**Examining “Finance-Led Growth Hypothesis” in Nigeria: Challenges of Policy and Leadership**

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***Abstract***

*The debate on the causal relationship between financial development and economic growth among economists is far from being over. Recent empirical literatures are mixed, as some studies argued that financial development drives the real sector of the economy and accelerates economic growth. This is the so-called “finance-led growth hypothesis”. On the other hand, the demand-following responses school of thought opined that the development of the real sector of the economy accelerates financial development. But understanding the causal relationship between financial development and economic growth is important in enhancing the economy of a nation. Hence, the broad objective of this paper is to examine the veracity of “finance-led growth hypothesis” in Nigeria as well as examine the leadership and policy challenges confronting the financial sector. Consequently, econometrics techniques such as the Ordinary Least Squares method, Error Correction Model, Johanson’s Cointegration Test and Granger Causality Test are employed to examine both the longrun and shortrun dynamics. The secondary data used for this study covering 1980-2013 are obtained from World Bank Database and Central Bank of Nigeria Statistical Bulletins. Evidence from the study suggests that “finance-led growth hypothesis” is not applicable in Nigeria. This is partly not unconnected with the leadership and policy challenges confronting the sector. Therefore, the paper recommended an increase in broad money supply as well as a re-direction of bank credit to private sector to productive investments so that it can have positive and significant impact on economic growth. To tackle policy and leadership challenges, the paper recommended the speedy passage of the proposed Banks and Other Financial Institution Bill 2014 as well as the establishment of financial leadership training Institute to equip financial institution leaders with the requisite knowledge and skills of managing the sector.*

***Keywords:*** Economic Growth, Financial Development,Finance-led Growth Hypothesis, Broad Money Supply, Credit to Private Sector, Leadership and Policy Challenges

**JEL Classification:** *G15, O16, O47*

**1.0 Introduction**

Empirical literature on the causal relationship between financial development and economic growth in developed and developing countries have been mixed. Some analysts have argued that the development of the financial sector drives the real sector of the economy and causes the economy to grow. This is the so-called “finance-led growth hypothesis” or supply-leading responses. On the other hand, the demand-following responses opined that it is the development of the real sector of the economy that accelerates financial development. However, another school of thought submitted that a bi-directional causal relationship exists between financial development and economic growth. Although, most previous studies (such as Jung 1986; Crichton & De Silva 1989, King & Levine 1993, De Gregorio & Guidotti 1995; Rajan & Zingales 1998; Choe & Moosa 1999;) favour the supply-leading responses, but recent studies ( such as Shan 2005; Odhiambo 2008; Choong, et al 2010) show that the demand-following responses is gaining substance and prominence. Therefore, the debate on the relationship between financial development and economic growth is far from over.

But Patrick (1966) propounded the hypothesis that the direction of causality between financial development and economic growth changes over the course of development. Accordingly, as a country develops, financial development is able to induce real innovation of investment before sustained modern economic growth gets under way and, as such growth occurs, the supply-leading impetus gradually becomes less and less important as the demand-following response becomes dominant. However, liberalization of the financial markets in recent times reduces the role of government in the sector, allowing the market forces to determine the pace of the financial sector. Choong, et al (2010) submitted that understanding the causal relationship between financial development and economic growth is important in enhancing the economy of a nation. But the recent global financial crises and the attendant consequences underscore the need to redefine the role of the government in the financial sector. This further stressed the role of effective leadership and policy in the relationship between financial development and economic growth.

The motivation for this study lies in the fact that the financial sector in Nigeria has been witnessing policy and leadership challenges, just as the country has been experiencing political instability since political independence in 1960. Since the onset of the present political dispensation in 1999, the financial sector has been struggling to make significant impact on the real sector of the economy and this has necessitated the consolidation of both the money and capital markets. Despite these reforms, it appears the financial markets are still not making the desired impact on the economy as leadership challenges still constitute impediments in the performance of the sector. The aftermath of this was the sacking of some Chief Executives Officers of the major players in both the capital and money markets by the Central Bank of Nigeria on account of corrupt practices. The apex Bank discovered that some commercial bank chief executives were engaged in professional gross misconduct, unethical practices as well as the granting of unsecure loans to friends, relatives and personal companies. This adversely affected the balance sheets of these banks and placed them on the path of distress, failure and insolvency, the very issues the reforms were supposed to address. Furthermore, policy issues on the part of the regulator of the financial markets remain a bane to the development of the sector. The Bank and Other Financial Institutions Act, (BOFIA) 2004 seems unresponsive to the development of the financial sector. Consequently, the Parliament is considering repealing the Act and re-enacting the Bank and Other Financial Institutions Act, (BOFIA) 2014 that is expected to address the loopholes in BOFIA 2004 with a view to repositioning the financial sector for greater efficiency and performance.

