Effect of Financial Deepening On Economic Development of African Countries

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ABSTRACT: This study investigated the effect of financial deepening on economic development of Nigeria and Ghana for the period 1989 to 2017. A comparative analysis was done to determine the position of financial deepening on selected macroeconomic variables (standard of living, literacy rate, interest rate, inflation, and stock market liquidity). The econometric techniques adopted are the ADF and PP unit root tests for stationarity, Johansen co integration test for long run relationship and Granger causality. The results indicate that there is long run relationship between financial deepening and economic development for Nigeria and Ghana. The granger causality results did not support the cointegration results. This is true for all the variables in Ghana. For Nigeria, some variables of development such as literacy rate and stock market liquidity granger cause financial deepening. The study thus concludes that financial deepening has more effective contribution to the development of Nigerian economy than that of Ghana.

Keywords: Financial Deepening, Economic Development, African Countries

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I. INTRODUCTION

Financial deepening involves a diverse process where primary, secondary and retail markets, various financial instruments like deposits, credits, debt securities, foreign exchange and financial institutions interact to provide financial services to the economy (Levine, 2005; King and Levine, 1993). It is viewed as a means of using various financial products and services in diversifying risks. This shows that it enhances the output performance of the economy via healthy competition among firms in the financial markets with non-financial segment as indirect beneficiaries (Torruam, Chiawa & Abur, 2013).

Nzotta and Okereke (2009) noted that financial deepening provides avenue where financial institutions gather funds for fruitful allocation to various economic units for investment projects that will aid developmental purposes in the economy. Hence the wider the coverage the better the depth of financial deepening in an economy. Ndebbio (2004) sees financial deepening as an increase in the supply of financial assets in the economy. It comprises all the measures of financial assets to give us the approximate size of financial deepening. The widest range of such assets as broad money, liabilities of non-bank financial intermediaries, treasury bills, value of shares in the stock market, money market funds, etc., are included in its computation.

On the other hand, there is the view that financial deepening is the outcome of economic growth rather than the cause of growth in the economy. Here economic growth gives rise to higher demand for more financial services leading to expansion in the depth of the financial sector (Ardic & Damar, 2006). Where the financial institutions are efficiently run, it becomes a spring board for better harnessing of idle funds for productive use as well as prudent movement of resources from non-growth to the growth inducing sectors of the economy. This debate is whether a strong economic performance comes before financial deepening or vice versa.

In the late eighties and early nineties, various sub-Sahara African countries undertook economic reforms in addition to liberalization of their financial systems (Gries, Kraft, and Meierrieks, 2009). Such reforms were to simplify and enhance financial development and integration. The reforms were also designed to improve the economic performance of these countries for medium and long term. However, the effectiveness of such policy reforms required a convenient causal link between financial sector and real sectors (Gries, Kraft, and Meierrieks, 2009). In view of this, in many developing markets, including Nigeria and Ghana, financial reforms have also become prominent as banks strive for more restructuring of their products to enable them withstand stiff competition arising from more globalizing banking system (Akyus and Kotte 1991).

Iganiga (2010) has posited that, apart from Africa, (excluding South Africa), other continents have big banks promoting economic growth and development. Through these banks, the financial system is deepened with capacity to finance mega economic activities and cushion economic shocks. Trends have shown that Nigeria and Ghana have been trying hard to ensure that their financial sector maintain a considerable depth and remain liquid with a view to competing effectively globally. Beyond competition at the global scale, the central banks of countries over a decade equally seek to ensure that the financial sector plays its role in the achievement of growth and development in the economies. In view of these, several reforms have been implemented. For instance, in 1986, Nigeria deregulated its financial system and by 1992, witnessed fundamental changes. The reform brought about 24 bigger commercial banks by December, 2007 following the merger of Stanbic Bank Plc and IBTC to form Stanbic IBTC Bank Plc. More so, in September 2011, the CBN rescued three failing banks and reconstituted them into government owned banks collectively called Bridge Banks and individually known as Mainstreet Bank Ltd, Keystone Bank Ltd and Enterprise Bank Ltd. In another development, Eco Bank Plc absorbed Oceanic Bank plc while Access Bank Plc absorbed Intercontinental Bank Plc, both in late 2011. All these exercises left commercial banks in Nigeria to twenty one (18 PLCs and 3 LTDs). Unfortunately, the fear of systemic risk lingered, the supply of credit to investors was still questionable, while economic growth remain relatively stable.

