



RESEARCH ARTICLE

Impact of Financial Sector Developments on Economic Growth Rate Evidence from Nigeria, 1981-2021

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Financial sector development can be defined as financial system activities that help in facilitating the mobilization of capital for industrialization and channeling capital funds to the productive investments of the economy which constituted important determinants of economic growth. Financial sector development is also seen as the wholesale, retail, formal, and informal institutions in an economy offering financial services to consumers, businesses, and other financial institutions. In its broadest definition, it includes everything from banks, stock exchanges, and insurers, to credit unions, microfinance institutions, and money lenders. Therefore, the broad objective of this study is to measure the impact of financial sector developments on the economic growth rate in Nigeria. However, the specific objectives of the study are to determine the impact of Bank credit to the private sector on the economic growth rate in Nigeria, Measure the impact of Bank money supply on economic growth rate in Nigeria, Investigate the impact of capital market Stock value on economic growth rate in Nigeria, Access the impact of Total Domestic saving on economic growth rate in Nigeria. The study adopted a multiple regression method called the autoregressive Distributed lag model. (ARDA), Result reveals that the Ratio of credit to the private sector positively and non-significantly impacted economic growth in Nigeria, Ratio of broad money supply positively and significantly impacted economic growth in Nigeria, Ratio of total domestic savings positively and significantly impacted on economic growth in Nigeria, Ratio of stock market value positively and significantly impacted on economic growth in Nigeria, It was concluded that financial sector development had a positive and significant impact on economic activities in Nigeria. It was recommended that since the Nigerian private sector index is poor. Government should be advised to aggressively embark on giving out credits to small and medium enterprises and as well as producer to improve productivity and growth in the economy. Financial development such as regulation in exchange rate fluctuation, stabilization of exchange rate by the monetary authorities and efficient money supply will be encouraged to enhance improvement in external reserve capacity. Monetary authorities should endeavor to combat constructively the effect of inflation, regulate inflation rate so that private sectors will patronize private sector investment that will influence private sector policies effectively through savings and finally, Capital market activities should be efficiently more regulated so that shorter, medium and long-term loan can be easily sourced thereby improving the productive sector and the economy.

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ABSTRACT

Keywords: Financial Sector Development; Capital Market Activities; Economic Growth Rate

Introduction

In recent times, there has been advocacy for the removal of credit barriers by relaxing financial constraints facing small and medium firms in order to enhance both industrial and national output. A well-developed financial system enhances investment by identifying and funding good business opportunities, mobilizes savings, enables trading, hedges and diversifies all risks, and facilitates the exchange of goods and services. These functions result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in economic growth (Adelakun, 2013).

The manufacturing sector had not only played a vital role in the output growth but has also improved exports and reduced unemployment and poverty levels in every economy. In support of this position, it was stated that the manufacturing sector is regarded as the engine of growth of the economy (Libanio, 2006). While it can be argued that financial sector reforms may have helped to build and foster competitive and healthy financial systems, it is however still debatable, if the structure of portfolio investment has the capacity to support the desired economic development aspiration of the proponent considering the catalytic role it plays in stimulating the desired growth of any economy.

Accordingly, firms in Nigeria are faced with the problem of accessibility to funds. Even the financial sector reform of the Structural Adjustment Programme (SAP) in 1986, which was meant to correct the structural imbalance in the economy and liberalize the financial system, it did not achieve the expected results. The development of the financial sector in Nigeria has also been hindered by the lack of adequate coordination and harmonization of fiscal and monetary policies which have even deteriorated the performance of the Nigerian financial sector. The high cost of assessing funds has also discouraged investors from patronizing the banking system (Nnanna, Englama & Odoko, 2004). The concern in Nigeria is that financial institutions (mostly banks) have not performed to expectations in terms of mobilizing savings for financing long-term development projects in the real sector (Adeoye & Adewuyi, 2005). Further, there is no apparent and appreciable contribution of financial deepening to economic growth in the post-SAP era (Ayadi, 2009).

The success of the financial system throughout the world has been predicted by the initiation of financial sector reforms such as the introduction of market-based procedures for monetary control, the promotion of competition in the financial sector, and the relaxation of restrictions on capital flows. The aim of initiating these reforms is to create a more efficient and stable system, which will facilitate optimum performance in the economy. This means providing a foundation for implementing effective stabilization policies and successfully mobilizing capital and putting it to effective use, which leads to achieving higher rates of economic growth (Johnston and Sundararajan, 1999). Many countries have experienced successful financial sector reforms which have been accompanied by improvements in economic growth and efficiency of the financial system, while other countries have faced financial crises and disruptions to economic growth. On the bases of an antecedent, this study seeks to impact financial sector developments on the economic growth rate in Nigeria, 1981-2020.

