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Impact of Foreign Direct Investment on Economic Growth in Nigeria

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Abstract

The study examines the impact of foreign direct investment on the economic growth in Nigeria. The study intends to find out how foreign direct investment affects economic growth proxies as Inflation rate, GDP, unemployment rate and exchange rate in Nigeria. The inflows of FDI on the economic growth in Nigeria has made GDP growth rate to decline instead of going upward. More so, there is high unemployment rate in the country despite the spill over effects of FDI. Also Interest rate has sky rocketed as the apex bank is struggling to keep up with the exchange rate of Naira to Dollar and this has caused serious inflation in the country The main objective is to examine the impact of FDI on economic growth in Nigeria. Time series data were collected from secondary source covering a period of 13 years from 2002 to 2014. The Ordinary Least Square was adopted and finding reveals that FDI has significant relationship with the economic growth in Nigeria. Other finding reveals that FDI contribute to GDP, interest rate and unemployment rate in Nigeria. It was found that FDI does not contribute significantly to exchange rate in Nigeria.. It is therefore recommended that government of Nigeria should allow FDI inflow into the country since it statistically contributes to economic growth in Nigeria such as GDP, interest rate, and unemployment. They should also discourage FDI since it insignificantly in achieving exchange rate in Nigeria and this is because there is no equity in exchange rate in the world.

Keywords: *Foreign Direct Investment, Economic Growth, GDP, Inflation, Exchange Rate and unemployment rate*

Background to the Study

Foreign Direct Investment (FDI) provides with much needed capital investments with a view to achieving economic growth in Nigeria. Foreign direct investment is a leading role in developing countries of Africa giving rise to a widespread belief among policy makers that foreign direct investment has enhanced growth and promotes development in developing and low income countries (LICS). Foreign direct investment (FDI) is an investment made in order to acquire a lasting management interest in a business enterprise operating in a country other than that of the investor defined according to residency (World Bank, 1996). Foreign direct investment consists of external resources, including technology, managerial and marketing expertise and capital and all these generate a considerable impact on economic growth. At the current level of gross domestic product, inflation, interest rate and the success of government's policies in stimulating the productive base of the economy depends largely on the ability to control adequate amount of foreign direct investments comprising of managerial, capital and technological resources to boost the existing production capabilities in a given country.

Nigeria is one of the economies with great demand for goods and services and has attracted some FDI over the years. The amount of FDI inflow into Nigeria was estimated at US$2.23 billion in 2003 and rose to US$5.31 billion in 2004 or an increase of 138 percent. The figure rose again to US $9.92 billion or 87 percent increase in 2005. The figure, however, slightly declined to US$ 9.44 in 2006 (Locomonitor.com).

The indicators for FDI activities have taken a severe turn for the worse. The inflows of FDI on the economic growth in Nigeria has made GDP growth rate to decline instead of going upward. More so, there is high unemployment rate in the country despite the spill over effects of FDI. Also interest rate has sky rocketed as the apex bank is struggling to keep up with the exchange rate of Naira to Dollar and this has caused serious inflation in the country.

Previous studies such as Abu and Achegbulu (2011); Chinweobo (2013); Najia, Maryam and Nabeel (2013) and Olusanya (2013) were conducted between 2011 to 2013 on the impact of FDI on economic growth and this study fills the research gap by including 2014 and using e-view statistical package uncover if there is a significant relationship between FDI and economic growth.

The main objective for this study is to examine the impact of Foreign Direct Investment on the Economic Growth in Nigeria. Other specific objectives includes: to evaluate the impact of FDI on gross domestic product in Nigeria, to determine the impact of FDI on the exchange rate in Nigeria, to examine the impact of FDI on the inflation rate in Nigeria and to asses the impact of FDI on the unemployment rate in Nigeria.

