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THE IMPACT OF BANKS' CREDIT TO INDUSTRIAL SECTOR ON ECONOMIC PERFORMANCE IN NIGERIA

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Abstract: The study empirically investigated the impact of commercial banks' credit to the industrial sector on economic growth of Nigeria. Autoregressive Distributed Lag (ARDL) approach was adopted for estimation. Economic growth, proxied by gross domestic product, agricultural gross domestic product and industrial gross domestic product were regressed against the explanatory variables (Commercial banks' credit to agriculture, industry, manufacturing and mining, quarrying and solid minerals; Government expenditure on agriculture; Agricultural credit guarantee loan; Inflation and Lending rates), thus forming three models in the study. Prominent among the findings is that significant relationship exists between Nigeria's commercial banks' credit and economic growth. The study further revealed that under most of the models, commercial banks' credit key explanatory variables were statistically insignificant contrary to a-priori expectations. On the basis of these findings, the study therefore concludes that the impact of commercial banks' credit to the Industrial on the economy is mixed and largely insignificant in Nigeria. Based on the findings, the study recommends, that as a means of monitoring commercial banks' credit to the industrial sector, funds should be granted to registered agriculturists and industrialists on the basis of evident track records of real sector produce with a view to ensuring that misapplication and misappropriation are drastically reduced if not eradicated.

Keywords: Banks' Credit, Real Sector, Economic Growth, Agricultural Growth, Industrial Growth ARDL Approach

1.   INTRODUCTION

In realization of credit (finance) as core input in stimulating production through the acquisition of capital equipment and other factor inputs that foster production and economic growth and following the treatise of Schumpeter in 1911 and 1934, Central Bank of Nigeria has at various times developed macroeconomic models, banking reforms and policies aimed at encouraging commercial banks to play the significant role of mobilizing and providing credit to all segments of the economy but with special priority to the real sector. Available statistics from the Central Bank of Nigeria's Statistical Bulletins (various years) show that over the years Banks' credit to the various sectors of the Nigerian economy and especially the productive sectors have been on the increase. In the same vein, Nigeria's economic growth proxied by Gross Domestic Product has been making positive growth except for a few negative growths within the study period. In assessing the performance of the Nigerian economy, Udeaja and Obi (2015) in their study traced that during the oil boom era (1970 - 1978), gross domestic product (GDP) grew positively by 6.2 per cent annually. However, negative growth rates were recorded in the 1980s while in the period (1988-1997) that constituted the period of structural adjustment programme (SAP) and economic liberalization, gross domestic product (GDP) grew at a positive rate of 4.0 per cent. In his submission, Sanusi (2010) posits that economic growth rose substantially in the last 15 years, i.e. 1996 - 2010.

An in-depth look at the major contributors to gross domestic product (GDP) reveals that agriculture, services' and industrial sectors rank highest. Nonetheless, with increases in Banks' credit and economic growth over the years of study, economic growth indices (unemployment rate, the level of income per capita, poverty) are abysmal. Worried over this situation, Sanusi again echoes that available statistics have put the national poverty level of Nigeria at 54.4 per cent while unemployment has risen to 19.7 percent by National Bureau of Statistics. Currently, these figures are 62.6% and 13.9% as at 2016 respectively, in further expression of worry, Sanusi expressed that while China and Thailand occupy a 5th and 22nd position in 2009 Global Hunger Index, Nigeria was ranked 64th. The ugly situation of Nigerian economic indicators underscores the United Nations Development Program's Annual Report (2014) that Nigeria continues to be an example to the rest of the World on many fronts, having attained the rank of being the biggest economy in Africa after rebasing. However, juxtaposing United Nations Development Program's (UNDP) positive remarks and the poor economic growth indices of Nigeria, one is poised to ask if commercial Banks' Credit to real sector has any impact on economic growth in Nigeria. It is on the basis of this question that the research work is premised and further, the research attempts to study the impact of Commercial Banks' Credit to the productive sectors on the growth of Nigerian economy. Consequently, this work evaluates the relationship between commercial banks' credit to the real sector and economic growth in Nigeria,

covering the period, 1981-2016.The research work has a broad aim to determine the impact of Commercial Banks' credit to the industrial sector on industrial growth in Nigeria.On the basis of the above-stated objectives, the following research questions are therefore, considered relevant to the study;What are the relationships between Commercial Banks' credit to the industrial sector and industrial growth in Nigeria?

2.   LITERATURE REVIEW

2.1. Conceptual Framework

The world without finance is unimaginable. Financial intermediation remains an integral function of financial institutions. Financial intermediation is achieved through the mobilization of funds from the surplus-spending groups and simultaneously channeling same to deficit- consuming economic units for productive purposes. The judicious use of the funds by the productive sector culminates into economic growth and improvement of the welfare of citizens. A notable economist, William Schumpeter in 1934 identified the critical role financial institutions play in facilitating technological innovations through credits given to entrepreneurs. Schumpeter stressed that funds granted to entrepreneurs with innovative and productive ideas consequently enhance economic growth. This treatise by the prominent economist provoked and attracted chronicle of literature and empirical studies in finance- growth nexus all over the globe, then and thereafter.

Kasekende (2008), an advocate of Schumpeter and some other researchers emphasized that the mobilization and transfer of funds by financial intermediaries to deficit economic units are not enough to stimulate economic growth but rather a financial system that is active, well organized and capable to ease external finance difficulties that impede industrial expansion and output of firms, hence, will foster and facilitate economic growth. These scholars, however, are opposed to a weak and inefficient financial system with its attendant risk of failure and poor fund accessibility that retards economic growth. It is of note therefore, that economic growth is facilitated under a healthy and functional financial system that offers adequate savings mobilization from the public; ease of transmission of such funds to entrepreneurs with productive investments which culminates to ultimate risk diversification.

It is important to note that an adequate fund mobilization by financial intermediaries leads, amongst several others to amassing of physical and human capital speedily; faster technological progress, real sector growth, and economic development. Contributing to the advantages of an efficient financial system, Thorsten (2013) adds that it enhances economic development by pooling savings from many individual savers thereby assisting to surmount indivisibilities in

investment, permits exploitation of economies of scale, aids in liquidity risk reduction and further promotes long-term investment. Therefore, an economic growth process demands for an efficient financial system and accessibility to investible funds. Although these factors may not be adequate conditions but certainly essential conditions for output growth. In assessing credit availability function of financial institutions, Oluitan (2012) submits that financial intermediaries, through credit availability permit the realization of increased output and employment which are important for economic growth. Unarguably, amble evidence abounds to portray that countries that have benefited or benefitting from economic prosperity are linked to economies with active and effective financial system that provide sufficient and proper mechanisms of funds' mobilization and distribution to productive investments. Similarly, Sanusi (2002), stressed that efficient financial intermediation contributes to superior level of output, employment, and income which invariably enhance the standard of living of the citizens. This, nevertheless, is one of the core rationales for the constant reforms experienced by the Nigerian financial system with the objective of making the financial institutions responsive to an efficient fund mobilization and allocation to the deficit economic units to meet their funds' need so as to accelerate growth in the economy. However, to ensure adequate credit mobilization and availability by financial intermediaries especially banks, the Central Bank of Nigeria recently stressed on the need importance of financial inclusion of citizens, fn furtherance of this objective, the apex launched policies like the cashless economy, automated teller machines (ATM) and Bank Verification Number (BVN). Stressing on an inclusive financial system, Olowofeso, Adeleke and Udoji (2015) add that "a strong and inclusive financial system and availability of investable funds play vital roles in financing economic projects". The reason is that access to credit increases the productive capacity of firms and enhances their potential to grow.