For Ghana, by 1983, the economy was in a state of total collapse. In April 1983, the government, in collaboration with the World Bank and the International Monetary Fund (IMF), embarked on a comprehensive Economic Recovery Program (ERP) to reverse Ghana's poor economic performance. The various policy initiatives included a massive devaluation of the Ghanaian currency, removal of controls on foreign exchange transactions, decontrol of domestic prices, and other measures to increase the free market system. One significant impact of the macroeconomic policy change in 1983 was the reduction of the inflation rate from over 100 percent in the 1970s and early 1980s to 10 percent in 1991. This policy change was also accompanied by growth in GDP.

However, despite these successful policy changes, the financial sector remained weak and could not mobilize significant resources to sustain the economic reform program. By 1987, the cumulative effect of the recorded devaluation, excessive regulation of commercial banks, market inefficiencies, and heavy losses by the banking sector resulted in financial crisis. The severe losses suffered by the commercial banks pushed many of them to a state of bankruptcy or technical insolvency. This prompted the Bank of Ghana to embark on financial reforms. The reforms were implemented on a gradual basis, beginning initially with removal of interest rate controls and the reform of the foreign exchange market before moving in the 1990s to bank privatization and increased bank competition. One of the effects of the reform was a large increase in the number of banks operating in Ghana. Prior to the reform, the Bank of Ghana (2000) reports only seven banks: by 1998, however, this number had more than doubled. By 2009, five years after the universal banking policy, there were 27 banks in Ghana, of which 17 were foreign-owned, and 61 registered non-bank financial institutions, excluding credit unions and co-operatives. In addition, consolidation within the banking sector meant that capital adequacy standards were generally being met as a result of recapitalization and the off-loading of non-performing assets.

The reforms have gradually given rise to financial deepening in Ghana. Traditional indicators, such as the ratio of liquid assets, defined as currency plus demand and interest-bearing liabilities of banks and other financial intermediaries, to GDP, increased slowly (from 11% to 22%) between 1983 – 1999, before rising to 30% in 2006. This indicator is usually interpreted as providing a broad measure of intermediation (King and Levine, 1993). Alternative indicators have behaved similarly. The ratio of bank lending to the private sector to GDP rose from 3% in 1986 to 16% in 1998 and accelerated to stand at 27% in 2006. This pattern shares much in common with financial liberalizations in other countries where the banking sector initially expanded by taking advantage of relatively safe lending opportunities to government before extending credit to riskier private individuals. Although in the case of Ghana, bank restructuring and the writing-off of bad debts meant that initially there was very little credit available to lend either to the government or the private sector (Aryeetey, Nissanke, Steel, 2000).

Nigeria and Ghana are both Sub-Saharan African lower middle income countries (WDI, 2017). One striking difference between the two is their road to financial deepening. While Nigeria reduced her commercial banks by consolidation, Ghana increased the number of her banks. This study thus investigated the effect of financial deepening for both scenarios using Nigeria and Ghana as case studies.

Statement of the Problem

Based on the World Economic Forum (Robinson, 1956), the performance and long term economic growth and welfare of a country are related to its degree of financial development; a great majority of analysts have joined in believing that financial deepening is a catalyst for economic development. Influenced to a large extent by the rapid and spectacular deepening in the scale and complexity of the financial system of advanced

economies, the policy makers in developing countries have now made financial strengthening a priority with the expectation that this will contribute significantly to economic performance.

Despite these efforts, financial deepening in Nigeria and Ghana could not bring about enhanced foreign capital inflows or put an end to capital flight in these countries. The reforms in their banking sectors were unable to fill inadequate financial gaps in existence. The countries were unable to record improvements in savings generation for productive investment while few big banks that were highly oligopolistic maintained greater share of the market making the environment uncompetitive. However, it could be seen from previous studies that no agreement exists on causal links between financial sector development and economic growth. The nature of the causality however depends on the variable used to measure financial development (Ewetan & Okodua 2013). This study is unique in empirical endeavour because no intra-country –comparative study known to the researchers have literacy rate as a factor that can influence financial deepening of developing economies. By this inclusion, this study further investigated the effect of financial deepening on human capital in very low income Sub-Saharan Africa like Nigeria and Ghana. The pertinent questions in this study are: given the reality of the differences in the circumstances and economic environments in which these researches were conducted, what relationship exists between financial deepening and the economies of Lower Middle Income Sub-Saharan African countries like Nigeria and Ghana? Or indeed is there any causal relationship between them? If there is, how has it performed in the Sub-Saharan African economies?

