The Impact of Foreign Direct Investment on the Development of Nigerian Economy (1981-2015)

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ABSTRACT

Foreign Direct Investment is considered as an invaluable tool for achieving economic growth in developing countries. In order to achieve the objective of a higher rate of economic growth and the efficiency in the utilization of resources, developing countries the world over have embarked upon various policy measures at attracting FDI. The study analyzed the impact of foreign direct investment on Nigeria economic growth over a period of (1981-2015). The data used in this study is secondary data sourced from Statistical Bulletin. This paper determined the relationship between foreign direct investment, exchange rate and gross domestic products. As the world economy continues to become more globalized, foreign direct investment (FDI) continues to gain prominence as a form of international economic transaction and as an instrument of international economic integration.

Keywords: FDI, Exchange rate, Economic growth, Development

Aims Research Journal Reference Format:

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1. INTRODUCTION

In order to be a relevant force in the global economy, a country must devise means of efficiently extracting and utilizing her numerous economic potential and improving her productive capacity without which, she will remain in her poor and low economic state. Physical and human capital can only be accumulated through investment. Most growth models have come to ascribe the rate of growth of an economy as being determined by the amount of physical and human capital, the efficient use of resources and the ability to acquire and apply modern technology. Since investment determines the rate of accumulation of physical capital, it thus became an important factor in the growth of productive capacity and in turn, contributes towards the growth of the economy.

Despite the increased flow of investment, especially, to developing countries, Sub-Saharan Africa (SSA) countries still lack behind other regions in attracting foreign direct investment. The uneven dispersion of FDI is a cause of concern since FDI is an important source of growth for developing countries. Developing countries are by definition poor and characterized by low savings and investment rates. These two factors have contributed to them being referred to as poor countries. Thus, to enhance the economic growth of such countries, an inflow of foreign resources is expected to supplement the domestic resources and assist in enhancing development in all sectors of such countries. It is for this reason that most developing countries including Nigeria have designed and implemented a number of programmes to attract foreign investment. Not only can FDI add to investment resources and capital formation, it can also serve as an engine of technological development with much of the benefits arising from positive spillover effects.

Such positive spillovers include transfers of production technology, skills, innovative capacity, and organizational and managerial practices (Lloyd, 1996). Domestically, Nigeria has been unable to generate sufficient investment to adequately propel her economic growth process. This has resulted in Nigeria government 'looking for more efficient source of investment. In other words, the government has resorted to wooing of foreign investors. Among the various sources of investment, Foreign Direct Investment (FDI) is considered as the most invaluable for economic growth in developing countries like Nigeria. FDI serves as a stimulus to additional investment in the recipient country and is perceived as the most efficient source of investment for economic growth for developing countries including Nigeria. Foreign direct investment (FDI) is a direct investment into production or business in a country by an individual or company of another country, either by buying a company in the target country or by expanding operations of an existing business in that country. Macaulay (2012) defined foreign direct investment is in contrast to portfolio investment which is a passive investment in the securities of another country such as stocks and bonds. World Bank (1996) conceptualized Foreign Direct Investment (FDI) as investment that is made to acquire a lasting management interest (usually 10% of voting stock) in an enterprise and operating in a country other than that of the investors.

Macaulay, (2012) asserted that Nigeria's foreign investment can be traced back to the colonial era, when the colonial masters intended to exploit our resources for the development of their economy. There was little investment by these colonial masters. With the research and discovery of oil foreign investment in Nigeria, but since then, Nigeria's foreign investment has not been stable. The Nigerian governments have recognized the importance of FDI in enhancing economic growth and development and various strategies involving incentive policies and regulatory measure have been put in place to promote the inflow of FDI to the country. According to Lall, (2002), privatization was also adopted, among other measures, to encourage foreign investments in Nigeria. This involved transfer of state-owned enterprises (manufacturing, agricultural production, public utility services such as telecommunication, transportation, electricity and water supply), companies that are completely or partly owned by or managed by private individuals or companies. Shiro (2009) noted that since the enthronement of democracy in 1999, the government of Nigeria has taken a number of measures necessary to woo foreign investors into Nigeria. These measures, he noted, include the repeal of laws that are inimical to foreign investment growth, promulgation of investment laws, various overseas trips for image laundry by the President among others. Thus, this study assesses the impact of FDI on economic growth in Nigeria within the period 1999-2013.

