The Nexus Between Foreign Direct Investment and Poverty Alleviation in Nigeria (1980 – 2018)

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ABSTRACT

This paper examined the impact of Foreign Direct Investment (FDI) on poverty in Nigeria. A static and an autoregressive distributed lag models were built and estimated in the study with the use of E-views version 10. The results show that FDI and real GDP have negative impact on poverty in Nigeria while population and inflation have positive impact on poverty in Nigeria. It was therefore recommended that the government should pursue, more vigorously, increase in both FDI and real GDP in order to reduce the rate of poverty in Nigeria. Also, macroeconomic policies should be put in place to curb inflation and check population growth in the country.

Keywords: *Poverty, Foreign Direct Investment, Economic Growth.*

1.0 Introduction

Foreign Direct Investment (FDI) has long been a subject of great interest in the field of international development. FDI refers to an investment that is made to acquire lasting interest in enterprises operating outside the country of the investor. It is the main channel through which technology transfer takes place. The transfer of technology and technological spillover lead to an increase in factor productivity and efficiency in the utilization of resources, which may lead to poverty alleviation. FDI leads to increase in exports as a result of increased capacity and competitiveness in domestic production (World Bank, 2021).

Ogunniyi and Igberi (2014) opined that the importance of foreign capital, most especially FDI to developing countries cannot be over emphasized. They posited that FDI serves as a supplement to developing countries' domestically mobilized savings and it is often accompanied with technology and managerial skills which set the pace for economic development and by extension, poverty alleviation. Through FDI, developing countries can break the vicious circle of poverty.

According to World Bank (2021), foreign direct investment is a key ingredient of successful economic growth and development in developing countries--partly because the very essence of economic development is the rapid and efficient transfer and cross-border adoption of "best practices." Foreign direct investment is especially well suited to effecting this transfer and translating it into broad-based growth, not least by upgrading human capital. Growth is the single most important factor in poverty reduction, so foreign direct investment is also central to achieving that important World Bank goal. Government-led programs that improve social safety nets and explicitly redistribute assets and income might direct more of the fruits of growth to the poor.

Economic growth remains a necessary ingredient for poverty reduction. Recent studies suggest that growth tends to lift the incomes of the poor proportionately with overall growth (Dollar and Kraay, 2000). FDI as a key vehicle to generate growth is thus a most important ingredient for poverty reduction (Klein, Aaron & Hadjimicheal, 2001). Many Nigerians are today living a most difficult life with basic amenities such as food, water, electricity and security almost totally absent. By many counts, Nigeria ranks among the most resource-endowed countries in the world (source). Despite its resources, however, it today ranks among the 20 poorest nations (UNDP, 2006). The proportion of the core poor is shown from United Nations (UN) estimates to have risen sevenfold from 4 million in 1980 to 30 million in 1996, while the poverty rate rose from 42.7 per cent to 65.6 per cent from 1992 – 1996. In 2007, it is estimated that about 70.2 per cent of Nigerians live on less than USD$1 a day, while up to 91 per cent live on less than USD$2 a day. With 55.5 million poor people in 1998, Nigeria had the largest number of the world's

extreme poor in comparison with war torn countries such as Democratic Republic of Congo's and Ethiopia's 48.2 million and 37.4 million respectively. It is disturbing to observe that there is a wide gap between the rich and the poor, town and country as well as regional disparities in the distribution of income. As further shown, whereas the percentage of total income earned by the richest 20 per cent of the population in 2006 was 55.7 per cent; the corresponding figure for the poorest 20 per cent was 4.4per cent.

The main objective of this paper is to investigate the impact of FDI on poverty alleviation in Nigeria. To this end, an autoregressive linear model of poverty was built to ascertain the impact FDI has had on poverty alleviation in Nigeria. On the basis of the findings of the study, recommendations were made. Following the introduction; section two is the conceptual issues on FDI and poverty; section three is the methodology; discussion of results is presented in section four while section five contains the conclusion and recommendations.

2.0 Conceptual Issues on FDI and Poverty

2.1 Concept of FDI

Foreign Direct Investment (FDI) is an investment made by a firm or individual in one country into business interests located in another country. Generally, FDI occurs when an investor establishes foreign business operations or acquires foreign business assets in a foreign country. However, FDIs are different from portfolio investments in which an investor merely purchases equities of foreign-based companies. Generally, FDI occurs when an entrepreneur invests directly in a country apart from where he resides i.e. in a foreign country (Israel, 2014). Foreign Direct Investment (FDI) is the process whereby people in one country obtain ownership of assets for the purpose of gaining control over production, distribution and other activities of a firm in a foreign country (Meyer, 2004).

