



## **IMPACT OF DEPOSIT MONEY BANKS CREDIT TO TELECOMMUNICATION INDUSTRY ON ECONOMIC GROWTH OF NIGERIA**

**Kalu, Nwannediya Faith<sup>1</sup>, Okoro, Kelechi Okoro<sup>2</sup> & Ibiam, Prince Oti<sup>3</sup>**

<sup>1&2</sup>Department of Banking and Finance,

<sup>3</sup>Department of Accounting,

<sup>1,2, &3</sup>College of Management Sciences,

Michael Okpara University of Agriculture Umudike, Abia State.

<sup>1-3</sup>Emails: [kalufait55@gmail.com](mailto:kalufait55@gmail.com) ; [okorokelechi4@gmail.com](mailto:okorokelechi4@gmail.com) ; [prince.ibiam@gmail.com](mailto:prince.ibiam@gmail.com)

### **ABSTRACT**

The study examines the impact of Deposit Money Banks (DMBs) credit to telecommunication on economic growth of Nigeria. The study adopts an ex-post facto research design using data from CBN statistics bulletin which covers a period of eleven (11) years from 2008 to 2018. The population of the study is made up of all the bank credit activities and the measures of economic growth. The sample is limited to bank credit, lending rate, money supply and real gross domestic product from 2008 to 2018. The source of data collection is secondary data. The study employed the use of ordinary least square regression (Multiple) to analysis the data collected. Findings from the tested hypothesis reveal that, there is negative and insignificant relationship between deposit money bank loan to telecommunication industry and real gross domestic product of Nigeria. Also, there is positive and significant relationship between deposit money bank lending rate to telecommunication industry and real gross domestic product of Nigeria. Final test of hypothesis reveals that, there is negative but significant relationship between money supply to telecommunication industry and real gross domestic product of Nigeria. Thus, it is recommended that deposit money bank should effectively administer loan in an efficient to telecommunication industry in a way that will be visible to strike growth and be felt on human and social capital as it plays a vital role in the development of any economy. Furthermore, the monetary authorities should in all times put effort in regulation and control of lending rate in order not to decrease the borrowing ability of the telecommunication industry as they are one of the employer of labour which contribute to economic growth. Finally, deposit money bank/financial institutions should always administer needed fund to



telecommunication industry in order to have needed capital for investments as telecommunications across the globe has been identified as generic on almost all other sectors of the economy and their functions in any economy is strategic and has a link with other sectors.

**Keyword:** Loan to telecommunication companies, lending rate, money supply and gross domestic product.

## 1. INTRODUCTION

Bank credit is the total amount of fund available to a business or individual from a banking institution. It consists of the total amount of combined funds that financial institutions provide to an individual or business. A business or individual's bank credit depends on the borrower's ability to repay the loan and the total amount of credit available in the banking institution (Ekeanyanwu, 2019).

The importance of financial institutions in generating growth within the economy cannot be overemphasized. Early economists such as Schumpeter in 1911 identified banks' role in facilitating technological innovation through their intermediary role. He believed that efficient allocation of savings through identification and funding of industries/organizations with the best chances and efficient allocation/extension of bank credit to both public and private organizations are tools to achieve this objective (Gerti & Kalluci, 2014). The study of Oluitan, (2012) has supported the above postulation about the significance of banks to the growth of the economy in granting loans to various sectors of the economy. In assessing the relationship, a large number of recent empirical studies (De Serres, Englama, & Odoko, 2006; Levine, 2005) have relied on measures of size or structure to provide evidence of a link between financial system development and industry such as telecommunication industry in relation to economic growth. They used macro or sector level data such as the size of financial intermediation or of external finance relative to GDP and found that financial aid to industries has a significant positive impact on economic growth.

Telecommunications expansion has been observed to have both direct and indirect benefits to economic growth (Awoleye, Okogun, Ojuloge, Atoyebi & Ojo, 2012). It is one vital link in any economy. The world has become a global village with telecommunications being an indispensable tool in the entire process of globalization. Growth in the telecommunications industry is thus very essential to any economy. Arguably telecommunication industry is today the fastest growing



industry in Nigeria. The industry has remained a major driver of innovation and transfer of technology to Nigeria economy (Awoleye, Okogun, Ojuloge, Atoyebi & Ojo, 2012). The mobile telecommunications industry has grown rapidly over the last three decades representing one of the most intriguing stories of technology diffusion. However, to provide these economic agents with their needed credit, various institutions that render financial services comes to play. These institutions otherwise known as financial institutions have banks as a major player among them. This banking institution is responsible for financial intermediation in the Nigerian financial system, which enable the channel funds from surplus unit of the economy to the deficit unit of the same economy, thereby converting deposit to credit (loan). According to Nwanyanwu (2010), the provision of credit with sufficient consideration to growth potential in the sector as well as price system in the economy is one of the ways to generate employment opportunities and by so doing contributing to the growth of the economy at large. This can be made possible because, bank credit contributes immensely to the expansion of business enterprises, increases scale of production which results to growth in the overall economy (Nwanyanwu, 2010).

In Nigeria like most developing countries, poor access to production funds has been blamed for the near-absence of growth of the manufacturing sector (Adelegan, 2011). Managers of firms complain that inadequate finance and high interest rates are major constraints affecting businesses in Nigeria. Supporting the same frame of thought, a study by the Federal Republic of Nigeria (2011) held that the flow and quality of bank funding to the private sector went down increasingly as the risk aversion of banks increased in the aftermath of the financial meltdown. Funding has made it difficult for firms to invest in modern machines, information and communication technology and human resources development which are essential factors in trimming down costs, raising productivity and improving competitive strength.

Even when credit is available, high lending rate which is sometimes go over 30%, make such credits unattractive, given the fact that returns on investments in the sub-sector have been below ten percent (10%) on the average (Nwasilike, 2016).

There still remains a gap in understanding the causal relationship between banking industry credit and economic growth in developing economies (Nwasilike, 2016). And particularly, little studies have been done to find out the impact the various types of deposit money bank credits have on the growth of national economies. The influence of such types of credit (like those advanced to the public sector and the private sector) on economic growth has received little interest from researchers.



Tuuli (2002) posits that although there have been numerous empirical studies on the determinants of growth in transition economies the relationship between bank credits and economic growth, however, has largely been ignored. Also, most of the studies carried out did not consider money supply as one of the components of deposit money bank credit that can affect economic growth. Thus, studying the impact of the deposit money bank credits on the growth of the Nigeria economy has become very necessary.