Despite this, the Nigerian economy has been experiencing an average growth rate of 6.5 percent in the past decade compared to 1.06 percent in EU countries, 7.12 percent in South Asia, 3.82 percent in Latin America & Caribbean and 5.33 percent in Sub-Sahara Africa, and 2.68 percent globally (World Bank). Though the growth rate of real GDP seems impressive in Nigeria, but the rates of poverty, unemployment, income inequality, maternal and infant mortality are on the increase, just as Human Development Index (HDI) has remained at low ebb. What is the role of financial development in all of these? Is the impressive economic growth in Nigeria having impact on financial development? Do leadership and policy challenges hamper the efficiency and performance of the financial sector in Nigeria? Furthermore, most of the empirical studies on the relationship between financial development and economic growth are mainly concentrated in Asia, Europe and Latin America. The studies that examine the veracity of a finance-led growth response or a growth-led finance response in Sub-Sahara Africa countries are few and most of them are mainly on cross-sectional data, thereby failing to address country-specific issues. This paper intends to fill this vacuum by empirically investigating finance-led growth hypothesis within the context of leadership and policy challenges in Nigeria. Therefore, the broad objective of this paper is to examine finance-led growth hypothesis within the context of leadership and policy challenges in Nigeria. Specifically, the paper seeks to: (i) examine the veracity of finance-led growth hypothesis in Nigeria; (ii) examine leadership and policy challenges that affect the link between financial development and economic growth in Nigeria.

Following this introduction, the remaining parts of the paper is divided into five sections. Section two presents the conceptual and empirical issues, while section three contains the theoretical framework and methodology. Data analysis and presentation of results are contained in section four; just as section five outlines the summary of major findings. Section six concludes the paper.

**2.0 Empirical and Conceptual Issues**

**2.1 Empirical Issues**

Three categories of empirical literature exist on the link between financial development and economic growth. While the first school of thought believes that financial development drives the real sector of the economy (otherwise known as supply- leading response), the demand-following response school of thought argues that it is economic growth that drives financial development. The third school of thought maintains that a bi-directional causal relationship exists between financial development and economic growth because the two variables granger cause each other. A summary of some empirical literature in this regard is presented in Table 1

**Table 1:** Summary of Empirical Literature on the Link between Financial Development and Economic Growth.

|  |  |  |
| --- | --- | --- |
| Author(s) | Research Issues & Methodology | Findings & Policy Options |
| Jung (1986) | Using data from 56 countries to examine the international evidence on the causal link between financial development and economic growth. | Found out that a causal direction runs from financial development to economic growth in developing countries, whereas, the direction runs from economic growth to financial development in developed countries. |
| King & Levine (1993) | Examined the relationship between financial development and economic growth using endogenous growth model | Discovered that financial systems are important for productivity, growth and development because better financial systems improve the possibility of successful innovation which accelerate economic growth. Similarly, financial sector distortions reduce the rate of economic growth. |
| Wood (1993) | Used data from Barbados and adopting Hsiao’s (1979) test procedure to examine the causal relationship between financial development and economic growth. | Discovered a bi-directional causal relationship between financial development and economic growth. |
| De Gregorio & Guidotti (1995) | Examined the link between financial development and economic growth. | Discovered that though the effects vary across countries and over time, financial development lead to economic growth |
| Akinboade (1998) | Examined the causal relationship between financial development and economic growth in Botswana. | Reported a bi-directional causality between financial development and per capita income, and therefore concluded that the two variables appear to complement each other in Botswana. |
| Rajan & Zingales (1998) | Investigated if financial development accelerates economic growth through reduction in costs of external finances to firms. | Found out that financial development have substantial supportive influence on economic growth, just as the industrial sector that relatively need more external finance develop disproportionately faster in countries with more developed financial markets. |
| Choe & Moosa (1999) | Using data from Korea, investigated the causal relationship between financial development and economic growth. | Concluded that financial development generally leads to economic growth just as financial intermediaries are more important than capital markets in the relationship. |
| Kar & Pentecost (2000) | Using data from Turkey, investigated the causal relationship between financial development and economic growth. | Found out that the choice of measurement of financial development determines the sensitivity of the causal direction between financial development and economic growth. |
| Shan et al (2001) | Used VAR Framework to investigate the relationship between financial development and economic growth in nine OECD countries and China. | Found little evidence to support the finance-led economic growth hypothesis, and cautions against making such generalization. |
| Agbetsiafa (2003) | Examine the causal relationship between financial development and economic growth, using eight countries in Sub-Sahara Africa. | Discovered that a unidirectional causality running from economic growth to finance especially in two of the countries, namely Kenya and Cote D Ivoire. |
| Calderon & Liu (2004) | Used Geweke decomposition test on pooled data for 109 countries to investigate causal direction of the relationship between financial development and economic growth. | Found evidence to support a bi-directional causal relationship between financial development and economic growth. |
| Chuah & Thai (2004) | Used ECM and VAR models to examine the direction of causality between financial development and economic growth in six GCC countries. | Found evidence to support a bi-directional causality between financial development and economic growth in five countries. |
| Waqabaca (2004) | Using data from Fiji, examined the link between financial development and economic growth. | Found out that though a positive relationship exists between financial development and economic growth but the direction of causality is running from growth to financial development. |
| Zang & Kim (2007) | Applied the Sims-Geweke causality technique on large panel data from East Asian countries to investigate a causal relationship between financial development and economic growth. | Found substantial evidence to support economic growth-led financial development. But there were no evidence to support a positive unidirectional causal relationship running from financial development to economic growth. |
| Odhiambo, (2008) | Used dynamic Granger Causality model to examine the direction of causality between financial development and economic growth in Kenya based on the debate on finance led growth response versus growth led finance response | Found out that the demand following response predominates in Kenya, and causality between financial development and economic growth depends on the choice of measure of financial development. Concluded that the argument that financial development lead to economic growth should be taken with a pinch of salt. |

