

FINANCIAL INTERMEDIATION IN DEPOSIT MONEY BANKS AND NIGERIAN ECONOMY

Adewole Joseph Adeyinka

Department of Banking and Finance, Faculty of Social and Management Sciences
Adekunle Ajasin University, P.M.B 001, Akungba Akoko, Ondo State, Nigeria
e-mail: princeadeyinkaadewolej@gmail.com
ORCID: <https://orcid.org/0000-0002-0676-5480>

Popoola Mufutau Akanmu

PhD In Business Administration
Department of Business Administration, School of Business and Governance
Kwara State University, Malete, Nigeria
28, Oyedokun Street, Agowande Area
Igbona, Osogbo, Osun State
e-mail: mufupop@yahoo.com
ORCID: <https://orcid.org/0000-0003-1483-5124>

Idachaba Odekina Innocent

Department of Banking and Finance, Ahmadu Bello University, Zaria
e-mail: Innocent4grace@gmail.com

The paper summarizes the arguments and counterarguments within the scientific discussion on financial intermediation in deposit money banks and economic growth in Nigeria. The main purpose of the research is to examine the relationship between financial intermediation in deposit money banks and the Nigerian economy. A systematization literary approach for solving the problem is Regression Analysis. Secondary data was sourced from Central Bank of Nigeria Statistical Bulletin. The results of findings within the years of analysis (2000-2017) indicated that there was significant relationship between Total Bank Credit and monetary policy indices on deposit money banks in Nigeria. It was also discovered that there was significant relationship between Gross domestic product and total credit in deposit money banks of Nigeria. Based on the objective and findings of this study, the study therefore recommends that Deposit Money Banks in Nigeria should foster higher level of liquidity in order to increase its ability to cover withdrawals made by its customers and to increase the loan and advances to customers even with the monetary policy indices on deposit money banks. The study also recommends that Deposit Money banks should distribute adequate credit to the real sector for productive purposes in order to increase Gross domestic product. The conclusions that can be drawn from the findings of this study is that with the level of minimum reserve maintained by Deposit Money bank with Central bank of Nigeria, there is adequate availability of credit for real sector investments. High lending rates of deposit money banks may make many customers/investors to consider other sources of finance. Bank Credit/loan is still greatly increasing the production of goods and services in the Nigeria Deposit Money Banking System because of utilisation of the loans by investors.

Keywords: financial intermediation, deposit money banks, Nigerian economy.

1. INTRODUCTION

Financial intermediation is the process of transferring sums of money from economic agents with surplus funds to economic agents that would like to utilize those funds. The key to understanding the process and the range of financial instruments available lies in recognizing that economic agents are a heterogeneous bunch having very different financial positions, investment, business and financial needs. For this reason, there are a wide range of financial intermediaries and financial instruments servicing these needs. Financial intermediation is an act of collecting funds from depositors by financial lenders/institutions and then lending them to borrowers. That is, it is a process where the people with excess funds give banks or any other financial institution, and the bank offers credit to those individuals who require the funds for personal or business reasons. It often involves mobilizing the financial savings and channeling them to borrowers

through specialized institutions known as banks. These specialized institutions are also called financial markets licensed to accept those deposits and lend them to the business and households at given interest rates over a specified period.

Financial intermediation also cuts across making payments, receivables, transfers and guarantees by the banks on behalf of their customers. Examples of organizations that carry out financial intermediation are banks, insurance firm, leasing companies, microcredit, private equity, venture capital, pension funds, amongst others. Some of these organizations enjoy a cost advantage in providing these intermediation services in such a way that they cannot only pay their bills but also make profits, thereby bring about efficiency in the general economy.

The function of deposit money banks is the mobilization of savings for investment. The importance of banks in influencing economic growth within an economy is widely acknowledged.

Schumpeter (1932) as cited in Blum, Federmair, Fink and Haiss (2002) identified banks role in facilitating technological innovation through their intermediary roles. He believes that efficient allocation of savings through identification and funding of entrepreneurs with the best chances of successfully implementing innovative products and production processes, are tools to achieve a real growth. According to Blum, et al (2002), financial intermediation is the process of transferring the savings of some economic units to others for consumption or investment at a price. For financial intermediation to take place there must be instruments and financial institutions operating together with the objective of bringing about economic growth of the country. Black (2002) defines financial intermediaries as firms whose main function is to borrow money from one set of people and lend it to another. Financial Intermediary institutions consist of banks and non-bank loan suppliers such as Finance companies, mortgage lenders and development finance institutions.

Many researchers have identified a theoretical relationship between financial intermediation and the real sector (the output and services sector of the economy), for instance, Smith (1976) cited in Blum, et al (2002) express the view that the high density of banks in the Scotland of his times was a crucial factor for the rapid development of Scottish economy. Schumpeter (1932) cited in Blum, et al, (2002) argued that the creation of credit through the banking system was an essential source of entrepreneur's capability to 'drive real sector growth by funding and employing new combinations of factor use.

Many researchers (for example, Goldsmith, 1969; McKinnon, 1973; Shaw, 1973; Fry, 1988; and King and Levine 1993) have pointed out the significance of banks to the growth of the economy. In examining the relationship, a number of recent empirical studies (for example, Azege, 2004; Levine, 2005; and Ayadi, Adegbite, 2008) have relied on measures of size of financial intermediaries to provide evidence of a link between financial system development and economic growth. This used macro level data such as size of financial intermediaries relative to Gross Domestic Product (GDP) to determine the impact of financial development on economic growth. In particular, Ayadi, and Adegbeti (2008) established a positive relationship between financial development and economic growth in Nigeria for the period of 1986 – 2005.

Also there are many other studies that investigate the relationship between financial intermediation, financial intermediaries, financial system, economy growth and economy development in Nigeria. Notable among them are; Azege (2004); Ndebbio (2004); Ayadi, et al, (2008); Agu and Chukwu (2008); Adbullahi (2009); and Nzotta and Okereke (2009), but the results of these studies are divergent. The divergence seems to emanate from the different estimation procedures and the data used for analysis. These results are deficient in that they did not attempt

to evaluate the causality between financial intermediation and economy growth in Nigeria. They merely examine the correlation between financial intermediation and economy growth. Another observed weakness of these previous studies is that they did not discuss the implications of the relationship that exist between finance and economy growth. These studies also did not give the specific implication of each variable of financial intermediation of the deposit money banks activities in Nigeria. This means there is a gap in the literature which needs to be covered by research.

Despite the series of reforms and restructuring aimed at strengthening the bank ability to efficient service delivery, branch networking and fund the real sector, inadequate domestic credit by the commercial banks to the real sector still persist. As reported by Adeoye (2003), the Deposit Money Banking services are still inadequate and unattractive to borrowers because they do not favour long-term lending, and even for short-term lending, their high interest rates do not only discourage borrowing but also make repayment difficult. Moreover, the effect of policy distortions on the ability of Deposit Money banks to supply credit to the various sectors is reflected in their dismal performance.

Low liquidity is still affecting Deposit Money Banks Nigeria which affects its loan to deposit ratio and it difficult for many Deposit Money Banks to cover daily withdrawals made by its customers. Also, it makes it difficult for Deposit Money Banks to adequately meet up with their short and long term obligations.

Delivery of financial intermediation role of Deposit Money banks in Nigeria is unprogressive because of increase in the issue of default risk due to the fact that many of Deposit Money banks borrowers are found of not repaying their borrowed funds as a result of fund diversion, poor investment appraisal, lack of adequate information about the intending business which is also as a result of failure on the part of many Deposit Money banks to monitor the end-use of loans given out to its customers.

The broad objective of this study is to examine the relationship between financial intermediation in deposit money banks and the Nigerian economy. The specific objectives are to examine the relationship between deposit money banks total credit and the monetary policy indices on deposit money banks in Nigeria, examine the relationship between gross domestic product and total credit of deposit money banks in Nigeria. The hypotheses of this study are presented in a null form which states that there is no significant relationship between deposit money banks total credit and the monetary policy indices on deposit money banks in Nigeria, there is no significant relationship between gross domestic product and total credit of deposit money banks in Nigeria.

This research provides an in-depth analysis, which would enable the Nigerian populace to fully

understand the nitty-gritty of the performance of Deposit Money Bank in Nigeria and ultimately enable them to be very much familiar with Deposit Money Bank Financial Intermediation role. This study is important at this level of economic development when efforts are being made to reposition the financial system to enable it play key roles in economic development of Nigeria. The study essentially seeks to examine in an empirical manner, the nature of Deposit Money Bank in Nigeria since 2000 up to 2017. The study shall seek to ascertain the critical factors that have affected the level of financial intermediation of Deposit Money Banks in Nigeria. This study is justifiable since it will employ the crucial methodology analysis used in examining the flows of credit in the Deposit Money banking system. While most studies conducted on Deposit Money bank and financial intermediation examined the banks activities up to 2014 (Tonye and Andabai, 2014). The periods covered also made the study unique to others. It covered eighteen years ranging from 2000 to 2017. Although, the performance of Deposit Money banks has been well documented in both international and domestic literature, this work seeks to add to the research by examining the relationship between financial intermediation in Deposit Money banks and its performance which is a quiet departure from previous studies that focused on the determinant of Deposit Money bank credit to small and medium scale enterprise. A review of the problems facing the Deposit Money Banks in Nigeria is quite indispensable. Such a review will enable the institution face the ever-increasing demand upon it. Finally, since the essence of every research work is to build upon and add to the existing knowledge on the performance of Deposit Money Bank in Nigeria, this study would also help us understand the strong bond between Deposit Money Banks financial Intermediation and economic growth in Nigeria.

