
FINANCIAL SYSTEM AND VARIATION IN NIGERIAN FOREIGN DIRECT INVESTMENT

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Abstract

This study determined how credit to private sector, market capitalization, broad money supply and savings explained and affected the variation in industrial sector contribution to foreign direct investment. An Ex-Post Facto research design was adopted to examine how financial development has explained and affected the variation in the performance of the industrial sector in Nigeria. The time frame covers a period of thirty five (35) years that is, from 1986 to 2020. Data were obtained from the Central Bank of Nigeria (CBN) annual reports and statistical bulletin of 2020. The Auto-Regressive Distributive Lag (ARDL) estimation technique was applied in estimating the models via E-Views 10.0. The study revealed that credit to private sector, market capitalization, broad money supply and savings significantly explained and affected the variation in industrial sector contribution to foreign direct investment. To this end, this study concludes that financial development is pivotal to the growth of the industrial sector in Nigeria. It was recommended that in view of the financial intermediation roles of deposit money banks, the research supports the on-going efforts of the Central Bank of Nigeria (CBN) in promoting a sound and real sector-friendly financial system.

Keywords: Credit to private sector, Market capitalization, Broad money supply, Savings foreign direct investment.

INTRODUCTION

The Financial sector is a very essential part of the economy of a nation and developments in the financial sector extend to other parts of the economy representing a transformational movement for the economy and its people (Akinwale, 2018). Financial institutions channel resources from surplus economic units to deficit units for investment purposes (Osuji and Chigbu, 2012). This is achieved by the provision of loans and advances to the private and public sectors, for the growth of domestic output, promotion of the export trade, agricultural production and provision of infrastructure for attaining sustainable development and economic growth. (Ewetan and Ike, 2014; Ewetan and Okodua, 2013; Ibenta, 2000; Oyaromade, 2005). As a financial intermediate, the financial sector channels savings into productive investment. This enables Deposit taking institutions to perform the crucial role of sourcing finance to support private sector consumption and investment. A developed financial system can help achieve improved allocation of financial resources and enhanced risk management, transparency and corporate governance practices, (Rioja and Valev, 2004). Thus, financial development does not only improve growth prospects, it also enhances better distribution of economic opportunities amongst economic agents. This affords new businesses, such as first-time or low-income (with potentially low collateral) borrowers or small- and medium-sized enterprises (SMEs) easy access to financing through the process of financial intermediation.

The monetary indicators, however, have been criticized as they measure the extent of monetization rather than financial deepening. They may not accurately represent the effectiveness of the financial sector in ameliorating informational asymmetries and easing transaction costs as well as the measure takes into account deposits by one financial intermediary in another, which may incur double counting problem (Gemma, et al. 2010). Monnin and Jokipii (2010) for example, reveal that the measures are not satisfactory indicators as financial deepening in Nepal because the monetization of transactions can be increasing without financial development evolution. In their argument, this is particularly true in Nepal as non-monetized sector still play a crucial role in promoting the economic performance.

Aliyu and Yusuf (2013), for example, argue that financial markets have two significant functions, namely: to channel the excess funds from surplus units to deficit units, which will generate a higher income growth and to provide liquidity services. Resulting from this argument, it is concluded that the ability of financial intermediary to allocate limited funds efficiently is not necessary fully reflected by its level of monetization (that is, act as medium of exchange). More importantly, financial intermediaries are generally viewed as institutions that is efficient in allocating credit, instead represent the ability of the institutions to provide liquidity, or medium of exchange. One can envisage that a high level of monetization indicates under development of financial markets, while a low level of monetization represents a high degree of financial sophistication of financial markets, which allows individuals to economize on their money holding. The use of monetary aggregates as financial development indicator, such as M1, M2 and in certain cases M3, therefore, is still a controversial issue. Resulting from the criticisms on monetary aggregate measures as financial development indicator, alternative indicator has been proposed. (CBN 2019a) construct another three indicators of the level of financial sector development to gauge different functions of financial intermediary in the system. The second indicator is the ratio of deposit money bank domestic assets to deposit money bank domestic assets plus central bank domestic assets (Bank), which indicates the relative significance of particular financial institutions. The indicators, however, does not clearly reflected the proportion of credits

allocated to both private and public sectors. Generally, it is believed that public sector, or government has significant role in the economy and this may influence the relationship between banks and central bank. As a consequence, two indicators have been developed to measure the distribution of domestic assets.