Over the past few decades, financial deepening and economic growth have attracted significant attention from finance and development experts and have been debated extensively. This debate can be characterized by two main theoretical propositions: the supply-leading hypothesis (Neusser & Kugler, 1998) and demand- the leading hypothesis (Patrick, 1966; Ireland, 1994). The supply leading hypothesis suggests that financial deepening spurs growth. The hypothesis contends that the development of the financial market can create and expand liquidity, mobilize savings and promote the growth of an economy. The demand following hypothesis suggests that any early efforts to deepen the financial system might lead to a waste of resources. It is argued that financial deepening is merely an outcome of growth in the real sector of the economy which could be allocated to more useful purposes in the early stages of growth. (Ireland, 1994; Odiambho, 2004; Wadud, 2005).

Financial deepening plays an important role in determining the growth of an economy. Odiambo (2004) opined that it broadens the resource base, raises the capital needed to stimulate investment through savings and credit, and boosts overall productivity. The design and implementation of effective interventions and programs in the Nigerian banking sector and the stock market have led to continued growth in financial assets, with a direct contribution from financial intermediaries, (Adelekun, 2013). However, economic growth in Nigeria, whether as a result of financial

deepening or other growth factors has been fluctuating over the last decade with a rate as low as 0.5 in 1999. Therefore, it is of importance to assess the banking sector and stock market deepening effects on economic growth in Nigeria. Ayadi (2009) stated Nigeria's economy is one of the largest in Africa, but empirical research has given little emphasis on the nature of financial deepening and economic growth bearing in mind the recent downturn in the financial market and how it affects the real sector of the economy and this has generated a lot of controversies and further research needs to be carried out on the nature of the relationship between the financial sector and economic growth nexus.

A number of prior studies on FSD and economic growth have been conducted in Sub-Saharan Africa (SSA) and in the world, they are either single-country/cross-country analyses or analyses of a single bloc, neglecting an important investigation of the comparative study of regional groupings in Sub-Saharan Africa (SSA) (Atindéhou, Gueyie, and Amenounve 2005; Aboudou 2009; Loesse 2010; Fawowe 2011). Also, some studies dwell on the relationship between the financial sector and economic growth. In response to these studies, this study attempts to deviate from cross-country specific to concentrate on a country-specific and on the impact of financial sector development on the economic growth rate in Nigeria. Also, these studies employ the latest advances in econometric approaches and account for time series properties of the variables which are often ignored in earlier studies leading to inefficient results to form a major gap

The broad objective of the study is to measure the impact of financial sector developments on economic growth rate in Nigeria, 1981-2020. However, the specific objectives of the study are to: Determine the impact of Bank credit to the private sector on economic growth rate in Nigeria, Measure the impact of Bank money supply on economic growth rate in Nigeria, Investigate the impact of capital market Stock value on economic growth rate in Nigeria, Access the impact of Total Domestic saving on economic growth rate in Nigeria

Review of Related Literature

Conceptual Review

Financial Sector Development

Financial sector development (FSD) can be defined as a financial system activity that helps in facilitating the mobilization of capital for industrialization and channeling capital funds to the productive investments of the economy which constituted important determinants of economic growth, (Shah and Shah, 2011). Financial sector development (FSD) had been defined as an advocacy for the removal of credit barriers by relaxing financial constraints facing small and medium firms in order to enhance both industrial and national output. A well-developed financial system enhances investment by identifying and funding good business opportunities, mobilizes savings, enables trading, hedges and diversifies of risks, and facilitates the exchange of goods and services. These functions result in a more efficient allocation of resources, rapid accumulation of physical and human capital, and faster technological progress, which in turn results in economic growth (Adelakun, 2013).

Indices of Financial Sector Development

Bank Credit to the Private Sector

Kolawole and Omobitan (2014) stated that bank credit to the private sector can be defined as the financial resources provided to the organized private sector by financial institutions, such as through loans, purchases of no equity securities, and trade credits and other accounts receivable, which establish a claim for repayment. Credit facilities to the organized private sector are very important for economic growth. CBN 2019, total credit to the organized private sector over the study period amounts to N99,087.86 trillion. Granting credits to the organized private sector will transfer funds that are created by banks to real sector of the economy, thereby creating job opportunities and reducing poverty level. This requires consistent and vigorous efforts and strategies on the part of the CBN and deposit money banks. Okorie (2013) finds increase in private sector credit leads to increase in private domestic investment by 6% in Nigeria. Also, Mamman and Hashim (2013) find that credit to private sector contributes about 96.1% to real sector growth in Nigeria. Kolawole and Omobitan (2014) find significant and positive impact of credit to private sector in Nigeria.