The scope of this study covers a 13-year period from 2002 to 2014 and this period is chosen because it assess the period of Nigeria's new birth into the 3rd republic of democracy and the boarders of Nigeria was widely opened to foreign investors to come in and invest especially during the regime of president Olusegun Obasenjo down to president Goodlock Jonathan.

In line with the objectives, the following hypotheses are formulated in a null form, they are:

H_{01}: There is no significant relationship between FDI and gross domestic product in Nigeria

H_{02}: There is no significant relationship between FDI and exchange rate in Nigeria

H_{03}: There is no significant relationship between FDI and inflation rate in Nigeria

H_{04}: There is no significant relationship between FDI and unemployment rate in Nigeria

Concept of Foreign Direct Investment

OECD defines FDI as a category of international investment that reflects the objective of obtaining a lasting interest by a resident in one economy (the direct investor) in an entity resident in an economy other than that of the investor (the direct investment enterprise) (Brooks, 2003). FDI stems from the change of perspectives among policy makers from "hostility" to "conscious encouragement", especially among developing countries .FDI had been as parasitic and retarding as the development of domestic industries for export promotion until recently. However, (Bende-Nabende & Ford 1998) submit that the wide externalities in respect of technology transfer, the development of human capital and the opening up of the economy to international forces, have served to change the former image.

FDI concept is considered to have direct impact on trade through which the growth process is assured (Markussen & Vernables, 1998). Second, FDI is assumed to augment domestic capital thereby stimulating the productivity of domestic investments (1998; Driffeld, 2001). These two arguments are in conformity with endogenous growth theories (Romer, 1990) and across country models on industrialization (Chenery et al., 1986) in which both the quantity and quality of factors of production as well as the transformation of the production process are ingredients in developing a competitive advantage.

According to Glass and Saggi (2009), Foreign Direct investment (FDI) refers to a movement of capital that involves ownership and control of a firm in another country. The concept of FDI and economic development has remained on the relationship between the MNEs and the host societies and how development is appraised in these host societies. The issue of contribution to development through social responsibility by the business enterprise has become a topical issue in management decision and is negatively favoured in these host societies. The Multinationals provides inputs at lower cost to local downstream buyers or by their increasing demand for inputs produced by local upstream suppliers. This took place in some developing countries including Nigeria as nationals of these countries have their capacity built in various sectors and now hold technical and managerial positions in multinational enterprises. Host economy receives rents from multinational enterprises. It is argued that by attracting multinational firms, the host economy captures a portion of the rents that these firms generate.

Concept of Economic Growth

Jhingan (1997), economic growth refers to issues of developed countries. To him also, economic growth is a process whereby the real per capita income of a Country increase over a long period of time. Economic growth is measured by the increase in the amount of goods

and services produced in a Country. Todaro (1985), defines a country's economic growth as a 'long term rise in the capacity to supply increasingly diverse economic goods to its population. According to Meier (1980) for economic growth to occur in any Country, there must be an increase in the Nation's output and changes in its technical and institutional arrangement by which this increase in health, education, material consumption and environment protection. All these make up standard of living of the citizens over the long term. Iyoha (1996), economic growth is used to described the process of growth in advanced industrialize countries while economic development is used to describe the dynamics of growth in low-income, non-industrialized countries

Theories of FDI

Mercantilist Trade Theory

Mercantilist provided the earlier idea on international trade. The doctrine was made up of many features. It was highly nationalistic and considered the welfare of the nation as of prime importance. According to the theory, the most important way for a nation to be become rich and powerful is to export more than it's import. Some of the mercantilism are Jean Baptiste Colbert and Thomas Hobbes. It was understood then, that, the most important was in which a country could be rich was by acquiring precious metals such as gold. This was achieved by ensuring that the volume of export was better than the volume of import.