### **Objectives of the Study**

The broad objective of this research work is to examine the impact of deposit money bank credit to telecommunication on economic growth of Nigeria. With specific objectives as to;

- i. Determine the influence of deposit money bank loan to telecommunication industry on real gross domestic product of Nigeria.
- ii. Evaluate the effect of deposit money bank lending rate to telecommunication industry on real gross domestic product of Nigeria.
- iii. Ascertain the effect of money supply to telecommunication industry on real gross domestic product of Nigeria

### **Research Hypotheses**

The following research hypotheses are thus formulated in their null (H<sub>0</sub>) forms;

**H<sub>01</sub>:** Deposit money bank loan to telecommunication industry has no significant impact on real gross domestic product of Nigeria.

**H<sub>02</sub>:** Deposit money bank lending rate to telecommunication industry has no significant impact on real gross domestic product of Nigeria.

**H<sub>03</sub>:** Money supply to telecommunication industry has no significant impact on real gross domestic product of Nigeria.

## **2. LITERATURE REVIEW**

### **The Concept of Bank Credit**

Credit is the extension of money from the lender to the borrower. Modebe, Ugwuegbe, Ugochukwu, and Ugwuoke, (2014), notes that credit implies a promise



by a party to pay another party for money borrowed or goods and services received. Credit cannot be divorced from the banking industry as banks serve as a conduit for funds to be received in form of deposits from the surplus units of the economy and passed on to the deficit units who need funds for productive purposes. Banks are therefore debtors to the depositors of funds and creditors to the borrowers of funds. According to Nwanyanwu (2008), bank credit is the borrowing capacity provided to an individual, government, firm or organization by the banking system in the form of loans.

CBN Briefs (2003) defines bank credit as the amount of loans and advances given by the banking sector to the various economic agents. CBN Monetary Policy Circular (2010) identifies such bank credit facilities to include loans, advances, commercial papers, banker's acceptance, bill discounted, with a bank's credit risk. Bank credit is often accompanied with some collateral that helps to ensure there payment of the loan in the event of default. Credit channels savings into productive investment thereby encouraging economic growth. Thus, availability of credit allows the role of intermediation to be carried out, which is important for the growth of the economy. The availability of credit is important to the real economy. Globally, positive change in credit availability has positive significant effect on the nation's real gross domestic product (GDP).

According to Nzotta (2004), it is generally accepted that bank credits influence positively the level of economic activities in any country. It influences what is to be produced, who produces it and quantity to be produced. Bank credits affect and alter the level of money supply in an economy or country. It is the most important source of bank income and it promotes the activities of banks and non-bank financial institutions and thus influences the level of growth of the financial system. It also affects aggregate output and productivity, the pattern of production, the level of entrepreneurship, and the realization of aggregate economic performance, development and growth. It could thus be said with absolute assurance that banking industry credit is of crucial importance both to the banks, the monetary authorities, business community and the economy in general.

Melicher and Norton, (2011) defined financial intermediation as the process by which savings are accumulated in depository institutions and then lent or invested. According to King and Levin (1993), explains that the services provided by financial intermediaries – mobilizing savings, evaluating projects, managing risk, monitoring managers, and facilitating transactions – are essential technological innovations and



economic development. Shittu (2012), has emphasized that besides the performance of specialized tasks, several theoretical models posit that they mitigate the costs associated with information acquisition and the conduct of financial transactions. Afolabi (1998) argues that financial intermediation will not be necessary, for example, if the lender and the borrower can come into direct contact and would in fact not be necessary if there is no deficit or surplus sector. He, however, concluded that modern economic transactions will be difficult, if not impossible, with un-intermediated financing as the business world nowadays is much more complex and financial requirements are too large.

Credit is an important aspect of financial intermediation that provides funds to those economic entities that can put them to the most productive use. Theoretical studies have established the relationship that exists between financial intermediation and economic growth. Bencivenga and Smith (1991) explained that development of banks and efficient financial intermediation contributes to economic growth by channeling savings to high productive activities and reduction of liquidity risks. They therefore concluded that financial intermediation leads to growth. Intermediation involves the “matching” of lenders with savings to borrowers who need money by an agent or third party, such as bank. If this matching is successful, the lender obtains a positive rate of return, the borrower receives a return for risk taking and entrepreneurship and the banker receives a return for making the successful match. The skill of identifying potential successful new entrepreneurs who can take market share off competitors or develop whole new idea or market is one of the most vital (and intangible) skills any banking system can possess.

### **Bank loan**

Bank Lending is a very important function of the banking system, providing liquidity in the economy, profitability of the banks through the interest charged as well as impacting on the economic growth rate and the business net worth of nations. Okpara (2009) explains that the banking sector helps to make loan available by mobilizing surplus funds from savers who have no immediate needs for such funds and thus, channel such funds in form of loan to the investors who have brilliant ideas on how to create additional wealth in the economy but lack the necessary capital to execute such ideas. Banks are generally in the business for profit making.

Banks across the country are following increasingly differentiated pricing strategies aimed at maximizing profits since this is the ultimate goal of any business



organization. These strategies are more or less dependent on the Central Bank of Nigeria's Monetary Policy Committee (MPC) directives regarding inflationary trends and prime rates (CBN, 2016). In their bid to attract customers, increase market shares and to stay competitive as well as operate within the ambiance of laws governing banking, CBN then come out with attractive products and services such as giving of loans that intend to attract the customers (borrowers) and charge certain fees and commissions.

### **Lending rates**

Lending rates are the charges made to borrowers when they take loans from the bank. The Lending rate has different effects to customers (borrowers) and the banks. Bank customers, investors, government and all those affected by lending rates and the banks themselves have in recent times reacted variedly to changes in prime rate and base rate, fees and commissions. While some argue that Lending rates are high and scare away borrowers and other investors, banks also argue that operational cost and cost of providing efficient services are exorbitant and need to recover these costs in order to stay in business.

Theoretically, there exist the relationships between deposit money banks loan and lending rate or interest rate charged but empirically no consensus on the direction of causality between lending rate and commercial bank loans. Economic theory offers two seemingly contradictory views of this relationship. One view, which follows from the interaction of loanable money demand and supply, is that money and interest rates are negatively related: increasing interest rates, for example, requires a decrease in the stock of loanable money. According to this view, money demand is a decreasing function of the nominal interest rate because the interest rate is the opportunity cost of holding cash (liquidity). So, a decrease in the supply of loanable money must cause interest rates to increase in order to keep the money market in equilibrium. (Gichuki, Oduor, & Kosimbei, 2012). Lending rate serves as both cost of borrowing to the investors who have business ideas but lack necessary capital to execute such ideas and returns on savings to surplus financier who have no immediate need for the money. On one hand, as a cost of borrowing to the investor, high cost of borrowing will deter investors from getting loan from the banks and vice versa. This suggests a one-way direction of causality from lending rate to deposit money banks loans. On the other hand, increased in demand for deposit money banks loans can influence the lending rate in a market determined interest rate. In such case, the direction of causality runs from loans to lending rate.