2. LITERATURE REVIEW

2.1 Concept and Nature of Financial Intermediation

To ensure that investible funds are made available for economic activities, social and community services sector inclusive in the urban and rural areas and the quest for overall development of the economy informed the decision of financial system focusing more financial intermediation. Financial intermediation is typically an institution that facilitates the channeling of funds between lenders and borrowers indirectly. That is, savers (lenders) give funds to an intermediary institution (such as a bank), and that institution gives those funds to spenders (borrowers). Gorton & Winton (2002) define financial intermediaries as firms that borrow consumers/savers and lend same to companies that need resources for investment.

Financial intermediaries can be classified into institutional investors, pure intermediaries like

investment banks and Deposit Money Banks. Among all the financial intermediaries, banks are the major financial intermediaries that accept deposits and make loans directly to the borrowers (Quilym, 2012).

Mahmood and Bilal (2010) opined that the rising magnitude of financial intermediation have adverse implications on the growth of Nigerian economy because in the absence of developed capital market, the private sector which contributes a greater percentage to economic growth in Nigeria will primarily depend on bank credit as a source of financing their investments which will lead to economic growth. This means that the constant rise of financial intermediation discourages potential savings due to low returns on deposits, and ultimately reduces lending activities and investment potential of investors as a result of high cost of funding (Ndung'u & Ngugi, 2000; Mahmood & Bilal, 2010). Financial intermediation involves the transformation of mobilized deposits liabilities by financial intermediaries such as banks into bank assets or credits such as loan and overdraft. It is simply the process whereby financial intermediaries take in money from depositors and lend same out to borrowers for investment and other economic development purposes (Andrew & Osuji, 2013). According to Acha (2011), financial intermediation is a system of channeling funds from lenders (economic surplus unit) to borrowers (economic deficit unit) through financial institutions. Financial markets link savers and borrowers. The link is accomplished through either direct finance or indirect finance.

Direct Finance occurs when savers lend funds directly to borrowers. For instance, if a student asks a classmate to loan him/her money to buy a new car and he/she agrees, you are engaging in direct finance. There is no third party involved that brought the two persons; in fact, most indirect finance often involves the assistance of a third party, such as a broker, who brings buyer and seller together. When International Business Machine (IBM) issued new bonds, it uses the service of various specialists in the financial markets. So also was Dangote group of Businesses either for its cement or sugar etc. For now, simply note that the ultimate buyers of Dangote cement or IBM bonds of shares will usually engage the services of a broker to arrange the sales. This is one way financial markets facilitates direct finance.

An indirect finance which is in contrast involves a particular type of middleman-a third party who stands between the borrower and the lender. This middleman is called a financial intermediary and his or her role is to accumulate funds for various savers and loan those funds to borrowers.

2.2 Functions of Financial Intermediaries

The process of financial intermediation is a very important role in an economy like ours. The majority of economic agents are in need of resources which they cannot generate on their own while some have surplus resources. Thus, Some of the functions

performed by the financial intermediaries according to Sanderson (2014), are as follows:

Pooling the resources of small savers: Many borrowers require large sums, while many savers offer small sums. Without intermediaries, the borrower for a N100, 000 mortgage would have to find 100 people willing to lend him or her N1 000. That is hardly efficient. Banks, for example, pool many small deposits and use this to make large loans.

Mobilising Wholesale finance and Lines of Credit: Financial intermediaries will also mobilise large sums of money from the wholesale markets for on-lending to many small borrowers across various productive sectors. Such facilities can be mobilised offshore, where a smaller company would not be able to negotiate favourable terms by themselves. Examples of such facilities are offshore credit facilities raised by banks to fund SMEs or mortgages locally.

Providing safekeeping, accounting, and payments mechanisms for resources: Banks are an obvious example for the safekeeping of money in accounts, the records of payments, deposits and withdrawals and the use of debit/ATM cards. Financial intermediaries can do all of this much more cheaply than individuals because they take advantage of economies of scale. All of these services are standardized and automated on a large scale, so per unit transaction costs are minimized.

Providing liquidity: Financial intermediaries make it easy to transform various assets into a means of payment through ATMs, credit cards, debit cards, etc. In doing this, financial intermediaries manage many short-term outflows and investments with long-term outflows and investments in order to meet their obligations while profiting from the spread between long and short term interest rates.

Diversifying risk: Financial intermediaries help investors to diversify in ways they would be unable to do on their own. Banks spread depositor funds over many types of loans, so the default of any one loan does not put depositor funds in jeopardy. This is otherwise known as risk transformation i.e. Converting risky investments into relatively risk-free ones. (lending to multiple borrowers to reduce the risk)

Collecting and processing information: Financial intermediaries are experts at collecting and processing information in order to accurately gauge the risk of various investments and to price them accordingly. Individuals do not likely have the tools or know-how to do the same, and certainly could not do so as cheaply as financial intermediaries (i.e. economies of scale are important here). This need to collect and process information comes from a fundamental asymmetric information problem inherent in financial markets.

Reconciling conflicting preferences of lenders and borrowers: Financial intermediaries match the deposit requirements of the savers with the investment requirements of the borrowers.

2.3 Empirical Review

Agbada and Osuji (2013) carried out an empirical study to ascertain the relationship between financial intermediation and output growth using time series data for Nigeria from 1981-2011. Multiple regression models were used to estimate the variables and the results indicate a positive and significant relationship between demand deposit and output. This is contrary to theory which posits that this variable is solely met to meet the withdrawal needs of businesses. The second variable, savings/time deposit has a linear and significant relationship with output. This result supports theoretical postulation which says that savings and time deposit is a primary source of capital accumulation. Finally, loans and advances have a negative and insignificant relationship with output. The combined effects of these variables show that there is a significant relationship between financial intermediation and economic growth in Nigeria.

Adekunle, Salami and Adedipe (2013) studied the impact of financial development on economic growth in Nigeria. The aim of the study was to determine the role the banking system is playing towards the economic prosperity of Nigeria. The model was calibrated using OLS and the results show that all the independent variables are statistically not significant. Further results reveal that the real interest rate was negatively correlated with growth. This is even as the overall variables explained 74 percent variation in the GDP.

Nwite (2014) carried out a study on determinants of financial intermediation and its implications on economic growth in Nigeria using OLS and cointegration test. From the research findings, the study found that there was a long run relationship between credit to the private sector, lending rate, interest rate margin and economic growth in Nigeria. The study found that from 2004 to 2007, the period recorded the highest average annual growth rate in loan disbursement to the private sector, yet the same period recorded the worst average annual growth rate in the manufacturing capacity utilization rate. From the research findings, the result obtained from this study supports both theoretical and empirical evidence that financial intermediation has impacted positively on the development of the Nigerian economy. The study concludes that there is a significant and positive effect of financial intermediation on economic development in Nigeria.

Murtala, Ahmad, Siba and Mohammed (2015) investigated the role of financial intermediaries in the sustainable economy growth of Nigeria. Augmented Dickey-Fuller and Phillips-Perron unit root tests, as well as Andrew-Zivot, were used to check the stationarity of each variable in the model. The study employed ARDL bounds testing to examine the relationship between financial sector indicators (with particular attention to insurance, bank, and stock market development) and economic growth in both short-run and long-run. Toda Yamamoto Causality was also applied to observe the nature of causality.

Their findings suggested that there was a significant positive long-run and short-run relationship between stock market, insurance development, and economic growth. The result are consistent with theoretical and empirical predictions. However, a negative short-run and long-run relationship existed between bank development and economic growth. The feedback coefficient was negative and significant, suggesting about 0.37% disequilibrium in the previous period was corrected in the current year. They found a stable long-run relationship between economic growth and financial depth, as indicated by the CUSUM and CUSUMSQ stability tests. Bank credit, insurance, value of the stock transaction, and interest rate jointly caused economic growth while bank credit, insurance, value of the stock transaction, and GDP did not jointly cause lending. Their findings are consistent with the view that economic growth is an outcome of the financial development.

The study by Emecheta and Ibe (2014) also probed the role of bank credit on growth in Nigeria for the period 1960-2011. The authors used current GDP as a measure of economic growth and financial deepening variables of bank credit to the private sector (CPS) to GDP ratio and broad money (M2) to GDP ratio and adopted VAR for the analysis and the results holds that there is an impactful linear connection between bank credit and economic growth.

Ogege and Boloupremo (2014) investigated the effect of sectorial credit allocation by deposit money banks in accelerating GDP growth in Nigeria. The authors used time series data from 1973-2011. Engle-Granger Representation Theorem of Error correction was adopted for the analysis and results suggested that credit to the production sector has a significant and real effect on the growth rate of Nigeria whereas general commerce, services and other sectors has a negative and statistically unimportant connection with GDP in Nigeria. The study concluded by saying that commercial banks should be more efficient in credit distribution to accelerate growth.