The importance of financial intermediation to real sector growth is because the intermediation process provides an appropriate avenue for funds to be pooled together and risks diversified to fund productive activities. It further creates an efficient avenue for selecting, funding and monitoring risky projects that stimulate and sustain growth in the economy, (Oduyemi, 2013). Suffice it to say, therefore, that the absence of financial intermediaries may prohibit the funding of risky ventures, increase the cost of operations in the real sector and deter participation in productive investments.

Apart from the need for an efficient financial system for financial intermediation, finance scholars regard financial deepening as a necessary ingredient for financial intermediation process that fosters economic growth. Scholars like Goldsmith (1969), Shaw (1973) and McKinnon (1973) submit that financial deepening is necessary for economic growth promotion. However, financial deepening is measured by the amount of credit that financial institutions

grant to the real sector. There are burgeoning researches and empirical evidences on the positive relationship that exist between financial deepening and economic growth. Nonetheless, notwithstanding the positive correlation between financial deepening and economic growth, McKinnon-Shaw identified policy implications that hinder financial development to include government restrictions in the banking system through ceilings on interest rate, high reserve requirements, and directed sectoral credits.

Notwithstanding the positive effects in the use of restrictive credit policies by a few developing countries, Levine (1997) supports the liberalization of the financial system because it favours an efficient allocation of funds that enhance economic growth. Levine likewise observed the increasing recognition since the early 1990s, of the positive influence of financial intermediation on economic growth. In a study conducted in 77 countries, with regard to financial development and economic growth, King and Levine (1993) established that the development of banking sector can in the long run stimulate economic growth. The study also revealed a positive and significant impact of per capita real money balances growth rate on real per capita gross domestic product growth. Though, proper functioning of financial intermediation process and financial development is important in economic growth and development, it is also needful that some inherent costs associated with credit transfer between the economic units (surplus and deficit) are eliminated. The natural costs are transaction and information asymmetry costs. The emergence of financial intermediaries led to decline in transaction costs. Commenting on the reduction of costs of information asymmetry, King and Levine (1993) observed that it is generally acknowledged that financial institutions help in information collection and processing as regards to investment opportunities more efficiently and at a lesser cost than what is obtainable under a system of barter exchange or poorly developed financial system. In their submission, Athanasios and Antonios (2010) on the other hand, agree that many models emphasize that well-functioning financial intermediaries and markets ameliorate costs of transactions and information asymmetry thereby promoting the allocation of funds efficiently as well as stimulating a faster long-run economic growth. Submitting to the advantages of reduced transaction costs through financial intermediation, Oluitan (2012) asserts that economies of scale are enjoyed with the coming of banks as well as a reduction in investment cost since poor financial development distorts growth while increasing the cost of the financial transaction.

The financial sector in any economy is critical to real sector growth because it provide an appropriate avenue for funds to be pooled together and risks diversified to fund economic activities, which would otherwise have exposures to non-funding. Oduyemi, (2013), posits that the financial sector provides an efficient avenue for the selection, funding and monitoring of risky projects that stimulate and strengthen economic growth. An economy where financial intermediaries

are absent, then, the cost of operations and funding of risky ventures in the real sector may be prohibited while participation in productive activities will be discouraged.

2.2. Theoretical and Empirical Review

When a banker starts to study the theory of financial intermediation in order to better understand what he has done during his professional life, he enters the world unknown to him. That world is full of concepts which he did not, or hardly, knew before and full of expressions he never used himself; asymmetric information, adverse selection, monitoring, costly state verification, moral hazard and a couple more of the same kind. He gets the uneasy feeling that a growing divergence has emerged between the microeconomic theories of banking... (Scholtens & Wensveen, 2003).

This section pursued a theoretical explanation of methods, postulations and theories that guide banks as financial intermediaries; bank credit as a vehicle in stimulating growth in the economy and economic growth as one of the ultimate macroeconomic goals of a nation. Hence, the study reviewed some relevant theories that guided the research on bank credit and economic growth.

The theory of resource allocation by Arrow - Debreu model hold that economic agents interact through markets, therefore, financial intermediaries have no roles and financial intermediation is unimportant. In the Arrow-Debreu world of complete perfect market paradigm the following conditions subsist: absence of an individual party to influence prices; equal borrowing/lending conditions and circumstance for all parties; absence of discriminatory taxes; homogeneity, divisibility and tradable financial titles; and absence of information, transaction and insolvency costs. The theory states that every market participant has prior, immediate and full information on all factors and events that relate to the (future) value of traded financial instruments. The perfect model theory proposed that surplus and deficit economic units locate each other since they have perfect information on each other's preferences at no cost in an attempt to exchange savings against readily available financial instruments. However, some theories have argued against this traditional dogma by clarifying on financial intermediation roles. Few of the theories include; asymmetric information (imperfect information) and agency, all of which lead to imperfections in the market, in addition to transactions costs that arise from information asymmetry between lenders and borrowers. The modem theory of financial intermediation is hinged on two arguments namely; - intermediaries (such as banks) ability to provide liquidity and their ability to change assets' risk features.

Thus, banks, in the words of Diamond & Dybrig (1983) are able to act as coalitions of deposits that provide households and business enterprises with

insurance against idiosyncratic shocks that adversely affect their liquidity positions. The agency argument for intermediaries' roles is the value creation arising from the transformation of quality asset in a situation where the market is unable to meet the supply and demand for credit. Financial intermediation theory was built on resource allocation models of perfect and complete markets. Financial intermediation theory by Allen and Santomero (1988) subsists due to market imperfections. Perfect market is the benchmark for this theory. Financial intermediation theory believes that due to the existence of market imperfections, intermediaries remain but when markets are perfect, intermediaries are redundant; the function of intermediaries are lost immediately surplus and deficit economic units have perfect and direct information to locate each other without any impediments or in the absence of costs, viz, financial disintermediation. Consequently, financial intermediaries are incapacitated where the market moves towards efficiency and transparency. Financial intermediation theory is anchored on information asymmetry and transactions' costs. The theory suggests that through the mobilization of savings from various surplus units and subsequent dissemination of funds to deficit units, financial institutions typically meet the aspirations of categories of agents, that are 'to save funds' for surplus units, and 'to borrow funds' to deficit units. In carrying out this activity of funds mobilization and allocation, information asymmetry and transaction costs that would have arisen among the parties in directly dealing with each other are eliminated by financial intermediaries. Through this, financial intermediaries enhance economic growth. But where financial intermediaries are absent, households and business firms can face liquidity shocks by buying or investing in illiquid and unprofitable assets, thereby foregoing better investment opportunities. However, through asset transformation, financial intermediaries bear savers' or investors' risk of liquidity and invest the mobilized funds in less liquid, but more fruitful and profitable projects thereby reducing inefficiency considerably. Greenwood and Jovanovic (1990), succinctly add that financial intermediaries accelerate economic growth by improving information on firms, managers, and economic conditions. The duo stressed that the demand for scarce funds by many entrepreneurs soliciting for capital enables financial intermediaries to produce better information on firms that will thereby lead to funding of more promising businesses that will further provoke more efficient allocation of capital that fosters economic growth.

