AN EMPIRICAL ANALYSIS OF THE RELATIONSHIP BETWEEN FINANCIAL SECTOR DEVELOPMENT AND ECONOMIC GROWTH OF NIGERIAN

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ABSTRACT
This empirical study examined financial sector development and economic growth in Nigeria between 1981 to 2012. Secondary data on real gross domestic product (RGDP) was used as a proxy for economic growth; while financial development was captured by three variables; ratio of money supply to GDP (M2GDP), ratio of credit to private sector to GDP (CPSGDP) and real interest rate (RINT) which represented the explanatory variables were sourced mainly from CBN publications . In the cause of empirical investigation, various advanced econometric techniques like Augmented Dickey Fuller Unit Root Test, Johansen Cointegration Test and Error Correction Mechanism (ECM) were employed and the result revealed among others: That all the variables were stationary at first difference except for real gross domestic product which were stationary at second difference, meaning that the variables were not integrated of the same order justifying co-integration and error correction mechanism test. The cointegration result indicated that there is long run relationship among the variables with one cointegrating vectors. The result of the error correction mechanism (ECM) test indicates that all the variables except real interest rate exerted significant impact on economic growth in Nigeria. The study concluded that Nigeria financial system is yet to be developed to its full capacity, hence there is need to adequately deepen the financial system through innovations, adequate and effective regulation and supervision, efficient mobilization of funds and making such funds available for productive investment, and improved services.

KEYWORDS: Financial system, financial institution, financial deepening, Economic growth, Nigeria.

Background of the Study
The financial sector anywhere in the world plays a vital role in the development and growth of such an economy. The development of this sector determines how it will be able to effectively and efficiently discharge its major role of mobilizing funds from the surplus sector (savers) to the deficit sector (investors) of the economy. According to Nzotta (2004), financial institutions channel resources from surplus economic units to deficit units for investment purposes. This consists of the provision of loans and advances to the private and public sectors for the purpose and for the growth of domestic output and promotion of the export trade, agricultural production and provision of infrastructure. The system vigorously seek out and attract the reservoir of savings and idle funds and allocate same to entrepreneurs, businesses, households and government for investments projects and other purposes with a view of returns. This forms the basis for economic development. The financial system play a key role in the mobilization and allocation of savings for productive use, provide structures for monetary management, the basis for managing liquidity in the system (Osuji and Chibu, 2012). It also assists in the reduction of risks faced by firms and businesses in their productive processes, improvement of portfolio diversification and the insulation of the economy from the vicissitudes of international economic changes. Additionally, the system provides linkages for the different sectors of the economy and encourages a high level of specialization expertise and economies of scale.
Nzotta further contends that the financial system, additionally, provides the necessary environment for the implementation of various economic policies of the government which is intended to achieve non-inflationary growth, exchange rate stability, balance of payments equilibrium foreign exchange management and high levels of employment. The Nigerian financial system can be broadly divided into two sub-sectors, the informal and formal sectors. The informal sector has no formalized institutional
framework, no formal structure of rates and comprises the local money lenders, thrifts, savings and loans associations and all forms of ‘issusu’ associations.

Similarly, Jhingan (2004) argues that banks in developing economies play an effective role in their economic development. He said there is acute shortage of capital. People lack the initiative and enterprise. Means of transport are undeveloped. Industry depressed. Financial institutions help in overcoming these obstacles and promote economic development. Financial intermediaries monitor managers and exert corporate control ameliorating moral hazard risk. In particular, by providing liquidity, financial institutions permit risk adverse savers to hold deposits rather in liquid but unproductive assets. This mobilization of savings allows increase in the amount of resources available to entrepreneurs (Osuji and Chibu, 2012).

A well-developed financial system performs several critical functions by enhancing the efficiency of intermediation by reducing information, transaction and monitoring costs. If a financial system is well developed, it will enhance investment by identifying and funding good business opportunities, mobilizes savings, enables the trading, hedging and diversification of risk and facilitates the exchange of goods and services. All these result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in economic growth.