**2.2 Financial Development in Nigeria & the Challenges of Leadership and Policy**

Several empirical studies have demonstrated the importance of leadership in the realization of the goals and objectives of any organization irrespective of its sector in the economy. Therefore, the financial sector is not an exception. UNDP (2001) stressed the need for ethics, and accountability in public life to prevent loss of confidence in public institutions. It noted that good governance and sound public administration without unethical practices are fundamental for achieving sustainable development. Agweda (2007) identified poor leadership as the major factor responsible for the poor management of resources and consequently widespread poverty and deprivation of basic necessities of life. Specifically, Gberevbie (2011) submitted that financial sector’s leadership failure and unethical practices such as corruption and granting of unsecured loans to relatives and friends of some banks executives by the latter is one of the greatest challenges confronting the financial sector in Nigeria. This problem inhibits the ability of financial sector to contribute to economic growth and development in the country. He argued that effective leadership coupled with proper ethical practices is a sine-qua-non for proper management of the financial institutions as well as the facilitation of financial institution role in the development process. Olayiwola (2009) asserted that poor corporate governance and unethical practices in the Nigerian banking sector constitute a major component in the causes of financial institution’s distress and bank failure.

Prior to the reforms in the financial sector in 2004, the Nigerian banking sector was characterised by incessant bank distress, failure and insolvency, while the capital market was experiencing low market capitalization and turnover. It was expected that the bank consolidation which increased the share capital of banks from 2 billion naira to 25 billion naira would strengthen the sector and accelerate its contribution to growth and development. Unfortunately, the reforms failed to equip the leadership of banks with the requisite knowledge and skills to manage such huge capital base. This resulted in corruption, unethical practices and the granting of unsecured loans by bank chief executives to their relatives, friends and personal companies. Few years after the reforms, the sector started to witness unprecedented instability and the Central Bank of Nigeria investigated the banks and discovered that most of them were heading towards distress and failure, the very issues the consolidation was supposed to address. Further investigation revealed that leadership problem was the major challenge and this led to the sacking of some indicted bank executives and the injection of over 600 billion Naira bailout funds by the Central Bank of Nigeria to rescue the sector from imminent collapse.

Besides leadership challenges, policy issues also contributed to the dismal performance of the financial sector in Nigeria. The Central Bank of Nigeria which is the apex financial sector regulator has witnessed its own challenges of leadership and autonomy in recent times. Government undue intervention, the appointment and dismissal/suspension of the leadership of the apex Bank as well as the much debated issue of Bank autonomy have adverse effects on the ability of the Bank to discharge its function effectively. Consequently, there is the need to intensify the supervision and regulation of commercial banks by the Central Bank of Nigeria. For instance the Banking and Other Financial Institutions Act (BOFIA) 2004 is being repealed by the Parliament and to enact the Banking and Other Financial Institutions Act (BOFIA) 2014 to regulate banking and businesses of other financial institutions in Nigeria; prohibit the carrying on of banking and businesses of other financial institutions except under licence and by a company incorporated in Nigeria; as well as provide for the supervision of banking and other financial institutions by the Central Bank of Nigeria. It is expected that when the BOFIA 2014 is effective, the banking sector will be repositioned for optimal productivity. If the financial sector is to achieve its noble objectives, there is the need for adequate legislation to control and supervise the activities of the financial sector. Despite the enactment of the Banks and other Financial Institutions Act, 2004, bank failure and distress still permeated the Nigerian financial sector with its resultant adverse effect on the economy. Since BOFIA 2004 has not been able to reposition the financial sector for greater efficiency, repealing it and to re-enacting the Banks and Other Financial Institutions Act 2014 is expected to help ensure stability in the system. This may go a long way in accelerating economic growth and development in Nigeria through the financial development.