Reviewing the position of financial intermediation theory with an attempt to reconcile it with the behaviour of institutions in contemporary financial markets by Allen and Santomero (1997), Bert and Dick (2000) criticized the current theory of financial intermediation that heavily focused on the functions of financial institutions that are no more crucial in mature financial systems. While Berth and Dick agree with Allen and Santomero (AS) on intermediaries' roles to reduce the frictions of transaction costs and asymmetric information to an extent, the duo

emphasized that the analysis of Allen and Santomero is incomplete but proffers useful, basic understanding and explanations to further debate on the theory and the working of financial intermediaries and markets and their significance in the economy. Berth and Dick argued that rather than the static state of perfect market that is hampered by incidental imperfections, financial intermediation theory needs to have the dynamic process of market differentiation and financial discovery and at its basis. They suggested changes instead of describing comparative statics. To them, the financial intermediary provides households and firms with variety of services that fulfil their different needs. The scholars submitted that financial intermediation is a complex process of financial transformation in the course of qualitative asset transformation with reference to maturity, liquidity, risk, scale, and location while financial intermediaries add value to savers and investors eventually. Nevertheless the active role of financial intermediaries in the economy sharply contrasts with the passive intermediation of savings to investments that prevail in the traditional theory of financial intermediation. Value-addition, hence, is a major driver of modem financial intermediaries. It is sufficient therefore, to say that the attention of contemporary intermediation theory is on adding value to financial services. The duet added that financial disintermediation remains a threat to traditional theory of financial intermediation.

The works of Allen and Santomero (AS) and the criticism of Berth and Dick are quite expository on financial intermediation theory. While Allen and Santomero's work centres on staticity with regard to perfect market; market imperfections; financial intermediary as agents of savers and investors; efficient allocation of savings; costs and asymmetric information, the exposition of Berth and Dick on the other hand encompasses dynamism, meaning, market differentiation; product innovation; financial transformation; value and customer orientation to both borrowers and savers and financial intermediaries as innovative in providing financial services;. The study may infer that the works of Berth and Dick justify the current global banking model of today that is aimed at continuous creation of value to respective clients and customers of banks.

Financial repression hypothesis: The foundation of this hypothesis is on the usage of regulated or artificial ceilings on interest rate; credit ceilings; sectoral distribution of credits; credit rationing; directed credit programmes by governments of developing countries to promote growth of their economies. Financial repression theory violates using market forces in resource allocation in the market economy. Criticizing repression hypothesis, Gemech and Struthers (2003) posit that besides low and irregular amount of savings (and investment) in a financially repressed economy, activities executed are of poor quality. They further suggested that if the level of interest rate is hindered from clearing money and credit markets, the overall level and quality of savings and investment are repressed.

In an economy of imperfections that is realistic, information is costly and highly imperfect hence, credit allocation suffers on account of information asymmetries and transactions' (monitoring and verification) costs. Because of information asymmetries that lead to the problems of adverse selection, moral hazard, free riding and the uncertainty of project returns; government involvement in credit allocation therefore, is justified. Equally, in occasions where commercial banks are generally apathetic to finance risky projects whose payback periods are longer even with promise of higher overall returns; banks are reluctant to finance profitable, innovative and productive small enterprises with inadequate collaterals; government's intervention in credit allocation is warranted. Another strong point in support of government's involvement in allocation of credit and other instruments of financial repression is on the ground that government has superior information and comparative advantage of resources with lower costs of enforcing contracts through taxation and policy powers to ensure superior industrial strategy to direct economic growth.

Stiglitz (1994) supports financial repression hypothesis using directed credits that is channeled towards profitable export-oriented sectors and in his studies he submitted that the hypothesis was successful in countries that established long-term credit banks that specialize in providing long-term investment funds in agricultural and industrial projects aimed at closing credit gaps created by commercial banks that lend on short-term basis.

Critics of the theory submit that it is anti-market; lopsided; discourage proficient resources' allocation; reduce savings and accumulation of capital while financial liberalization theory of Mckinnon-Shaw is favoured because of its advantages of attracting world savings from international capital markets to their most productive uses irrespective of location; fostering transparency and accountability; reduction in adverse selection, moral hazard and liquidity constraints of financial markets, Obstfeld, 1998; Mishkin, 2001; Gemech 2003).

The shortcomings of repression hypothesis observed by the opponents include: rent seeking, corruption, diversion, and crowding out of resources that may profitably be used by private firms and rise in harsh market distortions that stagnate growth and development.

Financial liberalization hypothesis: Financial liberalization theory was developed by McKinnon (1973) and Shaw (1973) as a counter to theory of financial repression that is considered as anti-market forces in allocating credit to the economy. The advocates of the hypothesis postulates that artificial ceilings on interest rates by created developing countries many a time lead to reduction in savings, capital accumulation and creation of disincentive in efficient allocation of resources. The duo asserted that free interaction of market forces determines the appropriate pricing of financial resources thereby stimulating savings and

investment. The underlying assumption of the hypothesis is that savings respond to interest rates, and with higher savings rates, higher level of investment is financed and this eventually leads to economic growth. In the view of the supporters of the theory, financial liberalization is akin to higher savings rates and increased level of investment and growth.

Supporting the hypothesis, Gemech and Struthers (2003), Stulz (1999) and Mishkin (2001) assert that financial liberalization helps in improving the functioning of financial systems; increase availability of funds and allow cross-country risk diversifications; nonetheless, it reduces adverse selection and moral hazard; fosters transparency and accountability and lessens liquidity problems in financial markets while ensuring that financial resources are channeled to their most productive uses irrespective of country of need.

Accordingly, the theory irrespective of its numerous proponents has its critics. It is argued that notwithstanding the pros of financial liberalization, the theory is an anathema to countries with poor corporate governance and low legal protection. Some antagonists of the theory proffer that financial liberalization leads to macroeconomic instability in some countries. In his analogy on the weakness of the theory, Diaz-Alejandro (1985) posits that in an attempt to end financial repression in Latin American economies during the 1970s, liberalization of the financial sector led to crises that resulted in overall failoure of institutions and low-domestic savings.