Basher (2013) examined the linkage between open markets, financial sector development and economic growth to know if markets along with financial sector development affect economic growth in Nigeria. The study made use of Granger causality test, Johansen cointegration test and vector error correction model. It was found that the causation between open markets, financial sector development and growth in Nigeria is weak and insignificant, and such cannot be used to forecast economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

King and Levine (1993), citing Schumpeter (1911), state that, "the services provided by financial intermediaries – mobilizing savings, evaluating projects, managing risks, monitoring managers, and facilitating transactions – are essential for technological innovations and economy". This statement motivated King and Levine to empirically test the logic behind this statement. This statement

also motivated others into studying the relationship between finance and economic growth. King and Levine (1993) conducted a pooled cross-country time series survey of eighty countries for the period 1960-1989 with a view to establishing the relationship between financial development and economic growth. Four variables were used as proxy for financial development: financial depth; relative importance of specific financial institutions; proportion of credit allocated to the private sector, and the ratio of claims on the non-financial private sector. On the other hand four variables were used as proxy for economic growth: long-run real per capital GDP; the rate of physical capital accumulation, the ratio of domestic investment to GDP; and residual measure of improvement in the efficiency of physical capital allocation. This study showed that the four indicators of financial development were positively and statistically related to growth and other indicators of growth.

Odedokun (1998), using a cross-country data analysis of 71 less developed countries (LDCs) for the period 1960 to 1980, found that, even though financial intermediation promotes economic growth, the growth-promoting effects were more pronounced in the low-income countries. Two models were developed for this study, with growth as the dependent variable, while the independent variables include: labour force growth; Investment-GDP ratio; real export growth; and financial depth. Using ordinary least squares (OLS) and Generalized Least Squares (GLS) techniques, the study showed a strong positive relationship between financial intermediation and economic growth.

Hao (2006) carried out a study to establish the association between financial intermediation and economic growth, using a country-specific data from China, over the period 1985 to 1999, and post 1978 reform period. The study employed the use of linear model which expressed economic growth as a function of lagged economic growth, and financial development indicators (banks, savings, and loan-budget ratio). The study finds that financial intermediation has a causal effect and positive impact on growth through the channels of households' savings mobilization and substitution of loans for state budget appropriations

Shittu (2012) in a country specific study investigated the impact of financial intermediation on economic growth in Nigeria using the ratio of domestic credit to private sector (CPS)/nominal GDP and money supply (M2)/nominal GDP as measures of financial intermediation and real GDP as a proxy for economic growth. The results show that broad money (M2) was more influential on economic growth than credit to the private sector. Further findings from the study indicates that, the last ten decades of the study saw the highest level of loans to the private sector but yet had the worst annual manufacturing growth rate.

Tonye and Andabai (2014) examined the relationship between financial intermediation and

economic growth in Nigeria. The methodology used was vector error correction model. The study found that there is long run relationship between financial intermediation and economic growth. The study concluded that about 89% of the variations in economic growth in Nigeria are explained by changes in financial intermediation variables. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Basher (2013) examined the linkage between open markets, financial sector development and economic growth to know if markets along with financial sector development affect economic growth in Nigeria. The study made use of Granger causality test, Johansen co-integration test and vector error correction model. It was found that the causation between open markets, financial sector development and growth in Nigeria is weak and insignificant, and such cannot be used to forecast economic growth in Nigeria. This study also does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Haruna (2012) investigates the determinants of cost of financial intermediation in Nigeria's Pre-consolidated banking sector using 13 banks quoted on the Nigerian Stock Exchange. The study made use of panel data regression models. It was found that operating expense and loan loss provision accounts for greater variation in commercial banks financial intermediation cost. This study does not consider effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Idries (2010) investigated the cost of financial intermediation in Jordan from 2000 to 2008. The study made use of random effects estimation approach. The study indicates that high and increasing financial intermediation cost are derived from efficiency level complimented by capital adequacy ratio and loan to total asset ratio. The study considered effects of financial intermediation on economic development using credit to private sector, lending rate and interest rate margin as independent variables in the country.

Beck and Hesse (2006) investigate why financial intermediation cost is high in Uganda. The study made use of a unique bank level data set on the Uganda banking system over the period 1999 to 2005. The study found that bank level characteristics, such as bank size, operating costs and composition of loan portfolio affects financial intermediation cost. The study also found that financial intermediation costs have no robust and economic significant relationship with foreign bank ownership, market structure and bank efficiency in Uganda. This study does not consider effects of financial intermediation on economic development using credit to private sector,

lending rate and interest rate margin as independent variables in the country.

2.4 Theory of financial intermediation

The theory of financial intermediation was first formalized and popularized in the works of Goldsmith (1969), Shaw (1973) and Mckinnon (1973), who see financial markets (both money and capital markets) playing a pivotal role in economic development, attributing the differences in economic growth across countries to the quantity and quality of services provided by financial institutions. Supporting this view is the result of a research by Nwaogwugwu, (2008) and Dabwor, (2009) on the Nigerian stock market development and economic growth, the causal linkage. However, this contrasts with Robinson (1952), who argued that "financial markets are essentially hand maidens to domestic industry, and respond passively to other factors that produce cross – country differences in growth. Moreover there are general tendency for supply of finance to move along with the demand for it. The same impulse within an economy, which set enterprises on foot, makes owners of wealth, venturesome and when a strong impulse to invest is fettered by lack of finance, devices are invented to release it. The Robinson school of thought therefore believes that economic growth will bring about the expansion of the financial sector. Goldsmith (1969) attributed the direct correlation between the level of real per capita GNP and financial development to the positive effect that financial development has on encouraging more efficient use of the capital stock. In addition, the process of growth has feedback effects on financial markets by creating incentives for further financial development.

Mckinnon (1973) in his study argued that there is a complimentary relationship between physical capital and money that is reflected in money demand. This complimentary relationship according to Mckinnon (1973) links the demand for money directly with the process of physical capital accumulation mainly because the conditions of money supply have a first order impact on decision to save and invest. Debt intermediary hypothesis was proposed by Shaw (1973), whereby expanded financial intermediation between the savers and investors resulting from financial liberalisation (higher real interest rates) and development increase the incentive to save and invest, stimulates investments due to an increase supply of credit, and raises the average efficiency of investment. This view stresses the importance of free entry into and competition within the financial markets as prerequisites for successful financial intermediation. They labelled the main rudiments of financial suppression as:

- i. High reserve requirements on deposits,
- ii. Legal ceilings on bank lending and deposit rate,
- iii. Directed credit,
- iv. Restriction on foreign currency capital transactions,
- v. Restriction on entry into banking activities.

However, the Mckinnon-Shaw framework informed the design of financial sectors reforms in many developing countries, country experiences later showed that while the framework explains some of the quantitative changes in savings and investment at the aggregate level, it polishes over the micro-level interactions in the financial markets and among financial institutions which affects the supply of savings and demand for credit by economic agents and the subsequent effect on economic growth. Mckinnon's Proposition is based on the complementarily hypothesis, which in contrast to the Neo-classical monetary growth theory, argued that there is a complementarily between money and physical capital, which is reproduced in money demand.

2.5 Supply leading theory

The supply leading theory postulates that the existence of financial institutions like the Nigerian deposit money banks and the supply of their financial assets, liabilities and related financial services in advance of demand for them would provide efficient allocation of resources from surplus units to deficit units, thereby leading to other economic sectors in their growth process (Patrick, 1996). This theory performs two functions first it transfer resources from traditional sectors to modern sectors and second, it promotes and stimulates an entrepreneurial response in the modern sectors. The supply leading financial intermediation can be linked to the term 'innovation finance'. Hence, one of the most significant effects of supply leading approach is that, as entrepreneurs have new access to the supply leading funds. Their expectation increase and new horizons as to possible alternatives are opened, thereby making the entrepreneur to think big. The supply leading theory presents an opportunity to induce real growth by financial means. Its use, analysts believe is more result oriented at the early level of a country's development than later. According to Gerschenkron (1962) 'the more backward the economy relative to others in the same time period, the greater the emphasis on supply leading finance'. According to Keynes, an increase in investment results in an increase in income, while people's propensity to consume will lead to lack of savings, nevertheless in economic market when a function of the individuals is spending, they put back part of the income into the economy. Besides, this theory makes it clear that higher interest rate makes it more expensive for SMEs to borrow money, which means that enterprises invest less and when they do that, income are reduced such that the amount left over for savings equals the lesser amount now invested. In the theory also, investment and savings have been considered two critical macroeconomics variables with micro economic foundation for achieving price stability and promotion of employment opportunities which contribute to the sustainable economic growth. The conventional perception through which investment, savings and economic growth are related is that savings contribute

to higher investments, hence higher GDP growth in short run. The theory finally concludes that the financial institutions especially banks help in the reduction of risk faced by firm and businesses in their process, improve the portfolio of diversification and isolation of the economy from the change of international economic changes. It also provides linkages for the different sectors of the economy and encourages a high level of specialization expertise and economies of scale

2.6 Theory of Economic Growth

Economic growth is closely linked to the intricacies of the financial system. A well developed and efficient financial system helps in allocating financial resources to the best uses in the real sector, thereby promoting economic growth. As the real sector grows, the demand for financing increases and in this way the financial sector grows in tandem with the economy, signifying a two way causal relationship between finance and growth. In developed countries, financing generally flows both from the banking system and the capital markets, while in most developing and transition economies the capital markets lag behind, which shifts the burden of financing to the banking system.

