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The Effects of Foreign Direct Investment on Sustainable Development in Nigeria

Dr. Cletus usman Idoko Mr. Daniel Idachaba Mr. Agenyi Emmanuel
Department of Economics and Educational Foundations
Kogi State College of Education, Ankpa and University of Nigeria, Nsukka
idokocle@yahoo.com;idachadaniela@gmail.com; agenyiemmanuel@yahoo.com

Abstract.
Foreign direct Investment (FDI) has for long been the most viable method of wealth and technological transfer between the developing and the developed countries of the world. This is because FDI coordinated through multinational corporations have the potential to improve the wellbeing of many societies. In view of this therefore, the study attempted to empirically determine the effects of foreign direct investment on economic growth and sustainable development in Nigeria using ordinary least square estimate. The study employs time series analysis from 1980-2013. Data for the study were obtained from World Bank data base, Central Bank of Nigeria, and National Bureau of Statistics. The result of the analysis revealed that , foreign direct investment, inflation rate and balance of payment has t-statistics greater than or equal to two in absolute term. Given the above, it implies that, 1% increase in FDI will result to a 10% increase in Real Gross Domestic Product (RGDP) or sustainable development. In the same way, a 1% increase in Inflation will cause Real Gross Domestic Product (RGDP) that is, sustainable development to decrease by 5% while, a unit change in BOP will cause Real Gross Domestic Product (RGDP) or sustainable development to move in the same direction by 8.47 units. Exchange rate does not have any significant impact on RGDP given the result of this research. The R^2 value of 0.912043 shows that the overall effects is statistically significant, which confirms that there isn't any problem in the long-run equilibrium relation between the independent and dependent variables. From the result of this study, it portrays that for effective economic growth and sustainable development to be achieved in Nigeria, it will be better to focus on the improvement of infrastructural development, human resource, entrepreneurship, and stable macroeconomic framework capable of fostering productive investment that can argument the process of sustainable development.
Keywords: FDI; Economic Growth; sustainable development, ordinary least square,

INTRODUCTION

In Nigeria, FDI is defined as an investment undertaken by an enterprise that is either wholly or partly foreign-owned. The Investment Code that created the Nigerian Investment Promotion Commission (NIPC) (Decree No. 16 of 1995) and the Foreign Exchange (Monitoring and Miscellaneous Provision) Decree, also enacted in 1995, gives full backing for FDI in Nigeria (Olukoyo, 2012). Nigeria has a high potential to attract significant foreign private investment inflow. Most countries strive to attract FDI because of its acknowledged advantages as a tool of economic development. Africa and Nigeria in particular, joined the rest of the world in seeking FDI as evidenced by the formation of the New Partnership for Africa's Development (NEPAD), which has the attraction of foreign investment to Africa as a major component.

Various classifications have been made of foreign direct investment (FDI). Policymakers believe that FDI produces positive effects on host economies. Some of these benefits are in the form of externalities and the adoption of foreign technology. Externalities here can be in the form of licensing agreements, imitation, employee training and the introduction of new processes by the foreign firms (Alfaro, 2006). When FDI is undertaken in high risk areas or new industries, economic rents are created accruing to old technologies and traditional management styles. These are highly beneficial to the recipient economy. In addition, FDI helps in bridging the capital shortage gap and complement domestic investment especially when it flows to a high risk areas of new firms where domestic resource is limited. Foreign direct investment (FDI) is starting to shift more and more towards services; these services are also becoming more traditional. Foreign investment has provided a lot of opportunities such as employment opportunities, infrastructure and technology transfer, increased productive efficiency, etc. Considering the wide range of critical empirical studies on how foreign direct investment in Nigeria affects its economic growth and development, one cannot draw conclusions from it with minimal acceptable level of confidence. The idea of sustainable development has received great attention from various groups of people of the world. It has also been a challenge for policy makers to design a development system that is not only focused on economic growth. Moreover, sustainable development should be focused on three elements known as the three pillars of sustainable development, namely economic development, social and environmental (Fortainer & Maher, 2001 and Strange & Bayley, 2008). Fundamentally, ideas about suatainable development that could not only limited economic growth was also expressed by Peet and Hartwick (2009): "In development, all the modern advances in science and technology, in democracy and social organization, in rationalized ethics and values, fuse into the single humanitarian project of deliberately and cooperatively producing a far better world for all".