Prior studies in Nigeria have attempted to investigate the link between financial development and economic growth, these studies showed different results for example, Odedokun (1989), adopted the VAR-based granger causality test approach to investigate the phenomenon and found a weak unidirectional causation running from RGDP to broad money. Onuorah and Ozurumba (2013) in their approach disaggregated total bank credit to components such as Total Production Bank Credits, Total General Commerce Bank Credits, Total Services Bank Credit, and Other Banks Credit and also found that none of the components granger caused RGDP. On the other hand, Oluitan (2012) observed that credit granger caused industrial output. Akpansung and Babalola (2012) examined the relationship between banking sector credit and economic growth in Nigeria over the period 1970-2008 using the two-stage least squares approach. They found evidence that private sector credit impacted positively on economic growth during the sample period. The study of Emecheta and Ibe (2014) also confirmed a positive effect of bank credit on economic growth using a VAR methodology. In terms of direction of causality, some of the reviewed works confirmed unidirectional causality running from private sector credit, broad money supply to economic growth while others found the direction of causality running from economic growth to savings and bank credit. More so, the studies of Chekwube, Anne, Chibuike and Chukwunonso (2014) show that financial development significantly affected economic growth in Nigeria during the period 1986 – 2012. Their findings show that financial development affects economic growth negatively in the long run. While the short run impact of financial development on economic growth is positive. Furthermore, the study of Okonji, Nnadi and Igbunugo (2018), show that the financial sector, significantly affected the macroeconomic performance of the Nigerian economy. Adalakun, (2010); Oladele and Makwe, (2018) studied the relationship between financial development and economic growth in Nigeria. Their findings showed a positive effect of financial development on economic growth in Nigeria.

It can be seen that these past studies were limited in scope, using variables from only one dimension, particularly from financial deepening. In some other cases, the studies were limited in coverage as they focused only on financial institutions, financial market or Manufacturing sector. These mixed findings imply that there is yet no consensus on the size and direction of relationship between financial development and Industrial performance in Nigeria. However, few studies have examined the contribution of capacity utilization, index of industrial production, FDI as they are affected by financial development in the production process of Industrial firms in Nigeria despite their important contribution of economy. This study intends to fill this gap by incorporating more industries, the two main financial sectors of the economy (banking and capital market) and more variables to reflect the changing economic realities, while previous studies have attempted to reach a theoretical consensus on financial development and economic growth. It will be of interest to examine in the same vein the pathway of industrialization in the wake of financial sector development.

This study determines how financial development has explained and affected the variation in the performance of the industrial sector in Nigeria. Specifically, this study evaluate how credit to private sector, market capitalization, broad money supply and savings have explained and affected the variation in foreign direct investment in Nigeria.

LITERATURE REVIEW

Financial System and Economic Performance in Nigeria

The Nigeria financial system has experienced intensive restructuring and rapid market-oriented transformations since the adoption of the SAP in 1986. Prior to this time, the financial system was regulated as evidenced by ceiling on interest rates and credit expansion, high reserve requirements, selective credit policies and restriction of entry into the banking industry. Following deregulation, the bank and non-bank financial institutions witnessed unprecedented increase due to the incentives provided for growth and expansion of financial institutions. For example, the number of banks rose from 41 in 1986 to 115 in 1997. Further, the number of bank branches rose from 1,323 in 1986 to 2,551 in 1997. Similarly, the number of community banks (microfinance banks) increased from 169 in 1990 to 695 in 2009; and the number of specialized non-bank financial institutions increased from 84 in 1990 to 242 in 2008.

This deregulation spurred competition in the industry, forcing many banks to adopt various strategies required to consolidate their existence. Inefficiency in banking operations, poor management and misallocation of resources as well as political interference resulted in bank distress which further weakened the capacity of the financial system in resource mobilization. Hence, by 1991, government came up with the policy of guided deregulation which resulted in pegging of lending and deposit rates, placement of embargo on further licensing of banks, among other measures (Chen and Guariglia, 2013). Following the adoption of universal banking in Nigeria in 2000, commercial and merchant banks were merged and they became Deposit Money Banks (DMBs). The Debt Management Office (DMO) established in 2000 also spurred investment in Federal Government bonds. In 2005, banks consolidation policy was put in place, which increased the minimum paid-up capital for commercial banks to N25b; and the total number of banks fell from 85 to 25. The effect of the consolidation was to foster the creation of larger banks having better access to fund market.