**3.0 Theoretical Framework & Methodology**

**3.1 Theoretical Framework**

According to modern growth theory developed by Romer (1986) Lucas (1988), and Grossman & Helpman (1991), financial sector has two main channels through which it affects longrun growth. Through catalyzing capital accumulation (including both human and physical capital) and by increasing the rate of technological progress the financial sector is fundamental to growth. The above two channels work for promoting growth by mobilizing savings for investment; facilitating and encouraging capital inflows; and allocating capital efficiently among competing uses (Mordi, 2010). Goldsmith (1969), McKinnon (1973), and Shaw (1973) formalized the financial intermediation theory where they argued that financial development plays a fundamental role in economic growth and development through the quantity and quality of services provided by financial institutions. Goldsmith (1969) posits that the positive correlation between financial development and the level of real per capita GNP is attributed to the positive impact that financial development has on encouraging more efficient use of capital stock.

**3.2 Methodology**

Econometrics methodology is employed in this study as the analytical tool for the examination of the veracity of finance-led growth hypothesis in Nigeria. Consequently, the Ordinary Least Squares method is adopted to investigate the long-run relationship between financial development and economic growth. The Error Correction Model is also adopted to examine the short-run dynamics. To further examine the relationship between financial development and economic growth, the study employed Johanson’s Cointegration Test. Also, to determine the causal relationship between financial development and economic growth, the study adopts granger causality tests. The secondary data used for this study covering the period 1980-2013 are obtained from the World Bank Database, Central Bank of Nigeria Statistical Bulletins and National Bureau of Statistics.

**3.3 Model Specification**

The study adopts the augmented Solow growth model and introduced some financial development variables ( such as the ratio of broad money supply to GDP (M2/GDP) and the ratio of credit to private sector to (GDP CPSGDP)) to examine the impact of financial development on economic growth. Solow’s (1956) model integrated human capital (in addition to growth rates of labour and capital) as one of the independent variables in the growth model. The growth of national income is therefore specified as a function of increases in growth rate of labour, growth rate of physical capital, Human capital and a residual representing all other factors (financial development variables). The model is specified as follows:

RGDP = f(L, K, HK, M2/GDP, CPS/GDP MKTCAP/GDP, RINT, IRS, CPI)

RGDP=β1+β2L+β3K+β4HK+β5M2/GDP+β6CPS/GDP+β7MKTCAP/GDP+β8RINT+β9IRS+

β10CPI +µ

Where

RGDP = Growth Rate of GDP (Proxy for economic growth)

L = Growth Rate of Labour

K = Growth Rate of Capital

HK = Growth Rate of Human Capital

M2/GDP = Ratio of Broad Money Supply to GDP

CPS/GDP = Ratio of Credit to Private Sector to GDP

MKTCAP/GDP = Ratio of Market Capitalization to GDP

RINT = Real Interest Rate

IRS = Interest Rate Spread

CPI = Consumer Price Index (proxy for inflation rate)

µ = Stochastic error term

β1, β2, β3, β4, β5, β6, β7, β8 β9, β10= parameters to be estimated

*a priori* β2, β3, β4, β5, β6, & β7,>0 β8, β9, *&* β10*<0*

**4.0 Data Analysis & Presentation of Results**

**4.1 Unit Root Tests**

The study conducted unit root test to ascertain the stationarity of the data before estimation using both the Augmented Dickey Fuller (ADF) and the Philips-Perron (PP) tests. The results of the tests as presented in Table 4.1 shows that GDP growth rate (GDP), Labour growth rate (L), Capital growth rate (K), the ratio of Market Capitalization to GDP (MKTCAP) and Consumer Price Index (CPI) are stationary at levels at 10% significant level. Therefore, the hypotheses which state the presence of unit roots in these variables are rejected. On the other hand, Human Capital (HK), ratio of broad money supply to GDP (M2GDP), ratio of credit to private sector to GDP (CPSGDP), Real interest rate (RINT), and Interest Rate Spread (IRS) are stationary at first difference. Therefore, the hypotheses that state the presence of unit roots in these variables are accepted at 10% significant level.

**Table 4.1 Unit Root Test Results**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **ADF Test Statistic** | | | | **Philips-Perron Test Statistic** | | | | **Conclusion** |
| *Level* | | *1st Difference* | | *Level* | | *1st Difference* | |  |
| *GDP* | -3.449500\* | | -7.649102 | | -4.433924 | | -9.789738 | | *I(0)* |
| L | -2.824469\*\* | | -5.706613 | | -4.595003 | | -8.739255 | | *I(0)* |
| K | -3.261739\* | | -7.616480 | | -2.017938 | | -4.358041 | | *I(0)* |
| HK | -2.423654 | | -3.272995 | | -2.447008 | | -4.659064 | | *I(1)* |
| M2GDP | -1.669951 | | -3.690588 | | -1.982900 | | -5.189171 | | *I(1)* |
| CPSGDP | -1.516567 | | -4.749251 | | -2.463096 | | -6.709363 | | *1(1)* |
| MKTCAP | -2.037299 | | -5.057112 | | -2.771775\*\* | | -6.709363 | | *I(0)* |
| RINT | -2.036930 | | -5.092557 | | -2.254896 | | -7.037688 | | *I(1)* |
| IRS | -1.960528 | | -5.626806 | | -2.043269 | | -6.758261 | | *I(1)* |
| CPI | -3.318590\* | | -5.738244 | | -2.774305 | | -5.369159 | | *I(0)* |
|  | | | | | | | | | |
| *1% Critical Value* | | -3.6496 | | -3.6576 | -3.6422 | -3.6496 | |  | |
| *5% Critical Value* | | -2.9558 | | -2.9591 | -2.9527 | -2.9558 | |  | |
| *10% Critical Value* | | -2.6164 | | -2.6181 | -2.6148 | -2.6164 | |  | |