Interest rate spread is one of the measures of financial sector efficiency. According to Sepehri and Moshiri (2004), interest rate is the rate of return on investment and the cost of borrowing funds. The interest rate is determined by the demand and supply of money. Among the many industries affected by fluctuations in interest rates, real estate and banking are perhaps the most directly impacted. When interest rates increase, borrowing becomes more expensive, dampening consumer demand for mortgages and other loan products and negatively affecting residential real estate prices. Rising interest rates can also lead to increased default rates, as holders of adjustable-rate debt find themselves faced with higher payments. Vendors of mortgage-backed securities, which consist of bundled mortgages, will see their ability to monetize the securities lessens as a result of the deterioration of the quality of the underlying asset (Buiter, 2009).

Interest-rate targets are a vital tool of monetary policy and are taken into account when dealing with variables like investment, inflation, and unemployment. The central banks of countries generally tend to reduce interest rates when they wish to increase investment and consumption in the country's economy. However, a low interest rate as a macro-economic policy can be risky and may lead to the creation of an economic bubble, in which large amounts of investments are poured into the real-estate market and stock market (Benchimol, 2013). This happened in Japan in the late 1980s and early 1990s, resulting in the large unpaid debts to the Japanese banks and the bankruptcy of these banks and causing stagflation in the Japanese economy (Japan being the world's second largest economy at the time), with exports becoming the last pillar for the growth of the Japanese economy throughout the rest of 1990s and early 2000s.

The traditional analysis of the commercial banking sector posits that the assets of the banks should mainly be of a short-term maturity, as this would allow banks to effectively meet their demand deposit liabilities when required (Roussakis, 2017). Larger loans with greater maturity periods would be charged a higher rate of interest than smaller loans with lower maturity periods. However, in response to changing private sector credit demand, increased technology in the banking industry and new banking techniques, deposit money banks' portfolios have shifted towards consumer, mortgage and business loans, with an increase in maturity periods. Thus, modern deposit money banks are much less constrained to holding short-term liquid assets. As a result of this shift in commercial banking policy, it has been argued that deposit





money banks are biased against certain types of borrowers. For example, because of the relatively greater risk of small businesses, they are usually charged higher rates of interest in comparison to larger business (Strahan, 2019). This is closely related to the credit rationing literature based on the contributions of Keeton (2019) and Stiglitz and Weiss (2011). These models assume that the same loan contract is offered to loan applicants exhibiting differing risks of insolvency. It is then shown that equilibrium credit rationing can occur in credit markets with imperfect information if the positive effect of an increase in the interest rate on bank's profit, is outweighed by the negative adverse selection effect induced by a declining average probability of loan repayment.

### **Money supply**

A lot of factors determine money supply. For instance, in the traditional or classical model of money supply determination, to control the level of money supply, there are array of options, which includes alteration of the cash reserve requirement. Raising or lowering the cash reserve requirements or the deposits that are required of the commercial banks to keep with the central bank or monetary authority can change the quantity of money supply. It is to be noted that the larger the commercial banks' deposit, the stronger is its capacity to generate more money. Therefore, the apex bank normally targets the deposit money/commercial banks deposit balances by raising the cash reserve requirement to regulate the growth of money stock that may possibly generate inflation in the economy.

Fractional reserve banking is also believed to determine money stock: "if only a small part of deposits is withdrawn from a bank during a period, the bank does not have to maintain reserves equal to deposits, but could increase its revenues by lending out a part or most of its deposits" (Handa, 2009). Additionally, the supply of money can be regulated via changes in liquidity ratio as well as money outside the bank (in the hands of the non-bank public) through the bank discount rate. Changes in the banks' discount rate affect the money supply by affecting the volume of discount loans and the monetary base. A rise (fall) in discount loans increases (reduces) monetary base and expands (shrinks) money supply in the economy (Gashaw, 2014; Onwumere, Imo & Ugwuanyi, 2012). Similarly, the money multiplier, a multiplicity of high-powered money, is believed to determine the level of money supply. A decrease or increase in the money multiplier results in a change in the money supply (Gashaw 2014; Bakare 2011).



In the Monetarists point of view, it is the “primate factor” that matters in the determination of money supply. The primate factor consists of monetary base (high-powered money), constituting currency and coins outside the banking system (i.e., notes and coins held by the non-banking public) plus the deposits of deposit money banks with the central bank, reserve and currency ratios. Different from the Classicists or Monetarists view, the Keynesians and Post Keynesians identified variables including income, interest rate and economic activities as factors critical to the determination of money supply. Furthermore, on money supply determinations, Handa (2009) submitted that irrespective of the way it is characterized, measured or assessed, the stock of money determination involves some participants. The core of them is the public and the commercial banks together with the central bank. The interaction of these three units and the significance of each in the determination of money supply depend on the state of the economy.

Nonetheless, a crucial factor that is also important in the determination of the quantity of money supply in addition to the aforementioned theoretically justified determinants but yet to be given considerable attention to is the influence of structural economic transformation or reform particularly the effect of financial liberalization reform. For example, according to Shaw (1973) and McKinnon (1973), a restriction on the financial sector in the form of a high reserve requirement, interest rate and direct credit ceiling hinders money flows, financial development and economic activities. These may affect the people’s desire to hold currency relative to deposit. Financial regulation reduces the efficiency of the financial system which leads to a reduction in economic activities and income, and consequently, a contraction of money supply. This logically means that the supply of money may be high or low depending on whether financial liberalization policy is implemented.

### **Criteria for Credit Administration**

The administration of credit is basically the function of a unit of bank offices which engage in controlling the extension and maintenance of credit. This unit performs the functions of credit documentation, monitoring and maintenance of credit files, collateral and security as well as ensuring that loan disbursement and repayment conform to laid down procedure. Thus, credit administration is the follow up on the credit created to ensure that loans advanced are serviced and paid back at the stipulated time. According to Ogunbi and Ogunseye, (2004), several factors are considered in the credit administration process but the most important ones are usually referred to six (6) cannons of lending;



**Character:** The need for the credit officer to assess the character of the applicant for loan or credit is very essential because the integrity of the customer must be considered and if a company, its director's integrity should be assessed. The important factor is the track record of the customer with the bank to know whether he/she has borrowed in the past and default. If the customer is a new one, a status enquiry should be raised to obtain useful information from previous banker(s).

**Capability/Capacity:** This states that borrowing customer must have special skills, experience and exposure in the project, which he/she intends to borrow to finance. That is, there must be a good spread of skill and experience among the management team in the aspect of production, marketing, finance etc. This is one of the reasons why legal requirement did not gives room for extending credit to minor except for the purpose of necessities of life like food, clothing, shelter and medicine.