Types of Foreign Direct Investment

There are two main types of Foreign Direct Investment. They are the following:

- ***Horizontal FDI*:** This is undertaken when the company wants to expand horizontally to produce the same or comparable goods in the host country. Product differentiation is a central aspect for horizontal FDI to be successful. There are two main motives for a company to engage in horizontal FDI. The first one is that it is more profitable for the multinational company to be at the foreign location, and the second motive is that the company can save a lot on low cost inputs, such as labour. In addition, horizontal FDI is often undertaken to make substantial use of monopolistic or oligopolistic advantages, especially if there are fewer restrictions in the host country.
- ***Vertical FDI*:** This is undertaken when a company seeks to exploit raw

materials, or wants to be closer to the consumer by acquiring distribution outlets. The idea is to make the production process more cost-efficient by reallocating some stages to low-cost locations. By establishing their own network in the host country, it is easier for the multinational companies to market their products. Usually, one partner provides the technical skills and access to financial means, while the other partner offers its local knowledge concerning the market as well as laws and regulations (Moosa, 2002).

2.2 Concept of Poverty

Poverty in its most general sense is the lack of necessities. Basic food, shelter, medical care, and safety are generally thought necessary based on shared values of human dignity. However, what is a necessity to one person is not uniformly a necessity to others. Needs may be relative to what is possible and are based on social definition and past experience (Sen, 2007). Valentine (1968) says that "the essence of poverty is inequality. In slightly different words, the basic meaning of poverty is relative deprivation." Poverty can also be seen as a condition of having insufficient resources or income. In its most extreme form, poverty is a lack of basic human needs, such as adequate and nutritious food, clothing, housing, clean water, and health services.

Extreme poverty, which threatens people's health or lives, is also known as destitution or absolute poverty. In the United States, extreme poverty is traditionally defined as having an annual income that is less than half of the official poverty line (an income level determined by the Bureau of the Census). Extreme poverty in developing nations, as defined by international organizations, means having a household income of less than U.S. $1 per day. Relative poverty is the condition of having fewer resources or less income than others within a society or country, or compared to worldwide averages. In developed countries, relative poverty often is measured as having a family income less than one-half of the median income for that country (Corbett, 2008).

UNDP (2006) states that poverty is hunger, lack of shelter, being sick and not being able to see a doctor, not having access to school and not knowing how to read. Poverty is not having a job, is fear for the future, living one day at a time. Losing a child to illness brought about by water borne disease. Poverty is powerlessness, lack or representation and freedom (World Bank, 1994). Vision 2010 defines poverty as a condition in which a person is unable to meet minimum requirements of basic needs of food, health, housing, education and clothing.

In developing nations, general levels of living tend to be very low for vast majority of people. These low levels of living are manifested quantitatively and qualitatively in the form of low incomes (poverty), inadequate housing, poor health, limited education, high infant mortality, low life and work expectancies,

and in many cases a general sense of malaise and hopelessness (Todaro & Smith, 2007). The magnitude and extent of poverty in any country depend on two factors: the average level of national income and the degree of inequality in its distribution. Clearly, for any given level of national per capita income, the more unequal the distribution, the greater the incidence of poverty.

World Bank (1999) defined poverty as hunger; lack of shelter; being sick and not being able to go to school; not knowing how to read; not being able to speak properly; not having a job; fear for the future; losing a child to illness brought about by unclean water; powerlessness; lack of representation and freedom. Schubert (1994) defined poverty as either absolute or relative or both. Absolute poverty is that which could be applied at all time in all societies such as the level of income necessary for bare subsistence, while relative poverty relates to the living standards of the poor to the standards that prevail elsewhere in the society in which they live. Sen (1999) defined poverty as deprivation of basic capabilities such as being healthy, having a good job, being safe, being happy and having self-respect rather than low income.