1.1 Statement of the Problem

The underdeveloped nature of the Nigerian economy that essentially hindered the pace of her economic development has necessitated the demand for Foreign Direct Investment into the country. It was noted that Nigeria as one of the developing countries of the world, has adopted a number of measures aimed at accelerating growth and development in the domestic economy, one of which is attracting foreign direct investment (FDI) into the country.

However, Foreign Direct Investment (FDI) is often seen as an important catalyst for economic growth in the developing countries because it affects the economic growth by stimulating domestic investment, increase in capital formation and also, facilitating the technology transfer in the host countries.

1.1 Objective of the Study

The main objective of this study is to examine the impact of foreign investment on the development of Nigerian economy. Specifically, this study examined: the relationship between foreign direct investment and economic growth in Nigeria economy.

1.3 Research Hypotheses

Ho₁: There is no significant relationship between foreign direct investment and economic growth in Nigeria economy.

2. LITERATURE REVIEW

2.1 Conceptual Review

Foreign direct investment is an investment made by an individual or a company (investor) in a country which is not the country of origin of the investor, in the form of either establishing business or acquiring business assets in the country. Foreign direct investment represents a veritable source of foreign exchange and technological transfer, especially to a developing economy like Nigeria. It can be analyzed in terms of inflow of new equity capital (change in foreign share capital), re-invested earning (unremitted profit), trade and supplier's credit, net inflow of borrowing and other obligations from the parent company or its affiliates (Nwankwo et al, 2013). Within the neoclassical growth framework, the impact of FDI on the growth rate of output was highly constricted owing to diminishing returns to physical capital. As such, a level effect rather than a rate effect could only be exerted on the output per capita.

In effect, the flow of FDI has no appreciable impact on growth rate of output in the long run. Thus, with neoclassical models, FDI as a veritable engine of growth was seriously undermined. However, with exposition on new growth theory, FDI is capable of affecting both the level as well as rate of growth of output per capita. Economists have long accorded greater importance to freedom to choose and supply resources, competition in business, free trade with others and secure property rights as representing important ingredients needed for achieving economic development. These ingredients include size of government, expenditures, taxes, and enterprises; legal structure and security of property rights; access to sound money; freedom to trade internationally and regulation of credit, labour, and business. Olopoenia (1985) observed that foreign investment could be seen as an additional factor of production and as a supplement to the national savings effort of the capital importing country. This is meant to relax both the foreign exchange and savings constraint on the rate of growth of output in the recipient country. Otepola (20012), asserted that FDI has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, though their share in the global distribution of FDI continue to remain small or even declining. Caves (1996) also observed that the rationale for increased efforts to attract more FDI stems from the belief that FDI has several positive effects. Among these are productivity gains, technology transfers, and the introduction of new processes, managerial skills and know-how in the domestic market, employee training, international production networks, and access to markets.

Bello and Adeniyi (2003) are of the opinion that FDI is expected to contribute to economic growth, include the provision of foreign capital as well as crowding in additional domestic investment. By promoting both forward and backward linkages with the domestic economy, additional employment is indirectly created and further economic activity stimulated. Otepola (2012), described Direct Foreign Investment (DFI) in several ways. First and most likely, it may involve parent enterprise injecting equity capital by purchasing shares in foreign affiliates. Second, it may take the form of reinvesting the affiliate's earning. Third, it may entail short-or foreign investment as a share of Gross Domestic Product has grown rapidly, becoming the largest source of capital moving from developed nations to developing nations.

Khan (2007) asserted that Foreign Direct Investment (FDI) has emerged as the most important source of external resource flows to developing countries over the years and has become a significant part of capital formation in these countries, though their share in the global distribution of FDI continued to remain small or even declining. The role of Foreign Direct Investment (FDI) has been widely recognized as a growth-enhancing factor in the developing countries. Shiro (2009) noted that since the enthronement of democracy in 1999, the government of Nigeria has taken a number of measures necessary to woo foreign investors into Nigeria. These measures, he noted, include the repeal of laws that are inimical to foreign investment growth, promulgation of investment laws, various over sea trips for image laundry by the President among others.