*\*(\*\*) indicates significant at 5% (10%) or a rejection of the null hypothesis of no unit root at 5% (10%) significant level.*

**4.2 Johansen Cointegration Test Results**

The Johansen Cointegration test results presented in Table 4.2 show the existence of 4 cointegrating equations at 5% significance level in the model. The hypothesis that states there is no longrun relationship between the endogenous and exogenous variables included in the model is rejected at 5% significance level. This implies that a long-run relationship exists between the growth rate of GDP on the one hand, and growth rate of Labour ( L), growth rate of Capital (K), growth rate of Human Capital (HK), ratio of Broad Money Supply to GDP (M2/GDP), ratio of credit to private Sector to GDP (CPS/GDP), ratio of Market Capitalization to GDP (MKTCAP), Real Interest Rate (RINT), Interest Rate Spread (IRS) and Consumer Price Index (CPI), on the other hand.

**Table 4.2 Johansen Cointegration Test Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Eigen value | Likelihood Ratio | 5 Percent Critical Value | 1 Percent Critical Value | Hypothesized  No. of CE(s) |
| 0.982405 | 369.2696 | 192.89 | 205.95 | None \*\* |
| 0.934088 | 239.9852 | 156.00 | 168.36 | At most 1 \*\* |
| 0.831346 | 152.9634 | 124.24 | 133.57 | At most 2 \*\* |
| 0.690534 | 96.00639 | 94.15 | 103.18 | At most 3 \* |
| 0.481825 | 58.47339 | 68.52 | 76.07 | At most 4 |
| 0.339805 | 37.43526 | 47.21 | 54.46 | At most 5 |
| 0.290632 | 24.14821 | 29.68 | 35.65 | At most 6 |
| 0.283895 | 13.16002 | 15.41 | 20.04 | At most 7 |
| 0.074409 | 2.474327 | 3.76 | 6.65 | At most 8 |

\*(\*\*) denotes rejection of the hypothesis at 5% (1%) significance level. L.R. test indicates 4 cointegrating equation(s) at 5% significance level

**4.3 Long Run Regression Results**

After conducting the unit root and cointegration tests, we proceeded to obtain the long-run relationship between economic growth and financial development variables using the ordinary least squares method. Table 4.3 shows the regression result and all the variables in the model (except Capital and ratio of credit to private sector to GDP) satisfy the *a priori* expectations with respect to their signs. While Labour growth rate (L), the ratio of Market Capitalization to GDP (MKTCAP), Human Capital (HK) and ratio of broad money supply to GDP (M2GDP) are positively related to economic growth, Interest Rate Spread (IRS) and Consumer Price Index (CPI) are inversely related to economic growth. However, capital growth rate (K), and ratio of credit to private sector to GDP (CPSGDP) do not satisfy the a priori expectation as they are inversely related to economic growth as against the expected positive relationship.

**Table 4.3 Long Run Estimation Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| C | -0.968967 | 11.42055 | -0.084844 | 0.9331 |
| L | 12.62489 | 357.0146 | 0.035362 | 0.9721 |
| K | -0.276261 | 0.199133 | -1.387323 | 0.1786 |
| D(HK) | 0.019944 | 0.167501 | 0.119068 | 0.9063 |
| D(M2GDP) | 0.291679 | 0.370333 | 0.787612 | 0.4390 |
| MKTCAP | 0.176285 | 0.122866 | 1.434773 | 0.1648 |
| D(CPSGDP) | -0.422943 | 0.273306 | -1.547508 | 0.1354 |
| RINT | 0.277733 | 0.217759 | 1.275416 | 0.2149 |
| D(IRS) | -0.172500 | 0.514321 | -0.335393 | 0.7404 |
| D(CPI) | -0.073001 | 0.056335 | -1.295834 | 0.2079 |
|  | | | | |
| R-squared | 0.445714 | Mean dependent var | | 2.736364 |
| Adjusted R-squared | 0.228820 | S.D. dependent var | | 5.779263 |
| S.E. of regression | 5.075167 | Akaike info criterion | | 6.331643 |
| Sum squared resid | 592.4184 | Schwarz criterion | | 6.785130 |
| Log likelihood | -94.47211 | F-statistic | | 2.054984 |
| Durbin-Watson stat | 2.077542 | Prob(F-statistic) | | 0.078951 |

Though the model is free from serial auto correlation as revealed by Durbin-Watson statistic (2.08) and has a good fit as depicted by Prob(F-statistic) of 0.078951, the statistically insignificance impact (at 10 per cent significant level) of some of the exogenous variables on endogenous variables as well as the low adjusted R-squared make it necessary to further investigate the relationship between economic growth and financial development. Therefore, the paper adopts error correction model to examine the short run dynamics.

