the relationship between banking industry credits and economic growth in post-SAP Nigeria. Moreover, his paper also examined if there was a monotonic relationship between the degrees of banking industry credit and index of economic growth and development in post-SAP Nigeria.

Furthermore, an attempt is made to evaluate the relationship between economic growth and economic freedom. Due to insufficient data, it is not possible for his work to study the direction of causality in the aforementioned relationships.

Uchendu (1998:28) in his own study concedes that, an increase in productive investment raises per-capita income. However, series of efforts have been made by so many other Nigerian researchers like Chikwe (2005), Oboh (2005) and Ngama (2006) to examine the time series behaviour of the measures of banking industry credit to the real sector development since SAP began in 1986 and after SAP. The results reported in their papers indicate that the relative size of banking sector intermediaries declined shortly after the introduction of structural adjustment and then began to rise in the late 1990s. Balogun, (2007) notes that the poor growth performance and volatility of the macro-economy affected the entire financial system and financial intermediation process in Nigeria in profound ways. In a more serious note, there was a complete breakdown in the relationship between economic growth and performance of the real sector and that of the financial sector.

III. Methodology

This chapter embodies on the overall research plan and design guiding the process of data collection and collation for this study.

3.1 Research Design

The research design adopted in this study was ex-post facto design (the use of secondary data). This study is to empirically evaluate the intermediation role of deposit money banks on the performance of real sectors of the Nigerian Economy. Data used in this study were all observational secondary panel data extracted from the Central Bank of Nigeria (CBN) statistical bulletin and annual reports and accounts for the 1991-2015 periods.

We aimed at examining the relationship between the volume of activities in the deposit money banks (measured by their loans and advances) and the overall economic performance of the selected real sectors for same period measured by Gross Domestic Product (GDP).

3.2 Population of the Study

The population for this study was finite and comprised the entire banking industry in Nigeria and the real sectors of the Nigerian economy.

3.3 Sample size determination

A sample is a fraction or portion of the population (or the element of the universe) which represents the entire population under study. Hence, the sample size of this study consisted of the 24 deposit money banks currently with operational licence in Nigeria and the real sector of the economy represented by agriculture, manufacturing and mining.

This paper examines the impacts of intermediation role of deposit money banks credits on the sampled real sectors from 1991 to 2015. The sample real sectors representatives in this study include agriculture, manufacturing and mining sectors and the Gross Domestic Product (GDP) as the performance indicator of the economy. The researcher used data of the aggregate deposit money banks credits to the real sectors (agriculture, manufacturing and mining sectors) over time and Nigeria’s corresponding GDP to establish whether a significant relationship exist between these variables in Nigeria to back up the various literatures on this topic.
3.7 Models Specification

The study employs the Ordinary Least Square (OLS) regression technique to analyse the relationship between bank credit and the real sectors performance of the Nigerian economy proxied with Gross Domestic Product (GDP). In the model, Gross Domestic Product is expressed as a function of Agricultural sector (AGRIC), Manufacturing sector (MFTG), Mining sector (MING).

The functional form of the model is:

\[ \text{GDP} = f(\text{AGRIC}, \text{MFTG}, \text{MING}) \]

Where GDP = Gross Domestic Product
AGRIC = Agricultural sector
MFTG = Manufacturing sector
MING = Mining sector

The econometric model for the research is set explicitly as follows:

\[ \text{GDP} = \beta_0 + \beta_1 \text{AGRIC} + \beta_2 \text{MFTG} + \beta_3 \text{MING} + \mu \]

A priori Expectations: The operators / signs in the parenthesis represent a priori expectations about the coefficients of the variable above it.