CBN Money Supply

Kolawole and Omobitan (2014) sees bank money supply can be defined as the total amount of money made available by the apex financial institution in the country to the productive sector which can lead to the private sector credits such as through loans, purchases of no equity securities, and trade credits and other accounts receivable, which establish a claim for repayment. Money supply exerts considerable influence on economic activity in both developed and developing economies. Emenuga (2006) sees the low level of money supply in Nigeria has been responsible for the state of the economy. Nigeria ranks 22 on the world economy ranking according to the World Bank in 2018. It is in this light that the recapitalization in the banking sector in 2005 must be commended. However, despite that the Nigerian financial system remained by and large relatively underdeveloped because of lack of sufficient financial intermediation and financial deepening which the economy requires for sustainable economic growth. According to the statistics provided by the CBN, between 1960 and 2018, total money supply stood at N109,824.15 trillion. This is small relative to other emerging economies like Brazil, Russia, India, Indonesia, and China. In an attempt to tie money supply to economic growth, scholars are examining the role of financial structure, which presupposes that the level of money supply drives economic growth.

Total Domestic Savings

Obumiyi and Demegan (2012) defined Gross Domestic Saving consists of savings of household sector, private corporate sector and public sector. Gross domestic savings had followed a downward trajectory after 2008. The more concerning issue is the perceptible shift of investors' preference towards physical assets as compared to financial assets. This can be attributable to a rise in inflationary pressures. Gross capital formation is a function gross domestic savings. The national savings rate takes into consideration the personal income and expenditures of individuals, the earnings of businesses, and the taxes and expenditures of the government. The rate can be somewhat misleading as governments usually operate at a deficit which would lower the national savings rate. The rate is an indicator of financial health and investment, particularly as household savings can be a source of borrowing for governments, allocated toward public works and infrastructure needs.

Stock Market Value of the Nigerian Capital Market

Ezeoha, Ebeke, and Onyiuke, (2009) sees Stock Market Value is the value of a company based on the stock market and it is calculated by multiplying a company's shares outstanding by its current market price. A company's worth is known by the total value of shares traded during the period under review. Some indicators compliment the total markets capitalization ratio by showing whether market is matched by trading volume. Stock market value is the market capitalization of public quoted company and is calculated by multiplying the number of its outstanding shares by the current share price. Ishoro (2013) stated that stock market value is also known as "Open Market Valuation (OMV) which is the price an asset would fetch in the open market or the value of the investment community gives to a particular equity or business. Stock market value is also commonly used to refer to the market capitalization of a public quoted company and is calculated by multiplying the number of its outstanding shares by the current share price. Idhimbo (2010) expressed that a company's stock market value is a good indicator of investor's perception about its business prospect and is determined by the price valuations of multiple companies such as price-sales, price-earnings and price-value.

Economic Growth Rate (RGDP)

This can be defined as the economic performance is measured traditionally by (a) economic growth (b) inflation (c) unemployment (d) current account. However, of these indicators, Okorie (2013) sees economic growth rate is usually the most importance and given the greatest credence for economic performance. It is frequently used for comparisons and is probably the most prominent statistic. For all its limitations, GDP is widely used across the world for measuring economic growth. It gives a rough guide to the level of economic activity in the country. For all its faults, GDP gives a useful guide to the economic cycle and is an indicator for monetary policy and fiscal policy of the country. The support for the use of GP to measure economic performance is that GDP is measurable, that is, it is objective. Perhaps, the negative side of GDP comes when it is relied on too much. For example, a rise in GDP signals improvement in economic performance, and yet there is a rise in poverty because the growth does not translate into development (reduction in poverty, unemployment and gap between the rich and the poor). This is often the case in Nigeria and in quite a number of developing economies, where economic growth does not consider income

distribution and therefore does not lead to economic development (reduction in poverty, unemployment and gap between the rich and the poor). Thus, growth in GDP could primarily benefit the top income strata, a situation often described as the 10/90 rule in Nigeria, where 90 % of the country's wealth is in the hands of 10 % of the people. This scenario explains why Nigeria is often referred to as paradox because of the rising poverty in the midst of rising economic growth. A good economic performance, therefore, should result in reduction in poverty, unemployment and the gap between the have and have not.