There are numerous growth models in literature. However, there is no consensus as to which strategy will achieve the best success. The achievement of sustained growth requires minimum levels of skills and literacy on the part of the population. Some of these existing growth models are Two-Gap Model, Marxian Theory, Schumpeterian Theory, and Harrods - Domar Theory of Growth, Neo-Classical Model of Growth, and Endogenous Growth Theory. The growth models relevant to this are Neo-Classical Model of Growth, and Endogenous Growth Theory, since these growth models explain the situation in developing economies such as Nigeria. The neo-classical model of growth was first devised by Robert Solow. The model believes that a sustained increase in capital investment increases the growth rate only temporarily. This is because the ratio of capital to labour goes up (there is more capital available for each worker to use) but the marginal product of additional units of capital is assumed to decline and the economy eventually moves back to a long-term growth path, with real GDP growing at the same rate as the workforce plus a factor to reflect improving "productivity". A "steady-state growth path" is reached when output, capital and labour are all growing at the same rate, so output per worker and capital per worker are constant. According to Todaro, the Neo-classical economists believe that to raise an economy's long term trend rate of growth requires an increase in the labour supply and an improvement in the productivity of labour and capital. Differences in the rate of technological change are said to explain much of the variation in economic growth between developed countries. This is shown in the model below. The aggregate production function, $Y = F(K, L)$ is assumed characterized by constant returns to

scale. For example, in the special case known as the Cobb-Douglas production, at time t we have

$$Y(t) = K(t)^\alpha (A(t)L(t))^{1-\alpha} \quad (1)$$

Where Y is gross domestic product, K is the stock of capital (which may include human capital as well as physical capital), L is labour, and $A(t)$ represents the productivity of labour, which grows over time at an exogenous rate. Because of constant returns to scale, if all inputs are increased by the same amount, say 10%, then output will increase by the same amount (10% in this case). More generally

$$\gamma Y = F(\gamma K, \gamma L) \quad (2)$$

where γ is some positive amount (1.1 in the case of a 10% increase). Because γ can be any positive real number, a mathematical "trick" useful in analyzing the implications of the model is to set $\gamma = 1/L$, so that

$$Y/L = f(K/L, 1), \text{ or, } y = f(k) \quad (3)$$

This simplification allows us to deal with just one argument in the production function.

$$y = AK^\alpha \quad (4)$$

This represents an alternative way to think about a production function, in which everything is measured in quantities per worker. Equation 4 states that output per worker is a function that depends on the amount of capital per worker. The more capital with which each worker has to work, the more output that worker can produce. The labour force grows at rate n per year, say, and labour productivity growth, the rate at which the value of A in the production function increases, occurs at rate λ . the total capital stock grows when savings are greater than depreciation, but capital per worker grows when savings are also greater than what is needed to equip new workers with the same amount of capital as existing workers have.

The Solow equation (Equation 5) gives the growth of the capital-labour ratio, k (known as capital deepening), and shows that the growth of k depends on savings $sf(k)$, after allowing for the amount of capital required to service depreciation, k , and after capital widening that is, providing the existing amount of capital per worker to net new workers joining the labour force, nk . That is

$$\Delta k = sf(k) - (\delta + n)k \quad (5)$$

For simplicity we are assuming for now that A remains constant. In this case, there will be a state in which output and capital per worker are no longer changing, known as the steady state. (If A is increasing, the corresponding state will be one in which capital per effective workers is no longer changing. In that case, the number of effective workers rises as A rises, the job.) To find this steady state, set $\Delta k = 0$:

$$Sf(k^*) = (\delta + n)k \quad (6)$$

The notation k^* means the level of capital per worker when the economy is in its steady state. The capital per worker k^* represents the steady state. If k is higher or lower than k^* , the economy will return to it; thus k^* is a stable equilibrium. In the Solow equation, we see that when $(n + \delta)k < sf(k)$, $\Delta k > 0$. As a result, k in the economy is growing toward the equilibrium point k^* . by similar reasoning to the right of k^* , $(n + \delta)k > sf(k)$ and as a result $\Delta k < 0$.

By the chain rule,

$$Y = \frac{dY}{dt} = \frac{\partial Y}{\partial K} \frac{\partial K}{\partial t} + \frac{\partial Y}{\partial L} \frac{\partial L}{\partial t} \quad (7)$$

By the exponent rule, we know that

$$\frac{\partial Y}{\partial K} = A(\alpha + \beta) K^{\alpha + \beta - 1} L^{1 - \alpha} \quad (8)$$

$$\frac{\partial Y}{\partial L} = AK^{\alpha + \beta} (1 - \alpha) L^{-\alpha} \quad (9)$$

Combining these three equations, we have

$$Y = \frac{dY}{dt} = [AK^{\alpha + \beta} L^{1 - \alpha}] \left[(\alpha + \beta) \frac{K}{K} + (1 - \alpha) \frac{L}{L} \right] \quad (10)$$

The first term in brackets in the preceding expression is of course output, Y . For a steady state, K/K , L/L , and Y/Y are all constant. From the above

$$K = 1 - \delta K = sY - \delta K \quad (11)$$

Dividing this expression through by K , we have

$$K = sY - \delta \quad (12)$$

For K/K constant in the preceding expression, we must have Y/K constant. If this ratio is constant, we have

$K = Y = g$, a constant growth rate

So from the expression for dY/dt in the preceding expression, for the aggregate production function, with $L/L = n$, which is also a constant, we have

$$Y = (\alpha + \beta)(K) + (1 - \alpha)Lg = (\alpha + \beta)g + (1 - \alpha)n \quad (13)$$

$$g - n = \frac{[(1 - \alpha) + (\alpha + \beta) - 1]}{[1 - (\alpha + \beta)]} n$$

The neo-classical model treats productivity improvements as an "exogenous variable meaning that productivity is assumed to be independent of capital investment (IMF, 2001). According to Nnanna, Englama, and Odoko (2004), based on Solow's analysis of the American data from 1909 to 1949, he observed that 87.5% of economic growth within the period was attributable to technological change and 12.5% to the increased use of capital. The result of the growth model was that financial institutions had only minor influence on the rate of investment in physical capital and the changes in investment are viewed as having only minor effects on economic growth.

The endogenous growth theory holds that policy measures can have an impact on the long-run growth

rate of an economy. They claimed that the growth model is one in which the long-run growth rate is determined by variables within the model, not an exogenous rate of technological progress as in a neoclassical growth model. Jhingan (2006) explained that the endogenous growth model emphasizes technical progress resulting from the rate of investment, the size of the capital stock and the stock of human capital.

3. METHODS

This section presents the research methods of carrying out the objectives specified in this study. It presents the population of study, Sources of data, Method of data analysis, Description of Research Variables. It also contains a detailed outline of systems of modelling equations that will be used to capture the objectives of this study as well as test of Validity and Reliability. This study relied basically on secondary data which are obtained from Central Bank of Nigeria statistical bulletin from 2006 to 2017.

The population target for this study focuses on pre and post consolidated Deposit Money Banks in Nigeria and the performance of the real sector from 2000 – 2017. According to Cooper & Schindler (2001), population is the total collection of elements about which one wants to make some inferences.

In this research, the type of data analysis that was employed is the inferential statistics (i.e parametric statistics), such as multiple and simple regression analyses. Several authors have also used this approach in their works (Reinhart & Tokatlidis, 2000; Adam, 2007). To achieve the stated objectives, two equations were used to capture the stated objectives. These are the determinant of credit equation and economic growth equation. The determinant of credit equation was employed in order to examine the determinants of Deposit Money banks credit to the real sector of the economy in Nigeria. The economic growth equation was employed in order to assess the effect of Deposit Money Bank Credits on economic growth in Nigeria.

To achieve the objectives of this study, the model concentrates on the determinants of credit and impact of credit on economic growth in Nigeria. To estimate the impact of credit on the performance of the real sector, the Solows model was adjusted by including some financial variables which act as intervening variables that affect the operations in the sectors. Hence this growth model was generated

$$GDP_{si} = \alpha_0 + \alpha_1 TC_{si} + e_1$$

This model was then adopted to capture objective two of this study. Also, to estimate the determinant of bank credit in the Nigerian Deposit Money Banks, the Solows model was adjusted by including some **monetary policy indices on the deposit money banks in Nigeria** such as Liquidity Ratio, Deposit Rate, Lending Rate, Cash Reserve Ratio e.t.c which act as intervening variables that affect the operations in the

sectors. Hence this determinant of credit model was generated

$$TC_{si} = \alpha_0 + \alpha_1 LR_{si} + \alpha_2 DR + \alpha_3 CRR + \alpha_4 LRA + e_1$$

This model was then adopted to capture objective one of this study. This is stated below:

Determinants of bank credit equation...I

$$TC_{si} = \alpha_0 + \alpha_1 LR_{si} + \alpha_2 LDR + \alpha_3 CRR + \alpha_4 LRA + e_1$$

Where:

TC = Deposit Money Bank credit (TC_{si})

X_1 = Liquidity Ratio; (LR)

X_2 = Loans to Deposit Ratio; (LDR)

X_3 = Cash Reserve Ratio (CRR)

X_4 = Lending Rate/Bank Rate (LRA)

α_0 = Constant (A);

α_i = Regression Coefficients;

e_1 = Error term

Economy growth equation...II

$$GDP_{si} = \alpha_0 + \alpha_1 TC_{si} + e_1$$

where

Y_i = performance measures (Sectoral Real GDP)

x_i = Deposit Money Bank credit to the real sectors; (TC_{si})

α_0 = Constant (A);

α_i = Regression Coefficients;

e_1 = Error term

The models used annual data spanning through the period 2000-2017.