**Capital:** The bank customers are expected to have a reasonable stake in term of financial contribution to the project by way of personal financial investment in the business.

**Cost:** This refers to the income earned from the interests, commission and fees charged on credit facilities to their customers. The interest rate a bank charges on credit will depend on the risk and term of credit. All these are the costs accrued to the customer and the banks

**Collateral:** After the careful considerations of the above factors, the lender/ bank needs to take collateral or security as a form of insurance to cover him/her in bad times. The bank would like to take the security, which has value or that leaves enough margin of safety above the amount of credit granted.

**Country:** To engage in international lending, several factors such as the different in culture, legal and economic influences that exist in other countries which may influence or affect the credit decisions must be put into consideration.

### **Bank Credits as an Instrument for Nigerian Economy Growth**

The role of bank credits and growth of modern economies seems inseparable. The quantum of financial capital required before achieving any meaningful economic development also underscores the importance of banks. An individual's savings are not usually large enough to procure all his needed resources for development. The saver may not also possess the ability and huge capital that investment calls for. The banks therefore, aggregate the small savings of the individuals and hold these, away



from the consumption and made available as loan for investment. Several studies have adopted various measures of bank credits. For instance, Levin (2011) discussed the relationship between bank credit and economic growth. According to him, bank credit can be sub divided into two: credit to the private sector and credit to the public sector. The credit to the public sector has been empirically proven to have weak effect on the economic growth because they are prone to waste and politically motivated programs which may not deliver the best result to the populace. He also defines economic growth as a positive change in the national income or the level of production of goods and services by a country over a certain period of time. It can be measured in terms of the level of production of goods and services by a country over a certain period of time.

Other measures of economic growth include real per capital GDP, the rate of physical capital accumulation etc., (king and Levin 2011). Onuorah (2011) posit that consumption goods in the economy are produced from capital and labour. An entrepreneur who lends credit from the bank purposely for the commencement of a business, uses it to hire labour so as to produce goods and services which in turn leads to economic growth. Demirguc-Kunt and Levine (2012) emphasized the importance of allocating credit to the private sector as opposed to all bank intermediation. Similarly, Crowley (2012) also observes that private credit serves as good predictor of economic growth. In the study of Onuorah (2011), some factors were identified as a driver of credit growth which are largely but not researched hence the contribution of the well acclaimed private sector credit to the growth of the economy may not be easily measured. An entrepreneur who owns the capital invested in the business uses it to employ labour in order to produce goods. Bayoumi and Melander, (2012) state that 2½% reduction in overall credit causes a reduction in the level of GDP by around 1½%. Similarly, findings have shown that economic growth can also be a causal factor for financial development. This occurs when the level of development within the economy is responsible for prompting the growth of the financial system.

### **The Nigeria Telecommunication Sector**

The Nigerian telecommunication sector is the largest segment of the Information and Communication sector. Nigeria has one of the largest telecom markets in Africa. The Nigerian Telecommunication sector has evolved over the years to an oligopolistic market structure (a small number of firms have the majority of market share). The sector includes a strong multinational presence. The leading players are MTN, a



South African based multinational company with a market share of 37.21%, Airtel (an Indian based multinational telecommunication), Glo (a Nigerian multinational company) and 9mobile (formerly Etisalat).

The sector over the years has contributed immensely to Nigeria's economy and the lives of Nigerians. The advancement of mobile phone usage from basic phone telephony to new enhanced services and the introduction of new technology within diverse sectors of the country have seen the sector grow massively. The sector has experienced rapid growth and helps in e.g. easier banking services (bank mobile apps) and access to e-learning platforms to Nigerians.

However, the Nigerian telecommunication sector saw stalled growth during the second half of 2016 leading to delays or deferrals of expansions and upgrades to networks and this trend has continued into Q2'17. The GDP Q2'17 result showed that the telecommunications sector contracted by 1.92%. The major challenges facing the sector are low consumer purchasing power, currency movements and the recent loss of global investors. The inaccessibility of the dollar in the economy resulted in weak macroeconomic conditions. Nigeria's weak macroeconomic conditions have led to weak labor market dynamics (high unemployment and underemployment), reduced disposable income and poor corporate performance.

To ensure long term growth and sustainability, the sector needs to focus on innovative business practices by investing their assets in more creative services that focus primarily on meeting consumer needs and establish a regulated minimum market price. These will create new streams of income for operators and mitigate the decline in their traditional revenues.

Prior to 2014, Nigeria was attractive to both local and foreign investors due to a stable currency and rise in oil prices. However, in 2016, there was a significant fall in oil prices which resulted in the shortage of dollars and depletion of external reserves, revenue shortfalls, high inflation and ultimately a recession. The naira's severe devaluation by 215% to \$490/\$ as at 30th December 2016, compared to \$155.71/\$ at the start of 2014 pushed up the costs of imported items such as RF Coverage Equipment (Node B) and Transmission Equipment (Optical Fibre) which stifled expansion plans of most network operators from expanding their service capacity. The sector has also been affected by a reduction in consumer demand due to lower disposable income in consumption (Yousefi, 2015).



## **Theoretical Framework**

### **The Loanable Funds Theory of Interest Rate**

This paper adopted the loanable funds theory of interest rate given its vagaries in explaining the dynamics of bank credit and the cost of the credit vis-a-vis investment decisions. According to the theory, the rate of interest is the price of credit which is determined by the demand and supply of loan able funds. The demand for loanable funds has primarily three sources; government, businessmen and consumers who need them for purposes of investment, hoarding and consumption. The government borrows money for constructing public works or for war preparations. The businessmen borrow for the purchase for capital goods and good starting investment projects. Such borrowings are interest elastic and depend mostly on the expected rate for profit as compared with the rate of interest. The demand for loanable funds on the part of consumers is for the purchase of durable consumer goods. Individual borrowings are also interest elastic. The tendency to borrow is more at a lower rate of interest than at a higher rate. Therefore, the demand curve for investment funds according to this theory slopes downward showing that less funds are borrowed at a higher rate and more at a lower rate of interest.

The theory of loanable funds provides a link between commercial bank credits and manufacturing sector output in that, it buttresses the fact that borrowing for investment in the manufacturing sector is interest rate elastic since it is determined by the existing rate of interest.

### **Loan Pricing Theory.**

Banks cannot always set high interest rates. Eg. Trying to earn maximum interest income Banks should consider the problems of adverse selection and moral hazards since it is very difficult to forecast the borrower type at the start of the banking relationship (Stiglitz and Weiss, 1981). If banks set interest rates too high, they may induce adverse selection problems because high risk borrowers are willing to accept these high rates. Once these borrowers receive the loans, they may develop moral hazard Behaviour or so-called borrower moral hazards since they are likely to take a highly risky projects or investments. From the reasoning of Stiglitz and Weiss, it is usual that in some cases, we may not find that the interest rate set by bank is commensurate with the risk of the borrowers.