Foreign Direct Investment

FDI contributes to productivity and income growth in host countries, way above what domestic investment can contribute. According to Ashiedu (2002), Foreign Direct Investment (FDI) is on the increase at an extra ordinary speed in the 21st century. He further noted that USA, France, Netherlands and Britain are among the major countries that supply foreign capital to Nigeria and that the bulk of this capital goes into the oil sector. However, to assess the magnitude of this impact is difficult because large FDI inflows to developing countries often concur with unusually high growth rates triggered by unrelated factors. FDI should actually serve to increase domestic investment as the net effect could be beneficial in the release of scarce domestic funds for other investment purposes particularly in the under developed countries like Nigeria, where low educational and technological standards and weak financial markets can hold back the benefits. Unfortunately, developing countries need to have reached a certain level of development in education, technology, infrastructure and health before being able to benefit from a foreign presence in their markets. The above factors have contributed to the minimal effect of FDI on growth. Equally, Imperfect and underdeveloped financial markets may also prevent a country from reaping the full benefits of FDI. Weak financial intermediation hits domestic enterprises much harder than it does multinational enterprises (MNEs). In some cases, it may lead to a scarcity of financial resources that precludes them from seizing the business opportunities arising from the foreign presence. Foreign investors' participation in physical infrastructure and in the financial sectors (subject to adequate regulatory frameworks) can help on these two grounds. As countries develop and approach industrialised nation status, inward FDI contributes to their

further integration into the global economy by engendering and boosting foreign trade flows. Apparently, several factors are at play. They include the development and strengthening of international networks of related enterprises and an increasing importance of foreign subsidiaries in MNEs' strategies for distribution, sales and marketing. In both cases, this leads to an important policy conclusion, namely that a developing country's ability to attract FDI is influenced significantly by the entrant's subsequent access to engage in importing and exporting activities.

Credit to Private Sector

Credit to private sector refers to financial resources provided to the private sector, such as loans and advances, purchases of non-equity securities, trade credits and other accounts receivable. In this regard, credit can be viewed from two angles; namely: trade or commercial credit and banking system credit. According to Freear (1980), trade credit refers to transactions which involve the supplier handing over goods or performing a service without receiving immediate payment. A major role of trade credit is to facilitate transactions by providing immediate short-term liquidity when goods are delivered (Ferris, 1981). A study by Beck, Demirgüç-Kunt and Maksimovic (2008) shows, using a survey that covers 48 countries, that on average 19.7% of all investment financed through external sources was done using trade credit; in fact, the authors found that in most countries trade credit is the second most important source of external finance, preceded only by bank credit.

Market Capitalization

Market capitalization has a significant influence on the growth and development of the economy (Odogunde, Elumilade and Asaolu, 2006) and the role of this influence is growing. In fact, the capital market has had a remarkable development over the last few decades and more and more companies are turning to it to obtain new risk capital and to diversify the overall risk. The capital market is the market for accessing medium to long term securities both in the primary market for the issue of new securities and the secondary market where existing shares are traded. The capital markets majorly exist to transfer from surplus (savings) sectors to the deficit (capital investment) sector of economy. According to Samson, Kayode and Elizabeth (2012), the function of an active market includes promotion of rapid formation, liquidity for investor(s), mobilizing of savings for economic growth and development, providing alternative source of fund other than taxation for government, establishing a built in operational and creational efficiency within the financial system so that resources are optimally utilized at relatively little costs, encouraging a more efficient allocation of new investment through the pricing mechanism, the broadening of the ownership base of asset and the creation of healthy private sector, provision of an efficient mechanism for the allocation of savings among competing productive investment projects.