3.5.1 Estimation Techniques

To estimate the data generated for the study, the inferential technique is basically ordinary least square methods since the results will be sufficient, efficient and unbiased to predict the future for policy making.

However, to examine the factors influencing the determinant and growth of supply of credit in the Nigerian banking system, the study employed multiple and simple regression of ordinary least square method. Research variables are described below:

Deposit Money Bank credit: This is the amount of credit available to a company or individual from the banking system. It is the aggregate of the amount of funds financial institutions are willing to provide to an individual or organization.

Liquidity ratio: This is the class of financial metrics used to determine a company's ability to pay off its short-terms debts obligations. Generally, the higher the value of the ratio, the larger the margin of safety that the company possesses to cover short-term debts.

Lending rate (interest rate): This is the bank rate that usually meets the short and medium medium-term loan financing needs of the private sector. This rate is normally differentiated according to creditworthiness of borrowers and objectives of financing.

Gross domestic product (GDP): This is the monetary value of all the finished goods and services produced within a country's borders in a specific time

period. Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well.

Deposit rate: This is the interest rate paid by financial institutions to deposit account holders. Deposit accounts include certificate of deposit, savings accounts and self-directed deposit retirement account.

Cash reserve ratio: This is a specified minimum fraction of the total deposits of customers, which commercial banks have to hold as reserve either in cash or as deposits with the central bank. CRR is set according to the guidelines of the central bank of a country.

4. RESULTS

Data presentation

Total Credit, Liquidity Ratio, Lending Rate, Cash Reserve Ratio, Gross Domestic Product of Deposit Money Banks.

<i>Years</i>	Loans to deposit ratio in (%)	Liquidity ratio in (%)	Total Credit (N' Billions)	Lending Rate (%)	Cash Reserve Ratio (%)	Gross Domestic Product (N' Billions)
2000	-	-	508.3	17.98	-	6897.48
2001	65.6	52.9	796.2	18.29	-	8134.14
2002	62.8	52.5	954.6	24.85	-	11332.25
2003	61.9	50.9	1210.0	20.71	-	13301.56
2004	68.6	50.5	1519.2	19.18	-	17321.30
2005	70.8	50.2	1976.7	17.95	-	22269.98
2006	63.6	55.7	2524.3	17.26	-	28662.47
2007	70.8	48.8	4813.5	16.94	-	32995.38
2008	80.9	44.3	7799.4	15.14	3.0	39157.88
2009	85.7	30.7	8912.1	18.99	1.3	44285.56
2010	74.2	30.4	7706.4	17.59	1.0	54612.26
2011	44.8	42.0	7312.7	16.02	8.0	62980.40
2012	42.3	49.7	8150.0	16.79	12.0	71713.94
2013	38.0	63.2	10005.6	16.72	12.0	80092.56
2014	64.2	38.3	12889.4	16.55	20.0	89043.62
2015	69.6	42.3	13222.65	16.85	20.0	94144.96
2016	75.95	41.25	15829.30	16.87	22.5	101498.49
2017	78.175	49.05	15775.45	17.58	22.5	113711.63

SOURCE: CBN Statistical Bulletin (December, 2017)

Determinants of bank credit equation.....I

$$TC_{si} = \alpha_0 + \alpha_1 LR_{si} + \alpha_2 LDR + \alpha_3 CRR + \alpha_4 LRA + e_i$$

Where:

TC = Deposit Money Bank credit (TC_{si})

X₁ = Liquidity Ratio; (LR)

X₂ = Loans to Deposit Ratio; (LDR)

X₃ = Cash Reserve Ratio (CRR)

X₄ = Lending Rate/Bank Rate (LRA)

α₀ = Constant (A);

α_i = Regression Coefficients;

e_i = Error term

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	LRA, CRR, LDR, LR ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: TC

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.988 ^a	.976	.958	694.44340	.976	51.742	4	5	.000	3.004

a. Predictors: (Constant), LRA, CRR, LDR, LR

b. Dependent Variable: TC

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.981E7	4	2.495E7	51.742	.000 ^a
	Residual	2411258.146	5	482251.629		
	Total	1.022E8	9			

a. Predictors: (Constant), LRA, CRR, LDR, LR

b. Dependent Variable: TC

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error				Beta	Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	-9739.854	4972.878		-1.959	.107	-22523.044	3043.336						
	LR	53.252	35.252	.152	1.511	.191	-37.366	143.871	.130	.560	.104	.469	2.133
	LDR	82.551	17.885	.427	4.616	.006	36.576	128.526	.316	.900	.317	.552	1.812
	CRR	344.385	29.110	.889	11.830	.000	269.554	419.215	.896	.983	.813	.836	1.196
	LRA	508.262	249.133	.154	2.040	.097	-132.155	1148.679	.165	.674	.140	.831	1.203

a. Dependent Variable: TC

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	LR	LDR	CRR	LRA
1	1	4.650	1.000	.00	.00	.00	.01	.00
	2	.262	4.210	.00	.00	.01	.79	.00
	3	.077	7.769	.00	.12	.21	.11	.00
	4	.010	22.040	.03	.63	.76	.08	.10
	5	.001	62.667	.97	.24	.02	.01	.90

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions				
				(Constant)	LR	LDR	CRR	LRA
1	1	4.650	1.000	.00	.00	.00	.01	.00
	2	.262	4.210	.00	.00	.01	.79	.00
	3	.077	7.769	.00	.12	.21	.11	.00
	4	.010	22.040	.03	.63	.76	.08	.10
	5	.001	62.667	.97	.24	.02	.01	.90

a. Dependent Variable: TC

Economy growth equation.....II

$$GDP_{si} = \alpha_0 + \alpha_1 TC_{si} + e_i$$

Where

Y_i = performance measures (Sectoral Real GDP)

x_1 = Deposit Money Bank credit to the real sectors; (TC_{si})

α_0 = Constant (A);

α_i = Regression Coefficients;

e_i = Error term

Variables Entered/Removed^b

Model	Variables Entered	Variables Removed	Method
1	TC ^a	.	Enter

a. All requested variables entered.

b. Dependent Variable: GDP

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.971 ^a	.943	.939	8655.60837	.943	263.392	1	16	.000	.941

a. Predictors: (Constant), TC

b. Dependent Variable: GDP

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.973E10	1	1.973E10	263.392	.000 ^a
	Residual	1.199E9	16	7.492E7		
	Total	2.093E10	17			

a. Predictors: (Constant), TC

b. Dependent Variable: GDP

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	5841.967	3379.343		1.729	.103	-1321.921	13005.855					
	TC	6.456	.398	.971	16.229	.000	5.613	7.299	.971	.971	.971	1.000	1.000

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	5841.967	3379.343		1.729	.103	-1321.921	13005.855					
TC	6.456	.398	.971	16.229	.000	5.613	7.299	.971	.971	.971	1.000	1.000

a. Dependent Variable: GDP

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions	
				(Constant)	TC
1	1	1.797	1.000	.10	.10
	2	.203	2.977	.90	.90

a. Dependent Variable: GDP

5. DISCUSSIONS

From the results of **determinants of bank credit equation I**, the correlation coefficient (R) is 0.988. This means that there is a positive or strong correlation between dependent and independent variable. The coefficient of determination (R-Squared) was 97.6%. This means that 97.6% variation in the dependent variable is explained by the independent variable and 2.4% of the variation in the dependent variable is explained by the disturbance term or error term. This disturbance terms are inflation, economic meltdown, low productivity, low profitability etc. In other words, 97.6% variation in total credit is explained by variation in monetary policy indices on deposit money banks. 2.4% variation in the dependent variable is explained by variation of the variables excluded from the model.

Testing for the statistical significant at 5% (determinants of bank credit equation I)**H₀: b β**

H₀: There is no significant relationship between Total Bank Credit and monetary policy indices on deposit money banks in Nigeria.

Decision

t_{0.05} at (18 - 5) 13 degrees of freedom was statistically significant because analysis of variance (ANOVA) P - value < 0.05; p - value = 0.000. Therefore, H₁ is accepted and H₀ is rejected, meaning that b β is not equal to zero i.e. There is significant relationship between Total Bank Credit and monetary policy indices on deposit money banks in Nigeria.