## **Empirical Review**

Oluitan, (2012), assessed the significance of real bank credit in stimulating real output growth in the case of Nigeria. The study observes that credit Granger causes output. In testing the factors that mobilise credit, it finds that exports in general are negatively related to credit. However, while oil exports are negatively related to credit, non-oil export has positive relationship with credit. Credit is also positively linked to capital inflows and imports.

Modebe, Ugwuegbe and Ugwuoke, (2014), investigated the impact of bank credit on the growth of Nigerian economy for the period of 1986-2012. The data was sourced from CBN statistical bulletin. To determine the impact of the independent variables on the dependent OLS method of estimation was employed. ADF was used to determine the order of integration, and all the variables were found to be integrated of same order one I(1). The Johansen and Juselius co-integration test was employed and the result showed that there is at most one co-integrating equation in the model, implying that there is a long run relationship between the variables in the model. The result of the OLS regression showed that there is a negative and significant relationship between GDP and TBCPS in the long run. M2 which was used as control variable has a positive and significant impact on GDP at the long run. The ECM showed that 24.03% of the disequilibrium will be corrected yearly. The short run dynamics of the variables indicates that TBCPS also have a negative and insignificant impact on GDP at the short-run. The result of the granger causality test reveals that causation runs from GDP to TBCPS and not the other way round, a case of unidirectional causality. The result also showed bidirectional causality between TBCPS and M2.

Adebayo and Ekejiuba, (2016) Reviewed that economic growth is very important to any society because it leads to development. Telecommunications thus is a very important arm of development. Nations of the world before now have been the ones handling their telecommunications sector until very recently when deregulation was introduced. The contribution of this sector was studied in this work in the area of the number of subscribers, employment in the sector and its contributions to the Gross Domestic Product (GDP). It was discovered that the sector has contributed and still contributing in no small measure to the economic growth of Nigeria.

Odufuye, (2017), investigated the impact of bank credit on Nigerian economy growth for the period of 24years (i.e 1992-2015). Secondary source of data was used and



gathered from journals, textbooks and Central Bank of Nigeria (CBN) statistical bulletin. The variables employed are gross domestic product as proxy for economic growth, deposit money bank credits to small and medium scale enterprises, credits to private sector, money supply and interest rate. To avoid spurious results, Ordinary Least Square (OLS) estimation technique with the aid of Statistical Package for Social Science (SPSS) was used as a statistical tool. The findings revealed that each of the explanatory variables has insignificant impact on gross domestic product. Based on the f-statistic result, it was also discovered that the joint variables of bank credit have significant impact on gross domestic product for the period under review. The study concluded that bank credit if properly channeled is a catalyst for Nigerian economy growth.

Awoloye, Okogun, Ojuloge, Atoyebi and Ojo (2012), explored the socio-economic effects of telecommunication in Nigeria measured by gross domestic product using a comprehensive national level data set in Nigeria for a sample period of 11 years (1999-2009). The data for the study was sourced from World Bank Development Indicator Database, Central Bank of Nigeria (CBN) statistical bulletin and Nigeria Communication Commission (NCC) publications. The data were analyzed using Statistical Package for Social Sciences (SPSS). The results showed that telecommunication infrastructure measured by private investment in telecommunication statistically significant and positively correlated with economic growth. However, it was found that telecommunication contribution to GDP has a negative relationship to the economic growth.

Olusegun, Akintoye and Dada (2014), reviewed the impact of deposit money bank lending on Nigeria's aggregate economic growth for the period 1970-2011. The study relied on the official sectoral classification by the Central Bank of Nigeria and National Bureau of Statistics. Non-oil GDP was adopted as a measure of both the aggregate and sectorial economic growth. A regression analysis was undertaken with a model that related the non-oil GDP as dependent variable to deposit money bank credit for current and one year lagged period as the independent variables. The linear regression model showed that the previous year's loans and advances to services sector had more positive impact on economic growth compared with the current year's loans and advances. The results show that both previous and current year's credit to 'others' sector had inverse relationship with economic growth. In terms of the subsectors, the previous year's credit to public utilities and





transport/telecommunications sub-sectors showed positive contributions to economic growth while the impact of that of current year was negative.

Gerti and Kalluci, (2014), identified and evaluated the long run determinants of bank credit to the private sector in the case of Albania by employing a Vector Error Correction Mechanism (VECM) approach based on demand and supply indicators. Estimations showed that an adjustment mechanism exists bringing bank credit back to equilibrium. The results implied that lending is positively linked to economic growth. Further, banking and financial intermediation, as well as financial liberalization would stimulate higher lending demand. In addition, lower cost of lending, diminishing government domestic borrowing and a more qualitative bank credit would create further lending incentives. At the same time, the exchange rate is found to pick up some demand valuation and consumption smoothing effects.

Hassan, (2016), examined the implications of deposit money bank loans on economic growth in Nigeria between 1986 and 2014. The study made use of secondary data sourced from the Central Bank of Nigeria statistical bulletin and the National Bureau of Statistics between 1986 and 2014. The model for the study has as its dependent variable the Gross Domestic Product (GDP) and its explanatory variables were deposit money bank loans to key sectors like industrial, manufacturing, agriculture and the service sectors. Using the Ordinary Least Square (OLS) multiple regression techniques; the study revealed that only the agricultural sector have been enjoying much of Bank credit and it has been making positive impact on the Gross Domestic products (GDP) while others like Mining and Quarrying, Manufacturing and the Building and Constructions sectors have not been getting much attention in terms of bank credit to spur development in that sector.

Makali, (2012), determine the effect of deposit money bank loans on Kenya's economic growth. The research was time series correlation study. Economic growth, the dependent variable, was correlated with the annual rates of changes in lending by deposit money banks as proxied by the financing arrangements by deposit money banks. The data on economic growth were obtained from the Kenya National Bureau while the data on loans were collected from the audited financial statements of the 43 deposit money banks in Kenya. The data used covered the period 2008 to 2012 and covered all the 43 deposit money banks. Economic growth was regressed against rates of change in amounts lent by deposit money banks lagged one year. The findings showed that, first; the distribution of economic growth rate was not normally distributed, but skewed towards the right. Secondly, the distribution of the rate of



change in the amounts of loans issued to borrowers was normally distributed. Thirdly, the correlation between economic growth rate and the rate of change in the amounts of loans issued was -0.097 as measured by the Pearson's Correlation Coefficient. This indicates that a positive change in amounts of loans issued was matched with a slight drop in economic growth. In the regression analysis, the constant term was 5.98074 which was statistically insignificantly different from zero as indicated by a p-value of 0.3066. The coefficient of the rate of change in the amounts of loans was -0.0372122 and statistically insignificant as indicated by a p-value of 0.7971. The whole regression was statistically insignificant as shown by  $F(1, 1)=0.108844$  ( $p>0.05$ ). The research concludes that economic growth in Kenya is not driven by changes in lending. This is an indication that Kenya's economic growth is not strongly determined by the loans issued by banks to private borrowers.