Theoretical Review

Economic Growth Rate Theory

This is a theory propounded by Harrod and Domar in 1948. It is a theory that assigned a key role to investment in the process of economic growth. But they lay emphasis on the dual character of investment. Firstly, it creates incomes, and secondly, it augments the productive capacity of the economy by increasing its capital stock. The former may be regarded as the 'demand effect' and the latter the 'supply effect' of investment. Hence, as insurance business is taking place, real income and output will continue to expand. However, for maintaining a full employment equilibrium level of income from year to year, it is necessary that both real income and output should expand at the same rate at which the productive capacity of the capital stock is expanding. Otherwise, any divergence between the two will lead to excess or idle capacity, thus forcing entrepreneurs to curtail their investment expenditures. Ultimately, it will adversely affect the economy by lowering their incomes and employment in subsequent periods and moving the economy off the equilibrium path of steady growth. Thus, if full employment is to be maintained in the long run, net investment should expand continuously. This further requires continuous growth in real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. This required rate of income growth may be called the warranted rate of growth or 'the full capacity growth rate'

Empirical Review

There is a lot of empirical evidence bordering on financial sector development and economic growth in Nigeria as follows.

Bank Credit to Private Sector and Economic Growth Rate

Abdulsalam and Gani (2013) examined the long run relationship between financial development indicators and economic growth in Nigeria over the period 1970- 2010. The findings of the study revealed that in the long-run, liquid liabilities of commercial banks and trade openness exert significant positive influence on economic growth, conversely, credit to the private sector, interest rate spread and government expenditure exert significant negative influence. The findings implied that, credit to the private sector is marred by the identified problems and government borrowing and high interest rate are crowding out investment and growth.

Adekunle, Salami and Adedipe (2013) examined the impact of financial sector development and economic growth in Nigeria. They contended that an efficient financial system is essential for building a sustained economic growth and an open vibrant economic system. They employed the OLS method of the regression analysis; the financial development was proxied by ratio of liquidity liabilities to GDP (M2GDP), real interest rate (INTR), ratio of credit to private sector to GDP (CPSGDP) while the economic growth was measured by the real GDP (RGDP). The study finds that only the real interest rate is negatively related. All the explanatory variables were statistically insignificant.

Osuji and Chigbu (2012) investigated the impact of financial development variables on economic growth in Nigeria, using time series data for the period 1960-2008. The research utilized co-integration analysis, causality test and error correction mechanism for analysis of the data; using variables such as money supply and credit to private sector and GDP. The results showed that money supply and credit to private sector positively impacted on economic growth in Nigeria and were as well co-integrated with GDP for the study period. The Granger test shows a bi-directional causality existing between GDP and all repressors.

Bank Money Supply Sector and Economic Growth Rate

Olanrewaju, Aremo and Aiyegbusi (2015) studied the causal linkages between banking sector reforms and output growth of manufacturing sector as well as the direction of such causality. co integration and Granger-causality techniques were applied to ascertain evidence regarding this important issue. The result of Granger causality analysis according to the study showed that the M2GDP and banking sector reforms indicators (BF) move differently with one not predicting the other within the study period. Moreover, the empirical results showed that Bank assets,

lending interest rate with co-efficient, exchange rate and real rate of interest positively and significantly affected the manufacturing sector's output growth in Nigeria. On the other hand, the financial deepening indicator (M2/GDP) and Interest rate spread negatively and significantly impacted on the MGD in Nigeria, showing that the effects of banking sector reform indicators could vary widely in an economy.

Oriavwote and Eshenake (2014) examined the implications of financial development on economic growth in Nigeria, for the period of 1990-2011. The study applied the co-integration analysis with its error correction mechanism; the variables included Real Gross Domestic Product, Financial deepening (ratio of money supply to GDP, liquidity ratio, interest rate and the credit to private sector). These findings show that financial sector development has not significantly improved private sector development, while the capital base and liquidity ratio has improved the level of economic growth in Nigeria.

Adelakun (2010) empirically examined the relationship between financial development and economic growth using GY, which is the annual growth of gross domestic product (GDP), real interest rate (R), the ratio of gross domestic savings to GDP (S), the ratio of domestic credit to private sector to GDP (P), ratio of liquidity liabilities to GDP (M), the ratio of gross fixed capital formation to GDP (I), and trade openness (T). The perceived relationship between financial development and economic growth was estimated using the Ordinary Least Squares Estimation Method (OLSEM). The results showed that there is a substantial positive effect of financial development on economic growth in Nigeria. The Granger causality test showed that financial development promotes economic growth, but there is evidence of causality from economic growth to the development of intermediaries.