**4.4 Vector Error Correction Model Results**

Since most of the exogenous variables in the model do not have significant long-run impact on economic growth, the paper uses the error correction model approach to capture the short-run dynamics using the residuals from the co-integration regression as the error correction term. The results as presented in Table 4.4 revealed that the current and one-lagged values of Capital growth rate (K), ratio of Market Capitalization to GDP (MKTCAP), Human Capital (HK) and ratio of broad money supply to GDP (M2GDP) have positive and significant impact on economic growth. Specifically, a unit increase in Human Capital (HK), Capital growth rate (K), ratio of Market Capitalization to GDP (MKTCAP) will increase economic growth by 2.4%, 8.4% and 5.0%, respectively. Though a positive relationship exists between the ratio of broad money supply to GDP (M2GDP) and economic growth, but the impact of the latter on the former is not statistically significant at 10%. As expected, Interest Rate Spread (IRS) and Consumer Price Index (CPI) have inverse and significant impact on economic growth. This implies that a reduction in Interest Rate Spread (IRS) and Consumer Price Index (CPI) will increase economic growth by 1.9% and 1.1%, respectively. Surprisingly, an inverse and significant relationship exists between the ratio of credit to private sector to GDP (CPSGDP) and economic growth. Instead of increasing economic growth, a unit increase in ratio of credit to private sector to GDP (CPSGDP) will decrease GDP by 0.8%, but the impact will become positive in one-lagged period.

The estimated coefficient of the error correction term ECM (-1) shows a negative (-0.751403) and statistically significant values in terms of its associated t-value (-4.644934) and probability value (0.0012). The adjusted coefficient of determination (R2) of 0.79 per cent shows a reasonable explanatory power of the model as 79.5 per cent of the variations in the endogenous variable is accounted for by variations in the exogenous variables. The F-statistics of 6.5 (Prob(F-statistic of 0.003196)) suggests that good interactive feedback effect exists within the model, while the Durbin Watson statistic of 1.95 indicates a good fit and an absence of autocorrelation.

**Table 4.4 Short-Run Parsimonious Model Results**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Variable** | **Coefficient** | | **Std. Error** | **t-Statistic** | **Prob.** |
| C | -15.66258 | | 3.521125 | -4.448175 | 0.0016 |
| K | 0.847520 | | 0.315055 | 2.690071 | 0.0248 |
| K(-2) | 1.400780 | | 0.255117 | 5.490739 | 0.0004 |
| D(HK) | 0.249541 | | 0.109044 | 2.288447 | 0.0479 |
| D(HK(-1)) | 0.438157 | | 0.095014 | 4.611517 | 0.0013 |
| D(M2GDP) | 0.125438 | | 0.262808 | 0.477298 | 0.6445 |
| D(M2GDP(-1)) | -1.189650 | | 0.302709 | -3.930010 | 0.0035 |
| D(CPSGDP) | -0.887621 | | 0.321471 | -2.761128 | 0.0221 |
| D(CPSGDP(-1)) | 0.116294 | | 0.241964 | 0.480627 | 0.6422 |
| D(CPSGDP(-2)) | -0.912682 | | 0.207790 | -4.392333 | 0.0017 |
| D(RINT) | 0.512732 | | 0.166092 | 3.087030 | 0.0130 |
| D(RINT(-1)) | 1.223820 | | 0.237401 | 5.155069 | 0.0006 |
| D(RINT(-2)) | 1.422665 | | 0.302544 | 4.702337 | 0.0011 |
| D(IRS(-1)) | -1.145036 | | 0.450064 | -2.544161 | 0.0315 |
| D(CPI) | -0.199517 | | 0.050920 | -3.918279 | 0.0035 |
| D(CPI(-2)) | -0.162926 | | 0.057481 | -2.834441 | 0.0196 |
| MKTCAP | 0.504810 | | 0.114773 | 4.398331 | 0.0017 |
| MKTCAP(-1) | 0.342366 | | 0.108072 | 3.167948 | 0.0114 |
| MKTCAP(-2) | 0.450419 | | 0.113522 | 3.967684 | 0.0033 |
| ECM(-1) | -0.751403 | | 0.161768 | -4.644934 | 0.0012 |
|  | | | | | |
| R-squared | 0.938546 | Mean dependent var | | | 3.200000 |
| Adjusted R-squared | 0.795154 | S.D. dependent var | | | 5.193586 |
| S.E. of regression | 2.350614 | Akaike info criterion | | | 4.729823 |
| Sum squared resid | 49.72848 | Schwarz criterion | | | 5.747491 |
| Log likelihood | -51.31225 | F-statistic | | | 6.545299 |
| Durbin-Watson stat | 1.947237 | Prob(F-statistic) | | | 0.003196 |