Obamuyi, Edun and Kayode (2012) investigated the relationship between bank lending and the growth of the manufacturing sector in Nigeria during the period, 1973 - 2009. Cointegration and Error Correction techniques of Regression methods were used for estimation. The result from the study indicated that lending rates significantly related to manufacturing output in Nigeria.

An assessment of the significance of Banks' credit in stimulating real output in Nigeria was undertaken by Oluitan (2012) in her study. Engle Granger and Johansen based Error Correction methods of regression were used in establishing the direction of causality. The findings from the research work revealed that credit Granger causes output and that credit has a positive link with capital inflows and imports during the study.

In a study to examine the relationship between banking sector credit and economic growth in Nigeria during the period, 1970-2008, Akpansun and Babalola (2012), used Granger causality test and a Two-Stage Least Squares (TSLS) Regression estimation technique for the models. The results of Granger causality test showed an evidence of unidirectional causal relationship from gross domestic product to private sector credit and from industrial production index to gross domestic product. The result of the estimated regression model indicated that private sector credit impacts positively on economic growth over the period covered by the study while lending rate impedes on economic growth.

In a study to examine the role of banks in capital formation and economic growth in Nigeria, from 1980-2009, Alex (2012) used variables that include; commercial banks' deposit liabilities, maximum lending rate, commercial Banks' credit, investment by banks in Nigeria, fixed capital formation (gross) and gross domestic product. The findings of the study revealed that commercial Banks' credit exerts a positive impact on the gross fixed capital formation.

Ekpenyong and Acha (2011) studied the contribution of banks to the growth of the Nigerian economy using annual time series data. During the study, contribution of banks was proxied by bank savings mobilization and credit to the real sector while GDP growth was used as proxy to economic growth. The study employed ADF diagnostic test to establish stationarity and method of Regression analysis to estimate the relationship of the variables. The findings of the research showed that the variables that were used to proxy banks' intermediation insignificantly impacted on economic growth.

A study to examine the causal relationships that exist among financial development, foreign direct investment and economic growth in Nigeria was carried out by Nwosa, Ajibola, and Olufemi (2011) from 1970 - 2009. The results of Augmented Dickey-Fuller (ADF) unit root test established stationarity of the variables; Johansen and Juselius (JJ) Co-integration technique performed on the variables indicated the presence of co-integration and the test for causal relationships using Tri-variate Vector Error Correction Model (VECM) revealed the presence of causality among financial development, foreign direct investment and economic growth.

In a related study, Acha (2011) examined if Nigerian banks through their financial intermediation activities (i.e. savings mobilization and lending) cause economic growth. The study employed annual time series data with a coverage time of 1980 - 2008. Granger causality was used to test the hypothesis that no causality exists between savings mobilization and credit on one hand and economic growth on the other. The findings of the analysis indicated that no significant causal relationship existed between banks' savings or credit and economic growth.

In another study, Acha (2011) investigated the role banks in economic growth of Nigeria from 1999 - 2008. The variables used in the study for bank intermediation were bank deposits and bank credit to the private sector while real gross domestic product (RGDP) proxied economic growth. Using Ordinary Least Square approach, the findings of the research revealed that banks contributed to economic growth in Nigeria through their intermediation function.

Tomola, Adebisi and Olawale (2010) carried out an investigation to study the effect of Bank lending and economic growth on Nigerian manufacturing output during a coverage period of thirty-six years, (1973-2009). The study used co-integration and Vector Error Correction Model (VECM) techniques for estimation

and analysis. The result of the study revealed that manufacturing output in Nigeria is significantly influenced by manufacturing capacity and bank lending rates.

The relative potency of financial repression and liberalization policies were compared with financial development and economic growth in Nigeria during the associated policy regimes by Okpara (2010a). The researcher employed multiple regression and paired comparison test techniques for estimation and analysis. The results of the study revealed that there is a significant impact of financial development on Nigeria's gross domestic product during financial liberalization regime similarly; the paired comparison test revealed that financial liberalization caused growth of Nigeria's gross domestic product.

Josephine (2010) assessed the impact of deposit money banks' credit on economic growth in Nigeria, from 1992-2008. Gross domestic product was used as proxy for economic growth and domestic credit to the economy was substituted for deposit money banks' credit in the study. The result of the empirical work revealed that there is no significant impact of bank credit on the growth of Nigeria economy.

In another related study, Okpara (2010b) carried out a research to examine the influence of financial liberalization on selected macroeconomic variables that include gross domestic product, foreign direct investments, financial deepening, savings and inflation in Nigeria. The study employed the parametric paired sample statistic for t-test, non-parametric Wilcox signed rank test and the discriminant analysis to evaluate the nature and significance of the differences observed in the variables of study during pre and post financial liberalization policy regimes. The findings in the study on discriminant analysis indicated that gross domestic product gave the highest positive and significant contribution, followed by national savings; foreign direct investment was negative and significant while the study showed an insignificant discrimination between financial deepening and inflation.

Uremadu (2009) studied banking system credits to the domestic economy and national development by examining the variables that impact on the allocation of credit to the Nigerian economy, from 1970 - 2002. The study utilized the Ordinary Least Square (OLS) approach for tests and analyses. The result of the analyses strongly revealed that demand deposit liabilities significantly and positively influenced on direct banks' credit allocation in Nigeria.

Chisasa and Makina (2015) empirically examined the dynamic relationship between banks' credit and agricultural output in South Africa by using annual time series data from 1970 to 2011. Johansen cointegration test and Error Correction Model were employed in the study for estimation purposes. The results from the findings showed that bank credit and agricultural output co-integrated in the long-run, credit and capital formation have positive and significant impact on agricultural output while error correction model indicated that, in the short-run

there was a negative impact of bank credit on agricultural output which is a reflection of the uncertainties of institutional credit in South Africa. However, the positive of error correction model showed that agricultural gross domestic product rapidly adjusts to short term disturbances, an indication that there is no room for tardiness in the sector.

An empirical investigation was done by Murtala, Siba, Ahmad, Muhammad and Ali (2015) to establish the relationship that exists between financial intermediaries and economic growth in Nigeria. Annual time series data from 1970 - 2013 was used to analyse the long-run and short- run relationship between the development of financial intermediaries and economic growth and the direction of causality relationship between the indicators. The stationarity test showed that the variables were integrated at first difference and there was co-integration between the series and the presence of a structural break in 1987, 1992 and 1996. The bound test for co-integration showed a stable long-run relationship between the indicators of financial intermediaries and economic growth while the coefficient of error correction was statistically significant. The findings revealed however, that bank credit has a negative influence on economic growth; causality test revealed a bi-directional relationship between bank credit and economic growth while a unidirectional causality moved from economic growth to insurance premium and value of stock transactions during the study frame.