Money Supply

Since 1970, Nigeria has been controlling her economy through the variation in her volume of money. Between 1970 and 2014, real money supply growth rate maintained an irregular trend; it rose from 18.25% in 1970 to 46.1% in 1980. While it decreased to 8.6% in 1996 due to the banking system crises, but it picked up again to 38.0% in 2009 and stood at 19.9% in 2014. Nigeria, in the last one decade, has contended with a number of socio-economic challenges including: dropped in Oil Price (the mainstay of the Nigerian economy), Stock frequency. The classical quantity theory of money states that the price level is a function of the supply of money. The total money supply MV equals the total value of output PT in the economy (Jhingan, 2012). In this theory, the classical economists believe in the long-run economy, where full employment is attained. They recognized the existence of

unemployment in the event of a downward rigidity of money wages. Such a situation could be corrected by an expansionary monetary policy. Suppose the monetary authority increases the money supply, given the velocity of money and the level of real output, with the income in the money supply, liquidity rises with the people who increase the demand for goods and services, this, in turn, raises the price level. The rise in price level reduces the real wage which provides incentives for employers to expand employment and output towards the full employment level. An increase in money supply is likely one of the factors fueling the currency depreciation being experienced between the naira and dollar in recent weeks.

Review of Empirical Studies

Over the years, a good number of empirical studies have emerged on the relationship or granger cause between financial development, economic growth and industrial development. Some of the authors focused their studies on a single year data while others studies were for a number of years. Obioma and Ozugahalu (2015) used ordinary least square method to examine the relationship between gross domestic product (GDP) as dependent variable and foreign direct investment, industrial output, total saving and inflation rate, the independent variables for data of 1999 in Nigeria. The study revealed among others that industrial output impacted statistically insignificant on GDP. A more recent study by Pradhan, Arvin, Bahmani, Hall, and Norman (2017) on Finance and growth: Evidence from the ARF countries used regression and four different proxies of financial development (banking sector development, bond market development, stock market development, and insurance sector development) to examine the finance-growth relationships in ASEAN region for the period of 1991– 2011. Their results show that banking sector development, stock market development, bond market development, insurance market development, and per capita economic growth shared a cointegrating relationship in long-run. However, in the case of causality, their results are sensitive to the use of financial development proxy. They accounted a unidirectional causality from banking sector development to economic growth and a bi-directional causality between stock market development and economic growth, and insurance sector development and economic growth. Iheanacho (2016) empirically examined the relationship between financial intermediary development and economic growth in Nigeria over the period 1981– 2011 . Four widely used measures of financial sector intermediary development: the domestic bank credit to the private sector divided by GDP, Liquid Liabilities to GDP, Deposit money bank assets to GDP and Bank deposits to GDP were employed to capture various aspects of the financial sector intermediary activities in Nigeria. Four control variables are included to capture other components of the Nigerian macroeconomic environment that could influence the growth of the using the auto-regressive distributed lag (ARDL) approach to co-integration analysis. The results show that the relationship between financial development and economic growth in Nigeria is not significantly different from what has been observed generally in oil-dependent economies. The relationship between financial intermediary development and economic growth in Nigeria is found to be insignificantly negative in the long-run and significantly negative in the short-run. The results highlight the dominant role of the oil sector in economic activities in Nigeria. Afolabi and Laseinde (2019) examined the impact of manufacturing sector output on economic growth in Nigeria from 1981 to 2016. The study employed secondary data sourced from the Central Bank of Nigeria statistical bulletin for Autoregressive Distributed Lag (ARDL) model and the Granger causality techniques on RGDP, manufacturing capacity utilization (MCU), manufacturing output (LMO), government investment expenditure (GINVEXP), money supply (LM2) and interest rate (INR). Evidence of long-run and short-run relationships among the variables was established. The results showed that MCU has positive influence on RGDP while LMO also affects RGDP positively. It also showed that GINVEXP has negative effects on RGDP whereas LM2

