Financial System Restructuring, Financial Development and Economic Growth in Nigeria

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ABSTRACT

This study investigates the relationship between financial system development and economic growth in Nigeria as well as the impact of financial system development indicators on the economy. Time series data from 1970 to 2013 were used, obtained from World Bank data base. Stationary test was done using Augmented Dickey-Fuller and Phillips-Perron, while long run relationship among the variables was estimated using Johansen cointegration technique. Error Correction Model of Engle-Granger was used to examine the impact of financial system development indicators on Nigeria's economy. The results of the study showed that there was a long run relationship between financial system development and economic growth. Collectively, financial system development indicators have negative and insignificant impact on Nigeria's economy. The paper therefore, recommends that government needs to introduce more financial sector restructuring policies that would facilitate development of the sector for economic growth.

Keywords: *Financial System, Economic Growth, Cointegration Test, Error Correction Model, Nigeria.*

INTRODUCTION

Financial system plays an important role in economic growth of a country. The system serves as intermediary between the providers of funds and their users, performs vital function of raising funds and channeling same to the productive sector. The relationship between financial system development and economic growth dated back to the study of Schumpeter (1911), who pointed out that the services provided by the financial intermediaries are important for innovation and development. He explained that financial system play a crucial role in fostering technological innovation and economic growth by providing basic services such as: mobilizing savings, monitoring managers, evaluating investment projects, managing and pooling risks and facilitating transactions (Kargbo & Adamu, 2010).

In the literature there is an argument on the relationship between financial system development and economic growth. Several authors concluded that there is a positive link between financial development and economic growth, among them are studies of Christopoulos & Tsionas (2003), Eita & Jordan (2007), Odeniran

& Udeaja (2010) and Osuji&Chigbu (2012), while some authors reject the existence of relationship between financial development and economic growth. They argued that influence of finance on economy was overrated (Dabos & Gantmann, 2010; Ayad, Ben-Naceur & De Groen, 2013 and Maduka & Onwuka, 2013). The studies that supported the existence of relationship between financial development and economic growth were view in three ways. The first view stated that financial system development lead to economic growth (supply-leading view), second view explained that economic growth lead to financial system development (demand-following view) and third view concluded on bi-directional relationship between the variables.

The studies of McKinnon (1973) and Shaw (1973) also supported the work of Schumpeter by criticizing financial repression view adopted by many governments in developing countries prior to 1980s. They argued that government interventions in financial system in term of ceiling of interest rate, high reserve requirements on bank deposits, selective credit policies, directed credit programmers and restriction on entry into the banking industry affect financial

development and hinder economic growth. McKinnon (1973) and Shaw (1973) introduced financial liberalization theory that shift from direct policy and regulatory control to market driven behavior to set prices and to allocate resources. Financial liberalization is the deliberate and systematic removal of regulatory controls structures, and operational guidelines that may be considered inhibitive of orderly growth competition and efficient allocation of resources in the financial market (Akingunola, Adekunle, Badejo & Salami, 2013). Nigeria, like most of the developing countries, used financial repression as a result of government interventions in financial system. The financial repression in Nigeria caused imperfections in the operations of the financial market. As a way of bringing the financial system out of the doldrums, various financial restructuring were adopted since introduction of the Structural Adjustment Programme (SAP) in 1986. The central component of the SAP was the restructuring of financial system by relaxing some regulations considered inhibitive to economic growth.

However, despite the various financial system restructuring introduced in the recent years, Nigeria financial system is still under-developed, dominated by the banking sector, controlled by government intervention and experience difficulty in mobilizing domestic savings for investment (Akingunola *et al.* 2013). There are many empirical studies in the literature examined the relationship between financial development and economic growth. However, most of these studies focused on developed countries, while only few studies examined the relationship in African context. Most of these previous studies used one or two variables of financial system development separately.

This paper therefore, differs from previous works in the following ways: Firstly, it focused on single country, rather than cross-country analysis. Secondly, it used combine variables of financial system development rather than single variable, for a long period of forty-four years, 1970 to 2013. Lastly it examined the impact of individual financial system development indicator on economic growth of Nigeria. Hence, the objectives of this study are to investigate the relationship between financial system development and economic growth in Nigeria, as well as the impact of financial system development indicators on the economy. Following this introductory section, the rest of

this study is organised as follows: Section 2 reviews the theoretical and empirical literature. Section 3 describes model specification and methods of data analysis. Section 4 contains data presentation, analysis and interpretation. The last section concludes the study.