The main objective of this study is to investigate the effect of financial deepening on economic development of Sub-Saharan African economies using a sample of Nigeria and Ghana. Specifically, the sub-objective of the study is to examine the relationship between Financial Deepening and Standard of Living, Literacy Rate, Real Interest Rate, Inflation Rate, Stock Market Liquidity in Lower Middle Income Sub-Saharan African countries (Nigeria and Ghana).

II. REVIEW OF LITERATURE

Theoretical Framework

The recognition of a significant positive relationship between financial development and economic growth can be traced back to the work of Schumpeter (1912). This view is also held by Goldsmith (1969), Mckinnon (1973) and Shaw (1973). Such "financial structuralist" view suggests that a widespread network of financial institutions and a diversified array of financial instruments will have a beneficial effect on saving and investment and hence, on growth.

The rapidly expanding "endogenous growth" literature also tends to emphasize the significant role of financial development (e.g., information collecting and analyzing, risk sharing, liquidity provision) in improving economic growth. Empirical studies in this spirit include the work of Bencivenge and Smith (1991), Greenwood and Javanovic (1990), as well as Pagano (1993) suggesting that financial intermediation has positive effect on economic growth.

The supply-leading phenomena, as in Goldsmith (1969), McKinnon-Shaw (1973) and the endogenous growth literature dubbed the finance-led growth hypothesis, are popular among developing countries as a means to promote development. Such finance-led hypothesis however evoked criticism. Originally put forward by Robinson (1956), who has questioned such one-way causality, that financial development follows rather than leads to economic growth – "where enterprise leads, finance follows" (Robinson, 1956, p. 86). Such "demand-following" hypothesis, postulate the passive response of financial development to a growing economy. As the real side of the economy expands, this will intensify the need for more financial services, leading to the growth of financial services and thus, lead to economic growth (Demetriades & Hussein, 1996; Ireland, 1994).

Apparently, these are two opposite patterns of causal relationship between financial development and economic growth, each with striking different policy implication. A third view comprising the combination of demand leading and supply hypothesis, which postulates the two variables, is mutually causal (Greenwood & Smith, 1997; Al-Yousif, 2002).

Interestingly, there is another view that denies any reliable causal relationship between financial deepening and economic growth as mutually independent (Stern 1989; Lucas, 1988). Lucas (1988), for instance, claimed that economists have generally overstressed the role of financial development in economic growth.

Empirical Review

A number of empirical studies have been carried out on the effect of financial deepening on economic development variables. Mixed and conflicting findings have emerged from various quarters. A few of such works are reviewed here:

Gries, Kraft, and Meierrieks (2009) sought to test for the causality between financial deepening, trade openness, and economic development. This study focused on 16 Sub-Saharan African countries, using annual time series observations. For establishing the causal relationships, it used the Hsiao-Granger method, the Vector Auto-Regression (VAR), and the Vector Error Correction Model (VECM). It has thinly support for the

hypothesis of finance-led growth and called for adoption of a more balanced policy approach as this may reduce financial system deficiencies among the Sub-Saharan Countries.

In Nigeria, Nzotta and Okereke (2009) examined financial deepening and economic development in Nigeria between 1986 and 2007. It used two stages least squares for analysis. Four of the variables: lending rates, financial savings ratio, cheques/GDP ratio and deposit money banks/GDP ratio had significant relationship with financial deepening and concluded that the financial system has not sustained effective intermediation, credit allocation and monetization of the economy.

Ewetan and Okodua (2013) investigated the link between financial sector development and economic growth in Nigeria (1981-2011). Results from a multivariate VAR and vector error correction model support evidence of long run relationship between financial sector development and economic growth in Nigeria. Granger causality test results indicate that there exists causality between financial sector development and economic growth in Nigeria. The nature of the causality however depends on the variable used to measure financial development.