Total Domestic Savings Supply Sector and Economic Growth Rate

Mohan (2006) addressed the relationship between domestic savings and economic growth for various economies with different income levels. The study used time series data on almost 20 countries with different income levels to investigate the relationship between the domestic savings and economic growth for various economies. Empirical results suggest that the economic growth rate Granger causes growth rate of savings in 13 countries. On the other hand, the opposite results prevailed in two countries, Indonesia 5 countries, a bi-directional causation was found. In LICs the direction was mixed. In most of LMCs, the causality is from economic growth to savings growth. In all HICs except Singapore, the causality is from economic growth to growth of saving. Overall result shows that causality is from economic to domestic savings the main conclusion of the study is that income class of a country plays an important role in determining the direction of causality.

Tang (2009) investigated the casual relationship between saving and economic growth peroxide by real GDP for quarterly data from Lalaysia for the period 1991: Q3 via the application of KPSS unit root test, congenital Granger causality test, modified sims test, Hsiao test, multiple rank F-rank test, and modified Wald (MWALD) test. The results of all, the causality test consistently revealed bidirectional causality between savings and economic growth. This invariably implies that using different causality test techniques for same data set may not produce different result Masih and Peters (2010) also re-examined the savings-growth nexus in Mexico converging 1960-1966 using Johansen co-integration technique, Toda and Yamamoto causality techniques and generalized variance Decomposition Analysis. The authors found clear evidence of feedback long run relationship between public savings and economic growth. The results also showed evidence of public savings having leading information for private savings. However, no significant long run causality running from private savings to economic growth was observed.

Singh (2010) further re-examined the relationship between domestic savings and economic growth for India from the period 1950-51 to 2001-02 via application of OLS-based two-step co-integration estimator of Engle and Granger, Dynamic least square (DOLS), fully modified OLS (FOLS) AND Non-Linear least square (NULS). The findings revealed a significant long run effect of savings on income causality test results suggest two-way causality relationship which implies that savings and income reinforce each other.

Stock Market Value Sector and Economic Growth Rate

Ezeoha, Ebele, & Onyinke (2009) investigated the nature of the relationship that exists between stock market development and the level of investment - domestic private investment and foreign private flows into Nigeria. The authors discovered that stock market development promotes domestic private Investment flows, thus suggesting the enhancement of the economy's production capacity as well as promotion of the growth of national output. However, the results show that stock development has not been able to encourage the flow of foreign private investment in Nigeria. However, gross capital formation was omitted in the model specification.

Knowledge Gap

From the above empirical evidence, the nexus between financial sector development and economic growth had been deeply revived, Most of the studies used OLS and Cointegration, ARDL and cointegration, GARCH and granger causality to evaluate the impact of credit to private sector, money supply total domestic credit and stock market values on economic growth, None of the study above combined these variables using autoregressive distributed lag of base line to measure its impact on real gross domestic product in Nigeria from 1981-2020. This study is a major gap in both the literature and methodology..

Methodology

Research Design

This study adopted the *exposit-facto* research design. The *exposit-facto* research design is described as *after-the-fact research* this is suitable for the work given that it is based on an already completed event and the researcher is meant to analyses the outcomes of the already completed event and draw reasonable conclusions

All the data to be employed for this work will be time series, secondary and purely quantitative. They are drawn from sources such as The Statistical Bulletins of Central Bank. They are annualized time series data because they have a natural time ordering covering the period 1981 to 2021

Model Specification

The study adopted Auto regressive Distributed lag model. (ARDL). The model for this work which is specified following the special Classical multiple regression Model called

$$GDPT = F(RCPS/GDPT, RM2/GDPT, RSMVGDP, \text{ and } TDSGDPT)$$

$$GDPT = \beta_0 + \beta_1 CPSGDPT + \beta_2 M2GDPT + \beta_3 SMVGDP + \beta_4 TDSGDPT + \dots + E_t$$

Where, CPS = Credit to the private sector, M2=Broad money supply, GDP=Economic growth TDS= Total domestic savings and SMV = stock market value

This model was adopted from the model used by Adekunle, Salami and Adedipe (2013) which examined the impact of financial sector development and economic growth in Nigeria. The study contended that an efficient financial system is essential for building a sustained economic growth and an open vibrant economic system. The study employed the OLS method of the regression analysis; the financial development was proxied by ratio of liquidity liabilities to GDP (M2GDP), real interest rate (INTRGDP), ratio of credit to private sector to GDP (CPSGDP) while the economic growth was measured by the real GDP (RGDP)

The model for this study was written thus: $RGDP = F(M2GDP, CPSGDP, INTRGDP)$. The difference between the model used and adopted model stems on the variable where total domestic savings and stock market values were replaced with interest rate of the anchored model. Also, the anchored model used OLS while this study used ARDL.