Trade has to be controlled, regulated and restricted. The country was expected to achieve favourable balance of payment. Tariffs, quotas and other commercial policies were proposed by the mercantilism to minimize imports in order to protect a nations trade position. Mercantilism did not favour free trade. Mercantilism belief in a word of conflict in which the state of nature was a state of war and the need for regulation to maintain order in human affairs and economic affairs were taking for granted. To the mercantilist, the world wealth was fixed. A nation's gain from trade was at the expense of its trading partners that are, not all national could simultaneously benefit from trade.

Absolute Advantage Trade Theory

Adam Smith propounded the theory of absolute cost advantage in his famous book. “Wealth of Nation” in 1776. The theory emerges as a result of the criticism levied against mercantilism. He advocated free trade as the best policy for the nations of the world. Smith argued that with free trade each nation could specialize in the production of those commodities in which it could produce more efficiency than the other nations, and import those commodities in which it could produces less efficiently.

This international specialization of factors in production would result in increase in world output, which would be shared by the trading nations. Thus a nation need not gain at the expense of other nations, all nations could gain simultaneously. In other words, according to the theory, a nation should specialize in the production of export of commodities in which it has lower cost or absolute cost advantages over others. On the other hand, the same country should import a commodity in which it has higher cost or absolute cost disadvantage.

Capital Market Theory

According to this theory, FDI is determined by interest rates and capital market theory is a part of portfolio investment (Iversen, 1935; Aliber, 1971). Boddewyn?s (1985) asserts that capital market theory based on three positions which attract FDI to the less developed countries. The undervalued exchange rate, which allows lower production costs in the host countries. Second position said that since there is no organised securities exists, therefore long term investments in LDCs will often be FDI rather than purchase of securities. And the third position is that since there is limited knowledge about host countries? securities that is why it favours FDI which allows control of host country assets.

Dynamic Macroeconomic FDI Theory

According to Sanjaya (1997) asserts that dynamic macroeconomic FDI theory is the timing of investments which is depends on the changes in the macroeconomic environment and the macroeconomic environment consists of gross domestic product (GDP), domestic investment, real exchange rate, unemployment, interest rate, productivity and openness which are the determinants of Foreign Direct Investment flows. Cushman, (1985) states that FDIs are a long term function of multinational companies? strategies and this theory is on exchange rate, unemployment rate, GDP tried to show the relationship between FDI and the independent variables. The theory tries to explain how the flow of FDIs affects the economic growth variables such as exchange rates, unemployment rate and GDP.

Theory of Internalization

Internationalization theory was developed by Buckley and Casson (1976) and Hennart (1982). This was due to market imperfections and firms aspire to make use of their monopolistic advantage themselves. They suggested that firms can overcome the market imperfections by internalising their own markets. That means, internalisation involves a vertical-integration in the form of bringing new operations and activities under the governance of the firm and earlier these activities were carried out by the intermediate firms. The theory was also developed by Coase (1937) in a national context and Hymer (1976) in an international context. Hymer identified two major determinants of FDI one is removal of competition and the other is advantages which some firms possess in a particular activity (Denisia, 2010).

Empirical Study

Abu and Achegbulu (2011) investigate the impact of foreign direct investment on economic growth in Nigeria and the causal relationship between them, liner regression and granger causality test were used. The data used were from central bank of Nigeria statistical bulletin (2006) and national account of Nigeria (2007). The study has shown that foreign direct investment has a positive impact on gross domestic product in Nigeria

Chinweobo (2013) investigates the effect of FDI on selected macro economic variables of GDP, inflation and Exchange rate. It used Ordinary Least Squares (OLS) to examine the relationship between the dependent variable(FDI) and the independent variables –Inflation and Exchange Rate. The study indicates that GDP, inflation and Exchange Rate are affected to the extent of 46.5% by FDI. FDI does not make the GDP to grow, increases inflation and has negative effect on exchange rate.