It is against this background that respective governments and monetary authorities of developing countries put in place various structures and pursued designated policies and programs aimed to enhance the efficiency and effectiveness with which the financial intermediaries, namely banks and other financial institutions, carry out their financial intermediation function; and to align same with the dictates of growth and development of their economies (Ezirim and Muoghalu, 2002).

According to Odeniran and Udeaja (2010) the financial market is mainly subdivided into the money and capital market. While the money market is the short-term end of the market and institutions here deal on short term instruments and funds. The capital market encompasses the institutions that deal on long-term funds and securities. The regulatory institutions in the financial system are the Federal Ministry of Finance, the Central Bank of Nigeria as the apex institution in the money market, the Securities and Exchange Commission (SEC) as the apex institution in the capital market, Nigerian Deposit Insurance Corporation, (NDIC), National Insurance Commission (NAICOM) and the National Pensions Commission (PENCOM).

It should be noted that development in the real sector, as noted by Ajayi (1995), influences the speed of growth of the financial sector directly, while the growth of the financial sector influence the real economy.

The economic growth is a gradual and steady change in the long-run which comes about by a general increase in the rate of savings and population (Jhingan, 2004). It has also been described as a positive change in the level of production of goods and services by a country over a certain period of time. Economic growth is measured by the increase in the amount of goods and services produced in a country.

An economy is said to be growing when it increases its productive capacity which later yield more in production of more goods and services (Jhingan, 2003). Economic growth is usually brought about by technological innovation and positive external forces. It is the yardstick for raising the standard of living of the people. It also implies reduction of inequalities of income distribution. Oluyemi (1995) regards the financial sector of any economy as an engine of growth that could greatly assist in the promotion of rapid economic transformation.

An efficient financial system is essential for building a sustained economic growth and an open vibrant economic system. Countries with well-developed financial institutions tend to grow faster; especially the size of the banking system and the liquidity of the stock markets tend to have strong positive impact on economic growth (Beck and Levine, 2002 in Nnanna, 2004). It is on this background that the research work aims at investigating the relationship between financial sector development and Nigeria economic growth, with emphases on long term growth.

**Statement of the Problem**

The link between the financial sector development and the growth of any economy has often debated in economic literature, where many are of the view that there exists a positive relationship between the two concepts (Bencivenga & Smith, 1991; Osuji and Chibudu, 2012) others argue a negative relationship between financial development and economic growth of the country in question. The real sector of the economy, most especially the high priority sectors which are also said to be economic growth drivers are not effectively and efficiently serviced by the financial sector. The banks are declaring billions of profit but yet the real sector continues to be weakening thereby reducing the productivity level of the economy. Most of the operators in the productive sector are folding up due to the inability to get loan from the financial institutions or the cost of borrowing was too outrageous. The Nigerian banks have concentrated on short
term lending as against the long term investment which should have formed the bedrock of a virile economic transformation. Since the adoption of the Structural Adjustment Programme (SAP) in 1986, in an attempt to quicken the recovery of the economy from its deteriorating conditions, a great deal of interest has been shown in the activities and development in the financial sector. This is so because the restructuring of this sector was a central component of the SAP reform. Thus, there is the need to deepen the financial sector and reposition it for growth and integration into the global financial system in conformity with international best practices. According to Nzotta and Okereke (2009) one of the most important policy concerns in most countries is the effect of consolidation of financial institutions on financial sector growth and development. The first major concern is the transmission mechanism. Consolidation could alter the credit allocation of the financial system by fostering the creation of larger banks having better access to the funds market. It also affects the availability and pricing of loans in response to changes in the market dynamics and the level of economic development. This study aims at achieving the following objectives: to,

1. Examine the longrun relationship between oil revenue and economic growth of Nigeria.
2. Examine the extent oil revenue impacted on the economic growth of Nigeria.