According to Bello and Adeniyi (2003), privatization was also adopted, among other measures, to encourage foreign investments in Nigeria. This involved transfer of state-owned enterprise (manufacturing, agricultural production, public utility services such as telecommunication, transportation, electricity and water supply) companies that are completely or partly owned by or managed by private individuals or companies. Qualified foreign firms were given open arms to take over most of these establishments to enhance efficiency. This is because such foreign firms are reported to possess the managerial acumen and technical prowess needed to resuscitate and sustain the weak industries in Nigeria (Umah, 2007).

2.2 Theoretical Review

Production Cycle Theory of Vernon

Production cycle theory developed by Vernon in 1966 was used to explain certain types of FDI made by US companies in Western Europe after the Second World War in the manufacturing industry. Vernon believes that there are four stages of production cycle: innovation, growth, maturity and decline. According to Vernon in the first stage the US transnational companies create new innovative products for local consumption and export the surplus in order to serve also the foreign markets. According to the theory of the production cycle, after the Second World War in Europe, increased demand for manufactured products like those produced in USA. Thus, American firms began to export, having the advantage of technology on international competitors.

Theory of Exchange Rates on Imperfect Capital Markets

This is another theory which tried to explain FDI. Initially, the foreign exchange risk has been analyzed from the perspective of international trade. Lyold (1996) shows that increase in real exchange rate stimulates FDI made by USD, while a foreign currency appreciation has reduced American FDI. Cushman concludes that the dollar appreciation has led to a reduction in US FDI by 25%. However, currency risk rate theory cannot explain simultaneous foreign direct investment between countries with different currencies.

Ragnar Nurkse's Balanced Growth Theory

The balanced growth theory is an economic theory pioneered by the economist. The theory's hypothesis is that the government of any undeveloped country needs to make large investments in a number of industries simultaneously. This will enlarge the market size, increase productivity and provide an incentive for the private sector to invest.

The unbalanced Growth Theory

The growth theory stated that the deliberate unbalancing of the economy according to a pre-designed strategy is the best way to achieve growth in undeveloped countries. The unbalanced growth theory emphasized that investment should be made in selective sectors rather than simultaneously in all sectors. He regards development and growth as a chain of disequilibria of which profits and losses are systems in competitive economy.

Harrod-Domar Theory of Growth

It is used in development economics to explain an economy's growth rate in terms of the level of savings and productivity of capital. It suggests that there is a natural reason for an economy to have balanced growth. The Harrod-Domar model was the precursor to the exogenous growth model.

2.3 Empirical Review

Lall (2002) opined that FDI inflow affects many factors in the economy and these factors in turn affect economic growth. This review shows that the debate on the impact of FDI on economic growth is far from being conclusive. The role of FDI seems to be country specific and can be positive, negative or insignificant, depending on the economic, institutional and technological conditions in the recipient countries. Solomon and Eka (2013) investigated the empirical relationship between Foreign Direct Investment and economic growth in Nigeria. The work covered a period of 1981-2009 using an annual data from Central Bank of Nigeria statistical bulletin. A growth model via the Ordinary Least Square method was used to ascertain the relationship between FDI and economic growth in Nigeria. The result of the OLS techniques indicated that FDI has a positive but has insignificant impact on Nigerian economic growth for the period under study.

Obwona (2001) noted in his study of the determinants of FDI and their impact on growth in Uganda that macroeconomic and political stability and policy consistency are important parameters determining the inflow of Foreign Direct Investment (FDI) into Uganda and that Foreign Direct Investment (FDI) affects growth positively but insignificant. Foreign Direct Investment (FDI) also contributes to economic growth via technology transfer. Zhang (2001) argued that Foreign Direct Investment has positive growth impact that is similar to domestic investment along with partly alleviating balance of payment deficit in the current account. He opined that via technology transfer and spill over efficiency, the inflow of direct foreign investment might be able to stimulate a country economic performance.