Theoretical Literature

Theories on relationship between financial development and economic growth are dated back to the work of Schumpeter (1911). The work pointed out the productivity and growth enhancing effects of the services provided by a developed financial sector. The work explained that a well developed financial system facilitated technological innovation and economic growth through provision of financial services and resources to investors who are ready to invest in new products. The studies of McKinnon (1973) and Shaw (1973) called for replacement of financial repression theory based on neo-classical growth model. Financial repression theory is commonly use by developing countries, whereby governments interfere and control financial sector. The governments achieved financial repression by distributing credit and determining the interest rates (Fowowe, 2004).

McKinnon (1973) and Shaw (1973) argued that financial repression policies affect savings negatively and resulted into financial markets inefficiencies which had adverse effects on macro-economic performance. They presented financial liberalization theory to solve the problems which occurred from financial repression policies. Financial liberalization refers to the deliberate and systematic removal of regularly controls, structures and operational guidelines that may be considered inhibitive of orderly growth competition and efficient allocation of resources in the financial system. According to this theory, banks and corporate organizations are allowed to borrow from abroad freely. They may need to inform the government but permission will be granted automatically. The theory posits that a more liberalized financial system will promote financial development, increase savings and investment and accelerate economic growth.

The endogenous growth model addressed some of the weaknesses associated with McKinnon hypothesis. The model assumed that both capital and output can grow indefinitely and growth rate is not exogenously determined, but rather determined through savings and investment. It based on the assumption that all prices have

fully adjusted and with three factors that determine the output, that is labor, capital and technology. The model stated that growth rate is an increasing function of the savings rate; thus, any policy measure that can raise the savings rate will raise the growth. The AK production model stressed that the economy does not depend upon on initial capital stock; therefore, there is no convergence between economies with different initial capital stock even if they have the same savings rate. The model explained that the amount of output saved by the economy is available for investment. The implication of this assumption is that the transfer of fund between the surplus unit and deficit unit is costless. However, one of the functions of the financial intermediaries is to facilitate the transfer of funds from surplus ends to deficit ends.

Empirical Studies

In the literature there is disagreement about the relationship between financial system development and economic growth. Christopoulos & Tsionas (2003) investigated the long run relationship between financial development and economic growth, used modified ordinary least square for ten developing countries. The empirical results provide clear support for the hypothesis that there is a single equilibrium relationship between financial development, growth and ancillary variables and the only co-integrating relationship implies unidirectional causality run from financial development to economic growth. Eita & Jordaan (2007) analysed the causal relationship between financial development and economic growth in Botswana for the period 1977 to 2006. The results of the study showed that there was a stable long run relationship between financial development and economic growth. The Granger causality results indicated that financial development caused economic growth in Botswana, and the causality runs from financial development to economic growth, unidirectional (supply leading view).

Chakraborty (2008) used models of Pagano (1993) and Murinde (1996) to formalize the relationship between financial development and economic growth in the structure of an endogenous growth model. The study used data for the period 1993 to 2005 for India. The results of the study showed that investment-output ratio has a positive significant effect on real rate of growth of gross domestic product (GDP). Owusu-Antwi (2009) investigated the pre and post-reforms policies to determine whether those policies have helped to eradicate problems that have hindered the effectiveness of the financial system. The results of the study showed that performance of the financial sector has been substantial and healthy since the reforms. The financial liberalization strategy pursued in Ghana has been supportive of wider economic development.

Akinlo & Egbetunde (2010) used vector error correction model for ten countries in Sub-Saharan Africa for the period of 1980 to 2005. The study showed that there is long run relationship between financial development and economic growth in the selected Sub-Saharan African countries. The results indicated that financial development Granger caused economic growth in Central African Republic, Congo Republic, Gabon and Nigeria, while economic growth Granger caused financial development in Zambia. However, the results found bi-directional relationship between financial development and economic growth in Kenya, Chad, South Africa, Sierra Leone and Swaziland. Odeniran & Udeaja (2010) examined the relationship between financial sector development and economic growth in Nigeria. The results of the study showed that there is positive relationship between financial development and economic growth. The study used Granger causality tests over the period of 1960 to 2009. The study indicated a bi-directional causality between some of the proxies of financial development and economic growth proxy.