The confidence intervals result revealed that the level of confidence interval 95%. This means that the samples data of the model reflects the fraction of calculated confidence intervals that encompass the true population. The Durbin-Watson result

is 3.004. The Durbin-Watson statistics is a number that tests for autocorrelation. Autocorrelation is a mathematical representation of the degree of similarity between lagged versions of itself over successive time intervals. In other words, it is a situation in which a time series data is influenced by its own historical values. The Durbin-Watson statistics is always between 0 and 4. The general rule states that a value of 2 means that there is no autocorrelation in the samples. Values approaching 0 indicate positive autocorrelation and values towards 4 indicate negative autocorrelation. However, the Durbin-Watson result of this model indicated negative autocorrelation since the value of 3.004 is approaching 4. The Collinearity Diagnostics result reveals that Variance Inflation Factors (VIF) is 1.00. The general rule is that VIFs exceeding 4 warrant further investigations while VIFs exceeding 10 are signs of serious multicollinearity requiring correction. Since VIFs result is 1.00 in this model, it does not require further investigations.

From the results of **economic growth equation 2**, the correlation coefficient (R) was 0.971. This means that there was a positive or strong correlation between dependent and independent variable. The coefficient of determination (R-Squared) is 94.5%. This means that 94.5% variation in the dependent variable was well explained by the independent variable and 5.5% of the variation in the dependent variable is explained by the disturbance term or error term. This disturbance terms are inflation, economic meltdown, low productivity, low profitability, non-performing loans etc. In other words, 94.5% variation in total credit was explained by variation in cash reserve ratio. 5.5% variation in the dependent variable is explained by variation of the variables excluded from the model. The confidence intervals result revealed that the level

of confidence interval 95%. This means that the samples data of the model reflects the fraction of calculated confidence intervals that encompass the true population.

The Durbin-Watson result is 0.941. The Durbin-Watson statistics is a number that tests for autocorrelation. Autocorrelation is a mathematical representation of the degree of similarity between lagged versions of itself over successive time intervals. In other words, it is a situation in which a time series data is influenced by its own historical values. The Durbin-Watson statistics is always between 0 and 4. The general rule states that a value of 2 means that there is no autocorrelation in the samples. Values approaching 0 indicate positive autocorrelation and values towards 4 indicate negative autocorrelation. However, the Durbin-Watson result of this model indicated positive autocorrelation since the value of 0.941 is approaching 0. The Collinearity Diagnostics result reveals that Variance Inflation Factors (VIF) is 1.00. The general rule is that VIFs exceeding 4 warrant further investigations while VIFs exceeding 10 are signs of serious multicollinearity requiring correction. Since VIFs result is 1.00 in this model, it does not require further investigations.

Testing for statistical significant at 5% (Equation 2).

Ho: $b\beta$

Ho: There is no significant relationship between Gross domestic product and total credit in deposit money banks of Nigeria.

Decision

$t_{0.05}$ at (18 – 2) 16 degrees of freedom was statistically significant because Analysis of variance

(ANOVA) P – value < 0.05 ; p - value = 0.000 . Therefore, H_1 is accepted and H_0 is rejected, meaning that $b\beta$ is not equal to zero i.e. there was significant relationship between Gross domestic product and total credit in commercial banks of Nigeria.

6. CONCLUSION

It is evident from the results of the study that the commercial banks reform strategies adopted in Nigeria have been geared towards making credit available to support the economy. As a result of this, supply of credit to the real sector has been improved. The conclusions that can be drawn from the findings of this study is that with the level of minimum reserve maintained by Deposit Money bank with Central bank of Nigeria, there is adequate availability of credit for real sector investments. High lending rates of deposit money banks may make many customers/investors to consider other sources of finance. Bank Credit/loan is still greatly increasing the production of goods and services in the Nigeria Deposit Money Banking System because of utilisation of the loans by investors. Base on the objective and findings of this study, the study therefore recommends that:

1. Deposit Money Banks in Nigeria should foster higher level of liquidity in order to increase its ability to cover withdrawals made by its customers and to increase the loan and advances to customers even with the monetary policy indices on deposit money banks.

2. Deposit Money banks should distribute adequate credit to the real sector for productive purposes in order to increase Gross domestic product.

ФІНАНСОВЕ ПОСЕРЕДНИЦТВО В ДЕПОЗИТНИХ ГРОШОВИХ БАНКАХ ТА НІГЕРІЙСЬКІЙ ЕКОНОМІЦІ

Адеволь Джозеф Адейінка, кафедра банківської справи та фінансів, факультет соціальних та управлінських наук, Університет Адекунле Ахасін, Р.М.В 001, Акунгба Аकोко, штат Ондо, Нігерія, e-mail: princeadeyinkaadewolej@gmail.com, ORCID: <https://orcid.org/0000-0002-0676-5480>

Муфутау Аканму Попола, доктор філософії з бізнес-адміністрування, кафедра бізнесу та підприємництва, Державний університет Квара, Малете, Нігерія, Вулиця Ойодокун 28, район Агованде, Ігбона, Ошогбо, штат Осун, e-mail: mufupor@yahoo.com, ORCID: <https://orcid.org/0000-0003-1483-5124>

Ідачаба Одекіна Іннокент, кафедра банківської справи та фінансів, Університет Ахмаду Белло, Зарія, e-mail: Innocent4grace@gmail.com

У статті узагальнені аргументи і контраргументи в рамках наукової дискусії про фінансовий посередництва в депозитних банках і економічному зростанні в Нігерії. Основна мета дослідження – вивчити взаємозв'язок між фінансовим посередництвом в депозитних банках і економікою Нігерії. Систематизацією літературного підходу до вирішення проблеми є регресійний аналіз. Вторинні дані були отримані з Статистичного бюлетеня Центрального банку Нігерії. Результати досліджень, проведені за роки аналізу (2000-2017 роки), показали, що існує значний взаємозв'язок між загальним обсягом банківського кредиту та показниками грошово-кредитної політики для депозитних грошових банків в Нігерії. Також було виявлено, що між валовим внутрішнім продуктом і загальним кредитом в депозитних банках Нігерії існує значний взаємозв'язок. Виходячи з мети і результатів цього дослідження, рекомендується, щоб депозитні грошові банки в Нігерії сприяли більш високому рівню ліквідності, з тим, щоб підвищити його здатність покривати зняття коштів своїми клієнтами і збільшувати кредит та аванси клієнтам навіть при показниках грошово-кредитної політики на депозитних грошах банків. У дослідженні також пропонується, щоб банки «Депозитні гроші» видавали адекватний кредит реальному сектору в виробничих цілях для збільшення валового внутрішнього продукту. Висновки, які можна зробити з результатів цього дослідження, полягають в тому, що при рівні мінімального резерву, який підтримує банком «Депозитні гроші» в Центральному банку Нігерії, існує достатня доступність кредиту для інвестицій в реальний сектор. Високі процентні ставки за депозитними грошовим банкам можуть спонукати багатьох клієнтів / інвесторів задуматися про інші джерела фінансування. Банківський кредит / кредит як і раніше значно збільшує виробництво товарів і послуг в нігерійської банківської системи депозитних грошей з-за використання кредитів інвесторами.

Ключові слова: фінансове посередництво, депозитні грошові банки, Нігерійська економіка.

ФИНАНСОВОЕ ПОСРЕДНИЧЕСТВО В ДЕПОЗИТНЫХ ДЕНЕЖНЫХ БАНКАХ И НИГЕРИЙСКОЙ ЭКОНОМИКЕ

Адеволь Джозеф Адейинка, кафедра банковского дела и финансов, факультет социальных и управленческих наук, Университет Адекулле Ахасин, Р.М.В 001, Акунгба Аकोко, штат Ондо, Нигерия, e-mail: princeadeyinkaadewolej@gmail.com, ORCID: <https://orcid.org/0000-0002-0676-5480>

Муфутау Аканму Попоола, доктор философии по бизнес-администрированию, кафедра бизнеса и предпринимательства, Государственный университет Квара, Малете, Нигерия, Улица Ойодокун, 28 район Агованде, Игбона, Ошогибо, штат Осун, e-mail: mufupop@yahoo.com, ORCID: <https://orcid.org/0000-0003-1483-5124>

Идачаба Одекина Иннокент, кафедра банковского дела и финансов, Университет Ахмаду Белло, Зария, e-mail: Innocent4grace@gmail.com

В статье обобщены аргументы и контраргументы в рамках научной дискуссии о финансовом посредничестве в депозитных банках и экономическом росте в Нигерии. Основная цель исследования – изучить взаимосвязь между финансовым посредничеством в депозитных банках и экономикой Нигерии. Систематизацией литературного подхода к решению проблемы является регрессионный анализ. Вторичные данные были получены из Статистического бюллетеня Центрального банка Нигерии. Результаты исследований, проведенные за годы анализа (2000–2017 годы), показали, что существует значительная взаимосвязь между общим объемом банковского кредита и показателями денежно-кредитной политики для депозитных денежных банков в Нигерии. Также было обнаружено, что между валовым внутренним продуктом и общим кредитом в депозитных банках Нигерии существует значительная взаимосвязь. Исходя из цели и результатов этого исследования, рекомендуется, чтобы депозитные денежные банки в Нигерии способствовали более высокому уровню ликвидности, с тем, чтобы повысить его способность покрывать снятие средств своими клиентами и увеличивать кредит и авансы клиентам даже при показателе денежно-кредитной политики на депозитных деньгах банков. В исследовании также предлагается, чтобы банки «Депозитные деньги» выдавали адекватный кредит реальному сектору в производственных целях для увеличения валового внутреннего продукта. Выводы, которые можно сделать из результатов этого исследования, заключаются в том, что при уровне минимального резерва, поддерживаемом банком «Депозитные деньги» в Центральном банке Нигерии, существует достаточная доступность кредита для инвестиций в реальный сектор. Высокие процентные ставки по депозитным денежным банкам могут побудить многих клиентов / инвесторов задуматься о других источниках финансирования. Банковский кредит / кредит по-прежнему значительно увеличивает производство товаров и услуг в Нигерийской банковской системе депозитных денег из-за использования кредитов инвесторами.