influenced RGDP positively. Moreover, the result indicated a unidirectional causality between RGDP and MCU, LMO and LM2. Based on the above, the study suggest government should intensify efforts to promote socio-economic infrastructural, macroeconomic and institutional framework in Nigeria to provide favourable environment for external and domestic institutions interactions; so harnessed mobilized funds effectively towards productive manufacturing sector. Oladotun (2018) examined the relationship between financial sector development and economic growth in Nigeria. The paper used the Principal Component Analysis (PCA), Autoregressive Distributed Lag Model (ARDL), Structural Break Test and the Pairwise Granger Causality Test (PGC) to examine the effect of financial development on economic growth in Nigeria and to establish which theory holds for Nigeria between the demand-following and the supply-leading theory. Annual time series data between 1981 and 2016 was used for the study. Data on real gross domestic product, broad money supply/GDP, inflation, credit to the private sector/GDP total liquid liabilities, total stocks/shares traded and total stock market capitalization were sourced from the Central Bank of Nigeria (CBN) statistical bulletin. The structural break unit root test revealed that all the variables are stationary at their first difference except for inflation that was stationary in its level form; the bound test cointegration analysis established the existence of long run relationship among the variables. The ARDL revealed that financial development negatively and insignificantly affected economic growth in Nigeria during the period of study. Akinmulegun and Akinde (2019) studied Financial Deepening and Manufacturing Sector Performance in Nigeria (1981-2017) this study investigated the effect of financial deepening on manufacturing sector performance in Nigeria from 1981 to 2017. The study employed time series secondary data sourced from the Central Bank of Nigeria (CBN) statistical bulletin and World Bank Development Index and was analysed using OLS. Manufacturing sector performance, (dependent variable), was proxied by ratio of manufacturing value added to gross domestic product, while the independent variables include ratio of credit to private sector to GDP, ratio of market capitalization to GDP, ratio of value of transaction to GDP and interest rate. The study adopted error correction mechanism (ECM) to estimate the effect of the independent variables on the dependent variable. The results revealed that ratio of credit to private sector to GDP with coefficient of 0.189582 and ratio of market capitalization to GDP with coefficient of 0.006649 had positive effect on manufacturing sector performance while ratio of value of transaction to GDP with coefficient of -0.000532 and interest rate with coefficient of -0.043801 had negative effect on manufacturing sector performance. The study concluded that financial deepening had significant effect on manufacturing sector performance in Nigeria. Consequently, it was recommended that deposit money banks and other financial institutions should make more investible credit available to private sector, especially manufacturing firms, at affordable interest rate.

METHODOLOGY

Research Design

An ex-post facto research design was adopted to examine how financial development has explained and affected the variation in the performance of the industrial sector in Nigeria. In this type of research design, the researcher cannot manipulate the variation in the variables as there are existing data are available and published by government agencies. The time frame covers a period of thirty-five (35) years that is, from 1986 to 2020. This allows for a large number of observations which will improve the robustness of the results owing to availability of thirty-five (35) number of observations.

Techniques for Data Analysis

The hypotheses and research questions were the basis for presenting the data analysed. The Auto-Regressive Distributive Lag (ARDL) estimation technique was applied in estimating the models. E-Views 10.0 was the econometric software used for the analysis of data.

DATA ANALYSIS

Descriptive Statistics of Data

Table 1: Descriptive Statistics of Data

	Mean	Median	Maximum	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	P-value	Obs
FDI	3718471	2482000	31072601	735.8000	9381951	2.428276	6.941921	57.05704	0.00000	35
CPS	6802991	1096540	29051610	15250.00	9082064	1.067297	2.695367	6.780217	0.033705	35
MC	7324364	1359300	38589580	6800.000	9683493	1.342492	4.301023	12.98179	0.001517	35
BMS	7947669	1952920	36014880	23810.00	1082822	1.333575	3.586745	10.87619	0.004348	35
SV	4379203	655740.0	20841840	13930.00	5998901	1.231575	3.274698	8.957911	0.011345	35

Source: Output data from E-views 10.0

The mean of foreign direct investment for the study period is ₦3,718,471 million, with a maximum and minimum foreign direct investment for the study period being ₦31,072,601 million and ₦735.80 million respectively. The standard deviation, skewness, and the kurtosis all point to the fact that there is not much deviation from the mean value of foreign direct investment during the study period (1986 - 2020) being ₦9,381,951 million, 2.4 and 6.94 respectively, the data set is normally distributed thus fulfilling a major condition of an OLS test. The Jarque-Bera test and the adjoining probability of 57.05 and 0.00 respectively, all support the fact that the data set on foreign direct investment is normally distributed, since a small probability value leads to the rejection of the null hypothesis of a normal distribution.

Credit to private sector for the study period of 1986 - 2020 has a Jarque-Bera statistic value of 6.78 and an adjoining probability of 0.03 showing a normal distribution. The kurtosis of credit to private sector is 2.69, standard deviation is 9,082,064 million, and a skewness of 1.067. The maximum value for credit to private sector during the study period was ₦29,051,610 million, while the minimum was ₦15,250 million.