Hassan, Sanchez & Yu (2011) used multivariate time series models for the period of 1980 to 2007. The study found a positive relationship between financial development and economic growth in developing countries from financial development to economic growth. While a two-way causality relationship between financial development and economic growth were found for most of the developed countries. Hussain & Chakraborty (2012) examined the relationship between financial development and economic growth and their causality in India, used time series techniques. The study found a long run relationship between financial development and economic growth. The Granger causality tests indicated that financial development caused economic growth in India.

Osuji & Chigbu (2012) investigated the impact of financial development variables on economic growth in Nigeria used time series data from 1960 to 2008. The results of the study revealed

that financial development variables are positively related to economic growth of Nigeria. The Granger causality tests indicated that all the exogenous variables Granger cause economic growth. Shittu (2012) examined the impact of financial intermediation on economic growth in Nigeria. The study used time series data from 1970 to 2010. The results of the study established that financial intermediation has a significant impact on economic growth in Nigeria.

Apart from the studies that concluded a strong relationship between financial development and economic growth, there are many studies that are in contrast to the relationship. They concluded that a country's financial development and economic growth is not causally related. That is neither financial development causes economic growth or economic growth causes financial development. Among these studies are works of Dabos & Gantamann (2010); Ayad*et. al.* (2013), Akingunola et al. (2013); Maduka & Onwuka (2013) and Adeniyi, Oyinlola, Omisakin & Egwaikhide (2015).

Dabos & Gantmann (2010) used panel data set of twenty-seven developed and seventy-one developing countries for the period of 1960 to 2007. The study concluded that financial development is not a major determinant of economic growth; also economic growth is not a determinant of financial development. Ayad *et al.* (2013) used panel data method for period of 1970 to 2009 to look at the relationship between financial development and economic growth in the Southern Mediterranean region. The study used several variables to measure the development of financial sector in order to account for both quantity and quality effect of financial system. The results of the study indicated that development of financial system is not contributing to economic growth.

Akingunola *et al.* (2013) used vector error correction model to examine the relationship between financial liberalization and economic growth in Nigeria. Their findings indicated that the contributions of all the proxies of the financial sector liberalization were statistical insignificant, this indicated that the contributions of all the variables have not been significant to the economic growth. Maduka & Onwuka (2013) investigated both long run and short run relationship between financial market structure and economic growth using time series data. The results of the study revealed that financial market structure has little impact on economic

growth in Nigeria. Adeniyiet.al (2015) examined the relationship between financial development and economic growth in Nigeria used annual data for the period of 1960 to 2010. The study revealed that there is a little relationship between financial development and economic growth.

METHODOLOGY AND DATA

Econometric methods of analysis were employed to determine the relationship between financial system development and economic growth in Nigeria. In order to achieve objectives of this study therefore, we sourced data from Central Bank Nigeria (CBN) and World Development Indicators (WDI). In line with previous empirical studies, we used Gross Domestic Product Growth Rate (GDPGR) to measure economic growth, ratio of Broad Money to GDP (BM/GDP), ratio of Bank Deposits to GDP (BD/GDP) and ratio of Domestic Credit to Private Sector to GDP (DCPS/GDP) and two additional control variables were employed in order to capture the index of financial restructuring, which are Trade Openness (TO) and Real Interest Rate (RIR).

The ratio of Broad Money to GDP (BM/GDP) is the most commonly used in the literature as a good indicator of financial system development. The ratio measures the extent of which financial transactions are monetized as well as the depth of financial sector. It reflects the ability of the financial system in providing and facilitating transaction services and ability to channel funds from surplus units to deficit units. Ratio of Bank Deposits to GDP (BD/GDP) is the second indicator of financial system development. This ratio measures the extent on how savings are effectively mobilized for investment. Ratio of Domestic Credit to Private Sector to GDP (DCPS/GDP) is the third indicator used to measures extent to which financial system channel funds to the private sector in order to facilitate investment and economic growth.