REVIEW OF RELATED LITERATURE

Theoretical Literature

Modern growth theory identifies two specific channels through which the financial sector might affect long-term growth: through its impact on capital accumulation (including human as well as physical capital) and through the rate of technological progress. These effects, nevertheless, occur from the intermediation role of the financial institutions, which enable the financial sector to mobilize savings for investment, facilitate and promote inflows of foreign capital such as foreign direct investment (FDI), portfolio investment and bonds, and remittances, and optimize the allocation of capital between contending issues by ensuring that capital goes to its most productive use. Economic growth occurs when a nation’s production possibility frontier (PPF) shifts outward. Economic growth, being the growth in output per capita, is an important objective of government since it is associated with rising average real incomes and living standard. The Robert Solow neo-classical growth model posits that growth depends on capital accumulation increasing the stock of capital goods to expand productive capacity, and the need for sufficient saving to finance increased allocation of resources towards investment. Specifically, Bencivenga & Smith (1991) hold the view that financial intermediaries help increase the rate of technological progress by identifying and thus allocating capital towards those innovations with the best chances of succeeding. Through a process driven by supply and demand, markets provide real-time information on prices and immediate discipline for those who have made bad decisions. This process depends on transparency in the market and the integrity of the information being made available. An effective regulatory system, through disclosure requirements and independent auditing, ensures both. Increasingly, the central role played by banks is being complemented by other financial services that offer alternative means for raising capital or diversifying risk. As with the banking system, the useful role for government in regulating these institutions lies in ensuring transparency; promoting disclosure of assets, liabilities, and risks; and ensuring integrity. Banking and financial regulation by the state that goes beyond the assurance of transparency and honesty in financial markets can impede efficiency, increase the costs of financing entrepreneurial activity, and limit competition. If the government intervenes in the stock market, for instance, it contravenes the choices of millions of individuals by interfering with the pricing of capital which is the most critical function of a market economy. Equity markets measure, on a continual basis, the expected profits and losses in publicly held companies. In an environment in which individuals and companies are free to choose where and how to invest, capital will flow to its best use: to the sectors and activities where it is most needed and the returns are greatest. State action to redirect the flow of capital and limit choice is an imposition on the freedom of both the investor and the person seeking capital. The more restrictions a country imposes on investment, the lower its level of entrepreneurial activity. Also, a transparent and open financial system ensures fairness in access to financing and promotes entrepreneurship. An open banking environment encourages competition to provide the most efficient financial intermediation between households and firms and between investors and entrepreneurs.
Empirical Literature

The role of financial sector in economic growth has intrigued macroeconomists and financial economists for decades. These have led to conflicting results on causality, with some indicating reverse causality and others resulting in insignificant parameters.

Odeniran and Udeaja (2012) examine the relationship between financial sector development and economic growth in Nigeria. It tests the competing finance-growth nexus hypothesis using Granger causality tests in a VAR framework over the period 1960-2009. Four variables, namely; ratios of broad money stock to GDP, growth in net domestic credit to GDP, growth in private sector credit to GDP and growth in banks deposit liability to GDP were used to proxy financial sector development. The empirical results suggest bidirectional causality between some of the proxies of financial development and economic growth variable. Specifically, the result showed that the various measures of financial development granger-cause output even at 1 percent level of significance with the exception of ratio of broad money to GDP.

Salami et al. (2013) in their study examines the impact of financial sector development and economic growth in Nigeria. The methodology that was adopted was OLS method of the regression analysis. The financial development was proxied by ratio of liquidity liabilities to GDP (M2GDP), real interest rate (INTR), ratio of credit to private sector to GDP (CPGDP) while the economic growth was measured by the real GDP (RGDP). The study finds that only the real interest rate is negatively related. All the explanatory variables are statistically insignificant. Though the overall statistic shows that the independent variables were able to explain 74 percent variation in the dependent but contrary to a priori expectation, it is statistically insignificant. They conclude that the link between the financial and real sector still remains weak and could not propel the needed growth towards the vision 202020.