### Results and Discussion

**Table 4.1: Result Of Unit Root Test Based On Augmented Dickey – Fuller**

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF</th>
<th>CRITICAL VALUE @</th>
<th>Order of Integration</th>
<th>Max lag</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>-7.449394</td>
<td>-3.760597</td>
<td>1%</td>
<td>5</td>
<td>0.0000</td>
</tr>
<tr>
<td>AGRIC</td>
<td>-5.813339</td>
<td>-4.416345</td>
<td>5%</td>
<td>5</td>
<td>0.0005</td>
</tr>
<tr>
<td>MFTG</td>
<td>-5.348008</td>
<td>-4.532598</td>
<td>10%</td>
<td>5</td>
<td>0.0021</td>
</tr>
<tr>
<td>MING</td>
<td>-4.417068</td>
<td>-4.728363</td>
<td>5%</td>
<td>5</td>
<td>0.0168</td>
</tr>
</tbody>
</table>

Source: Computed Eviews 9 Results

Owing to the fact that time series data which are prone to autocorrelation/serial correlation were used in the study, the researcher considered it necessary to conduct Augmented Dickey-Fuller test to ascertain the level of stationarity of the data. At comparing the test statistics value against the MacKinnon critical value at 5% level of significance, it was observed that GDP, the dependent variable, was stationary at second difference, AGRIC was stationary at first difference (i.e. I(1)), MFTG was stationary at I(0) while MING was stationary at first difference I(1). The P-values of all the variables were significant at their stationary levels at 5 percent significance.

**OLS Test:** \( \text{GDP} = f(\text{AGRIC}, \text{MFTG}, \text{MING}) \)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1279.216</td>
<td>2505.422</td>
<td>0.510579</td>
<td>0.6152</td>
</tr>
<tr>
<td>AGRIC</td>
<td>153.1872</td>
<td>39.43356</td>
<td>3.884691</td>
<td>0.0009</td>
</tr>
<tr>
<td>MFTG</td>
<td>9.343490</td>
<td>6.758898</td>
<td>1.382398</td>
<td>0.1821</td>
</tr>
<tr>
<td>MING</td>
<td>11.02883</td>
<td>9.246477</td>
<td>1.192760</td>
<td>0.2469</td>
</tr>
</tbody>
</table>

R-squared 0.968178 Mean dependent var 29183.04
Adjusted R-squared 0.963404 S.D. dependent var 30624.37
S.E. of regression 5858.456 Akaike info criterion 20.34017
Sumsquared resid 6.86E+08 Schwarz criterion 20.53651

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A priori expectations are that all the variables should have a positive relationship with the GDP (that is, performance of the economy).

From the OLS results shown in Table 4.2 above, coefficient of determination ($R^2$) for the model is 0.968178 indicating the strength of the independent variables to explain changes/variations that take place in the dependent variable. That is, 96.8% of the variations in Gross Domestic Product (GDP) are explained by the agricultural, manufacturing and mining sectors performance. In other words, about 3.2 percent of variation in the dependent variable is caused by other factors not included in the model.

In line with the output of the analysis, the model will appear with its estimates as follows:

$$GDP = 1279.216 + 153.1872\text{AGRIC} + 9.343490\text{MFTG} + 11.02883\text{MING} + \mu$$

The coefficient of AGRIC assumes a positive and statistically significant value. This implies that one percentage point rise in credit to agricultural sector increases Economic Growth by 153.1872 percent. This result conforms to the a priori expectation.

The coefficient of MFTG assumes a positive and statistically non-significant value. This implies that one percentage point rise in credit to the manufacturing sector will increase Economic Growth by 9.343490 percent. Being a positive relationship, the result conforms to the a priori expectation of the study.

The coefficient of MING assumes a positive and statistically non-significant value. This implies that one percentage point rise in credit to mining increases the performance of the economy by 11.02883 percent. This result conforms to the a priori expectation as well.

The robustness of this result is further buttressed by an $F$-statistic of 202.8 while the Durbin-Watson statistic of 1.676297 clearly indicates that there is no effect of serial correlation among the variables used in the study. With the Probability of $F$-statistic of 0.0000, it is significant enough to conclude that the model has performed well.