Trade Openness (TO) measures the country exports and imports of goods and services. Trade Openness was used to measure the impact of financial restructuring on country's international trade and used to measure trade liberalization. Real Interest Rate (RIR) is the rate that has been adjusted to remove the effects of inflation. One of the conditions for substantial financial development is that real interest rate needs to be positive. Also, many countries embarked on financial sector restructuring in order to have interest rate that will be determined by the

market forces. Due to the above reasons real interest rate was chosen to be one of the additional variables.

Model Specification

This study followed Mankiw, Romer& Weil (1992) model. This model can be used to analyze the relationship between financial development and economic growth. The model expressed economic growth as a function of financial system development and a set of control variables

$$Y = f (X, Z) \qquad (1)$$

Where Y = economic growth, X = financial system development indicators and Z is the set of other control variables that affect economic growth. Equation (1) will be expanded to accommodate the variables of economic growth, financial system development and control variables, then, equation (1) becomes:

$$GDPGR = f (BM/GDP, BD/GDP, DCPS/GDP, TO, RIR) \qquad (2)$$

The structural form of equation (2), expressed as:

$$GDPGR = \alpha_0 + \alpha_1(BM/GDP) + \alpha_2(BD/GDP) + \alpha_3(DCPS/GDP) + \alpha_4(TO) + \alpha_5 (RIR) \qquad (3)$$

Then, take the logarithm of the variables, the equation (3) will be specified as:

$$\ln GDPGR = \alpha_0 + \alpha_1 \ln(BM/GDP) + \alpha_2 \ln(BD/GDP) + \alpha_3 \ln(DCPS/GDP) + \alpha_4 \ln(TO) + \alpha_5 \ln(RIR) \qquad (4)$$

Transforming equation (4) into econometric model, it becomes:

$$\ln GDPGR = \alpha_0 + \alpha_1 \ln(BM/GDP) + \alpha_2 \ln(BD/GDP) + \alpha_3 \ln(DCPS/GDP) + \alpha_4 \ln(TO) + \alpha_5 \ln(RIR) + e \qquad (5)$$

Express equation (5) in Error Correction Model, it becomes:

$$\Delta \ln GDPGR = \alpha_0 + \alpha_1 \Delta \ln(BM/GDP) + \alpha_2 \Delta \ln(BD/GDP) + \alpha_3 \Delta \ln(DCPS/GDP) + \alpha_4 \Delta \ln(TO) + \alpha_5 \Delta \ln(RIR) + ECM(-1) + e \qquad (6)$$

Where:

GDPGR= Gross Domestic Product Growth Rate

BM/GDP = Ratio of Broad Money to GDP

BD/GDP = Ratio of Bank Deposits to GDP

DCPS/GDP= Ratio of Domestic Credit to Private Sector to GDP

TO = Trade Openness

RIR = Real Interest Rate

e = Error Term

Methods of Data Analysis

This study used Augmented Dickey-Fuller (ADF) and Phillip-Perron statistics to test the stationary or otherwise of the variables employed, and their order of integration. The two statistics tests will show the number of time a variable has to be differenced before it becomes stationary. If the variables are stationary, the next step is to test whether they are cointegrated. Cointegration test will show whether or not there is long run relationship among the variables used. Johansen cointegration test was used to determine the existence of long run relationship between the variables of the model.

Error Correction Model (ECM) was used to examine the impact of financial system development indicators on economic growth indicator. Error correction model will generate Error Correction Terms (ECTs) which is expected to be negative and statistically significant to further confirm the existence of long run cointegration relationship between financial system development and economic growth. The model will also show values of Durbin-Waston, coefficient of determination (R^2) and F-Statistic values, these results will assess the autocorrelation problem, overall significance of the variables and reliability of the model.

RESULTS AND DISCUSSIONS

The analysis of this study begins with stationary test in order to determine the order of integration of the variables. Two stationary tests were used: the Augmented Dickey-Fuller (ADF) and the Phillip-Perron (PP) statistics tests. The results of the two tests are presented in table 1.

From the table 1 above, all the variables are stationary after the first difference, except Gross Domestic Product Growth Rate (GDPGR) and Real Interest Rate (RIR) that are stationary at level in both the ADF and PP statistics tests. To comply with the rule of ECM, that all variables must be of the same order, first difference of all variables is then applied. This showed that all the variables are integrated of order 1 at 5% and 1% significance levels respectively.