Appropri Expectation: $\beta_1, \beta_2, \beta_3, \beta_4 > 1$

Auto regressive Distributed lag model (ARDL) as a method of data analysis. ARDL was used instead of the ordinary least square regression (OLS) because ARDL is a dynamic model while OLS is a static model. (Pesaran and Shin, 1999). Hence, the unit root rule shows that the variables are all integrated at different order one meaning that ARDL is the preferable model.

Data Presentation and Analysis

Table 1. Table Showing Financial Sector Development and Economic Growth Nexus in Nigeria, 1981-2020.

YEAR	LNRGDP	LNCPSGDP	LNRM2GDP	LNTDSGDP	LNSMVGDP
1981	4.9755	2.14826	2.6720	1.9401	1.6094
1982	5.0432	2.3674	2.7593	2.0068	1.6094
1983	5.0937	2.4570	2.8729	2.1494	1.7404
1984	5.1380	2.5225	3.0012	2.2460	1.7047
1985	5.2589	2.5703	3.1045	2.2300	1.8870
1986	5.3104	2.7245	3.1701	2.3369	1.9169
1987	5.5195	3.0483	3.3167	2.2690	2.1041
1988	5.7693	3.3079	3.6470	2.1781	2.3025
1989	6.0383	3.4144	3.8264	1.8293	2.5494
1990	6.2139	3.5130	3.8590	1.8357	2.7911
1991	6.3903	3.7220	4.3228	1.9344	3.1398
1992	6.8132	4.0625	4.7105	1.8405	3.4404
1993	7.1381	4.8451	5.1080	2.0541	3.8607
1994	7.4746	4.9657	5.4393	2.0709	4.1941
1995	7.9708	5.1929	5.6667	1.3164	5.1951
1996	8.2372	5.4747	5.8460	1.2059	5.6552
1997	8.3215	5.7564	6.0241	1.4445	5.6415
1998	8.4314	5.8635	6.1906	1.6114	5.5706
1999	8.5768	6.0665	6.4440	1.7800	5.7037
2000	8.8389	6.2735	6.7781	1.7474	6.1576
2001	9.0038	6.6398	7.1462	1.9572	6.4960
2002	9.3354	6.8357	7.3171	2.0281	6.6397
2003	9.4956	6.9999	7.5770	1.8885	7.2147
2004	9.7596	7.2595	7.6647	1.9444	7.6556
2005	10.0108	7.5166	7.8777	2.1983	7.9724
2006	10.2633	7.7365	8.2422	2.2375	8.5410
2007	10.4041	8.2075	8.5423	2.5680	9.4865
2008	10.5753	8.8422	8.9882	2.8309	9.1656
2009	10.6984	9.1162	9.1496	3.1463	8.8580
2010	10.9080	9.2259	9.3088	2.3887	9.2021
2011	11.0505	9.2742	9.4069	2.3389	9.2375
2012	11.1804	9.5921	9.5391	2.4194	9.6024
2013	11.2909	9.6647	9.6260	2.3804	9.8562
2014	11.3968	9.7486	9.6951	2.6019	9.7335
2015	11.4525	9.8349	9.8268	2.4989	9.7411
2016	11.5277	9.9562	9.9815	2.4956	9.6918
2017	11.6414	10.0029	10.0150	2.4327	9.9583
2018	11.7579	10.0222	10.1298	2.4672	9.9944
2019	11.7579	10.0222	10.1298	2.4672	10.0139
2020	11.6757	10.0013	10.0663	2.4664	10.0581

Source: Compilation from E-View 10.0 output, see Appendix 1,2020

Where, RCPSGDP = Ratio of Credit to the private sector on GDP, RRM2GDP =Ratio of Broad money supply on GDP, RRGDP= Real gross domestic product, RRTDSGDP= Ratio of Total domestic savings on GDP and RRSMVGDP =Ratio of stock market value on GDP and LNR= Log

From the table above, it contains data involving financial sector development and economic growth in Nigeria such as credit to private sector, broad money supply, total domestic saving, stock market value and as well economic growth. Data collected from the central bank of Nigeria statistical bulletin covering the period of 1981-2020. The data is a set of annualized time series required for empirical analysis as adopted from the model which was specified in chapter three. The variables are log transformed to bring down the data size and ensure linearity, and also to be consistent with unit root diagnostic test.

Data Analysis

Tests of Unit Root Using Philip and Peron

In an attempt to confirm the order of integration of the series under study thereby confirming their suitability for a linear combination in the form of a model, the unit root test following the form specified as Philip and Peron Test was used. Table 3 below represents a summary of the unit root result that was stationary.