The current study by Safdar, Iqra, Ishfaq and Muhammad (2015) investigated the relationship between bank credit to private sector and economic growth in Pakistan, ranging from 1973 - 2013. Economic growth was the dependent variable in the study while bank credit to private sector, interest rate, inflation and investment to Gross Domestic Product and government consumptions were the independent variables. Data was collected from World Bank Indicators. Unit root test established stationarity of variables in the study. Co-integration VECUM and Granger causality tests were employed to test relationships, causality effects and analyse the impact of bank credit on economic growth. The findings from the analysis revealed that Bank credit has a strong relationship with economic progression and in the short-term, the relationship between the variables was significant. The study further showed that Bank credit has an adverse impact on economic growth in Pakistan.

Mikhail (2015) studied the causality relationship between the ratio of domestic private credit to gross domestic product and growth in the real gross domestic product per capita using a framework of country-by-country time-series for twenty four OECD economies, from 1980— 2013. A proposed threefold methodology that included - lag-augmented Vector Auto-Regressive Granger causality tests; Breitung-Candelon causality tests and causal inference based on a Fully Modified Ordinary Least Square (FMOLS) approach were used to test for causal linkages.

The results revealed that the three tests in 12 out of 24 countries in the sample, yielded uniform results in terms of causality presence (absence) and direction. Causality relationship from credit depth to economic growth was found in UK, Australia, Switzerland, and Greece, hence, refuting the findings that financial development shifts from a supply-leading to the demand-following pattern as economic development proceeds.

Suna (2015) investigated the effect of domestic credits created by banking sector on macroeconomic variables for ten selected European countries by using annual panel data from 2006-2012 and regression model for estimation. The result of the study revealed that domestic credits created by banking sector for ten European countries has no effect on inflation but affected economic growth.

The study by Sibindi and Bimha (2014) examined the causal relationship between banking sector development and economic growth in Zimbabwe by using Granger causality method of vector error correction model. Banking development was proxied with the ratio of real broad money to real gross domestic product and the ratio of real domestic credit to real gross domestic product. Further, the proxy used for economic growth was absolute values of real gross domestic product while real domestic credit and real broad money were proxies for financial intermediary development. The findings from the study established a long-run relationship between economic growth and banking sector development.

Ozor, (2018) studied commercial banks' credit to the agricultural sector on economic growth of Nigerian Economy. Autoregressive Distributed Lag (ARDL) approach was adopted for estimation. The study found that significant relationship exists between Nigeria's commercial banks' credit to agricultural sector and economic growth. The study further revealed that under most of the models, commercial banks' credit key explanatory variables were statistically insignificant contrary to a-priori expectations. On the basis of these findings, the study therefore concluded that the impact of commercial banks' credit to the agricultural sector on the economy is mixed and largely insignificant in Nigeria.

3.   METHODOLOGY

3.1. Research Design

This study adopts the *ex-post facto* research design as it deals with event that had taken place and secondary data were readily available for collection.

3.2. Model Specification

Economic theories suggest that if households, firms, and corporates (economic units) effectively and efficiently utilize banks' credit for productive investments, such investments will add value to economic growth of that country through

increased output; job creation; poverty reduction; improvement in the standard of living and increase in per capita income of citizens. On the other hand if credits are misapplied either by channeling them to unproductive investments or in pursuit of politically ill motivated projects, it will cause negative effects on the economic growth as it will affect aggregate output; increase in the rate of unemployment, poverty, insecurity of lives and fall in the standard of living of citizens. Thus, this study is anchored and explained by Schumpeterian and endogenous growth theories which assert that accumulated savings held by banks and channelled to productive investments enhance economic growth in the long-run.

In this study, hypotheses have been stated with the view of examining the impact of Commercial Banks' credit to the real sector on Nigerian economic growth. Following the models of Omosebi and Saheed (2016), Akpasung and Gidigbi (2014); Udoh and Ogbuagu (2012); Neelam (2014) and Imoughele, Ehikioya, Ismaila and Mohammed (2013) on a related study, the study employed same model with some modifications. This study adopted real gross domestic product (RGDP) as proxy for economic growth. By extension, economic growth was further modified into growthsin agricultural and industrial output in Nigeria. Similarly, commercial banks' credit to the agricultural and industrial sectors of the Nigerian economy served as proxies for banks' credit.

Thus, the model is mathematically represented in this form:

$$\text{ARgdp} = f\,(\text{Barg, Bind, Gagr, Acgl, infl, lend}) \qquad ...(3.1)$$

Econometrically, the functional models in equations 3.1 - 3.3 are specified thus:

$$\text{ARgdptt} = po + p_1(\text{Bagr}_t) + p_2(\text{Bind}_t) + p_3(\text{Gagr}_t) + p_4(\text{Acgl}_t) + p_5(\text{infl}_t) + p_6(\text{lend}_t) + p_t \qquad ...(3.2)$$

Putting some of the above relationships in their semi-natural logarithm form, the model is thus expressed as follows:

$$\text{ARgdp}_t = p_0 + \text{Pilog Bagr}_t + p_2\text{logBind}_t + p_3\text{logGagr} + p_4\text{Acgl}_t + p_5\text{infl}_t + p_6\text{lend}_t + p_t \qquad ...(3.3)$$

Log = Natural Logarithm

ARgdpt = Growth in Real Gross Domestic Product at time t

Bagr_t = Bank Credit to the Agricultural Sector at time t

Bind_t = Bank Credit to the Industrial Sector at time t

Gagr_t = Government expenditure on agriculture at time t

Acgl_t = Agricultural Credit Guarantee Loan at time t

infl_t ~ Inflation rate proxied by consumer price index at time t

lend_t = Interest rate proxied by commercial banks' lending rate at time t

p. = stochastic or error term

t = time series

Po = Constant

$P_1 - 0_6$ = Coefficients of the explanatory variables

4.   DATA ANALYSIS AND RESULTS

Table 4.1: Summary of the ARDL Regression Estimation results for Relationship between Commercial Banks' Credit to the Industrial Sector and Industrial Growth in Nigeria

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
AlGDP(-l)	1.033341	0.086028	12.01173	0.0000***
AlGDP(-2)	-0.157970	0.124553	-1.268298	0.2071
AlGDP(-3)	-0.133753	0.125840	-1.062882	0.2899
AlGDP(-4)	-0.137528	0.087724	-1.567735	0.1195
LBMFG	6.747455	5.785696	1.166230	0.2458
LBMQS	-22.50735	10.94192	-2.056984	0.0418**
LBMQS(-l)	18.04827	10.07042	1.792207	0.0755*
INFL	-0.263646	0.077277	-3.411724	0.0009***
INFL(-l)	0.257678	0.073148	3.522668	0.0006***
LEND	0.058145	0.089016	0.653198	0.5148
C	-7.104323	5.517798	-1.287529	0.2003
R-squared	0.823380			
Adjusted R-squared	0.809136			
F-statistic	57.80710			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	1.860373			

Source: Researcher's computation from E-view 9.0 software NB: ***; **; * = Significant @ 1%; 5% and 10% respectively

The result of ARDL estimation in table 4.1 showed that one-lag period in industrial growth (0.0000) had significant impact on industrial output growth in Nigeria from 1981 - 2016. Similarly, banks' credit to mining, quarrying and solid minerals (Bmqs) at current (0.0418) and one-lag (0.0755) periods were statistically significant at 5% and 10% which means that it impacted positively on growth in industrial output. Correspondingly, inflation rate (infl) in the current (0.0009) and one lag (0.0006) periods had significant impact on growth in industrial output at 1% level of significance level.