Ugoani, (2013), explored the power of bank credit on economic growth particularly in the 1990s, through 2011. The study applied survey research design. Data generated were analyzed through tables, frequencies, percentages and the  $X^2$  statistics. It was found that bank credit has significant relationship with economic growth and socio-infrastructure development.

Fapetu and Obalade, (2015), investigates the impact of sectorial allocation of Deposit Money Banks' loans and advances on economic growth in Nigeria during intensive regulation, deregulation and guided deregulation regimes. Regression analysis of the ordinary least square method was performed for each of the three regimes. The results showed that only the credit allocated to government, personal and professional have significant positive contributions on economic growth during the intensive regulation. However, bank credits generally do not contribute significantly to economic growth during deregulation. Introduction of guided deregulation appears to be a success as deposit money bank's loans and advances to production and other subsector are both positive and significant in determining growth.

### **3. METHODOLOGY**

The study adopts *ex-post facto* research design because the investigation revolves around what has already happened in the Nigerian economy. The population of the study is made up of all the bank credit activities and the measures of economic growth. The sample is limited to bank credit, lending rate, money supply and real gross domestic product from 2008 to 2018. The source of data collection is secondary data. The data set covers a period of eleven (11) years from 2008 to 2018.



The growth equation model for the study is specified and was tested using the ordinary least square regression (Multiple): For the hypotheses which state that deposit money bank loan to telecommunication industry (CBLTCI), deposit money bank lending rate to telecommunication industry (CBLRTCI) and money supply to telecommunication industry (MSTCI) do not have positive and significant effect on real gross domestic product of Nigeria, it will be represented as:

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \mu_i \dots \dots \dots (3.1)$$

$$RGDP = f(CBLTCI, CBLRTCI, MSTCI) \dots \dots \dots (3.1)$$

$$RGDP = a + \beta_1 CBLTCI_1 + \beta_2 CBLRTCI_2 + \beta_3 MSTCI_3 + \mu_i \dots \dots \dots (3.2)$$

Where;

- RGDP = Real gross domestic product
- CBLTCI = DMB loan to telecommunication industry
- CBLRTCI = DMB lending rate to telecommunication industry
- MSTCI = Money supply to telecommunication industry
- a = Regression equation intercept
- b = Regression equation coefficient
- $\mu_i$  = Error term

The dependent variable used is RGDP (in log form), it shows the rate of economic growth in Nigeria and it is a proxy for real gross domestic product of Nigeria. The dependent and independent variables included in the model are:

**Real gross domestic product (RGDP):** This is a macroeconomic measure of the value of economic output adjusted for price changes of a country. It is the measurement of economic outputs that accounts for the effects of inflation and deflation (Central Bank of Nigeria, 2010).

**Deposit money bank loan to telecommunication industry (CBLTCI):** This is the amount of loan which deposit money banks give to telecommunication industries over a given period of time (Central Bank of Nigeria, 2010).

**Deposit money bank lending rate to telecommunication industry (CBLRTCI):** This is the rate at which deposit money banks lend to telecommunication industries over a specific period of time.

**Money supply to telecommunication industry (MSTCI):** This is the rate of government grants, promissory notes etc. given to telecommunication industries (Central Bank of Nigeria, 2010).

This present study will make use of annual time series data from 2008 to 2018. The capital market variables will be the disaggregated values. The essence is in the capital market. In the empirical analysis, the investigation will be carried out using the Ordinary Least Square (OLS) of the multiple regressions.

The interpretation of the test was based on the associated probability (p)/alpha value from the analyses. Where the p-value was less than the significance level of 0.05, then the null hypothesis (H<sub>0</sub>) was rejected while the alternative hypothesis (H<sub>1</sub>) was accepted. The reverse was the case.

#### 4 RESULTS AND DISCUSSION

**Table 1**  
**Descriptive Statistics Table**

	RGDP	C	CBLTCL	CBLRTCL	MSTCI
Mean	4.783074	1.000000	3.000008	1.395548	4.462188
Median	4.800846	1.000000	2.985090	1.392521	4.387212
Maximum	4.843918	1.000000	3.143649	1.492621	4.954387
Minimum	4.662876	1.000000	2.882746	1.271842	4.117271
Std. Dev.	0.062166	0.000000	0.096751	0.064683	0.252680
Skewness	-0.748022	NA	0.135777	-0.141314	0.727701
Kurtosis	2.262720	NA	1.533902	2.555618	2.570389
Jarque-Bera	1.274960	NA	1.018960	0.127121	1.055433
Probability	0.528623	NA	0.600808	0.938417	0.589951
Sum	52.61381	11.00000	33.00008	15.35102	49.08407
Sum Sq. Dev.	0.038646	0.000000	0.093608	0.041838	0.638474
Observations	11	11	11	11	11

**Source:** E-view 9

The descriptive statistics table above showed that RGDP, CBLTCL, CBLRTCL and MSTCI have the mean values of 4.783074, 3.000008, 1.395548 and 4.462188 respectively. The table also showed that RGDP, CBLTCL, CBLRTCL and MSTCI have the median values of 4.800846, 2.985090, 1.392521 and 4.387212 respectively. RGDP, CBLTCL, CBLRTCL and MSTCI have the maximum values of 4.843918, 3.143649, 1.492621 and 4.954387 respectively. This implies that MSTCI has the highest value than other variables. Also, the minimum value shows that RGDP, CBLTCL, CBLRTCL and MSTCI have the values of 4.662876, 2.882746, 1.271842 and 4.117271 respectively. This implies that RGDP has the highest minimum value



than other variables. The standard deviation values were 0.062166, 0.096751, 0.064683 and 0.252680 for RGDP, CBLTCL, CBLRTCL and MSTCI respectively. The normality test measures whether the data set is normally distributed or otherwise. The measures of normality considered by this study were skewness and kurtosis. Skewness measured the degree of asymmetry of the series. The series may be normally skewed, positively skewed or negatively skewed. A skewness value of zero is said to be normal and implies that the distribution is symmetry around its mean; a positive skewed value implies that the distribution has a long right tail, implying that the skewness value is higher than the sampled mean. A negative skewness implies that the distribution has a long-left tail with lower values than the sampled mean. From the E-view result, the skewness values of -0.748022, 0.135777, -0.141314 and 0.727701, respectively for RGDP, CBLTCL, CBLRTCL and MSTCI. CBLTCL and MSTCI have positive values, implying that CBLTCL, and MSTCI variables have a long right tail while RGDP and CBLRTCL have negative skewness meaning that they have long left tail.