### Table 4.3: Data Used For Regression:

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>GDP</th>
<th>AGRIC</th>
<th>MFTG</th>
<th>MING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>596.04</td>
<td>5.0</td>
<td>10.9</td>
<td>0.5</td>
</tr>
<tr>
<td>1992</td>
<td>909.80</td>
<td>7.0</td>
<td>15.4</td>
<td>0.8</td>
</tr>
<tr>
<td>1993</td>
<td>1,259.07</td>
<td>10.8</td>
<td>23.1</td>
<td>1.4</td>
</tr>
<tr>
<td>1994</td>
<td>1,762.81</td>
<td>17.8</td>
<td>34.8</td>
<td>.</td>
</tr>
<tr>
<td>1995</td>
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Source: CBN Statistical Bulletin

**IV. Conclusion And Recommendation**

This study empirically investigated the impact of intermediation role of deposit money banks on the performance of the real sectors of the Nigerian from 1991 to 2015. It examines the impacts of banking sector credits on the sampled real sectors of the economy—agriculture, manufacturing and mining. For the purpose of this study, banks credits excluded those of non-deposit banks/financial institutions, specialized banks and...
development. However, for all intents and purposes, the deposit money banks constitute the hub of the banking industry, and in fact, the financial services industry. The size of the banking market can be proxy by the size and volume of loans and advances extended by the deposit money banks to the real sectors. Hence deposit money banks formed our main focus in this study. The data used in this study were extracted from the Central Bank of Nigeria (CBN) Statistical Bulletin. Ordinary Least Square (OLS) regression technique was employed and the study revealed the existence of positive and significant impact of banking industry credit on the GDP growth rate of agricultural sector of the Nigerian economy; a positive but not significant impact of banking industry credit on the performance of mining sector; a positive but not significant impact of banking industry credit on the performance of manufacturing sector.

From our finding, banking industry credit has a strong significant positive impact on the performance of agricultural sector of the Nigerian economy. This implies that the CBN’s determination to encourage banks to mobilise and deploy enough funds to the real sectors, particularly the agricultural sector, as means to promote economic growth and raise living standards is well appreciated by the sector. The findings of this study confirm or reiterate the findings of the earlier works researchers Bhattacharya and Gabriella (1995), Greenwood and Jovanovich (1990) who have in their respective works revealed that banking industry intermediation roles has significant positive effect on the GDP of the real sectors. Their findings were in line with the findings of this work which revealed that the banking industry loans and advances have positive significant impact on the performance of the real sector especially the agricultural sector. This finding is equally in agreement with the work of Dionne (1991) in which he found that the banking industry credit impacts significantly positively on the growth of the economy; Smith and Roche (1999) on the “Relationship between investment and capital fund”, which found that an increase in productive investment raises the Gross Domestic Product (GDP) of an economy; Diamond and Rajah (2000) in their study on the “Theory of Bank Intermediation,” found out that the volume of credit to the private sector of the economy is positively related to the growth rate of the economy. However, the findings of this study was contradicted by Azege (2008) in his study titled “The impact of financial intermediation on economic growth” found that the value of deposit money banks loans and advances to the economy is not related to GDP.

From the findings, this paper concluded that the roles of deposit money banks in the expansionary credit extension to the real sectors of the economy have not been positively significantly affecting the sectors growth rate of GDP in Nigerian context especially the manufacturing and mining sectors; though, the agricultural sector has achieved some increase in the GDP growth rate. As a matter of fact, a huge amount of credits have been made available to the sectors but the issue is the extent to which these funds actually go for what they are meant for. The leakages in the sectors, as with nearly all government expenditures, could be very high, accounting for the low response of the sectors to increased GDP. The volume of credit facilities granted to the agricultural sector by the money deposit banks should be increased in order to increase and sustain food production and job creation. A close look at the poor performance of the real sectors especially mining and manufacturing sectors could conclude that long-term growth in the real sectors requires adequate capital accumulation, investment and intensive monitoring so as to move the economy forward.

Adequate investment in the real sectors should be encouraged especially, the agriculture, mining and manufacturing sectors. This measure will create employment as well reduce the expenditure on food and raw material importations, hence increased GDP growth rate of the economy as a whole.

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