Table1. *Stationary Test Statistics (ADF & PP statistics)*

Variable	Model Specification	Augmented Dickey-Fuller (ADF)Test		Phillips-Perron(PP)Test	
		Level	First Difference	Level	First Difference
GDPGR	Intercept	-5.739***	-8.695 ***	-5.745 ***	-13984 ***
	Trend and Intercept	-5.9223***	-8.622 ***	-5.942 ***	-14.222 ***
BM/GDP	Intercept	-3.314 **	-5.608 ***	-2.465	-6.468 ***
	Trend and Intercept	-3.274	-5.553 **	-2.424	-7.269 ***
BD/GDP	Intercept	-1.701	-5.124 ***	-1.957	-4988 **
	Trend and Intercept	-1.684	-5.059**	-1.948	-4.910 **
DCPS/GDP	Intercept	-1.797	-7.014 ***	-2.283	-8.301 ***
	Trend and Intercept	-4.011 **	-6.913 ***	-2.589	-7.978 ***
TO	Intercept	-2.681	-8.774***	-2.533	-8.746 ***
	Trend and Intercept	-2.492	-8.986 ***	-2.397	-9.111 ***
RIR	Intercept	-6.857 ***	-8.008 ***	-6.873 ***	-36.462 ***
	Trend and Intercept	-7.155***	-7.915 ***	-7.539 ***	-38.772 ***

Note: * * *and* * * *indicate rejection of the null hypothesis of non-stationary at 5% and 1% significant level based on the Mackinnon Critical Values.*

Source: *Authors' computation using E-view, 2017.*

Cointegration Test

Since all variables used are integrated of order one, the next step is to test the rank of the cointegration. The cointegration test is necessary to determine whether or not there is long run relationship among the variables. This study utilized the Johansen technique developed by Johansen (1988 and 1992) popularly known as Johansen cointegration test. This test showed the number of stationary long run relationship that exists among the set of integrated variables. Johansen technique offers two tests results: the trace test results and maximum eigenvalue test results, with a view to identifying the number of cointegrating relationship. Table 2 reported trace test results, while table 3 reported maximum eigenvalue test results.

Table2. *Results of Johansen Trace Test*

Null Hypothesis	Alternative Hypothesis	Statistic Value	Critical Value (5%)	Prob.
r = 0	r ≥ 1	123.630 **	95.754	0.0002
r ≤ 1	r ≥ 2	75.141 **	69.819	0.0176
r ≤ 2	r ≥ 3	44.728	47.856	0.0955

Note: ** *indicate rejection of the null hypothesis at 5% significance level*

Source: *Authors' computation using E-view, 2017.*

From table 2, the first row showed that statistics value (123.630) is higher than the critical value of (95.754) at 5% significance level with probability of 0.0002. Also, in the second row, the statistics value of (75.141) exceeded the critical value of (69.819) at 5% significance level, with probability 0.0176. The trace test showed that there are two cointegrating relationship among the variables. It suggested that null hypothesis of no cointegrating relationship among the variables would be rejected. Table 2 indicates that there was a long run relationship between financial development indicators and economic growth indicator.

Table3. *Results of Johansen Maximum Eigenvalue Test*

Null Hypothesis	Alternative Hypothesis	Statistic Value	Critical Value (5%)	Prob.
r = 0	r ≥ 1	48.497 **	40.078	0.0041
r ≤ 1	r ≥ 2	30.413	33.877	0.1227
r ≤ 2	r ≥ 3	26.942	27.584	0.0603

Note: ** *indicate rejection of the null hypothesis at 5% significance level*

Source: *Authors' computation using E-view, 2017.*

Table 3 showed that the maximum eigenvalue test statistic value in first row, which is (48.497), exceeded the critical value (40.078) at 5% significance level with probability of (0.0041). The maximum eigenvalue indicated that there is one cointegrating relationship among the variables. The result rejects the null hypothesis since statistic value is higher than

critical value. The result also showed that there is a long run relationship between the financial development indicators and economic growth indicator. The results of both trace test and maximum Eigenvalue confirmed the presence of long-run relationship between the explanatory variables and explained variable.