Najia, Maryam and Nabeel (2013) impact of Foreign Direct Investment on economic growth in Pakistan and data used for this study has spanned over the period of 1981 till 2010. Besides FDI, four other variables including Debt, Trade, Inflation and Domestic Investment have been included in the study, to regress upon GDP. The methodology to test the impact of these variables on Pakistan's economy has been limited to the least squares method. The co-integration of the variables has been ascertained through application of Augmented Dickey Fuller Test and is found to hold in the long run. Our findings indicate that Pakistan's economic performance is negatively affected by foreign investment while its domestic investment has benefitted its economy.

Olusanya (2013) impact of Foreign Direct Investment inflow and economic growth in a pre and post deregulated Nigerian economy, a Granger causality test was use as the estimated technique between 1970 - 2010. However, the analysis de-aggregates the economy into three period; 1970 to 1986, 1986 to 2010 and 1970 to 2010, to test the causality between foreign direct investment inflow (FDI) and economic growth (GDP). However, the result of the causality test shows that there is causality relationship in the pre-deregulation era that is (1970-1986) from economic growth (GDP) to foreign direct investment inflow (FDI) which means GDP causes FDI, but there is no causality relationship in the post-deregulation era that is (1986-2010) between economic growth (GDP) and foreign direct investment inflow (FDI) which means GDP causes FDI. However, between 1970 to 2010 it shows that is causality relationship between economic growth (GDP) and foreign direct investment inflow (FDI) that is economic growth drive foreign direct investment inflow into the country and vice versa.

Methodology

The research used descriptive research design and ordinary Least square regression to analysed data. Data for this study was gathered from the Central Bank of Nigeria statistical Bulletin and bureau of Statistic. The sample interval is for 13 years period from 2002 to 2014. This study covered a population of 140 million people living Nigeria according to National population, 2006. Gross domestic product(GDP), exchange rate, inflation rate and unemployment rate were used as proxies for economic growth while FDI is the independent variable proxy as FDI. Using the e-view software and data obtained from secondary source were tabulated and analyzed using simple regression models. The simply regression model is stated below:

$FDI = \alpha + \beta_1 GDP + \mu$ ----------------------------------1

$FDI = \alpha + \beta_1 ER + \mu$ ---2

$FDI = \alpha + \beta_1 INFR + \mu$ --------------------------------------3

$FDI = \alpha + \beta_1 UNR + \mu$ ---------------------------------------4

Data Analysis

Hypothesis 1: Foreign direct investment and gross domestic product

$FDI = \alpha + \beta_1 GDP + \mu$

Dependent Variable: FDI
Method: Least Squares
Date: 11/29/15 Time: 04:12
Sample: 2002 2014
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	30499.51	10566.24	2.886504	0.0148
GDP	0.039643	0.016768	2.364259	0.0375

R-squared	0.336939	Mean dependent var	50125.51
Adjusted R-squared	0.276661	S.D. dependent var	27714.20
S.E. of regression	23570.75	Akaike info criterion	23.11404
Sum squared resid	6.11E+09	Schwarz criterion	23.20095
Log likelihood	-148.2413	Hannan-Quinn criter.	23.09617
F-statistic	5.589722	Durbin-Watson stat	0.834417
Prob(F-statistic)	0.037531		

Source: Data Output from e-view Statistical package, 2015

1% level of significance, 5% level of significance and 10% level of significance

FDI = $\alpha + \beta_1 GDP$
FDI = 30499.51+0.039GDP
SE = 10566.24 0.0167
t* = 2.88 2.36
p* = 0.014 0.037
R^2 = 0.336
Adj. R^2 = 0.276
F-statistic 5.58 (prob) 0.037
DW = 0.83

The regression Line FDI= 30499.51+0.039GDP indicates that foreign direct investment will increase by 0.039% for every 1% gross domestic product (GDP) in Nigeria. The coefficient for GDP is positive and significant in achieving foreign direct investment in Nigeria. The p-value of 0.037 less than the t-statistic value of 2.36 and the f-statistic value of 5.58 is significant at p-value statistic value of 0.037. The Durbin-Watson stat of 0.83 indicates there is present of autocorrelation in the analysis. This indicates that there is evidence of linear relationship between FDI and GDP. The coefficient of determination (r^2) of 0.33 shows that about 33% of variation in economic growth (GDP) can be explained by FDI, the remaining 66% can be explained by other factors not mentioned in the regression model. Therefore, the alternative hypothesis is accepted that there is a significant relationship between FDI and economic growth (gross domestic product).