Foreign investment inflow, particularly foreign direct investment (FDI) is perceived to have a positive impact on economic growth and resulting into sustainable development of a host country through various means; directly or indirectly. It augments domestic investment, is crucial to the attainment of sustained growth and development. Consequently, many developing countries, Nigeria included, have offered generous incentives to attract FDI inflows. Some foreign firms have taken advantage of the incentives to satisfy their various motives of ensuring stable monopolistic control over sources of raw materials for their parent companies, access to control of local markets, utilizing low cost labour and realizing the possibility of higher returns and until the last five years, Nigeria also received very low proportions of global FDI inflows, in spite of its being blessed with enormous human and natural resources. This is perhaps because the economy was perceived by investors as a high-risk market for investment.

The foreign direct investor may acquire 10% or more of the voting power of an enterprise in an economy through; incorporating a wholly owned subsidiary or company, acquiring shares in an associated enterprise, through merger or an unrelated enterprise and, participating in an equity joint venture with another investor (Olokoyo, 2012). Foreign direct investment incentives may be in form of low corporate and income tax rates, tax holidays, other types of tax concessions, preferential tariffs, special economic zones, investment financial subsidies, soft loan or loan guarantees, free land or land subsidies, relocation and expatriation subsidies, job training and employment subsidies, infrastructure subsidies, research and development support and derogation from regulations, usually for very large projects (Obadan, 2004).

Attempts at attracting FDI into Nigerian economy have been based on the need to maximize the potential benefits derived from them; and to minimize the negative effects their operations could impose on the country. As a result of the persistent global panic, unemployment has been on the rise, jobs are being lost, there is shortage of liquidity and acute scarcity of credit has remained visible in the financial institutions. For Nigeria to generate more foreign direct investment, efforts should be made at solving problems of government involvement in business; relative closed economy; corruption; weak public institutions; and poor external image. In view of this therefore, the major objective of this paper is to critically examine the effects of foreign direct investment on sustainable development of the Nigerian economy.

2.0 Theoretical Literature

Foreign direct investment (FDI) is a major component of foreign investment. FDI is generally investment made to acquire lasting interest in an enterprise operating in an economy other than that of the investor, the investor's purpose being an effective voice in the management or control of an enterprise (IMF, 1977). FDI, which is mostly carried out by multinational corporations, differs from portfolio investment in that the former does carry control over the borrowing entity while the latter may not involve any direct control over the use of lending funds (Olokoyo, 2012). In recent years, FDI has gained renewed importance as a vehicle for transferring resources and technology across national borders. As the developing world's access to international capital in the form of official development assistance and commercial bank borrowing is shrinking due to a massive flow of funds from the Western world to the newly emerging market-based economies of Central and Eastern Europe, the poor countries are intensifying their efforts to attract FDI. Nigeria as a country, given her natural resource base and large market size, qualifies to be a major recipient of FDI in Africa and indeed is one of the top three leading African countries that consistently received FDI in the past decade. However, the level of FDI attracted by Nigeria is mediocre compared with the resource base and potential need (Asiedu, 2003). Although some FDI promotion efforts are probably motivated by temporary macroeconomic problems such as low growth rates and rising unemployment, there are also more fundamental explanations for the increasing emphasis on investment promotion in recent years. In particular, it appears that the globalization and regionalization of the international economy have made FDI incentives more interesting and important for national governments. Foreign direct investment has been proved in the literature to be an important promoter of growth in its own right. In effect, FDI is argued to increase the level of domestic capital formation. This also implies producing on large scale which in turn results in benefits of economies of scale and specialization and also increasing export and employment opportunities.

FDI has also been argued to act as a catalyst for inward investment by complementing local resources and providing a signal of confidence in investment opportunities (Agosin and Mayer, 2000). New projects may invite complementary local private investments that provide inputs to, or use outputs of the foreign firms. It is also likely that private investment increases by more than the FDI flows because foreign equity capital finances only part of the total investment project. A substantial part of foreign investment projects is usually financed from local financial markets as well. It should be noted that the foreign capital inflows, by themselves, can lead to increase in domestic credit supply (Jansen, 1995) in Olokoyo (2012).