Ключевые слова: финансовое посредничество, депозитные денежные банки, Нигерийская экономика.

References

1. Adams, J. (1819). Quoted from Hammond, 1991. *Banks and Politics in America: From the Revolution to the Civil War*. Princeton: Princeton University Press.
2. Adeoye Tunde (2003) Determinant of Credit Flow From the Nigerian Banking System; An Empirical Analysis, *Niser Monograph Series No 6 Nigeria Institute Of Social And Economic Research (NISER), Ibadan*.
3. Adofu, M. I. and Audu, S. I. (2010). An Assessment of the Effect of Interest Rate Deregulation in enhancing Agricultural production in Nigeria. *Current Research Journal of Economic Theory*, 2(2): 82-86.
4. Acha, I.A. (2011). Does Bank Financial Intermediation Cause Economic Growth in Developing Economies: The Nigerian Experience. *International Business and Management*, 3(1), 156- 161.
5. Akinlo, T., & Apanisile, O. T. (2014). Relationship between Insurance and Economic Growth in Sub-Saharan African: A Panel Data Analysis. *Modern Economy*, 5(2), 120-127.
6. Akinmulegun, S.O., & Dare, F.D. (2009). *Introduction to Finance*. Ado Ekiti: Godliness Press and Publisher.
7. Alkhuzaim, W. (2014). Degree of Financial Development and Economic Growth in Qatar: ointegration and Causality Analysis. *International Journal of Economics and Finance*, 6(6), p57.
8. Allen, F. & Gale, D. (2004). Financial Intermediaries and Markets. *Econometrica*, 72(4), pp. 1023-1061.
9. Allen, L. and Rai, A. (1996) 'Operational Efficiency in Banking: An International Comparison', *Journal of Banking and Finance*. No.20. pp. 655-672.
10. Anad, A., & Subrahmanyam, A. (2008). Information and Intermediary: Are Market Intermediaries Informed Traders in Electric Markets? *Journal of Financial and Quantitative Analysis*, 43(1), pp. 1-28.
11. Andrew, O.A. and Osuji, C. C. (2013). An Empirical Analysis of Trends in Financial Intermediation and Output in Nigeria. *Global Journals Inc.(USA)*, 13(9) : 210-216.
12. Arabi, A. M. K. (2014). The Effect of Financial Development on Economic Growth in Sudan: Evidence from VECM Model. *International Journal of Economics and Finance*, 6(11), p72.
13. Araujo, L. & Minetti, R. (2007). Financial Intermediaries as Markets for Firms' Assets. *Economic Journal*, 117, pp. 1380-1402.
14. Ayadi, R., Arbak, E., Naceur, S. B., & De Groen, W. P. (2015). Financial Development, Bank Efficiency, and Economic Growth Across the Mediterranean. In *Economic and Social Development of the Southern and Eastern Mediterranean Countries* (pp. 219-233). Springer International Publishing.
15. Babenko V. A. (2016). Dynamical models of the minimax program management of innovation processes in interprises with risks. *NTU" KhPI"*, pp. 71-73.
16. Babenko, V., Alisejko, E., Kochuyeva, Z. (2017). The task of minimax adaptive management of innovative processes at an enterprise with risk assessment. *Innovative technologies and scientific solutions for industries*, No. 1 (1). doi: <https://doi.org/10.30837/2522-9818.2017.1.006>
17. Babenko V.O. (2012). Informacijne zabezpechennya ta modelyuvannya opy`mizaciyi garantovanogo rezul`tatu upravlinnya innovacijny`my` tehnologiyamy` na pidpry`yemstvax APK [Information support and modeling of

optimization of the guaranteed result of the management of innovative technologies at agricultural enterprises]. *Agrosvit*, TOV «DKS centr», № 14, pp. 10-18. (in Ukrainian)

18. Basher, O. K. (2013). Open Market, Financial Sector Development and Economic Growth in Nigeria. *European Scientific Journal*, 8(28): 80-85.

19. Beck, T. & Hesse, H. (2006). Bank Efficiency, Ownership and Market Structure: Why are Interest Rate Spread so high in Uganda? Department of economics, University of Oxford, discussion Paper Series No 277.

20. Benston, G. & Smith, Jr. (1975). A Transaction Cost Approach to the Theory of Financial Intermediation. *Journal of Finance*, 31(2), pp. 215-231.

21. Berger, A. N. 1995a. The profit-structure relationship in Banking-tests of market-power and efficient-structure hypothesis. *Journal of Money, Credit and Banking*, 27, 404-431.

22. Berger, A. N. 1995b. The relationship between capital and earnings in Banking. *Journal of Money, Credit and Banking*, 27, 432-456.

23. Berger, A. N. & Humphrey, D. B. 1997. Efficiency of financial institutions: international survey and directions for future research. *European Journal of Operational Research*, 98, 175-212.

24. Berger, A. N., Kick, T. & Schaeck, K. 2012. Executive board composition and bank risk taking. Working Paper, Bangor: Bangor Business School Goldsmith, R. W., 1969. Financial Structure and Development. New Haven: Yale University Press.

25. Blum, J. (2000). Do capital adequacy requirements reduce risk in banking? *Journal of banking and finance*, 23:755-71

26. Busgeeth, V.S. (2003), An analysis of factors determining performance of commercial banks in Mauritius, Msc Thesis, University of Mauritius, 90pp. Central Statistical Office, Mauritius, Annual Digests, various issues.

27. Cooper D.R. & Schindler P.S (2001) Business Research Methods. McGraw Hill Higher Education, London.

28. Cooper, M. (2003), 'Evidence of predictability in the Cross-section of bank stock returns', *Journal of Banking and Finance*. No. 27, pp.817-850.

29. Das, A & Das P, (2002), "Rate of interest on term deposits-A micro level study", online publication.

30. Denizer, C. (1997) 'The effect of Financial liberalization and new bank entry on market structure and competition in Turkey', macroeconomics and Growth development research group. No.10, pp. 55-60.

31. Dimitri, V. (1998). Role of Non-bank Financial Institutions. Available at: <https://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-1892>.

32. Duca, J. and McLaughlin, M. (1990) 'Developments affecting the profitability of commercial banks', Federal Reserve Bulletin, July.

33. Emecheta, B. C., & Ibe, R. C. (2014). The impact of bank credit on economic growth in Nigeria: Application of reduced vector auto-regression (VAR) technique. *European Center for Research, Training and Development*, UK, 2(9), 111-121.

34. Fadare, S. O. (2010). Recent Banking Sector Reforms and Economic Growth in Nigeria. *Middle Eastern Finance and Economics*, 8, 146 - 160.

35. Felicia, O. O. (2011). Determinants of Commercial Banks Lending Behaviour in Nigeria. *International Journal of Financial Research*, 2(2): 1-12.

36. Flamini, V., McDonald, C. and Schumacher, L. (2009) 'The Determinants of Commercial Bank Profitability in Sub-Saharan Africa', *IMF Working Paper*, WP/09/15.

37. Fries, S. (2002) 'Bank Performance in Transition Economies', *European Bank for Reconstruction and Development Working Paper*. No. 76.

38. Ghasemi, A., & Rostami, M. (2015). Determinants of interest rate spread in banking industry. *IJAR*, 1(9), 338-346.

39. Gorton, G., & Winton, A. (2002). Financial intermediation. *National Bureau of Economic Research Working Paper 8928*. Available at: <http://www.nber.org/papers/w8928>.

40. Goldsmith, R. (1969). Financial Structure and Development. *The Economic Journal*, 80(318), 365-367.

41. Gromb, D., & Vayanos, D. (2010). A Model of Financial Capital Liquidity Based on Intermediary Capital. *Journal of European Economic Association*, 8(2 - 3), pp. 456-466.

42. Gul, S., Irshad, F., & Zaman, K. (2011). Factors affecting bank profitability in Pakistan. *The Romanian Economic Journal*, 39(14), 61-89.

Haruna, M. A. (2012). Determinants of Cost of Financial Intermediation in Nigeria Pre-

43. Consolidated Banking Sector. *International Journal of Advanced research in Management and Social Sciences*, 1(2): 180-194

44. Hao, C. (2006). Development of financial intermediation and economic growth: China experience. Being a proceeding of the 15th

45. Holmstrom, B., & Tirole, J. (1998). Private and Public Supply of Liquidity. *Journal of Political Economy*, 106(1), pp. 1-40.

46. Idries, M. A. (2010). Cost of Financial Intermediation in the Banking Sector of Jordan. *International Research Journal of Finance and Economics*, Issue 56: 7-21.

47. Islam, M. and Oslam, J. (2011). Development Impact of Non-Bank Financial Intermediaries on Economic Growth in Malaysia: An Empirical Investigation. *International Journal of Business and Social Sciences*, 2(14): 187-198.