In general, empirical studies suggest three types of causal direction between finance and growth. First, the Harrod-Domar growth model would lead to a hypothesis of one-way causality from financial development to economic growth. Second, there is unidirectional causality from growth to finance. Such finding confirms Powell (2003) conclusion that economic growth causes China’s financial development. Nonetheless, a third alternative, the co-evolution (bidirectional causality) between economic growth and financial development hypothesized in both early and recent literature (Gurley and Shaw 1960, 1967 in Bencivenga and Smith, 1991) cannot be ruled out.

In one of the early studies on this subject, Goldsmith (1969) analyzed data from thirty-five countries for the period 1860-1963 and found that financial and economic development are positively correlated over periods as long as several decades. Financial development was measured in his study by the ratio of financial intermediary assets divided by gross national product. The result from Goldsmith’s study still leaves the puzzle unresolved because each variable has a feedback effect on the other. In an attempt to explain the puzzle, Goldsmith (1969) stresses that financial development largely occurs during the early stages of economic development when countries have low levels of income.

The finding of Goldsmith (1969) was later confirmed by De Gregor and Guidotti (1995) who note that over time, the correlations between financial development and economic growth are strong in the early stages of development and are diminished or even eliminated for OECD countries. They further show that the effect of financial development on growth becomes weaker as countries become more developed, perhaps because of problems with measuring financial development or because financial intermediaries actually have larger effects in less developed countries than in more developed ones.

Bakhouche (2007) tests for a unidirectional link between financial sector development and economic growth in Algeria using the real per capita GDP as the economic growth indicator, and the ratios of M2 to GDP, total domestic credit and government expenditure to GDP. The result shows that there is no evidence of any short term relationship between the financial sector development and the Algerian economic growth and possibility of any long-run relationship. This, he assumed, may be as a result of persistent effects on economic performance of the country’s former central planning system where all economic decisions were as predetermined by government. He finally concluded that Algeria will need more time to realize the full benefits of financial sector reform and liberalization and competition between financial services providers.

Alaoui Monstain (2004) cited in Bakhouche (2007) also tests the relationships between financial sector development and economic growth in Morocco using the real GDP to measure growth, and the ratios of liquid liabilities M3 to GDP, domestic credit issued by the banking sector to GDP and the domestic credit issued to the private sector to GDP are used as the financial development indicators. Causality relationships are identified from economic growth to the liquid liabilities and domestic credit indicators and from credit to the private sector to economic growth. There is evidence of a stable long-run relationship between economic growth and the financial indicators. He asserted that the financial reforms
implemented in Morocco in the 1990s do not appear to have resulted in the generation of a level of savings sufficient to boost productive investment, and thus long-term growth. He then concluded that institutional and legal reform may necessary to achieve the objective of this fund mobilization.

Nzotta and Okereke (2009) examined financial deepening and economic development in Nigeria between 1986 and 2007. The central focus was that a high level of financial deepening is a necessary condition for accelerating growth in an economy. The two stages least squares analytical framework was used in the analysis. A trend analysis was also done in the study. At the end of the study, they found that financial deepening index is low in Nigeria over the years. They also found that the nine explanatory variables, as a whole were useful and had a statistical relationship with financial deepening. But four of the variables; lending rates, financial savings ratio, cheques/GDP ratio and the deposit money banks/GDP ratio had a significant relationship with financial deepening. They concluded that: the financial system has not sustained an effective financial intermediation, especially credit allocation and a high level of monetization of the economy.

Levine (2003) confirm the very important link between financial development and growth, but also sounds a note of caution that not all types of financial deepening is beneficial for the economy. In the case of Turkey, financial deepening meant that savings left the provinces, depriving the real industry of credit needed for investment projects. As such, it may not be hard to imagine that if the banking sector was functioning efficiently during this period, then financial deepening may have contributed to economic growth in the provinces, as opposed to taking them into a serious crisis. They concluded that it is important to note that financial deepening measured in terms of the ownership of banks may distort incentives leading to an underdevelopment of growth of both the public and the private banks. Therefore, financial sector deepening in terms of the public and private banks could be analyzed separately before making firm conclusions about the negative relationship between financial growth and economic growth.