Table 2: Summary of Unit Roots Test Results

Variable	PP Statistic	Critical Values @ 5%	Probability Value	Inference
LNRGDP	-6.3222	-3.5484	0.0000	I(1)
CPSGDP	-4.5527	-3.5485	0.0048	I(1)
M2GDP	-3.88576	-3.5443	0.0000	I(0)
TDSGDP	-7.0344	-3.5415	0.0000	1(1)
SMVGDGP	-5.3456	-3.5415	0.0000	1(0)

Source: Author's e-view 10 output with data in Appendix One.

From the result of Philip and Peron unit root test contained in table 2, Gross Domestic Product Ratio of CPSGDP, TDSGDP are all integrated of order 1(1). On the other hand, Ratio of M2GDP and SMVGDGP are integrated at 1(0) meaning that is stationary at levels. Given these different orders of integration, the Ordinary Least Square Regression Method was given up in preference for the Autoregressive Distributed Lag Model which tolerates such stationary property combination. In addition, the sample size is also good enough for the ARDL given that its estimates remain robust and consistent in the face of not too large sample size and finally good for data characterized with structural breaks. Also, the variable of GDP was log transformed LNGDP to bring down the data size and ensure linearity.

Basic Descriptive Statistics/ Standard tests for Normality

The statistical properties of the data sets are seen as vital determinants of their behaviors when used in econometric analyses. On the basis of this, the researcher presented in this section, the basic descriptive statistics called Normality test of the variables under study.

Table 3: Basic Descriptive Statistics/ Standard Tests for Normality:

Description	LNRGDP	LNCPSGDP	LNM2GDP	LNTDSGDP	LNSMVGDGP
Mean	8.693524	6.419931	6.724778	2.144606	6.197352
Median	8.921368	6.456699	6.962203	2.188245	6.326817
Maximum	11.75793	10.02224	10.12981	3.146305	10.05818
Minimum	4.975561	2.148268	2.672078	1.205971	1.609438
Std. Dev.	2.381641	2.761044	2.609916	0.392521	3.129292
Skewness	-0.247602	-0.092216	-0.165134	-0.156936	-0.185701
Kurtosis	1.611438	1.576745	1.580685	3.366531	1.497543
Jarque-Bera	3.622219	3.432784	3.539219	3.388102	3.992193
Probability	0.163473	0.179713	0.170399	0.823616	0.135865
Sum	347.7410	256.7973	268.9911	85.78425	247.8941
Sum Sq. Dev.	221.2164	297.3111	265.6548	6.008843	381.9063
Observations	40	40	40	40	40

Source: Author's e-view 10 output with data in Appendix One.

Table 3 contains the basic measures of central tendency, spread and variations calculated on the different series of the dataset. All the variables are negatively skewed to the left showing the degree of their departure to the line of symmetry. Also, the Kurtosis of the distribution is less than 3 meaning that they are leptokurtic and are not peaked. Of particular interest is the Jacque-Bera (JB) statistics which is a test for normality. It is a combined test of Skewness (S) of zero (0) and a kurtosis (K) of three (3), which are signs of a Mesokurtic distribution. In this case, however, the JB statistics shows that the variables are tending to 3 which are signs of Mesokurtic. The assumption of normality is accepted by the JB statistics, as well as the (K) and (S) figures. This, however, does not affect the goodness of the data for the estimation in this study as the kurtosis of all the variables are between 2 and 3 and the Skewness above 0-1 which is consistent with the properties of most financial time series.

Table 4 Regression Analysis of Financial Sector and Economic Growth in Nigeria.

Dependent Variable: LNRGDP				
Method: ARDL				
Date: 07/20/21 Time: 00:42				
Sample (adjusted): 1983 2020				
Included observations: 38 after adjustments				
Maximum dependent lags: 1 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (2 lags, automatic): LNCPSGDP LNM2GDP				
LNTDSGDP LNSMVGDP				
Fixed regressors: C @TREND				
Number of models evaluated: 81				
Selected Model: ARDL (1, 2, 1, 0, 0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LNRGDP (-1)	0.313103	0.110355	2.837228	0.0084
LNCPSGDP	0.019745	0.098914	-0.199618	0.8432
LNCPSGDP (-1)	0.075731	0.119681	0.632774	0.5320
LNCPSGDP (-2)	-0.200124	0.077144	-2.594178	0.0149
LNM2GDP	0.412963	0.117998	3.499728	0.0016
LNM2GDP (-1)	0.201711	0.148707	1.356430	0.1858
LNTDSGDP	0.251304	0.037053	-6.782215	0.0000
LNSMVGDP	0.118576	0.045862	2.585506	0.0152
C	2.435959	0.407629	5.975923	0.0000
@TREND	0.008155	0.009332	0.873825	0.3896
R-squared	0.999522	Mean dependent var		8.887424
Adjusted R-squared	0.999369	S.D. dependent var		2.281774
S.E. of regression	0.057330	Akaike info criterion		-2.659044
Sum squared resid	0.092029	Schwarz criterion		-2.228100
Log likelihood	60.52184	Hannan-Quinn criter.		-2.505718
F-statistic	6509.236	Durbin-Watson stat		1.958341
Prob(F-statistic)	0.000000			
*Note: p-values and any subsequent tests do not account for model selection.				