FDI is a distinctive feature of multinational enterprise hence; a theory of FDI is also a theory of multinational enterprises as an actor in the world economy (Hennart, 1982). Based on this theory, FDI is not simply an international transfer of capital but rather, the extension of enterprise from its home country into foreign host country. The extension of enterprise involves flows of capital, technology, and entrepreneurial skills and, in more recent case, management practices to the host economy, where they are combined with the local factors in the production of goods and services. FDI is growing faster than world gross domestic product (GDP), world trade, thus showing the rising importance of FDI. FDI is an effective strategy that is used by developing countries of the world to achieve economic growth and development. Nigeria with its large reserves of human and natural resources presents foreign investors with a unique market in which to invest their money. However, as can be seen by the large multinationals in the oil sector, such investments though having great economic benefits to various groups who are equally stakeholders in the industry, it might not in the long run guarantee sustainable development in its entire ramifications. For FDI to impact on sustainable development, both the public and private sector must pursue corporate social responsibility (CSR) as an end in itself. From the public sector, the creation of a competitive economy through economic policies such as deregulation and privatization should be pursued. The private sector, companies, especially multinational corporations should voluntarily comply with various international, national and industrial regulations and code of conduct. The classification of FDI is based firstly on the direction of investment both for assets or liabilities; secondly, on the investment instrument used (shares, loans, etc.); and thirdly on the sector breakdown. As for the direction, it can be looked at it from the home and the host perspectives. From the home perspective, financing of any type extended by the resident parent company to its nonresident affiliated would be included as direct investment abroad. By contrast, financing of any type extended by non-resident subsidiaries, associates or branches to their resident parent company are classified as a decrease in direct investment abroad, rather than as an FDI. From the host perspective, the financing extended by non-resident parent companies to their resident subsidiaries, associates or branches would be recorded, in the country of residence of the affiliated companies, under FDI, and the financing extended by resident subsidiaries, associates and branches to their non-resident parent company would be classified as a decrease in FDI rather than as a direct investment abroad. This directional principle does not apply if the parent company and its subsidiaries, associates or branches have cross-holdings in each other's share capital of more than 10%.

As for the instruments, FDI capital comprises the capital provided (either directly or through other related enterprises) by a direct investor to a direct investment enterprise and the capital received by a direct investor from a direct investment enterprise. Firms pursuing international business opportunities analyze a number of factors regarding the FDI location decision (Porter, 2000 and De Gregorio, Jose, 2003). At the same time, countries compete to attract foreign firm's FDI inflows.

According to Blomstrong,Korun, and Lipsey (2000), FDI provides much needed resources to developing countries such as capital , technology , managerial skills , entrepreneurial a ability , brands , and access to markets . These are essential for developing countries to industrialize, develop, and create jobs attacking the poverty situation in their countries. In summary, FDI is assured to argument domestic capital thereby stimulating the productivity of domestic investment which results to sustainable economic growth and development.

3.0 Methodology

The statistical technique employed in this study is Ordinary Least Squares (OLS) econometric technique using a time series secondary data from 1980-2012, which were obtained from the World Banks Data on Nigeria. The effect of FDI on the growth and sustainable development of the Nigerian economy has witnessed series of write ups and empirical explanations, yet the riddle is not broken, hence the need for more research work.

3.1 Model Specification.

The model try to examine the relationship between FDI as it affects the economic growth and sustainable development of Nigeria 1980 to 2012. RGDP which is the dependent variable was measured as a function of independent variables which are FDI, INFL, BOP and EXR. This statement is written in functional form as;

RGDP = F (FDI, INFL, BOP, EXR) ---------------------------------- (1)

The OLS linear regression equation based on the above functional relation is;

$$Y = \alpha 0 + \alpha 1x1 + \alpha 2x2 + \alpha 3x3 + a4x4 + \mu \text{ ------------------------------- } (2)$$

The equation can further be written in linear form as;

RGDP = FDI + INFL + BOP + EXR + μ ----------------------------- (3)

Where:

RGDP = Real Gross Domestic Product
FDI = Foreign Direct Investment
INFL = Inflation Rate
BOP = Balance of Payment
EXR = Official Exchange Rate

μ = Error Term

3.3 Description of Variables

The dependent variable used is RGDP (in log form), it shows the rate of economic growth of a particular country and it is a proxy for investment development (sustainable development).

The independent variables included in the model are:

Foreign Direct Investment: It is investment that comes from abroad. FDI will get to countries that pay higher return on capital. A higher GDP implies a brighter prospect for FDI in Nigeria. Since FDI comes into a country to enable it have a better economy, it would boost the RGDP.

Inflation Rate: it defines the movement of prices of goods and services in any given economy. This is defined as the rate of change of domestic price level it should be equal to the constant term.

Balance of Payment: It is a record of transaction between a resident of a country and the rest of the world. If a country's balance of payment is good, it would reflect in a nation's RGDP.

Exchange Rate: It is the charge for exchanging currency of one country for the currency of another. A higher exchange rate would attract low FDI, while a lower exchange rate indicates that an economy is doing well which may lead to attracting FDI which in turn makes a country have a better RGDP.