Torruam, Chiawa, and Abur (2013) examined the causality between financial deepening and Economic Growth in Nigeria (1990-2011). The Augmented Dickey-Fuller (ADF) and the Phillip-Perron (PP) tests for stationarity were adopted, while Johansen cointegration and Granger-causality tests were used for model estimation. Results showed four (4) cointegrating relations among variables; the Granger-causality suggests there is unidirectional causality from economic growth to financial deepening in Nigeria. The study concludes that financial deepening has impact on economic growth in Nigeria.

In Ghanaian economy, Takyi and Obeng (2013) investigated determinants of financial development in Ghana for the period1988-2010. It employed Autoregressive Distributed Lag (ARDL) approach. A unique cointegrating link between financial development, trade openness, inflation, per capita income, reserve requirement and government borrowing was established. The regression results highlight trade openness and per capita income as major determinants of financial development in Ghana. Further, inflation, interest rate, and reserve requirement had significantly negative effects on financial development in the short and long-runs suggesting that these variables adversely influence financial development in Ghana. However, borrowings by the government could not significantly affect financial development both in the long-run and short-run implying that increased government borrowing from banking sector will not significantly affect private credit or even crowd in private sector credit.

A comparative study for Nigeria, Ghana and South African was conducted by Nwezeaku and Akujuobi (2013) on impact of financial development on economic growth in those countries with time serial data 1980 to 2012. The study employed Gross Domestic Product, Market Capitalization, Interest Rate, Money Supply and Total Bank Credit to the Economy. Applying the test for stationarity with the Ordinary Least Squuare (OLS), Cointegration and Causality procedures, the study revealed a significant positive relationship for financial development and economic growth in the three Sub-Saharan countries studied. Notably, financial development variables exerted meaningful effect on economic growth of South Africa, but significantly weak in Ghana and Nigeria.

There are also mixed findings. For instance Kolawole (2012) used a co-integration and error correction model on whether open markets and financial sector development affect economic growth in Nigeria. Here, no link was established among the variables. Adeniyi and Omisakin (2012) investigated causality of FDI, economic growth and financial sector development using Nigeria, Cote'd'Ivoire, Gambia, Ghana, and Sierra Leone as case study within a trivariate framework and error correction model. The finding of the study indicates no evidence of any causality among the variables.

Karimo & Ogbonna(2017) investigated direction of causality between financial deepening and economic growth for 1970 – 2013. Annual growth rate of real GDP as dependent variable with ratio of bank total asset, bank credit, market capitalization to GDP, stock market turnover and prime lending rate were used as independent variables. The Toda and Yamamoto Augmented Granger causality test was utilized for data analysis. They found that financial deepening leads to economic growth in Nigeria.

Alrabadi & Kharabsheh (2016) examined financial deepening and economic growth in Jordan for the period 1992-2014. GDP was the dependent variable and private sector credit, total credit, total deposits, and broad money supply to GDP were the independent variables, with inflation, lending interest rate, openness and ratio of Government expenditure to GDP as control variables. Data analysis was by Vector Autoregressive regression, Johanson-Julselius cointegration and Granger causality tests. Results show significant long-run relationship amongst variables irrespective of proxies used for financial deepening; bi-directional causality between variables when private sector credit is used as proxy for financial deepening; a uni-directional causality runs from economic growth to financial deepening where deposit and money supply are proxies for financial deepening.

Best, Francis & Robinson (2017) studied financial deepening and economic growth in Jamaica from 1980 -2014. Dependent variable was GDP, with money supply, private sector credit, and bank liquid reserve as

independent variables. It utilized cointegration and Granger causality within multivariate framework with impulse response and variance decomposition for data analysis. Findings indicate a supply – leading relationship in the long and short-runs.

Nnanna & Chinwudu (2016) examined financial deepening and economic growth in Nigeria 1985-2014. GDP was the dependent variable with money supply, private sector credit, stock market capitalization, and financial savings to GDP, Trade openness, and inflation rate as independent variables. Data analysis was by ordinary least square econometric method. Findings show that bank based and stock market financial deepening proxies have significant positive effects on economic growth.