**4.5 Granger Causality Tests**

Having established the direction and strength of the relationship between economic growth and financial development variables, it becomes pertinent to establish the direction of causation since correlation is not causality. Consequently, the paper employs granger causality tests to examine the direction of causality, and the results are presented in Table 4.5. Growth rate of Labour (L), growth rate of Capital (K), Real Interest Rate (RINT) and Interest Rate Spread (IRS) granger cause economic growth while the latter granger causes human capital. Therefore the hypotheses that state the absence of causality between these variables are rejected at 10% significant level. This means that a change in Growth rate of Labour (L), growth rate of Capital (K), Real Interest Rate (RINT) and Interest Rate Spread (IRS) will cause a change in economic growth. However, neither the ratio of broad money supply to GDP (M2GDP) nor the ratio of credit to private sector to GDP (CPSGDP) granger causes economic growth. This implies that a change in any of these variables do not cause economic growth. This further confirms the longrun regression results that revealed that the ratio of broad money supply to GDP (M2GDP) and the ratio of credit to private sector to GDP (CPSGDP) do not have significant impact on growth in Nigeria.

**Table 4.5 Granger Causality Tests Results**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Null Hypothesis:** | **Obs** | **F-Statistic** | **Probability** | **Conclusion** |
| L does not Granger Cause GDP  GDP does not Granger Cause L | 32 | 3.33766 | 0.05066 | Rejected\* |
| 32 | 1.50421 | 0.24023 | Accepted |
| K does not Granger Cause GDP  GDP does not Granger Cause K | 32 | 4.60736 | 0.01899 | Rejected\* |
| 32 | 1.33084 | 0.28104 | Accepted |
| HK does not Granger Cause GDP  GDP does not Granger Cause HK | 32 | 1.00159 | 0.38053 | Accepted |
| 32 | 3.31319 | 0.05167 | Rejected\* |
| M2GDP does not Granger Cause GDP  GDP does not Granger Cause M2GDP | 32 | 0.37958 | 0.68774 | Accepted |
| 32 | 0.22358 | 0.80111 | Accepted |
| CPSGDP does not Granger Cause GDP  GDP does not Granger Cause CPSGDP | 32 | 0.47703 | 0.62575 | Accepted |
| 32 | 1.05441 | 0.36231 | Accepted |
| MKTCAP does not Granger Cause GDP  GDP does not Granger Cause MKTCAP | 32 | 1.37497 | 0.26999 | Accepted |
| 32 | 0.66201 | 0.52398 | Accepted |
| RINT does not Granger Cause GDP  GDP does not Granger Cause RINT | 32 | 3.16386 | 0.05828 | Rejected\* |
| 32 | 0.23922 | 0.78889 | Accepted |
| IRS does not Granger Cause GDP  GDP does not Granger Cause IRS | 32 | 3.45139 | 0.04626 | Rejected\* |
| 32 | 0.32887 | 0.72258 | Accepted |
| CPI does not Granger Cause GDP  GDP does not Granger Cause CPI | 32 | 0.66427 | 0.52286 | Accepted |
| 32 | 0.93393 | 0.40534 | Accepted |

*Note: Rejecting the null hypothesis means that one variable actually granger cause the other: while accepting the null hypothesis confirms that there is no causation between both variables at 10% significance level.*

**4.6 Impact of Policy & Leadership on Financial Development**

Table 4.6 presents the impact of policy and leadership on financial development. Policy was proxied by reforms in the financial sector such as bank consolidation. The results shows that the ratio of credit to private sector to GDP (CPSGDP) was the financial development variable used for the analysis. The result shows that both policy and leadership have positive impact on financial development, but only leadership is statistically significant at 10% significance level. The impact of policy on financial development is not statistically significant. This implies that the reforms in the financial sector though positive but has no significant impact on financial development in Nigeria.

**Table 4.6 Impact of Policy (POL) & Leadership (LEAD) on Financial Development**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Variable** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| C | 12.54667 | 1.603957 | 7.822320 | 0.0000 |
| POL | 3.397778 | 2.619251 | 1.297233 | 0.2041 |
| LEAD | 6.635556 | 2.854263 | 2.324788 | 0.0268 |
|  | | | | |
| Adjusted R-squared | 0.293616 | Prob(F-statistic) | 0.001735 | |

**5.0 Summary of Major Findings & Policy Options**

The Major findings of the study can be summarized as follows: Firstly, the financial development variables included in the model namely; the ratio of broad money supply to GDP (M2GDP) and the ratio of credit to private sector to GDP (CPSGDP) do not granger cause economic growth. This implies that changes in these variables do not affect economic growth.