Further revelation from table 4.1 above, showed that commercial bank credit to the manufacturing sector met apriori expectation with positive coefficient value (6.747455) which means that a unit increase in commercial bank credit to the

manufacturing sector increased growth in industrial output by 6.75 units. It was also observed that banks' credit to the manufacturing sector demonstrated insignificant impact on industrial output. On the other hand, the coefficient values of commercial bank credit to mining, quarrying and solid minerals in the current period and one lag period were (-22.50735) and (18.04827). These values depict that while growth in industrial output reduced by 22.51 units in the current period, it improved by 18.05 units in the one lag period during 1981 -2016 study.

The coefficient value of current inflation was correctly signed and in line with the apriori expectation but violated the theoretical expectation in its one-lag period even as it is statistically impacted on industrial growth in both periods. While inflation retarded growth in industrial output during the current period by 26%, it improved it by an almost equivalent percentage of 25.8%. Simultaneously, commercial bank lending rate on the other hand, contravened the apriori expectation and insignificantly impacted on industrial growth. The result of the coefficient of determination R^2 (82.34%) explains that the total variation observed in the predictor variable (Industrial growth) was explained by the independent variables (bank credit to manufacturing, bank credit to mining, quarrying and solid minerals; inflation and bank lending rates) in Nigeria while 17.63% could be accounted by stochastic variable. The p-value of F-statistic (0.0000) showed that the model posted a good fit. The result proved strongly that the independent variables positively influenced the predictor variable. Durbin-Watson value of close to 2 indicated an absence of autocorrelation in the model.

Commercial banks' credit to the industrial sector and industrial growth in Nigeria

Our findings from the results of ARDL regression estimates in table 4.1 showed positive relationship in past input production factors with growths in the economy. The past lags in industrial growth, commercial banks' credit to mining, quarrying and solid minerals and inflation impacted on industrial growth in Nigeria, from 1981 —2016.The finding of the study with regard to the existence of long-run relationship among the variables is consistent with the study by Udoh and Ogbuagu (2009) using an ARDL cointegration approach as well as Achou and Tenguh, (2008) on Bank credit to the industrial output in Nigeria. Similarly, the significant impact of banks' credit to mining, quarrying and solid minerals sector on economic growth conformed to the study by Akpansung and Gidigbi (2014).

The economic implication of the insignificant impact of Banks' credit to manufacturing sector on the growth of Industrial output can be explained on the basis of high cost of credit that is depicted by bank lending rate that is high. As bank lending rate soars, industrialists/investors are discouraged from borrowing and even when they borrow, such loans are occasionally meant to finance capital equipment but rather to meet working capital needs of industries as against their long term capital requirements. Commercial Banks are averse to the provision of

medium and long-term credits required by the industrial sector due to the short term nature of depositors' funds. The implication of short term bank credit to industries that supports working capital adversely affects long term impact on the economy.

Again, there exists inadequate monitoring of bank credit to this vital sector as there are cases of diversion of credits for private uses by industrialists. Further, there is a crowding effect of government credit at the expense of the private sector credit because banks prefer to give credit to government thereby starving the productive sector of the economy. Another reason for the negative impact seen on industrial growth is as a result of strife competition faced by manufacturing industries due to cheap imported goods from Asian countries. Nigerian consumers mostly prefer cheap foreign goods at the expense of locally manufactured goods that are produced with better quality materials but at a high cost of production. The result obtained from the study has varied outcome from other researchers.

However, the result obtained is in the study agreed with the works of Ebi and Emmanuel (2014) that found Banks' credit to manufacturing and mining, quarrying and solid minerals though positively signed in their coefficients but insignificant in economic growth. The result is however, at variance with the study by Oni, Akinlo and Elumilade (2014) and Tomola, Adebisi and Olawale (2010) that revealed in their studies that bank credit has significant impact on manufacturing output both in the short and long-run in Nigeria.

5.   CONCLUSION AND RECOMMENDATION

5.1. Conclusion

On the basis of the above-stated findings, the study therefore concludes as follows; that commercial banks' credit to the economy has not performed satisfactorily, given the insignificant nature of most of the explanatory variables under all the models. Also, it is instructive to note that under all the models, most of the key explanatory variables failed the apriori expectation test.

Based on the findings of this study and discussions thereto, we make the following recommendation:

5.2. Recommendation

With a revelation of an insignificant impact of bank credit to the industrial sector on Nigerian economic growth during the study, it is therefore, recommended that government's capital expenditure on social services other than bank credit should be tailored at providing basic infrastructures like power and good transportation networks that will attract potential and existing industrialists into the industry because the sector remains very vital to any economy. Equally important is the

need for the government to revive our moribund textile industry that constitutes a reasonable chunk of our industries as well as either place a ban or increase the tariff on the importation of textiles into the country. These efforts will go a long way to reviving and creating jobs in the industry.

References

Adekunle, O.A., Salami, G.O., & Adedipe, O. A. (2013). Impact of financial sectordevelopment on the Nigerian economic growth. *American Journal of Business and Management, 2(4).*

Agbada, A.O., & Osuji, C.C. (2013). An empirical analysis of trends in financial intermediation and output in Nigeria. *Global Journal of Management and Business Research in Finance,* 73(13), 18-27.

Ajibola, J.O., Ishola, R.A., & Samuel, O.D. (2014). Commercial bank credit and sectoral growth in sub-Saharan Africa: Evidence from Nigeria. *Global Advanced Research Journal of Management and Business Studies,* 3(9).

Akanji, O.O. (2010). The central bank of Nigeria: The liquidity and the sectoral credit allocation. *Bullion Publication of the Central Bank of Nigeria*, 34(1), 3-6.

Akpansung, A.O. & Babalola, S.J. (2012). Banking sector credit and economic growth in Nigeria: An empirical investigation. *CBN Journal of Applied Statistics* 2(2), 51-62.

Akpansung, A.O. and Gidigbi, M.O. (2014). Recent banking reforms in Nigeria: Implication on sectoral credit allocation and economic growth. *International Journal of Business and Social Science,* 5(13), 91-104.

Alex E. (2012): The role of banks' in capital formation and economic growth: The case of Nigeria. *Covenant University, Ota, Ogun State.*

Ali, A. (2012). Banking sector development and economic growth in Lebanon. *International Research Journal of Business and Economics,* Issue 100, 53-62.

Aliero, H. M., Abdullah, Y. Z. & Adamu, N. (2013). Private sector credit and economic growth nexus in Nigeria: An autoregressive distributed lag bound approach. *Mediterranean Journal of Social Sciences,* 4(11).