Kurtosis measures the peakedness or flatness of the data relative to the normal distribution. Kurtosis could be mesokurtic, leptokurtic or platykurtic. A kurtosis value of 3.0000 is mesokurtic, meaning that the distribution is normal. A kurtosis value greater 3.0000 is said to be leptokurtic or positive kurtosis, meaning that it has a peaked curve and produces higher values than the normal. A kurtosis value less 3.0000 is platykurtic or negative kurtosis, meaning that it has a flatted curve and that it produced lower values than the sample mean. From the result obtained in table for the dataset, the kurtosis values of 2.262720, 1.533902, 2.555618 and 2.570389 respectively for RGDP, CBLTCL, CBLRTCL and MSTCI. All the variables were less than 3.0000 required for a normal distribution. It, therefore, means that all the variables were platykurtic, meaning that they produced lesser value than the normal.

The Jarque-Bera (JB) test measures the difference of the skewness and kurtosis of the series with those from the normal distribution. The null hypothesis for the JB statistics is that the series is normally distributed. Given the result in table above, the JB values of 1.274960, 1.018960, 0.127121 and 1.055433 with their respective p-values of 0.528623, 0.600808, 0.938417 and 0.589951 respectively for RGDP, CBLTCL, CBLRTCL and MSTCI have P-values greater than 0.05 (5 per cent) meant that their null hypotheses were not rejected.



**Table 2**  
**Result of Regression Model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.485775	0.243794	18.39982	0.0000
CBLTCI	-0.073634	0.047076	-1.564130	0.1618
CBLRTCL	0.703639	0.074573	9.435591	0.0000
MSTCI	-0.103931	0.019360	-5.368485	0.0010
R-squared	0.965942			
Adjusted R-squared	0.951345			
S.E. of regression	0.013713			
Sum squared resid	0.001316			
Log likelihood	34.06148			
F-statistic	66.17634			
Prob(F-statistic)	0.000017			

*Source: E-view 9 (5% significance level)*

The regression model table above shows the regression estimates of the variables. From the result  $R^2$  is 0.966, this implies that about 96.6% of the total disparity found in RGDP confirms goodness of fit and is caused by the independent variables, while the remaining 3.3% is caused by other factors covered by the stochastic variable ( $\mu$ ). The F-statistic with a value of 66.1763 which is greater than 2.5 rule of thumb and the prob. (P-value) 0.00002 indicate its significance.

The regression estimates show that deposit money bank loan to telecommunication industry (CBLTCI) and Real Gross Domestic Product (GDP) are negatively related with a coefficient value of -0.0736 and insignificant. The negative relationship is against our a priori expectation, however the relationship is insignificant with a p-value of 0.1618 which is greater than 5% significant level.

Further, deposit money bank lending rate to telecommunication industry (CBLRTI) and Real Gross Domestic Product (RGDP) is positive with a coefficient value of 0.7036 and equally significant with a p-value of 0.0000. This indicates positive and



significant relationship as the p-value is less than 5% significant level. This is not line with the a priori expectation of the study.

Lastly, the relationship between money supply to telecommunication industry (MSTI) and Real Gross Domestic Product (RGDP) is negative with a coefficient value of -0.1039 but significant, with a p-value of 0.0010. The result reveals a negative but significant relationship as the p-value is less than 5% significant level. This implies that the more the money supply, the less the growth of the economy. This is always the case where the money supplied are not recovered especially when it has to do with loan.

### **Test of Hypotheses**

*H<sub>01</sub>: There is no positive and significant relationship between deposit money bank loan to telecommunication industry and real gross domestic product of Nigeria.*

From the regression result, the relationship between deposit money bank loan to telecommunication industry (CBLTI) and Real Gross Domestic Product (RGDP) is observed to be negative with coefficient of -0.0736 statistically insignificant with a p-value of 0.1618 which is higher than the acceptable 5% significance level. This implies that, there is negative and insignificant relationship between relationship between deposit money bank loan to telecommunication industry and real gross domestic product of Nigeria. Therefore, the null hypothesis one of the studies would fail to be rejected.

*H<sub>02</sub>: There is no positive and significant relationship between deposit money bank lending rate to telecommunication industry and real gross domestic product of Nigeria.*

The result of the analysis shows that the relationship between deposit money bank lending rate to telecommunication industry (CBLTI) and Real Gross Domestic Product (RGDP) is positive with coefficient of 0.7036 and significant with a p-value of 0.0000 which is less than the accepted 5% significance level. Therefore, there is positive and significant relationship between deposit money bank lending rate to telecommunication industry and real gross domestic product of Nigeria. Therefore, the null hypothesis two of the study would be rejected.



*H0<sub>3</sub>: There is no positive and significant relationship between money supply to telecommunication industry and real gross domestic product of Nigeria*

Also, the analysis result shows that the relationship between insurance investment in real estate mortgage (REM) and Real Gross Domestic Product (RGDP) is negative with a coefficient of -0.1039 but significant with a p-value of 0.0010 which is lower than the accepted 5% significance level. Therefore, we accept the alternate that there is negative but significant relationship between money supply to telecommunication industry and real gross domestic product of Nigeria. In other words, the null hypothesis-one of the study would be rejected.

## **5. CONCLUSION**

The impact of telecommunications is felt on human and social capital throughout history. Telecommunications plays a vital role in the development of any economy and its importance cannot be over emphasized. Adebayo and Ekejiuba, (2016) buttress the importance of telecommunications by saying that telecommunications across the globe has been identified as generic on almost all other sectors of the economy and that the function of telecommunications in any economy is strategic and has a link with other sectors.

Based on empirical findings of this study it is concluded that deposit money bank loan to telecommunication industry has negative and insignificant effect on real gross domestic product of Nigeria meaning that deposit money banks have not effectively administer loan efficiently to telecommunication industry. However, the study concludes that deposit money bank credit, interest rate and money supply to telecommunication industry significantly affect economic growth of Nigeria.

## **6. RECOMMENDATIONS**

Based on the finding of this study we recommend that;

- i. Deposit money bank should effectively administer loan in an efficient way to telecommunication industry in a way that will be visible to strike growth and be felt on human and social capital as it plays a vital role in the development of any economy.
- ii. The monetary authorities such as the central bank of Nigeria, the Nigeria deposit insurance corporation and federal ministry of finance among others should at all times put effort in regulation and control of lending rate in order not to decrease the borrowing ability of the telecommunication industry as





they are one of the employers of labour which contribute to economic growth.