The error term (μ) is a random variable that has well defined probabilistic properties. It is assumed to capture other exogenous factors that are capable of influencing investment growth. Hence,

RGDP = α0+α1FDI+ α2INFL+ α3BOP + α4EXRT + μ ----------- (4)

Where;

α = intercept

The model was logged so as to break them into a smaller digits and to avoid problem of large numbers. The t-1 is the past time period, hence the dependent variable, independent variables and the error term carry the t-1.

LogGDP(t-1) = α0+Logα1FDI (t-1)+ *α2INFL(t-1)+ α3BOP(t-1) + α4EXRT(t-1) + μ* **--**(5)

The apriori expectations are α1>0 α2, >0 and α3> 0 a4>0, which means we expect a positive relationship between the dependent variable and the independent variables.

4.0 ANALYSES OF DATA AND FIDINGS

The variables presented below include gross domestic product, foreign direct investment, balance of payment, and exchange rate in Nigeria covering a period of 38 years (1970 to 2007). The model specified was estimated using the Ordinary Least Square (OLS) estimation.

Interpretation of Results

4.1.1 Ordinary Least Square Estimation (Dependent Variable = RGDP)

Variables	Coefficient	Std. Error	T-stat	Prob	R^2	Adjusted R^2	D.W Stat
Log(fdi(-1))	0.101496	0.02603	3.8990	0.0006			
Log(infl(-1))	-0.0580	0.0327	-1.7765	0.0869			
bop(-1)	8.47E-11	1.51E-11	5.5941	0.0000			
Log(exrt(-1))	-0.0557	0.03544	-1.5718	0.1276			
C	28.9389	0.5721	50.5867	0.0000	0.91204	0.89901	1.44514

The Newey-West test was applied in regression two on table 4.1.2. It was done to correct any form of autocorrelation or heteroscedasticity that could be a problem in the error term of the regression result. This was adopted from Gujarai (2004) where he said, one could still use OLS but correct the standard errors for autocorrelation by a procedure developed by Newey and West. The corrected standard errors are known as HAC-(heteroscedasticity-and autocorrelation-consistent) standard errors. See result in the table below.

4.1.2 Ordinary Least Square Estimation (Dependent Variable = RGDP)

HAC standard errors and covariance (None Kemel)

Variables	coefficient	Std. Error	T-stat	Prob	R^2	Adjusted R^2	D.W Stat
Log(fdi(-1))	0.1015	0.0229	4.4252	0.0001			
Log(infl(-1))	-0.0580	0.0231	-2.5083	0.0184			
bop(-1)	8.47E-11	1.47E-11	5.7702	0.0000			
Log(exrt(-1))	-0.0557	0.0313	-1.7783	0.0866			
C	28.9389	0.4518	64.0475	0.0000	0.91204	0.89901	1.44514

From the above table, it can be seen that the every other variable except inflation and exchange rate does not follow apriori expectation since they both have negative coefficient which means they both have negative relationship with the dependent variable (i.e. the affect sustainable development negatively). While FDI and BOP conform to apriori expectation which gives empirical backing to theory.

Secondly, amongst all the explanatory variables, only exchange rate is not statistically significantly different from zero. This is so because, using the 2T-Rule of thumb and a sample size of at least 30 at 5% level of significance, a t-statistics of at least 2 shows statistical significance of a particular variable. So, given a t-statistics of -1.7783 corresponding to the coefficient of exchange rate while, foreign direct investment, inflation rate and balance of payment has t-statistics greater than or equal to two in absolute term. Given the above, 1% increase in FDI will result to a 10% increase in RGDP (i.e. sustainable development). In the same way, a 1% increase in INFL will cause RGDP (sustainable development) to decrease by 5% while, a unit change in BOP will cause RGDP or sustainable development to move in the same direction by 8.47 units. Exchange rate does not have any significant impact on RGDP given the result of this research.

Given the R^2 value of 0.912043, it means that the combination given as the dependant variable jointly explains 91.2% of the changes that occur in RGDP or sustainable development.

The implication of the above result is that, foreign direct investment plays a very important role in achieving sustainable development in Nigeria and this justifies the need for the government to improve and develop on strategies geared towards encouraging an increase in FDI since, if this increase can be achieved, it will further lead to sustainable development for Nigeria. Another point to note from the result above is that, inflation and balance of payment also play important role in achieving sustainable development since they make negative and positive contributions respectively to growth in sustainable development. Exchange rate on its own is statistically insignificant in terms of its contribution to sustainable development but in terms of a combined contribution of all the explanatory variables, exchange rate makes a significant contribution in achieving the 91.2% explanation of the variation in the dependant variable (i.e. sustainable development).

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