Secondly, the impact of the ratio of broad money supply to GDP (M2GDP) on economic growth is positive and insignificant both in the short-run and in the long-run. On the other hand, the ratio of credit to private sector to GDP (CPSGDP) has an inverse impact on economic growth. While the impact is statistically significant in the shortrun, it is not significant at 10% in the long-run.

Thirdly, other financial development variables such as the ratio of Market Capitalization to GDP (MKTCAP), Real Interest Rate (RINT) and Interest Rate Spread (IRS) have significant impact on economic growth. But the ratio of Market Capitalization to GDP (MKTCAP) has positive impact on growth, while Interest rate spread (IRS) has negative impact. This implies that an increase in the ratio of Market Capitalization to GDP (MKTCAP) will increase economic growth, while a decrease in Interest Rate Spread (IRS) will also increase economic growth in Nigeria.

Fourthly, the growth rate of Labour (L), growth rate of Capital (K), Real Interest Rate (RINT) and Interest Rate Spread (IRS) granger cause economic growth. A change in any of these variables will cause a change in economic growth.

Also, the growth rates of Capital (K), Human Capital (HK), Real Interest Rate (RINT), Interest Rate Spread (IRS) and Consumer Price Index (CPI) have statistically significant impact on economic growth. While the growth rate of Capital (K) and Human Capital (HK) have positive impact on growth, Interest Rate Spread (IRS) and Consumer Price Index (CPI) have inverse impact on economic growth. This connotes that an increase in the growth rate of Capital (K) and Human Capital (HK) is capable of increasing growth just as a decrease in Interest Rate Spread (IRS) and Consumer Price Index (CPI) can also increase economic growth.

Furthermore, from the behaviours of financial development variables included in the model such as the ratio of broad money supply to GDP (M2GDP) and the ratio of credit to private sector to GDP (CPSGDP), it is obvious that “finance-led growth hypothesis” is not applicable in Nigeria. This is not unconnected with the plethora of leadership and policy challenges confronting financial development and economic growth in Nigeria. As the review of literature revealed, leadership and policy challenges are the obstacles to the development of financial sector in the country.

Finally, though both policy and leadership were found to be positively related to financial development but only leadership is statistically significant at 10% significance level, while the impact of policy on financial development is not statistically significant. This implies that the reforms in the financial sector though positive but has no significant impact on financial development in Nigeria.

**6.0 Conclusion and Recommendations**

The paper examines the causal relationship between financial development and economic growth in Nigeria within the context of policy and leadership challenges. Recent empirical literatures are mixed, as some analysts argued that financial development drives the real sector of the economy and accelerates economic growth. This is the so-called “finance-led growth hypothesis” or supply-leading responses. On the other hand, the demand-following responses school of thought opined that the development of the real sector of the economy accelerates financial development. But the Nigerian financial markets are seen as not contributing enough to economic growth as expected. The sector has been witnessing policy and leadership challenges despite the recent reforms. The aftermath of this was the sacking of some corrupt Chief Executives Officers of banks and capital market as well as the proposed Banks and Other Financial Institution Bill 2014.

But understanding the causal relationship between financial development and economic growth is important in enhancing the economy of a nation. Hence, the broad objective of this paper is to examine the veracity of “finance-led growth hypothesis” in Nigeria as well as examine the leadership and policy challenges confronting the financial sector. Consequently, econometrics techniques such as the Ordinary Least Squares method, Error Correction Model, Johanson’s Cointegration Test and Granger Causality Test are employed to examine the long-run and shortrun dynamics as well as the causal relationship between financial development and economic growth. The secondary data used for this study covering the period 1980-2013 are obtained from World Bank Database and Central Bank of Nigeria Statistical Bulletins. From the behaviours of financial development variables included in the model, it was discovered that “finance-led growth hypothesis” is not applicable in Nigeria. This is not unconnected with the leadership and policy challenges confronting the sector

Based on the findings, the study made the following recommendations:

* Since the impact of the ratio of broad money supply to GDP on economic growth is positive but insignificant, an increase in broad money supply is likely to accelerate investment and economic growth.
* The inverse relationship between the ratio of credit to private sector to GDP and economic growth implies that the direction and composition of private sector credit in the country is not productive. Therefore credit to private sector should be directed to productive investments so that it can have positive impact on growth.
* To tackle the policy challenges, the Banks and Other Financial Institutions Bill 2014 should be passed into law without further delay to address the lacuna in BOFIA 2004, and reposition the sector for optimal efficiency and performance.
* To address the leadership challenges confronting financial development in Nigeria, the study recommends the establishment of financial leadership training Institute to equip financial institution leaders with the requisite knowledge and skills of managing huge capital base.
* It is also necessary to strengthen and sustain the present reforms in the financial market to further develop the sector and make it responsive to growth (“finance-led growth hypothesis”)

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