METHODOLOGY

Model Specification

Adeoye (2006) developed a model showing the relationship between financial sector development and economic growth in Nigeria. The chosen economic growth indicator is the real Gross Domestic Product (RGDP) is specified to depend on the financial sector indicators which are the ratio of M2 to GDP (M2GDP), the ratio of Credit to Private to GDP (CPGDP) and real interest rate (RINT) changes. Calderon and Liu (2003) noted that a higher M2GDP ratio implies a larger financial sector and greater financial intermediary development while a CPGDP indicates more financial services and also a greater financial intermediary development. Real interest rate is included to capture the effects of liberalized interest rate on economic growth. According to Pill (1997) a move from negative to positive real interest rates indicates progress in financial sector reform. The functional form of the model is specified thus;

\[ \text{RGDP} = f(\text{M2GDP}, \text{RINT}, \text{CPGDP}) \] 3.1

Where;

- \( \text{RGDP} \) = real Gross Domestic Product
- \( \text{M2GDP} \) = ratio of liquidity liabilities to GDP
- \( \text{RINT} \) = real interest rate
- \( \text{CPGDP} \) = ratio of credit to private sector to GDP

This can as well be expressed in a linear function as:

\[ \text{RGDP} = b_0 + b_1\text{M2GDP} + b_2\text{RINT} + b_3\text{CPGDP} + u_t \] 3.2

Where;

- \( b_0 \) = constant term/parameter intercept
- \( b_1, b_2, \) and \( b_3 \) = coefficients of the parameters estimates.
- \( u_t \) = Error Term

Evaluation procedure

The properties of the time series were examined using the Augmented Dickey-Fuller (ADF) unit root tests to determine their long-run convergence and stationary levels, also was error correction mechanism was used to estimate the short run speed of adjustment from this equilibrium.

Data Source
RESULT AND DISCUSSION

Unit Root Test Results
To properly examine the trend relationship and the nature of stationarity in this study, the researcher adopted the Augmented Dicks-Fuller test (ADF) at trend only in order to eliminate the possibility of obtaining spurious result. Thus, below is the tabular representation of the empirical results.

Table1: Augmented Dickey Fuller Unit Root Test Trend only

<table>
<thead>
<tr>
<th>Variables</th>
<th>Level</th>
<th>1st difference</th>
<th>2nd difference</th>
<th>Critical value (5%)</th>
<th>Order of integration</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(RGDP)</td>
<td>6.565013</td>
<td>-1.796300</td>
<td>-7.303434</td>
<td>-2.9627</td>
<td>I(2)</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(M2GDP)</td>
<td>-0.026111</td>
<td>-4.418739</td>
<td></td>
<td>-2.9627</td>
<td>I(1)</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(CPSGDP)</td>
<td>0.470150</td>
<td>-4.038467</td>
<td></td>
<td>-2.9627</td>
<td>I(1)</td>
<td>Stationary</td>
</tr>
<tr>
<td>D(RINT)</td>
<td>-2.890121</td>
<td>-7.002300</td>
<td></td>
<td>-2.9627</td>
<td>I(1)</td>
<td>Stationary</td>
</tr>
</tbody>
</table>

Source: Own Computation, 2014

From the table above, all the variables are all stationary at first difference i.e. (-4.418739, -4.038467, and -7.0023 < -2.9627) except for real gross domestic product which was stationary at second difference i.e. (-7.3034 < -2.9627) given the 5% level of significance, since the calculated ADF is less than the 5% critical value of the ADF.

Conclusively, since all the variables are not stationary at level and are not integrated of the same order, co-integration analysis is justified. We there proceed to conduct the long run relationship of the variables and their short term speed of adjustment to equilibrium.