Ghildiyal, Pokhriyal & Mohan (2015) investigated financial deepening and economic growth in the Indian perspective for 1990/91 to 2013/14. Dependent variable was GDP per capita, with money supply, stock market capitalization, total trade (import and export), and private sector credit as independent variables. Data estimation was by Autoregressive Distributive Lag (ARDL) approach and Granger Error correction model. Findings indicate an equilibrium relationship between financial deepening and economic development; that financial deepening causes economic growth both in the short and long-runs.

III. METHODOLOGY

This work is quantitative research predicated on ex-post facto research design. The dependent variable used is the financial deepening (FINDEEP). The independent variables included Standard of Living (SL), Literacy Rate (LR), Real Interest Rate (RIR), Inflation Rate (INFLR), and Stock Market Liquidity (SML).

Model Specification

The model for this study is premised on the main objective of study and anchored on the sub-objectives. The study is on the impact of aggregated financial deepening on economic development. The model was adapted from the works of Ndebbio (2004), Nzotta and Okereke (2009) and Takyi and Obeng (2013). This present model as stated below is an improvement on the existing studies with the inclusion of Literacy rate (LR).

$$FINDEEP = f(SL, LR, RIR, INFLR, SML) \tag{1}$$

Using the above variables, the equation of the relationship becomes:

$$FINDEEP_i = \beta_0 + \beta_1 SL_i + \beta_2 LR_i + \beta_3 RIR_i + \beta_4 INFLR_i + \beta_5 SML_i + \mu \tag{2}$$

Where β_0 is the constant, $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 are the coefficients of the explanatory variables for the model. μ is the error term that captures the stochastic variables in the model. i = is the collection of the countries involved in the study.

Model Estimation Technique

The econometric measures adopted in this study are in line with that of Nwezeaku and Akujuobi (2013). First, the study subjected both the dependent and independent variables to the Unit root test (evaluated by Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) statistics) to find out the stationary of the time series. The Cointegration tests were performed to determine long-term equilibrium status of the variables. Since long run relationships exist, it became pertinent to find out the causal link in the model using the Granger causality test.

IV. RESULTS AND INTERPRETATION

Stationarity Tests

Table 1: Results of Unit Root Stationarity Test for Nigeria

Variables		Augmented Dickey Fuller test (ADF)		Philips- Perron test (PP)		Stationarity status
		Level	First Difference	Level	First Difference	1(1)
FINDEEP		-2.620796	-3.707673**	-1.831815	-3.352012***	1(1)
SL		-4.026339*	-5.894431*	-3.035006	-5.405772*	1(1)
LR		-1.581517	-3.149267	-1.405612	-4.655281*	1(1)
RIR		-4.048263**	-5.259603*	-4.445926*	-7.646942*	1(0)
INFLR		-3.464700***	-3.840543**	-2.785304	-4.798298*	1(1)
SML		-2.643540	-4.590003*	-2.249837	-4.545573*	1(1)
Critical Values	**1%**	-4.4415	-4.4691	-4.4167	-4.4415	
	5%	-3.6330	-3.6454	-3.6219	-3.6330	
	10%	-3.2535	-3.2602	-3.2474	-3.2535	

Notes:
1) Null hypothesis is the presence of unit root
2) *1% level of significance, **5% level of significance, ***10% level of significance.
3) Unit roots tested at 5% level of significance.

4) Decision rule -The critical value should be larger than the test statistical value for unit root to exist
Source: Author's Estimation using Eviews 4.0.

Table 2: Results of Unit Root Stationarity Test for Ghana

Variables		Augmented Dickey Fuller test (ADF)		Philips- Perron test (PP)		Stationarity status
		Level	First Difference	Level	First Difference	1(1)
FINDEEP		-2.126995	-3.838474**	-2.029435	-5.115470*	1(1)
SL		-2.915294	-8.302734*	-4.293511**	-7.837123*	1(1)
LR		-3.885830**	-4.289795**	-3.447799***	-6.122413*	1(1)
RIR		-1.849665	-2.601526	-1.780941	-4.986347*	1(1)
INFLR		-3.165276	-3.679888**	-3.300826***	-5.320138*	1(1)
SML		-4.834926*	-6.206574*	-4.348246**	-6.405960*	1(0)
Critical Values	1%	-4.4415	-4.4691	-4.4167	-4.4415	
	5%	-3.6330	-3.6454	-3.6219	-3.6330	
	10%	-3.2535	-3.2602	-3.2474	-3.2535	