Ewe-Ghee Lim (2001) summarized recent arguments and findings on FDI and its correlation with economic growth focusing on literature regarding spill over from FDI and found that while substantial support exists for positive spill over from FDI, there is no consensus on casualty. Oseghale and Amonkhienan (1987) found that FDI is positively associated with GDP, concluding that greater inflow of FDI will spell a better economic performance for the country. Ayanwale and Bamire (2001) assessed the influence of FDI on firms' level productivity in Nigeria and report a positive spillover of foreign firms on domestic firms' productivity. In addition to the direct capital financing it supplies, FDI can be a source of valuable technology and know-how while fostering linkages with local firms, which can help jumpstart an economy (Melnyk, Kubatko&Pysarenko, 2014).

3. RESEARCH METHODOLOGY

This research adopted the correlation research design. The population and sample size for this study is undefined. For the purpose of this study, convenience sampling technique was adopted to obtain the required information needed in this study for the period of 1998 to 2015. The study used secondary data which was extracted from CBN Statistical bulletin. Multiple regression analysis was used to test the hypothesis.

Model Specification

The study adopts a multiple regression model to analyze the effect of Foreign Direct Investment on economic growth in Nigeria.

Thus, the model is stated as;

$$GDP = F (FDI, EXR)$$

Where;

GDP = Gross Domestic Product

FDI = Foreign Direct Investment

EXR = Exchange Rate

Mathematical Specification of the Model

$$(GDP = \beta_0 + \beta_1 FDI + \beta_2 EXR)$$

Econometric Specification of the Model

$$(LOG(GDP) = \beta_0 + LOG(FDI) + EXR + \mu)$$

Where;

β_0 = Intercept

β_1, β_2 = Parameters

μ = Stochastic error terms

All variables are in their natural logarithm form.

Table 1: Gross Domestic Product (GDP), Foreign Direct Investment (FDI) and Exchange Rate (EXR) in NIGERIA (1981-2015)

Year	GDP (N' Billion)	FDI (N' Billion)	EXR
1981	94.33	0.33	0.61
1982	101.01	0.29	0.67
1983	110.06	0.26	0.72
1984	116.27	0.36	0.76
1985	134.59	0.43	0.89
1986	134.60	0.15	2.02
1987	193.13	2.45	4.12
1988	263.29	1.72	4.54
1989	382.26	13.88	7.39
1990	472.65	4.69	8.04
1991	545.67	6.92	9.91
1992	875.34	14.46	17.30
1993	1,089.68	29.66	22.05
1994	1,399.70	22.20	21.87
1995	2,907.36	75.90	21.87
1996	4,032.30	111.30	21.87
1997	4,189.25	110.50	21.87
1998	3,989.45	80.70	21.87
1999	4,679.21	92.80	92.69
2000	6,713.57	116.00	102.11
2001	6,895.20	132.40	111.94
2002	7,795.76	225.20	120.97
2003	9,913.52	258.40	129.36
2004	11,411.07	248.20	133.50
2005	14,610.88	3,432.50	132.15
2006	18,564.59	4,007.50	128.65
2007	20,657.32	4,403.80	125.83
2008	24,296.33	6,041.80	118.57
2009	24,794.24	8,111.40	148.88
2010	54,612.26	9,088.80	150.30
2011	62,980.40	10,958.90	153.86
2012	71,713.94	11,917.40	157.49
2013	80,092.56	12,786.70	157.31
2014	89,043.62	14,706.40	158.55
2015	94,144.96	17,633.00	193.28

Source: CBN Statistical Bulletin 2016

Table: 2 Multiple Regression Result

Dependent Variable: LOG(GDP)