Cointegration Test

The result of the test is summarised below:

TABLE 2

<table>
<thead>
<tr>
<th>Series: RGDP M2GDP CPSGDP RINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lags interval (in first differences): 1 to 1</td>
</tr>
<tr>
<td>Unrestricted Cointegration Rank Test (Trace)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eigenvalue</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob,**</th>
<th>Hypothesized No. of CE(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.563915</td>
<td>48.26917</td>
<td>47.85613</td>
<td>0.0457</td>
<td>None *</td>
</tr>
<tr>
<td>0.382883</td>
<td>23.37161</td>
<td>29.79707</td>
<td>0.2283</td>
<td>At most 1</td>
</tr>
<tr>
<td>0.219210</td>
<td>8.890698</td>
<td>15.49471</td>
<td>0.3756</td>
<td>At most 2</td>
</tr>
<tr>
<td>0.047731</td>
<td>1.467219</td>
<td>3.841466</td>
<td>0.2258</td>
<td>At most 3</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Source: Own Computation (2015)

This test is used to test for the long run relationship between the variables; it was carried out using the augmented eagle – Granger test on the residuals under the following hypothesis:

H₀: δ = 0 (Not- cointegrated)
H₁: δ ≠ 0 (cointegrated)

Decision Rule: Reject H₀ if t*.Adf(LR) > t-Adf(CV), Accept if otherwise

Since the computed trace statistic (t*) is greater than the t-adf i.e. the critical value at 5% and or since the Eigen value are greater than zero, we reject H₀ and conclude that the variable are cointegrated. Put
differently, there is a sustainable long-run relationship (i.e. steady-stated path) between real gross domestic product (RGDP), ratio of money supply to GDP (M2GDP), credit to private sector to GDP (CPSGDP) and real interest rate (RINT).

\[
\text{RGDP} = -525.3 + 18257.9 \text{M2GDP} - 34664.31 \text{CPSGDP} - 9677.09 \text{RINT}
\]

Where RGDP is the dependent variable, -0.525.3 is the value of real gross domestic product while all other variables remains unchanged. On the other hand 18257 is the coefficient of ratio of money supply to RGDP (M2GDP), -34664 is the coefficient of the ratio of credit to private sector to GDP (CPSGDP), and -9677.09 is the coefficient of real interest rate (RINT).

The sign shows that there will be a negative relationship between CPSGDP, RINT and GDP in the long run, even though they have positive relationship in the short-run.

**Error Correction Mechanism:**

The existence of a long-run co-integrating equilibrium provides for short-term fluctuations. In order to strengthen out or absorb these fluctuations, an attempt was made to apply the Error Correction Mechanism (ECM). As noted, the ECM is meant to tie the short-run dynamics of the co-integrating equations to their long-run static dispositions. Table 3 below shows the error correction mechanism result.

**TABLE 3**

**PERSIMONIOUS ERROR CORRECTION MECHANISM RESULT**

**Sample (adjusted): 1983 2012**

**Included observations: 30 after adjustments**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8264.206</td>
<td>2578.010</td>
<td>3.205653</td>
<td>0.0038</td>
<td>Reject</td>
</tr>
<tr>
<td>D(RGDP(-1))</td>
<td>0.663169</td>
<td>0.086094</td>
<td>7.702862</td>
<td>0.0000</td>
<td>Reject</td>
</tr>
<tr>
<td>D(M2GDP(-1))</td>
<td>499.9790</td>
<td>137.6401</td>
<td>3.629251</td>
<td>0.0016</td>
<td>Reject</td>
</tr>
<tr>
<td>D(CPSGDP(-1))</td>
<td>435.8550</td>
<td>122.6509</td>
<td>3.553622</td>
<td>0.0054</td>
<td>Reject</td>
</tr>
<tr>
<td>D(RINT(-1))</td>
<td>-561.8882</td>
<td>546.2794</td>
<td>-1.028573</td>
<td>0.3139</td>
<td>Accept</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.742346</td>
<td>0.137612</td>
<td>-5.394472</td>
<td>0.0000</td>
<td>Reject</td>
</tr>
</tbody>
</table>