48. Institute for Policy Studies. (2013). Financial Intermediaries. A Glossary of Climate Finance Terms, Washinton: IPS.

49. Jhingan, M. L. (2004). Microeconomics Theory. Vrinda Publications (P) Ltd., Indian.

50. Jhingan, M. L. (2004). Money, Banking, International Trade and Public Finance. Vrinda Publication (P) Ltd. Indian.
51. Kapingura, F. M. (2013). Finance and economic growth nexus: Complementarity and substitutability between the banking sector and financial markets in Africa, using South Africa as a case1. *Journal of Economics and International Finance*, 5(7), 273.
52. Keynes, J. M. (1936), The general theory of employment, interest and money. Macmillan Publishers.
53. Khan, H. M., & Khan, B. (2010). What drives interest rate spreads of commercial banks in Pakistan? Empirical evidence based on panel data. *SBP Research Bulletin*, 6(2).
54. Khan, W. A., & Sattar, A. (2014). Impact of Interest Rate Changes on the Profitability of four Major Commercial Banks in Pakistan. *International Journal of Accounting and Financial Reporting*, 4(1), Pages-142.
55. King, R. & Levine, R. (1993). Finance and Growth: Schumpeter Might be Right. *The Quarterly Journal of Economics*, 108, pp. 681-737.
56. Kunt, D. and Huizinga, H. (1999) 'Determinants of Commercial Bank Interest Margins and Profitability: Some International Evidence'. *World Bank Economic Review*, Vol. 13 (2), pp. 379-408.
57. Kunt, D. and Huizinga, H. (2001) Financial Structure and Bank Profitability in Financial Structure and Economic Growth: A Cross-Country Comparison of Banks, Markets, and Development, Available at: <http://www.econ.worldbank.org/docs/1185.pdf> [accessed 20 April, 2010].
58. Levine R; (2005). Finance and Growth theory and Evidence. Department of Economics, Brown University.
59. Mahmood, H. and Bilal, K. (2010). What drives interest Rate Spreads of Commercial banks in Pakistan? Empirical Evidence Based on Panel Data. *BSP Research Bulletin*, 6(2): 15-36
60. Maina, M. W. (2015). Determinants of interest rate spread among commercial banks of Kenya (Doctoral dissertation).
61. Mashamba, T., Magweva, R., & Gumbo, L. C. (2014). Analysing the relationship between Banks' Deposit Interest Rate and Deposit Mobilisation: Empirical evidence from Zimbabwean Commercial Banks (1980-2006). *IOSR Journal of Business and Management*, 16(1), 64-75.
62. McKinnon, R.I. (1973) Money and Capital in Economic Development. The Brookings Institution, Washington DC.
63. Miller, S. and Noulas, A. (1997) 'Portfolio mix and large-bank profitability in the USA', *Applied Economics*. No. 29. pp. 505-512.
64. Mohan, S (2012), "Perspectives of Deposit Mobilisation," online publication Murtala, B.U., Siba, D., Ahmad, U.G., Muhammad, R.D., & Ali, U.A. (2015). An Empirical
65. Study on the Relationship between Financial Intermediaries and Economic Growth in Nigeria: A Cointegration and Causality Analysis. *Journal of Economics and Finance*. 6(4), 15 -31.
66. Naceur, B. and Goaid, M. (2001) 'The Determinants of the Tunisian Deposit Banks' Performance', *Applied Financial Economics*. No. 11. pp. 317-319.
67. Nieh, C., Chang, Y., Russel, P., & Hung, K. (2009). The Asymmetric Impact of Financial Intermediaries Development on Economic Growth. *International Journal of Finance*, 21(2), pp. 6035-6079.
68. Njeri, B. K., Ombui, K., & Kagiri, A. W. Determinants of Interest Rate Spread of Commercial Banks in Kenya.
69. Nwaeze, C., Onyedikachi, M., & Nwabekee, C. (2014). Financial intermediation and economic growth in Nigeria. *A Multidisciplinary Journal of Global Macro Trends*, 3(6), pp 208-218
70. Odedokun, M. (1998). Financial intermediation and economic growth in developing countries. *Journal of Economic Studies*, 25(30), 203-222.
6718. Odhiambo, N. (2011). Financial Intermediaries versus Financial Markets: A South African Experience. *International Business and Economic Research Journal*, 10(2), pp. 77-84.
72. Odoko, F.O. (Ed.). (2004). Financial Markets in Nigeria. A Central Bank of Nigeria Publication. Abuja: Kas Arts Services.
73. Ogowewo, T and Uche, C. (2006) '(Mis) using Bank Share Capital as a Regulatory Tool to Force Bank Consolidations in Nigeria', *Journal of African Law*. No. 50 (2). pp. 161-186.
74. Olukotun G.A, Adewole J.A and James S.O (2015): 'Bank Consolidation and the Efficiency of Financial Intermediation in the Nigerian Banking system'. *Journal of Leadership, Accounting Development and Investigation (JLADIR)*, Kogi State University. Volume 2, Number 1. Nigeria.
75. Oluyombo, O. O. (2007) Developing Microfinance Banking in Nigeria. *Babcock Journal of Management and Social Sciences*, Vol. 6 No. 1, pp 126-134
76. Onodugo, V., Kalu, I. E., & Anowor, O. F. (2013). Financial intermediation and private sector investment in Nigeria. *Research Journal of Finance and Accounting*, 4(12) 162-173
77. Onoh, J. K. (2002). Dynamics of Money, Banking and Finance in Nigeria: An Emerging Market. Astra Meridian Publishers, Aba- Nigeria.
78. Ogege, S., & Boloupremo, T. (2014). Deposit money banks and economic growth in Nigeria. *Financial Assets and Investing*, 1(1).
79. Okereke, R. J. (2005). *Money and the Nigerian Financial System*. Owerri 2nd Ed Jeso International.
80. Patrick, H. (2006). Financial Development and Economic Growth Underdeveloped Countries. Economic Development and Culture. *Change*. Vol. 14(2)
81. Peia, O., & Roszbach, K. (2013). Finance and Growth: Time Series Evidence on Causality. Available at SSRN 2206221.

82. Peng, W., Lai, K., Leung, F., & Shu, C. (2003). The impact of interest rate shocks on the performance of the banking sector. *HKMA Quarterly Bulletin*, 35, 20-7.
83. Popoola M.A, Adewole J.A and Idih O.E (2018): 'Determinants of Deposit Money Bank Credit to Small and Medium Scale Enterprises in Nigeria'. *International Journal of Advance research and inovatitive ideas in Education*. Volume 4, Issue 3. India.
84. Rasheed, O. A. (2010). Interest rate determinants in Nigeria. *International Research Journal of Finance and Economics*, 2(3): 1-12.
85. Rasheed, O. A. (2010). Mergers and Acquisitions (M&As) in the Nigerian Banking Industry: An Advocate of three Mega Banks. *European Journal of Social Sciences*, 15(4): 556-561.
86. Robinson, J. (1952). *The Generalization of the General Theory and Other Essays*, In: Nnana, O.J., Englama, A. and Odoko, F.O. (Ed.). (2004). *Financial Markets in Nigeria*. A Central Bank of Nigeria Publication. Abuja: Kas Arts Services.
87. Ram, R., 1999. "Financial Development and Economic Growth: Additional Evidence". *Journal of Development Studies*, 35(4), 164-174.
88. Robert E. W., & Vincenzo, Q. (2012). *Money and Banking*: Ontario: Harvard University Press.
89. Sahoo, S. (2014). Financial Intermediation and Growth: Bank-Based versus Market-Based Systems. *Margin: The Journal of Applied Economic Research*, 8(2), 93-114.
90. Salami, G. O., & Oluseyi, A. A. (2013). The Impact of Financial Sector Development on the Nigerian Economic Growth. *American Journal of Business and Management*, 2(4), 347-356.
91. Sanderson, A. (2014). Importance of financial intermediation. Available at: <https://www.herald.co.zw/importance-of-financial-intermediation/>
92. Schumpeter, J.A. (1911) *The Theory of Economic Development*. Harvard University Press, Cambridge.
93. Shaw, E. (1973) *Financial Deepening and Economic Development*. Oxford University Press, London.
94. Shittu, A. I. (2012). Financial intermediation and economic growth in Nigeria. *British Journal of Arts and Social Sciences*, 4(2).
95. Soludo C. (2004) Consolidating the Nigerian Banking Industry to meet the Development challenges of the 21st Century> Being an address delivered to the special meeting of the bankers committee held on July 6 at CBN HQ. Abuja.
96. Stiglitz, E. & Weiss, A. (1981). Credit rationing in markets with imperfect information, *the American Economic Review*, 71, 393-410.
97. Stiglitz, J. E. (1989). Credit Rationing in Markets with Imperfect Information. *The American Economic Review*, 8(71), 393-410.
98. Tonye, O. and Andabai, P. (2014). Financial Intermediation and Economic Growth in Nigeria. *Mediterranean Journal of Social Sciences*, 5(7): 12-25.
99. Wuryandani G. (2011). Banking Intermediation to Promote Real Sector Development in Indonesia *International Review of Business Research Papers*, Vol. 7. No. 1. January 2011. Pp. 211 - 230