Method: Least Squares

Sample: 1981-2015

Included observations: 35

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	5.380324	0.098189	54.79545	0.0000
LOG(FDI)	0.483848	0.039810	12.15401	0.0000
EXR	0.007056	0.002264	3.116754	0.0038
R-squared	0.975288	Mean dependent var		8.058416
Adjusted R-squared	0.973743	S.D. dependent var		2.285007
S.E. of regression	0.370260	Akaike info criterion		0.932595
Sum squared resid	4.386963	Schwarz criterion		1.065910
Log likelihood	-13.32041	Hannan-Quinn criter.		0.978615
F-statistic	631.4555	Durbin-Watson stat		1.101384
Prob(F-statistic)	0.000000			

The regression equation is written as:

$$\text{LOG (GDP)} = 5.380 + 0.483\text{LOG (FDI)} + 0.007\text{EXR}$$

4. DISCUSSION OF ANALYSIS

All other variables remaining constant the value of GDP will increase by 5.38%. The constant term (5.38) is found to be statistically significant at 1% level of significance which implies that were other variables that affect GDP in Nigeria apart from those captured in this study but were not included. The result of the analysis shows that, the coefficients of Foreign Direct Investment (FDI) and Exchange Rate (EXR) have a positive linear relationship with economic growth (GDP). The positive relationship between Foreign Direct Investment (FDI) and RGDP statistically significant at 1% level. Thus 1% increase in FDI holding the effect of other variable(s) constant will increase GDP by 0.48%. Also exchange rate is also positively related with GDP and this relationship is statistically significant at 1% level. This implies that a 1% increase in Exchange Rate (EXR) (i.e. as the price of dollar falls and the naira rises) holding the effect of other variables constant will lead to an increase in GDP by 0.007%. The result is also in line with initial expectation because theoretically, the sign of the coefficient (EXR) is expected to be positive.

Table 3: Summary of T-Test

Variables	T-Value	T-probability	Remark
FDI	12.1540	0.0000	Significant
EXR	3.1167	0.0038	Significant

As shown in the table above, based on the probability value of each of the variables, both the probability values (P-value) of FDI and EXR were found to be statistically significant at 1% level. This ultimately implies that these variables (FDI and EXR) contributes significantly to economic growth (GDP) and therefore are major determinants of growth of Nigeria economy.

Coefficient of Determination (R^2) and Adjusted R^2

The R^2 of the value of 0.9752 implies that 97.52% of total variation in economic growth (GDP) was explained by Foreign Direct Investment (FDI) and Exchange Rate (EXT) i.e. the explanatory variables explained in the study. The remaining 3% may be due to stochastic error term. The adjusted R^2 corrects the biasedness R^2 and shows the actual variation in economic growth (GDP) captured by the independent variables (FDI and EXR) introduced in the model after considering the effect of additional explanatory variables on R^2 . The adjusted R^2 still explains about 97% of the total variation in the measure of economic growth (GDP). The F-Statistics which is the joint test of significance of all parameter estimated in the model is statistically significant at 5 percent level as the p-value being 0.0000. With this result we reject the null hypothesis and conclude that the explanatory variables (FDI and EXR) in the model are jointly significant in explaining economic growth in Nigeria. Thus Foreign Direct Investment (FDI) has significant impact on Nigeria's economic growth.

Hypotheses Tested

From the result of the analysis, the relationship between Foreign Direct Investment (FDI) and Economic Growth (RGDP) is positive and also statistically significant at 1% level. This marks the rejection of the null hypothesis and the acceptance of the alternative hypothesis. Thus, Foreign Direct Investment (FDI) has a direct and significant relationship with RGDP. Accordingly, from the value of its coefficient (0.4838), we can rightly assert that the relationship is a positive one and that a 1% increase in FDI, *ceteris paribus*, leads to a 0.48% increase in RGDP.

5. CONCLUSION AND RECOMMENDATIONS

Based on the findings, it can be concluded that there is a significant relationship between foreign direct investment and economic growth. Government should ensure stability in the economy in order to attract more foreign direct investment and should ensure continuity of policies that have positive impacts in the economy. The multiplier effect of this will stimulate the growth of FDI and general economic growth. The state of infrastructures in the country should be improved in order to encourage meaningful investments in the economy. Naira exchange rate vis-à-vis the major currencies of the world should be stabilized. This will boost the investors' confidence in the economy.

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