Given the coefficient of the parameter estimates of CPSGDP is 2% and the probability of t-statistics of 0.84>0.05 which is non-significant, it shows that it is positive signed and statistically non-significant, the study rejected the Null

hypothesis and accepted the alternate hypothesis thereby concluded that credit to private sector positively and non-significantly impact on economic growth rate in Nigeria, 1981-2021.

Given the coefficient of the parameter estimates of Broad money supply is 40% and the probability of t-statistics of $0.001 > 0.05$ which is non-significant, it shows that it is positive signed and statistically significant, the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that Broad money supply positively and significantly impact on economic growth rate in Nigeria, 1981-2021.

Given the coefficient of the parameter estimates of Total domestic saving is 25% and the probability of t-statistics of $0.0000 > 0.05$ which is significant, it shows that it is positive signed and statistically significant, the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that Total domestic saving positively and non-significantly impact on economic growth rate in Nigeria, 1981-2021.

Given the coefficient of the parameter estimates of Stock market value is 12% and the probability of t-statistics of $0.02 > 0.05$ which is significant, it shows that it is positive signed and statistically significant, the study rejected the Null hypothesis and accepted the alternate hypothesis thereby concluded that Stock market value positively and non-significantly impact on economic growth rate in Nigeria, 1981-2021.

Result

The findings from the specific objective of this study are as follows:

Ratio of credit to private sector positively and non-significantly impacted on economic growth in Nigeria, 1981-2021. Ratio of broad money supply positively and significantly impacted on economic growth in Nigeria, 1981-2021, Ratio of total domestic savings positively and significantly impacted on economic growth in Nigeria, 1981-2021, Ratio of stock market value positively and significantly impacted on economic growth in Nigeria, 1981-2021.

Conclusion

This work studied the impact of financial sector development on economic growth rate in Nigeria. Financial sector development as a financial service is getting practically popular with economic development experts. The theoretical and empirical issues concerning financial sector development and economic growth activities help to increase financial industry and also the financial system. Undoubtedly, financial sector development variables in Nigeria strongly affect the countries financial development and play a significant role in the development of the financial system and economic growth. It also helps to provide growth in the financial outlet, development in money through banking intermediation and capital market activities and also increase the level of economic growth. Knowledge of the review summary in the study attempt to fill the gap of the study by studying the impact of financial sector development on economic growth rate in Nigeria Hence, these variables are the macroeconomic variables which managers should strategically be conscious of whenever they are planning and forecasting future based on behavior of the financial sector and its activities in Nigeria. It is concluded that financial sector development had a positive and significant impact on economic activities in Nigeria and because of significant attributes, efforts should be made to create more a significant impact on the economy in the long run.

Recommendation

In line with the specific objective of the study, the following are the recommendations

- i. Ratio of credit to private sector to RGDP positively and none significantly impacted on economic growth rate in Nigeria, 1981-2021. This is because Nigerian private sector index is poor. It is advised that the government should aggressively embark on giving out credits to small and medium enterprise and as well as producer to improve productivity and growth in the economy. Ratio of money supply to RGDP positively and significantly impacted on the economic growth rate in Nigeria, 1981-2021. Financial development such as regulation in exchange rate fluctuation, stabilization of exchange rate by the monetary authorities and efficient money supply will be encouraged to enhance improvement in external reserve capacity.
- ii. Ratio of total domestic savings to RGDP positively and significantly impacted on the economic growth rate in Nigeria, 1981-2021. Monetary authorities should endeavor to combat constructively the effect of inflation, regulate inflation rate so that private sectors will patronizes private sector investment that will influence private sector policies effectively through savings. By controlling inflation, balance of payment

position will be positive and this consequently increases our external reserve and finally improves total domestic savings.

- iii. Ratio of stock market value to RGDP positively and significantly impacted on the economic growth rate in Nigeria, 1981-2021. Capital market activities should be efficiently more regulated so that shorter, medium and long-term loan can be easily sourced thereby improving the productive sector and the economy This will equally help to combat constructively the effect of inflation, so that private sectors will patronizes private sector investment that will influence private sector policies effectively through capital market activities.

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