Aliyu, M. & Yusuf, A.H. (2013). Impact of private sector credit on the real sector of Nigeria. *International Journal of Business and Social Research (IJBSR),* 3(5), 105-116.

Asuamah, S.Y., Kwarteng, E., & Awuah, J. B. (2012). What is the link between finance and economic growth? A review. *European Journal of Business and Management,* 4(13), 12-19.

Atseye, F.A., Edim, N.O., & Ezeaku, H.C. (2015). An empirical investigation of the impact of bank credit on economic growth in Nigeria. *Indian Journal of Applied Research,* Vol. 5, Issue 11, 268-271.

du, N.P., & Okumoko, T.P. (2013). Financial development and economic growth in Nigeria. *European Journal of Business and Management,* 5(19), 69-81.

Avinash, R., Tanisha, M-R. & Daryl, C. (2012). An assessment of sectoral distribution of commercial bank credit on economic growth and development in Trinidad and Tobago, 1970-2008. *Central Bank of Barbados Working Paper,* 1-21.

Adi, R., Arbak, E., Naceur, S. B. & De Groen, P.N. (2013). Financial development, bank efficiency and economic growth across the Mediterranean. *Working Paper No. 6, Paper, Financial Services and Capital Markets, MEDPRO Technical Report No.30,* 1-14.

Branch, S., Cooper, Y., & Moxey, M. (2014). An empirical analysis of the nexus between private sector credit, economic growth, government expenditure, interest rate and inflation: Case of the Bahamas. *The Central Bank of the Bahamas, Research Department.*

Central Bank of Nigeria, CBN (2013). Modelling the real sector of the Nigerian economy, 1-57.

Chisasa, J., & Makina, D. (2015). Bank credit and agricultural output in South Africa: Cointegration, short run dynamics and causality. *The Journal of Applied Business Research*, 3(12), 489-500.

Ebi, B.O. & Emmanuel, N. (2014). Commercial bank credits and industrial subsector's growth in Nigeria. *Journal of Economics and Sustainable Development*, 5(10), 1-11.

Egbetunde,T. (2012): Banks' credit and rural development in Nigeria, (1982-2009). *International Journal of Finance and Accounting* 2012.

Ekpenyong, D. B., & Acha, I. A. (2011). Banks and economic growth in Nigeria. *European Journal of Business and Management,* 3(4), 155-166.

Ehigiamusoe, U.K., Umar, A., Okoro, S., Jumare, F., & Ogunyomi, R. (2015). Examining finance-led growth hypothesis in Nigeria: Challenges of policy and leadership. *National Legislative Studies, National Assembly, Abuja, Nigeria.*

Ewetan, O.O., & Ike, D.N. (2014). Does financial sector development promote industrialization in Nigeria? *International Journal of Research in Social Sciences*, 4(1), 17-25.

Eyas, G. A.O. (2014). The impact of private sector credit on Saudi Arabia economic growth (GDP): An econometrics model using (ARDL) approach to cointegration. *American International Journal of Social Science,* 3(6), 109-117.

Fapetu, O., & Obalade, A.A. (2015). Sectoral allocation of banks' credit and economic growth in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 5(6).

Golin, J. & Delhaise, P. (2013). The bank credit analysis handbook, A Guide for Analysts, Bankers and Investors, 2nd Ed, Singapore Pte Ltd, John Wiley & Sons.

Ibrahim, A.O.B., Akano, A.I., & Kazeem H.S. (2015). To what extent does banks' credit stimulate economic growth? Evidence from Nigeria. *JORIND* 75(1), 128-139.

Ihemeje, J.C., Umeh, J.C., & Ogbanje, C.E. (2011). Thesis writing and defense: The intricacies and rudiments for academic and professional studies. Onitsha, Anambra State: ERI Print Ltd.

Imoughele, E., Ismaila, L., & Mohammed (2013). Commercial bank credit accessibility and sectoral output performance in a deregulated financial market economy: Empirical evidence from Nigeria. *Journal of Finance and Bank Management, 1(2),* 36-59.

Iwedi, M., Igbanibo, D.S., & Onuegbu, O. (2015). Bank domestic credits and economic nexus in Nigeria, (1980-2013), *International Journal of Finance and Accounting, 4(5),* 236-244.

Kai, G. & Vahram, S. (2011). Determinants of bank credit in emerging market economies. *IMF Working Paper WP/11/51*, 1-20.

Kapingura, F. M. (2013). Finance and economic growth nexus: Complimentarity and substitutability between the banking sector and financial markets in Africa, A case of South Africa, *Journal of Economics and International Finance*, 5(7), 273-286.

O.M., & Uba, I.A. (2013). Nigeria 2002-2012: High economic growth rate, high incidence of poverty, why, Bullion, Publication of the Central Bank of Nigeria, Vol. 36, No. 3-Vol. 37 No. 1.

Mikhail, S. (2015). Causality between credit depth and economic growth: Evidence from OECD Countries, *Bank of Finland, BOFIT Discussion Papers 15*, 4-37.

Modebe, N. J., Ugwuegbe, S.U., & Ugwuoke, R.O. (2014). The impact of bank credit on the growth of Nigerian economy: A co-integration approach. *Research Journal of Finance and Accounting*, 5(10), 87-95.

Murtala, B. U.; Siba, D.; Ahmad, U. G.; Muhammad R. D.; & Ali, U. A. (2015). An empirical study on the relationship between financial intermediaries and economic growth in Nigeria: A co-integration and causality analysis. *IOSR Journal of Economics and Finance, 6(4)*, 15-31.

Murty, K. S., Sailaja, K., & Demissie, W. M. (2012) The long-run impact of bank credit on economic growth in Ethiopia: Evidence from the Johansen's multivariate co-integration approach. *European Journal of Business and Management, Vol. 4.*

Neelma, T. (2014). Impact of bank credit on economic growth in Nepal. *Nepal Rastra BankNRP Working Paper, No. 22*, 1-23.

Nnaji, C.E; Chukwu, E. & Nnaji, M. (2013). Electricity supply, fossil fuel consumption, CO2 emissions and economic growth: Implications and policy options for sustainable development in Nigeria. *International Journal of Energy Economics and Policy*, 5(3).

Nnamdi, I, S. (2015). Private vs public sector bank credits and economic growth nexus in Nigeria: Where does efficacy rest? *Research Journal of Finance and Accounting*, 6(13), 226-237.

Nuno, C. L. (2012). Bank credit and economic growth: A dynamic panel analysis. *The Economic Research Guardian, 2(2), 256-267.*

Wakanma, P.C., Nnamdi, I.S., & Omojefe, G.O. (2014). Bank credits to the private sector: Potency and relevance in Nigeria's economic growth process, *Accounting and Finance Research*, 3(2), 23-35.