It can also be seen from the Table 4.3 that the mean of manufacturing capacity utilization for years 1986 to 2020 is ₦7,324,364 million with a maximum and minimum index for the study period of ₦38,589,580 and ₦6,800 million respectively. The standard deviation, the skewness and the kurtosis all point to the fact that there is not much deviation from the mean values of manufacturing capacity utilization during the study period (1986 - 2020) though skewed positively, the data set however is normally distributed, with the Jarque-Bera test and the adjoining probability of 12.98 and 0.00 respectively. This by implication shows a high probability value leading to the acceptance of the null hypothesis of a normal distribution.

The mean of broad money supply for the study period is ₦7,947,669 million, with a maximum and minimum broad money supply for the study period being ₦36,014,880 million and ₦23,810 million respectively. The standard deviation, the skewness and the kurtosis all point to the fact that there is not much deviation from the mean value of broad money supply during the study period (1986 - 2020). Also, the data set is normally distributed thus fulfilling a major condition of an OLS test. The Jarque-Bera test and the adjoining probability of 10.87

and 0.00 respectively, all support the fact that the data set on broad money supply is normally distributed, since the probability value leads to the rejection of the null hypothesis of a normal distribution.

Also, the results show that the mean of savings for years 1986 to 2020 is ₦4,379,203 million with a maximum and minimum savings for the study period being ₦20,841,840 million and ₦13,930 million respectively. The standard deviation, the skewness and the kurtosis all point to the fact that there is not much deviation from the mean value of savings during the study period (1986 - 2020), the data set is normally distributed, thus fulfilling a major condition of an OLS test also. The Jarque-Bera test and the adjoining probability of 8.95 and 0.01 respectively, all support the fact that the data set on growth is normally distributed, since a small probability value leads to the rejection of the null hypothesis of a normal distribution. Thus, if the null hypothesis is rejected, the alternative hypothesis of a normal distribution is accepted.

Foreign Direct Investment and Financial Development

The result of the short run linkage between level of foreign direct investment and financial development in Table 2 dispels that broad money supply has significant positive relationship with foreign direct investment in Nigeria however, the relationship between credit to private sector (significant), market capitalization (significant), and savings (insignificant) was found to be negatively related with foreign direct investment.

Table 2: ARDL Regression of FDI and Financial Development

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-0.214990	0.163336	-1.316245	0.2206
FDI(-2)	0.796692	0.133998	5.945530	0.0002
FDI(-3)	-0.014528	0.064283	-0.225998	0.8263
FDI(-4)	2.321640	1.243697	1.866725	0.0948
CPS	-1.899958	0.196646	-9.661805	0.0000
CPS(-1)	0.456650	0.383891	1.189530	0.2647
CPS(-2)	-3.393571	0.165452	-20.51090	0.0000
CPS(-3)	-4.826875	0.604075	-7.990526	0.0000
CPS(-4)	-6.430276	0.877198	-7.330476	0.0000
MC	-0.230881	0.030701	-7.520214	0.0000
MC(-1)	0.197024	0.074150	2.657104	0.0262
BMS	1.056527	0.258870	4.081301	0.0028
BMS(-1)	-0.647189	0.159674	-4.053191	0.0029
BMS(-2)	-2.731970	0.326432	-8.369186	0.0000
BMS(-3)	-1.814504	0.303567	-5.977272	0.0002
BMS(-4)	7.783419	0.701736	11.09167	0.0000
SV	-0.243829	0.291166	-0.837420	0.4240
SV(-1)	0.884603	0.303863	2.911188	0.0173
SV(-2)	6.103729	0.540342	11.29604	0.0000
SV(-3)	11.24896	0.722791	15.56322	0.0000
SV(-4)	4.693304	1.803345	2.602554	0.0286
C	-147307.9	25531.56	-5.769639	0.0003
R-squared	0.999992	Mean dependent var		4197668.
Adjusted R-squared	0.999974	S.D. dependent var		9883365.
S.E. of regression	50691.62	Akaike info criterion		24.68750
Sum squared resid	2.31E+10	Schwarz criterion		25.70517
Log likelihood	-360.6563	Hannan-Quinn criter.		25.01924
F-statistic	54304.50	Durbin-Watson stat		1.933058
Prob (F-statistic)	0.000000			

Source: Author's E-views 10

Assuming credit to private sector, market capitalization, broad money supply and savings are maintained at same degree, foreign direct investment would go down by ₦147,307.9 million. Foreign direct investment would depreciate by factors of 1.89, 0.28 and 0.24 credit to private sector, market capitalization, broad money supply and savings increase by a unit. On the other hand, foreign direct investment would appreciate by a factor of 1.05 following a percentage increase in broad money supply. Credit to private sector, market capitalization, broad money supply and savings significantly explained the variation in foreign direct investment as revealed by the significant p-value (0.00) and f-statistic (54304.50). Only 99.99% variation in foreign direct investment was attributed to the joint influence of Credit to private sector, market capitalization, broad money supply and savings. The Durbin Watson coefficient of 1.93 shows no autocorrelation in the model.