Notes:
5) Null hypothesis is the presence of unit root
6) *1% level of significance, **5% level of significance, ***10% level of significance.
7) Unit roots tested at 5% level of significance.
8) Decision rule -The critical value should be larger than the test statistical value for unit root to exist
Source: Author's Estimation using Eviews 4.0

The Augmented Dickey-Fuller and Phillip-Perron (PP) tests for stationarity were conducted as shown on Tables 1 and 2 with intercept and trend at levels and at first difference respectively. A variable is stationary when the ADF and PP values are lesser than the critical value (CV) at a given level (1%, 5%, and 10%, denoted as *, **, ***, respectively).

The stationarity test for Nigeria is shown on Table 1 and Ghana on Table 2. The results indicate that for Nigeria all variables are stationary at first difference, 1(1) except RIR that is stationary at level, 1(0). For Ghana, all variables are stationary at first difference, 1(1) except SML that is stationary at level, 1(0).

Cointegration Result

Table 3: Cointegration Result for Nigeria

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.983622	185.5878	94.15	103.18	None **
0.851400	95.12733	68.52	76.07	At most 1 **
0.658536	53.18445	47.21	54.46	At most 2 *
0.604077	29.54520	29.68	35.65	At most 3
0.250249	9.161440	15.41	20.04	At most 4
0.120511	2.825117	3.76	6.65	At most 5

*(**) denotes rejection of the hypothesis at 5%(1%) significance level
L.R. test indicates 3 cointegrating equation(s) at 5% significance level

Table 4: Cointegration Result for Ghana

Eigenvalue	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.849391	120.2012	94.15	103.18	None **
0.798590	78.55373	68.52	76.07	At most 1 **
0.578152	43.30062	47.21	54.46	At most 2
0.511951	24.31217	29.68	35.65	At most 3
0.291497	8.530698	15.41	20.04	At most 4
0.042241	0.949491	3.76	6.65	At most 5

*(**) denotes rejection of the hypothesis at 5%(1%) significance level
L.R. test indicates 2 cointegrating equation(s) at 5% significance level

Having established that, at most, all the variables in all cases of Nigeria and Ghana were stationary at first difference or 1(1), we then applied the Johanssen co-integration to determine presence of long run relationship in the model. When a cointegration relationship is present, it means that financial deepening and economic growth, share a common trend and long-run equilibrium. Tables 3 and 4 show the result of the cointegration test for Nigeria and Ghana respectively. From the results, the Likelihood Ratio statistic indicates 3 for Nigeria and 2 for Ghana; cointegration at 5 percent level of significance, suggesting that there is cointegrating relationship between financial deepening and the selected macroeconomic variables in Nigeria.

The Granger Causality Results

Here, we estimate the direction of the effect of the variables taken together and the analyses are presented according to the countries.

The Granger Causality Results for Nigeria: Under the Nigerian economy, there exists bidirectional causality between Financial Deepening and Literacy Ratio. Also, a unidirectional causality runs from Stock Market Liquidity and Financial Deepening (see Table 5).

Table 5: Pairwise Granger Causality Tests for Nigeria

Null Hypothesis:	Obs	F-Statistic	Probability
SLn does not Granger Cause FINDEEPn	22	0.82282	0.45594
FINDEEPn does not Granger Cause SLn		1.30972	0.29579
LRn does not Granger Cause FINDEEPn	22	3.47597	0.05425**
FINDEEPn does not Granger Cause LRn		5.29587	0.01630*
RIRn does not Granger Cause FINDEEDn	22	0.16365	0.85036
FINDEEPn does not Granger Cause RIRn		0.09896	0.90630
INFLRn does not Granger Cause FINDEEPn	22	1.44656	0.26293
FINDEEPn does not Granger Cause INFLRn		0.40844	0.67104
SMLn does not Granger Cause FINDEEPn	22	6.03529	0.01046*
FINDEEPn does not Granger Cause SMLn		1.14575	0.34135

The Granger Causality Results for Ghana: For the Ghana results, no significant causal relationship was observed between any other pairs of the variables (see results in Table 6).