FDI = $\alpha + \beta_1 ER + \mu$

Hypothesis 2: Foreign direct investment and Exchange Rate in Nigeria

Dependent Variable: FDI
Method: Least Squares
Date: 11/29/15 Time: 04:16
Sample: 2002 2014
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	45947.76	12142.81	3.783947	0.0030
ER	341.7272	750.5128	0.455325	0.6577

R-squared	0.018499	Mean dependent var	50125.51
Adjusted R-squared	-0.070729	S.D. dependent var	27714.20
S.E. of regression	28677.55	Akaike info criterion	23.50625
Sum squared resid	9.05E+09	Schwarz criterion	23.59317
Log likelihood	-150.7907	Hannan-Quinn criter.	23.48839
F-statistic	0.207321	Durbin-Watson stat	0.158208
Prob(F-statistic)	0.657731		

Source: Data output from e-view statistical package, 2015

1% level of significance, 5% level of significance and 10% level of significance

FDI = $\alpha + \beta_1 ER$
FDI = 4594.76+341.7ER
SE = 12142.81 750.51
t* = 3.78 0.45
p* = 0.003 0.65
R^2 = 0.02
Adj. R^2 = (90.07)
F-statistic 0.20 (prob) 0.65
DW = 0.15

The coefficient for exchange rate (ER) is positive and significant in achieving foreign direct investment (FDI) in Nigeria. The coefficient of determination (r^2) of 0.02 shows that about 0.2% of variation in economic growth (exchange rate: ER) can be explained by FDI, the remaining 99.8% can be explained by other factors not mentioned in the regression model. The p-value of 0.65 is greater than the t-statistic value of 0.45 and the f-statistic value of 5.58 is insignificant at p-value statistic value of 0.65. The Durbin-Watson stat of 0.15 indicates there is present of autocorrelation in the analysis. Therefore, the null hypothesis is accepted that there is no significant relationship between FDI and economic growth (exchange rate: ER).

Hypothesis 3: Foreign direct investment and Inflation Rate in Nigeria

FDI = $\alpha + \beta_1 INFR + \mu$

Dependent Variable: FDI
Method: Least Squares
Date: 11/29/15 Time: 04:18
Sample: 2002 2014
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	95760.07	24608.22	3.891386	0.0025
INFR	-4117.499	2130.310	-1.932817	0.0794

R-squared	0.253518	Mean dependent var	50125.51
Adjusted R-squared	0.185656	S.D. dependent var	27714.20
S.E. of regression	25009.57	Akaike info criterion	23.23254
Sum squared resid	6.88E+09	Schwarz criterion	23.31946
Log likelihood	-149.0115	Hannan-Quinn criter.	23.21468
F-statistic	3.735781	Durbin-Watson stat	0.643054
Prob(F-statistic)	0.079405		

Source: Data output from e-view statistical package, 2015

1% level of significance, 5% level of significance and 10% level of significance

FDI = $\alpha + \beta_1 INFR$
FDI = 95760.07 - 4117.499INFR
SE = 24608.22 2130.310
t* = 3.89 1.93
p* = 0.00 0.07
R^2 = 0.25
Adj. R^2 = 0.18
F-statistic 3.73 (prob) 0.07
DW = 0.64

The coefficient for inflation rate (INFR) is negative and insignificant in achieving foreign direct investment (FDI) in Nigeria. The coefficient of determination (r^2) of 0.25 shows that about 25% of variation in economic growth (INFR) can be explained by FDI, the remaining 75% can be explained by other factors not mentioned in the regression model. The p-value of 0.07 is less than the t-statistic value of 1.93 and the f-statistic value of 3.73 is significant at p-value statistic value of 0.07. The Durbin-Watson stat of 0.64 indicates that there is present of autocorrelation in the analysis. Therefore, the alternative hypothesis is accepted that there is a significant relationship between FDI and economic growth (inflation rate: INFR).