Error Correction Model

Error Correction Model (ECM) of Engle-Granger was used to examine the impact of

financial system development indicators on economic growth.

The choice of this method based on the fact that it is capable of estimating both short and long run effects of the explanatory variables on the explained variable. Also, the method is capable of determining the speed at which the explained variable returns to equilibrium after a deviation has occurred.

Table4. *Result of Error Correction Model*

Dependent Variable: D (GDPGR)

Variable	Coefficient	Std. Error	t-Statistic	Prob
C	-0.1846	0.9819	-0.1880	0.8519
$\Delta\ln(BM/GDP)$	0.3926	0.4396	-0.8933	0.3776
$\Delta\ln(BD/GDP)$	-0.3844	0.2172	-1.7703	0.0852
$\Delta\ln(DCPS/GDP)$	0.0224	0.3985	0.0562	0.9555
$\Delta\ln(TO)$	-0.2884	0.1033	-2.7915	0.0083
$\Delta\ln(RIR)$	0.1738	0.0524	3.3190	0.0021
ECM (-1)	-1.0095	0.1492	-6.7680	0.0000
R-Squared		0.6391		
Adjusted R-Squared		0.5789		
F – Statistic		10.6241		
Prob. (F – Statistic)		0.00001		
Durbin – Watson Stat		1.9722		

Source: *Authors' computation using E-view, 2017.*

From table 4 above, Durbin-Waston statistic value was (1.9722), this is in the range of 0 and 2. This showed that there is absence of first order serial correlation problem of regression in the model and proved that autocorrelation problem did not exist. The coefficient of determination (R-Squared) which was (0.6391) indicated that all the explanatory variables explained about 64 percent of explained variation occurred in explained variable. This implies that about 36 percent of the changes in economic growth are attributable to factors not included in this model. The F-Statistic calculated is (10.6241), which tested the overall significance of the variables, is relatively high.

Table 4 also showed impact and relationship between indicator of economic growth and individual indicator of financial system development. The coefficient of Broad Money to Gross Domestic Product (BM/GDP) which is (-0.3927) implied that 1 unit increased in broad money led to 0.39 unit decreased in Gross Domestic Product Growth Rate (GDPGR). This coefficient of BM/GDP which is negative value of (-0.3927) showed that broad money has negative impact on gross domestic product growth rate. The t-statistic value of (-0.8933) with probability of (0.3776), which is more than

0.05, indicated that the relationship between broad money and gross domestic product growth rate is negative and insignificant. This implied that increased in currency held outside the banking system, plus the demand and interest bearing money of banks and non-bank financial institutions reduced economic growth in Nigeria during the period reviewed. The result is in support of Odeniran &Udeaja (2010).

The relationship between BD/GDP and GDPGR is negative and insignificant since t-statistic value and probability of BD/GDP are (-1.7703) and (0.0852), respectively. Also the coefficient of BD/GDP which is (-0.3845), implied that 1 unit increased in bank deposits had 0.39 unit decreased in gross domestic product growth rate. This showed that bank deposits have negative impact on gross domestic product growth rate. Implied that monies deposited in bank were not fully utilized for investments. This result is in line with the study Osuji and Chigbu (2012).

DCPS/GDP was found to be positively related with GDPGR but the relationship which is positive is statistically insignificant, since t-statistic value computed is (0.0562) with probability of (0.9555), which is greater than 0.05. Likewise, DCPS/GDP has positive impact

on GDPGR since coefficient of DCPS/GDP is (0.0224). This suggested that 1 unit increased in domestic credit to private sector had 0.02 unit increased in gross domestic product growth rate. This result showed that banking sector channeled funds to the domestic private sector, this facilitate investment and spur economic growth in Nigeria. This result confirms the findings Odeniran and Udeaja (2010) and Shittu (2012).

The relationship between trade openness and gross domestic product growth rate was negative and significant since t-statistic value and probability of trade openness are (-2.7915) and (0.0083) respectively, the probability value is less than 0.05, which indicated that is significant. Trade openness has negative impact on gross domestic product growth rate, since coefficient of trade openness is (-0.2884). This also implied that 1 unit increased in trade openness had 0.288 unit decreased in gross domestic product growth rate. This result showed that import was higher than export in Nigeria for the period covered by the study. Furthermore, since import was more than export, increase in trade openness would affect economic growth negatively. This result is in agreement with the study of Ahmed (2013).