Source: Own Computation (See Appendix)

\[R^2 = 0.8366\]

\[D-W = 1.69\]

\[F(3, 26) = 84\]

The existence of a long-run co-integrating equilibrium provides for short-term fluctuations. In order to strengthen out or absorb these fluctuations, an attempt was made to apply the Error Correction Mechanism (ECM). As noted, the ECM is meant to tie the short-run dynamics of the co-integrating equations to their long-run static dispositions. Table 3 above shows the error correction mechanism result. From the result the coefficient of error correction term is -0.742346. This shows that 74% of the errors in the short run are corrected each year. Thus, the coefficient captures the speed for adjustment at which the short-run of GDP ties with its long-run. The result is significant since the coefficient of multiple (0.8366) determination is greater than zero and the error correction variable (ECM), which is minus 0.7423, was highly significant validating the error correction model specification. This shows that a feedback of -0.7423 from the previous year’s disequilibrium from the long-run elasticity of the identified variables can determined economic growth.

The value of \(R^2\) shows that 83.66% the variation in the real gross domestic product (RGDP) are explained by the variation of the explanatory variables namely: ratio of money supply to GDP (M2GDP), credit to private sector to GDP (CPSGDP) and real interest rate (RINT), while the remaining 0.46% is explained by variable not included in the model.

A mere observation of the individual’s parameters will reveal that is only real interest rate that is not significant at 5% level of significance while the other variables are significant at 5% level of significance, since their P-value is less than the 5% level of significance.

All the variables conform to the apriori expectation, the empirical result reveals that ratio of money supply to GDP which indicate the extent at which the financial sector performs its role of financial mobilization has a positive relationship with economic growth of Nigeria. Adeoye (2006) argued that the higher the value of M2GDP, the more efficient the financial sector operates towards the economic growth of such a nation. On the other hand the ratio of credit to private sector to GDP and real interest rate indicate the
extent at which the financial sector promote private sector investment and economic growth of the country at large. A negative relationship exists between real interest rate and real gross domestic product.

**SUMMARY, CONCLUSION AND RECOMMENDATION**

**Summary of findings**

This paper investigated on the relationship between financial sector and economic growth in Nigeria between 1981 and 2012. Error Correction Mechanism was used to estimate the regression result. Cointegration test and Unit root test was also conducted to determine the stationarity and long-run relationship between the variables. The results show that financial sector development captured by ratio of money supply to GDP and credit to private sector to GDP has positive relationship in the short-run but has a negative relationship with economic growth in the long-run. The implication is that in the long-run financial sector might fail to perform its role of financial mobilization thereby leading to retarding of the economy at large. Nigeria needs to develop a sound macroeconomic policy that will integrate the financial sector to the real sector of the economy.

The result of the Cointegration test shows that there is a sustainable long-run relationship (i.e. steady-stated path) between real gross domestic product (GDP) and the explanatory variables (M2GDP, CPSGDP and RINT).

The Error Correction Mechanism result indicates that the coefficient of error correction term is -0.7423. This shows that 74.23% of the errors in the short run are corrected each year. Thus, the coefficient captures the speed for adjustment at which the short-run of RGDP ties with its long-run equilibrium. The Unit Root Test result shows that all the variables have unit root at level but was stationary at first difference except for real gross domestic product which was stationary at second difference given the 5% level of significance.

From the analysis so far carried it is clear evidence that the banking and financial sector activities has impacted significantly on the economic growth of Nigeria within the period under review. It is thus imperative for the research work to recommends, that there is need to adequately deepen the financial system through innovations, adequate and effective regulation and supervision, efficient mobilization of funds and making such funds available for productive investment, and improved services. There is an urgent need to sustain a higher level of macroeconomic stability in Nigeria, reduce the high incidence of non performing credits ensure that private sector credits are channelled to the real sector of the economy, enhance the level of corporate governance in the financial system and also strengthen risk management in the financial system.

**Reference**