- iii. Deposit money bank/financial institutions should always provide needed fund to telecommunication industry in order to have needed capital for investments as telecommunications across the globe has been identified as one of the contributory sectors to economic growth of Nigeria.

## REFERENCES

- Adebayo, A. A. & Ekejiuba C O. (2016). A Review of the Contributions of Telecommunications to the Economic growth of Nigeria. *International Journal of Electrical & Electronics Engineering*, 3(2); e-ISSN: 1694-2310 | p-ISSN: 1694-2426
- Adelegan, O.J. (2011). Infrastructure deficiencies and investment in manufacturing firms in Nigeria. *Journal of Economics and International Finance*, 3(9), 542-552.
- Awoloye, O. M., Okogun, O. A, Ojuloge, B. A., Atoyebi, M. K. & Ojo, B. F. (2012). Socio- Economic Effect of Telecommunication Growth in Nigeria: An Exploratory Study. *Interdisciplinary Journal of Contemporary Research in Business*, 4(2), 2-6
- Awoloye, O. M., Okogun, O. A, Ojuloge, B. A., Atoyebi, M. K. & Ojo, B. F., (2012). Socio- Economic Effect of Telecommunication Growth in Nigeria: An Exploratory Study. *Interdisciplinary Journal of Contemporary Research in Business*. 4(2), 256-262,
- Bakare, A. S. (2011). An empirical study of the determinants of money supply growth and its effects on inflation rate in Nigeria. *Journal of Research in International Business and Management*. 1(5): 124-129.



- Benchimol, J., Fourçans, A., (2013). Money and risk in a DSGE framework: a Bayesian application to the Eurozone. *Journal of Macroeconomics* 34 (1), 95–111.
- Buiter, Willem H. (2009), ‘The unfortunate uselessness of most “state of the art” academic monetary economics’, *Vox EU*, 6 March. <http://www.voxeu.org/article/macroeconomics- crisis-irrelevance>.
- Central Bank of Nigeria (2010), *CBN Briefs*, 2008-2009 Edition, Research Department, CBN, Abuja
- Fapetu, O. & Obalade, A. A. (2015). Sectorial Allocation of Banks’ Credit and Economic Growth in Nigeria. *International Journal of Academic Research in Business and Social Sciences* June, 5(6), 2222-6990, [www.hrmars.com](http://www.hrmars.com)
- Gashaw, D. (2014). ”Can Monetary Authority Controle the Stock of Money Supply in Ethiopia: An Empirical Investigation”. Addis Ababa University. Unpublished Thesis, Economic Department.
- Gerti, S. & Kalluci, I. (2014). Determinants of bank credit to the private sector: The case of Albania, 9(48); DOI: 10.13140/RG.2.2.19042.12485
- Gichuki, J., Oduor, J. and Kosimbei, G. (2012). “ *The choice of optimal monetary policy instrument for Kenya.*” *International Journal of economics and management Sciences*1(9), 01-23. [Managementjournals.org](http://Managementjournals.org)
- Handa, J. (2009). Monetary economics. 2<sup>nd</sup> Ed. New York. Routledge publisher.
- Hassan O. M. (2016). Implications of Deposit money bank Loans on Economic Growth in Nigeria (1986-2014), *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)* 7(3):124-136; 2141-7024; [jetems.scholarlinkresearch.com](http://jetems.scholarlinkresearch.com)



- Makali, J. M. (2012). The Effect of Deposit money bank Loans on the Economic Growth of Kenya, *A research project proposal presented in partial fulfillment of the requirements for the award of master of science in finance, school of business of the university of Nairobi*
- McKinnon, R. I. (1973). Money and capital in economic development. Washington DC. The Brookings Institution.
- 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; 2222-1697 (Paper) ISSN 2222-2847 (Online)
- Ndukwe, E. (2011). The Telecommunication Revolution in Nigeria, *Convocation Lecture delivered at the Igbinedion University Okada on the 2nd December 2011 at the Annual Convocation Ceremony of the University.*
- Nwanyanwu, O. J. (2010). “An Analysis of Banks’ Credit on the Nigerian Economic Growth”; *Jos Journal of Economics*, 4(1).
- Nwasilike, O.T. (2016). Local Manufacturing Capacity Supporting the Energy and Power Sector in Nigeria. NCD Series.
- Odufuye, B. M. (2017). Bank Credits and its Impact on Nigerian Economy Growth. *International Journal of Development Strategies in Humanities, Management and Social Sciences / IJDSHMSS*, 7(3); ISSN Print: 2360-9036 | ISSN Online: 2360-9044
- Okpara G. C (2009) Paper presentation on the topic: “A Synthesis of the critical Factors Affecting performance of the Nigerian Banking System” published in *European Journal of Economics* ISSN 1450 – 2887 Issue 17 (2009)



- Oluitan, R. O. (2012). Bank Credit and Economic Growth: Evidence from Nigeria. *International Business and Management*, 5(2), 102-110: 1923-841X [Print] 1923-8428 [Online] DOI:10.3968/j.ibm.1923842820120502.1040
- Olusegun, A. J., Akintoye, I. R. & Dada, S. O., (2014). Deposit money bank Credit and Sectoral Growth in Sub- Saharan Africa: Evidence from Nigeria in Nigeria. *Global Advanced Research Journal of Management and Business Studies* (ISSN: 2315-5086) 3(9) 423-431,
- Onwumere J. U. J., Imo .G. & Ugwuanyi, U. B. (2012). “Does open market operations as a monetary policy tool has an impact on price stability in nigeria?” *Research Journal of Finance and Accounting*. 3(10): 43-48
- Roussakis, E.N (2017). *Managing commercial bank fund*. New York: Praeger Publisher
- Sanusi, A. R (2010). An empirical analysis of the money supply process in Ghana: 1983-2006. *Abuja Journal of Banking and Finance*. 2(1): 115 – 128.
- Sepehri, Ardeshir, and Saeed Moshiri (2004). Inflation-Growth Profiles Across Countries: Evidence from Developing and Developed Countries. *International Review of Applied Economics* 18, pp. 191–207.
- Shaw, E. S. (1973). *Financial deeping in economic development*. New York: Oxford University Press
- Ugoani, J. N. N. (2013). Power of Bank Credit on Economic Growth: A Nigerian Perspective, *International Journal of Financial Economics*, 1(3); 93-102
- Yousefi, F. H. (2015). *The Role of Telecommunication in Banking Industry of North Cyprus, A Thesis Submitted to the Institute of Graduate Studies and Research in partial fulfillment of the requirements for the Degree of Master of Science in Banking and Finance Department*.