The coefficient of real interest rate which is (0.17382) implied that 1 unit increased in real interest rate had 0.174 unit increased in gross domestic product growth rate. This showed that real interest rate has positive impact on gross domestic product growth rate. The t-statistic value of (3.3189) with probability of (0.0021) which was less than 0.05 indicated that there was a positive and significant relationship between real interest rate and gross domestic product growth rate. This result confirms economic view stated that increase in real interest rate would encourage savings and promotes economic growth. The result consistent with the Ndako (2010).

The coefficient of the Error Correction Terms (ECTs) showed the conventional negative figure and also statistically significant at 1%, further confirmed the long run cointegration relationship between financial system development indicators and economic growth indicator. The coefficient of ECTs which is (-1.0097) with probability of (0.0000) showed that economic growth indicator which is gross domestic product growth rate would adjust to its long run equilibrium path in relation to changes in the explanatory variables, that is financial system development indicators.

The coefficient of constant which is (-0.1846) with t-statistic of (-0.1880) and probability of (0.8519) showed that collectively financial system development indicators have negative and insignificant impact on Nigeria's economy.

Theoretically, this study conforms to the financial liberalization theory propounded by McKinnon (1973) and Shaw (1973) which suggested that financial system development will increase savings and investment and accelerate economic growth. Disagrees with neoclassical growth model which posited that there is no direct link between financial system development and the growth progress of an economy. Empirically, this study result is consistent with the studies of Odeniran&Udeaja (2010); Osuji&Chigbu (2012) and Adeniyi*et. al.*(2015) that found long run relationship between financial system development and economic growth, and established that financial system development has little or no impact on economic growth of Nigeria. Furthermore, this study result is not in line with the studies of Akingunola*et.al*. (2013) and Maduka & Onwuka (2013) that found no relationship between financial system development and economic growth in Nigeria.

CONCLUSION

Nigeria's financial system has undergone many financial restructuring in the past few years in order to reduce inefficiency in financial system and promote rapid economic growth. In line with this, this study investigated the relationship between financial system development and economic growth in Nigeria and also examined the impact of financial system development indicators on Nigeria's economy. Similar to previous empirical studies: GDP Growth Rate (GDPDR) used as an indicator of economic growth, while ratio of Broad Money to GDP (BM/GDP), ratio of Bank Deposit to GDP (BD/GDP) and ratio of Domestic Credit to Private Sector to GDP (DCPS/GDP) were used to measure financial system development, and Trade Openness (TO) and Real Interest Rate (RIR) were used as other control variables that affect economic growth.

Stationary test results showed that all the variables are stationary after the first difference. Cointegration test results showed that there is a long run relationship between the financial development indicators and economic growth indicator. Error correction model results showed that ratio of Broad Money to GDP (BM/GDP)

and ratio of Bank Deposits to GDP (BD/GDP) as proxies of the financial development have negative impact on GDP Growth Rate (GDPGR) proxy of economic growth and the negative impact is insignificant. The ratio of Domestic Credit to Private Sector to GDP (DCPS/GDP) as a proxy of financial development has positive impact on GDP Growth Rate (GDPGR) proxy of economic growth but the positive impact is insignificant. Trade Openness (TO) have negative impact on GDP Growth Rate (GDPGR) but the negative impact is significant. While Real Interest Rate (RIR) has positive impact on GDP Growth Rate (GDPGR) and also the positive impact is significant.

Furthermore, the coefficient of the Error Correction Terms (ECTs) which is in negative figure and statistically significant at 1 percent, further confirm the existence of a long run relationship between financial system development indicators and economic growth indicator. The coefficient of ECTs which is (-1.0097) suggests that the speed of adjustment to the equilibrium is high. Based on the above results we can conclude that there is a long run relationship between financial system development and economic growth in Nigeria, however, in aggregate financial system development indicators have negative and insignificant impact on Nigerian's economy. This shows that the country's financial system is still underdeveloped. This study suggests that government needs to introduce more financial sector restructuring policies that will facilitate development of the sector for economic growth.

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