Table 6: Pairwise Granger Causality Tests for Ghana

Null Hypothesis:	Obs	F-Statistic	Probability
SLg does not Granger Cause FINDEEPg	22	0.20007	0.82057
FINDEEPg does not Granger Cause SLg		0.56789	0.57711
LRg does not Granger Cause FINDEEPg	22	0.81449	0.45942
FINDEEPg does not Granger Cause LRg		2.79968	0.08892
RIRg does not Granger Cause FINDEEPg	22	0.68285	0.51850
FINDEEPg does not Granger Cause RIRg		1.45336	0.26141
INFLRg does not Granger Cause FINDEEPg	22	0.05070	0.95071
FINDEEPg does not Granger Cause INFLRg		1.84113	0.18890
SMLg does not Granger Cause FINDEEPg	22	0.73360	0.49478
FINDEEPg does not Granger Cause SMLg		0.90026	0.42499

V. DISCUSSION OF FINDINGS

Summarily, the study has shown that:

1. For both Nigeria and Ghana, financial deepening has long run relationship with economic development variables (standard of living, literacy rate, real interest rate, inflation rate and stock market liquidity). This supports Ghildiyal, Pokhriyal, & Mohan (2015); and Alrabadi & Kharabsheh (2016) where long-run equilibrium exists between financial deepening and economic growth variables.
2. For Nigeria,
  i. There is no causality between financial deepening and explanatory variables of standard of living, real interest rate and inflation rate.
 ii. Bi-directional causality exists between financial deepening and literacy rate.
iii. Uni-directional causality runs from stock market liquidity to financial deepening.

3. For Ghana, there is no causality between financial deepening and the explanatory variables of economic growth (standard of living, literacy rate, real interest rate, inflation rate and stock market liquidity). This is in line with Adeniyi and Omisakin (2012); and Kolawole (2012).

It is possible that the granger causality results did not support the cointegration results for Ghana and some for Nigeria due to lack of political will by the Governments and failure in putting in place appropriate policies to enable these economic growth variables contribute meaningfully to financial deepening and vice versa. This view is supported by Nzotta and Okereke (2009), and also supported by the results of Nwaezeaku and Akujuobi (2013) where financial development exerted significantly weak effects on economic growth of Nigeria and Ghana.

VI. SUMMARY AND CONCLUSION

This study examined the long run and causal relationship between financial deepening and economic development in Nigeria and Ghana over the period 1989 to 2017. It employed five different measures of economic development including standard of living, literacy rate, real interest rate, inflation rate, and stock market liquidity. The ex-post facto research design was used with data sourced from World Development Indicators (WDI,2017). The econometric techniques adopted were the ADF and PP unit root tests for stationarity, Johansen cointegration for long-run relationships and the Granger causality tests. Results from the cointegration test shows evidence of cointegration among financial deepening and economic development variables, indicating the existence of long run relationship between the variables. The granger causality results did not support the cointegration results. This is true for all the variables in Ghana. For Nigeria, some variables of development such as literacy rate and stock market liquidity granger cause financial deepening. The study thus concluded that Nigerian financial deepening has more effective contribution to the development of its economy than that of Ghana.

VII. RECOMMENDATIONS

Policy makers should design the policies which will promote the financial and capital markets, remove the obstacles that impede their growth and strengthen the health and competitiveness of the banking system. Here serious financial inclusion policy and programme should be put in place to accommodate the majority of the populace who have been excluded from financial services. Since financial deepening has been supported by literacy and stock market liquidity in the Nigerian economy, developing the financial sector would mean improving financial structures to ensure efficient delivery of financial services for the private sector to invest so as to attract more private sector participation thereby creating jobs and improving the quality of life of the people. The policy implications of the findings of this study demand that government should consolidate on previous financial sector reforms by strengthening the relevant components of the financial sector to improve financial resources intermediation. In addition government must implement appropriate regulatory and macroeconomic policies to ensure a stable and conducive macroeconomic environment for local and foreign investments to thrive.

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