Granger Causality Analysis

Table 3: Granger Causality Result for FDI → CPS + MC + BMS + SV

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
CPS does not Granger Cause FDI	33	4.03382	0.0289	Causality
FDI does not Granger Cause CPS		2.94583	0.0690	No Causality
MC does not Granger Cause FDI	33	2.61098	0.0913	No Causality
FDI does not Granger Cause MC		5.44391	0.0101	Causality
BMS does not Granger Cause FDI	33	4.77992	0.0164	Causality
FDI does not Granger Cause BMS		3.90769	0.0319	Causality
SV does not Granger Cause FDI	33	5.37828	0.0106	Causality
FDI does not Granger Cause SV		7.52306	0.0024	Causality

Source: Author's E-views 10

Similarly, foreign direct investment in Nigeria significantly influenced broad money supply and savings. It was also observed that credit to private sector has significant effect on foreign direct investment in Nigeria. This is based on the fact that there is a unidirectional causal relationship between credit to private and foreign direct investment in Nigeria. The causality runs from credit to private to foreign direct investment. Furthermore, it was found that there is a unidirectional causal relationship between foreign direct investment and market capitalization. This is an indication that foreign direct investment has significant effect on market capitalization of the Nigerian Exchange Group (NGX).

Test of Hypotheses

H₀: Credit to private sector, market capitalization, broad money supply and savings have not significantly explained and affected the variation in foreign direct investment in Nigeria.

H₁: Credit to private sector, market capitalization, broad money supply and savings have significantly explained and affected the variation in foreign direct investment in Nigeria.

Table 4: Test of Hypotheses

Hypotheses	Equation Estimated	F-Statistic	P-Value	Decision
Hypothesis	FDI → CPS+MC+BMS+SV	54304	0.00000	Reject H ₀ & Accept H ₁

Source: ARDL Output from Tables 2 and 3

Discussion of Findings

The ARDL output in tables above dispel that there is a long-run relationship between variables of financial development (credit to private sector, market capitalization, broad money supply and savings) and foreign direct investment, which means that the finding from the study revealed that financial development has significantly explained and affected variation in foreign direct investment in Nigeria. This is an indication that financial

development is necessary for the growth of the industrial sector in Nigeria. Nigeria is a developing country with underdeveloped financial system. The industrial sector relies on the banking sector credit for fund which is not enough to accelerate the growth of the sector. The cost of fund from the banking sector is high compared to other countries of the world. This discourages new industries from borrowing from the banks. Sourcing fund from the capital market is cumbersome following the registration criteria for listing on the Nigerian Exchange Group (NGX). Furthermore, the companies listed on the Nigerian Exchange Group (NGX) are seen majorly as big companies with strong financial muscle to afford about 70% of their operating cost.

This finding is in agreement with that of Garba (2014) that revealed developments in financial sector variables viz: banking sector credits, total market capitalization affect foreign direct investment positively.

CONCLUSION AND RECOMMENDATION

Conclusion

It is believed that the catalyst for economic growth and development all over the world is financial sector. The industrial sector is widely conceived as a critical tool for accelerating economic growth and development. This study examined the financial development and the performance of the industrial sector in Nigeria 1986 to 2021 and revealed that financial development measured by credit to private sector, market capitalization, broad money supply and savings significantly explained and affected the variation in industrial sector output in Nigeria. To this end, this study concludes that financial development is pivotal to the growth of the industrial sector in Nigeria.

Recommendations

In a study of this nature, the recommendations that will be proffered will appear to address policy issues rather than palliatives. In view of the financial intermediation roles of deposit money banks, the research supports the on-going efforts of the Central Bank of Nigeria (CBN) in promoting a sound and real sector-friendly financial system.

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