Waru, N.M., & Okorontah, C.F. (2014). Banks' credit as an instrument of economic growth in Nigeria. *International Journal of Business and Law Research, 2(2)*, 25-33.

Nwite, S.C. (2014). Determinants of financial intermediation and its implications on economic growth in Nigeria. *British Journal of Marketing Studies*, 3(9), 49-56.

Nwosa, P.I., Ajibola, M.A., & Olufemi, M.S. (2011). Causal relationships between financial development, foreign direct investment and economic growth - The case of Nigeria. *International Journal of Business Administration, 2(4)*, 93-102.

Obademi, O. E. & Elumaro, A. (2014). Banks and economic growth in Nigeria: A re-examination of the financial repression hypothesis. *American Journal of Business and Management*, 3(1), 1-9.

Obamuyi, M.O., Edun, A. T. & Kayode, O.F. (2012). Bank lending, economic growth and the performance of the manufacturing sector in Nigeria. *European Scientific Journal, 8(3),* 19-36.

Oduyemi, A.O. (2013). Understanding monetary policy series No 33: The real sector. Central Bank of Nigeria 10th Commemorative Anniversary.

Okwo, I. M.; Eze, E.C.; & Ugwunta, D.O. (2012). Does financial sector development cause economic growth? Empirical evidence from Nigeria. *International Journal of Current Research,* 4(11), 343-349.

Olorunsola, E.O., Abiodu, S.B., Adeyemi, A.A., Valli, T.A., Kufre, J.B., & Kumafan, S.D. (2015). Investigating the dynamics of bank credit in Nigeria: The role of bank consolidation. CBN Journal of Applied Statistics, *6*(la).

Olowofeso, E.O., Adeleke, A.O., & Udoji, A.O. (2015). Impact of private sector credit on economic growth in Nigeria. *CBN Journal of Applied Statistics, 6(2),* 81-101.

Oluitan, R. O. (2012). Bank credit and economic growth: Evidence from Nigeria. *International Business and Management,* 5(2), 102-110.

Olusegun, A.J., Akintoye, I.R., & Dada, S.O. (2014). Commercial bank credit and sectoral growth in sub-Saharan Africa: Evidence from Nigeria. *Global Advanced Research Journal of Management and Business Studies,* 5(9), 423-431.

Omosebi, A. & Saheed, A. A. (2016). Agricultural credit and economic growth nexus: Evidence from Nigeria. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 6(2).*

Oni, O., Akinlo E., & Elumilade, O. (2014). Impact of bank credit in the real sector: Evidence from Nigeria. *Global Journal of Business Research (IJBSR),* 3(5), 39-47.

Onuorah, A. C., & Ozurumba, B. A. (2013). Bank credits: An aid to economic growth in Nigeria. *Information and Knowledge Management,* 3(3), 41-50.

Oriavwote, V. E., & Eshenake, S. J. (2014). An empirical assessment of financial sector development and economic growth in Nigeria. *International Review of Management and Business Research,* 3(1), 139-149.

Osman, E. G. A. (2014). The Impact of private sector credit on Saudi Arabia economic growth (GDP): An econometrics model using (ARDL) approach to co-integration. *American International Journal of Social Science,* 3(6).

Ozor,K.C.(2018). Commercial banks' credit to the real sector on economic growth of Nigerian Economy. A Ph.D dissertation submitted to the department of banking and finance, MichaelOkpara University of Agriculture, Umudike, Abia State.

Sackey, F. G., & Nkrumah, E. M. (2012). Financial sector deepening and economic growth in Ghana. *Journal of Economics and Sustainable Development, 3(2),* 122-139.

Safdar, H. T., Iqra, S., Ishfaq, A., & Muhammad, R.U. (2015). Impact of bank lending on economics growth in Pakistan: An empirical study of lending to private sector. *American Journal of Industrial and Business Management, 5,* 565-576.

Sanusi, L.S. (2011). Growing Nigeria's real sector for employment and economic development: The role of Central Bank of Nigeria. *A paper delivered at the inaugural*

memorial lecture in honour of the late Professor Uzoaga at the University of Nigeria, Nsukka, 1-26.

Sharon, B., Yvonne C. & Martiniqua M. (2014). An empirical analysis of the nexus between private sector credit, economic growth, government expenditure, interest rate and inflation: A case of Bahamas (1989 - 2014). *Research Department of Central Bank of The Bahamas.*

Sibindi, A. B. & Bima, A. (2014). Banking sector development and economic growth: Evidence from Zimbabwe, *Banks and Banks Systems, 9(2),* 51-58.

Simpson, T. D. (2014). *Financial markets, banking and monetary policy.* New Jersey: John Wiley & Sons, Inc.

Siti M. S., Zarinah, Y. & Kee-Cheok, C. (2012). Linkages between the real sector and the financial sector: The case of Malaysia. *Asian Academy of Management Journal of Accounting and Finance, AAMJAF, Vol. #(Supp.l),* 93-113.

Suna, K. (2015). Impact of bank credits on economic growth and inflation. *Journal of Applied Finance and Banking,* 5(1), 57-69.

Thorsten B. (2013). Finance, growth and fragility: The role of government. *International Journal of Banking, Accounting and Finance,* 5, Nos. 'A, 1-20.

Udoka, C. O., Mbat, D. O., & Duke, S. B. (2016). The effect of commercial banks' credit on agricultural production in Nigeria. *Journal of Finance and Accounting,* 4(1). 1-10.

Ugbaje, D. O., & Ugbaje, H. E. (2014). Empirical study of financial sector development on economic growth in Nigeria, (1990-2010), *International Journal of Public Administration and Management Research,* 2(3), 122-137.

Ugoani, J. N. (2013). Power of bank credit on economic growth: A Nigerian perspective. *International Journal of Financial Economics,* 7(3), 93-102.

United Nations Development Programme (2014). *UNDP Nigeria Annual Report.* (Compiled and 'Edited by Lucky Musonda), 1-44.

Uremadu, S. O., Ani, O. I., & Odili, O. (2014). Banking system credit to small and medium scale enterprises (SMEs) and economic growth in Nigeria: A co-integration approach. *IOSR Journal of Economics and Finance,* 5(6), 41-51.

Uyi, K. E., Aminu, U., Okoro, S., Fadila J., & Ogunyemi, R. (2015). Examining finance-led growth hypothesis in Nigeria: Challenges of policy and leadership. National Institute for Legislative Studies, National Assembly, Abuja, Nigeria, 1-19.

Vighneswara S. (2010). Bank-based financial intermediation for financial inclusion and inclusive growth. *Banks and Bank Systems,* 5(4), 63-73.

Were, M., Nzomoi, J., & Rutto, N. (2012). Assessing the impact of private sector credit on economic performance: Evidence from sectoral panel data for Kenya. *International Journal of Economics and Finance, 4(3),* 182-190.

Yakubu, Z., & Affoi, A. Y. (2014). An analysis of commercial banks' credit on economic growth in Nigeria. *Current Research Journal of Economic Theory, 6(2),* 11-15.