Hypothesis 4: Foreign direct investment and unemployment Rate in Nigeria

FDI = $\alpha + \beta_1 UNR + \mu$

Dependent Variable: FDI
Method: Least Squares
Date: 11/29/15 Time: 04:21
Sample: 2002 2014
Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15379.46	17982.10	0.855265	0.4106
UNR	2015.073	965.5382	2.086994	0.0610

R-squared	0.283646	Mean dependent var	50125.51
Adjusted R-squared	0.218523	S.D. dependent var	27714.20
S.E. of regression	24499.67	Akaike info criterion	23.19135
Sum squared resid	6.60E+09	Schwarz criterion	23.27826
Log likelihood	-148.7437	Hannan-Quinn criter.	23.17348
F-statistic	4.355545	Durbin-Watson stat	0.433812
Prob(F-statistic)	0.060957		

Source: Data output from e-view statistical package, 2015

1% level of significance, 5% level of significance and 10% level of significance

FDI = $\alpha + \beta_1 UNR$
FDI = 15379.46 +2015.073UNR
SE = 17982.10 965.53
t* = 0.85 2.08
p* = 0.41 0.06
R^2 = 0.28
Adj. R^2 = 0.21
F-statistic 4.35 (prob) 0.06
DW = 0.43

The coefficient for unemployment rate (UNR) is positive and significant in achieving foreign direct investment (FDI) in Nigeria. The coefficient of determination (r^2) of 0.28 shows that about 28% of variation in economic growth (UNR) can be explained by FDI, the remaining 72% can be explained by other factors not mentioned in the regression model. The p-value of 0.06 is less than the t-statistic value of 2.08 and the f-statistic value of 4.35 is significant at p-value statistic value of 0.06. The Durbin-Watson stat of 0.43 indicates that there is present of autocorrelation in the analysis. Therefore, the alternative hypothesis is accepted that there is a significant relationship between FDI and economic growth (unemployment rate: INFR).

Discussion of Findings

From the above analysis, the impact of foreign direct investment on economic growth in Nigeria is significant. This shows that FDI significantly contributes to economic growth in Nigeria (GDP, INFR and UNMR). The finding is in tandem with the findings of Abu and Achegbulu (2011) and *Olusanya (2013)* who found statistical significant relationship between FDI and economic growth. The study is also consistent with dynamic macroeconomic FDI theory which states that FDIs are a long term function of multinational companies? strategies and this theory is on unemployment rate, GDP tried to show the relationship between FDI and the independent variables. The theory tries to explain how the flow of FDIs affects the economic growth variables such as unemployment rate and GDP (Cushman, 1985). The Study also shows that FDI is statistical insignificant in achieving Exchange rate in Nigeria and the study was in lined with the findings of Najia, Maryam and Nabeel (2013) who found a statistical insignificant relationship between FDI and economic growth.

Conclusions and Recommendations

This study concludes that impact FDI on economic growth in Nigeria is statistically significant. This implies that FDI contribute to economic growth in Nigeria (GDP, inflation rate and unemployment rate). It was also noted that FDI does not contribute significantly to exchange rate in Nigeria. This implies that FDI is insignificant in achieving exchange rate in Nigeria. It is therefore recommended that government of Nigeria should allow FDI inflow into the country since it statistically contributes to economic growth in Nigeria such as GDP, interest rate, and unemployment. They should also discourage FDI since it insignificant in achieving exchange rate in Nigeria and this is because there is no equity in exchange rate in the world.

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