Poverty Alleviation in Nigeria

Poverty alleviation is the process which seeks to reduce the level of poverty in a community or state (Ajakaiye & Adeyeye, 2012). Various regimes in Nigeria have always publicly fought poverty. The government may or may not use the term 'poverty reduction', but several agencies together with ministries have been concerned with poverty alleviation strategies. The federal government of Nigeria has introduced a range of measures aimed at reducing, cushioning and eradicating poverty among the citizenry. Other agencies were established over the years, all with the aim of ameliorating the effects of poverty. They all suffered the same fate of inept administration and political hypocrisy in truncating what might otherwise have been theoretically sound initiatives. Onimode (2003) argued that the economic policies that have semblance of positive policy initiatives on rural poverty reduction include the followings:

- Universal Free Primary Education (UPE);
- Subsidy programs for various activities, especially agriculture, social services and credit;
- Primary health care including the "health-for-all by year 2000" program;
- Rural water supply scheme;
- Rural Electrification by Rural Electrification Board (REB);
- Directorate for Food, Roads and Rural Infrastructure (DFRRI):
- Credit guidelines, rural and community banking schemes;
- National Directorate of Employment (NDE);
- Small-and Medium-Scale Enterprises (SME) Program; and
- Better Life for Rural Women and Family Support Program.

2.3 Empirical Review On FDI and Poverty

Osinubi and Amaghionyediwe (2010) examined the relationship between Foreign Private Investment (FPI) and poverty alleviation in Nigeria. Their findings suggest that FPI, domestic investment growth, net export growth and the lagged error term were statistically significant in explaining variations in Nigeria poverty alleviation.

Klein, Aaron and Hadjimichael (2001) investigated foreign direct investment and poverty reduction using OLS. They concluded that FDI remains one of the most effective tools in the fight against poverty.

Agarwal and Atri (2015) investigated foreign direct investment and poverty reduction in India in regional context using OLS. They concluded that FDI inflows do not have the desired effect of poverty reduction in India unlike the South Asian Association of Regional Cooperation (SAARC) countries. Also, the impact of FDI outflows is not significant for SAARC countries but in the case of India, FDI outflows do significantly impact poverty reduction.

According to Farole and Winkler (2012), they postulated that people are to be held accountable for their experiences of poverty, which are ultimately linked to purely individual differences. Individual characteristics can range from the lack of an industrious work ethic or virtuous morality to low levels of education or competitive market skills.

According to Soumare (2015), he examined related factors that influence FDI inflows into the Turkish economy. They discovered that the size of the host country's market, infrastructure and the openness of the economy are positively related to FDI inflows.

The impacts of FDI and economic growth disparity among developing countries have created much research interest among economists. There is a large body of empirical literature on the impact of FDI on economic growth. The existing evidence, however, is mixed. In the work of Li and Liu (2015), the evidence suggests that FDI not only affects growth directly, but also indirectly through its interaction with human capital. Further, they find a negative coefficient for FDI when it is regressed with the technology gap between the source and host economy using a large sample. Borensztein et al. (2018) found similar results i.e. that inward FDI has positive effects on growth with the strongest impact, coming through the interaction between FDI and human capital. They further argued that FDI is an important vehicle for the transfer of technology, which contributes relatively more to growth than domestic investment. They added that FDI has the effect of increasing domestic investment. De Mello (2007) found positive effects of FDI on economic growth in both developing and developed countries, but concludes that the long-run growth in host countries is determined by the spillovers of knowledge and technology from investing countries to host countries. Similarly, Balasubramanyam et al. (2006) found support for their hypotheses that the growth effect of FDI is positive for export promoting countries and potentially

negative for import-substituting ones. Comparing evidence from developed and developing countries, Blonigen and Wang (2005) noted that the factors that affect FDI flows are different across the income groups. Interestingly, they find evidence of beneficial FDI only for developing countries and not for the developed ones, while they find the crowding-out effect of FDI on domestic investment to hold for the wealthy group of nations.

Accordingly, studies such as Ayanwale (2007) and Akinlo (2004) focused on the oil and non-oil sector. These studies assessed the impacts of FDI inflows to the extractive industry on Nigeria's economic growth. Akinlo (2004) specifically controlled for the non-oil FDI dichotomy in Nigeria. Using error correction model, he investigated the impact of Foreign Direct Investment (FDI) on economic growth in Nigeria. He found that both private capital and lagged foreign capital have small and not a statistically significant effect on economic growth. Further, his results support the argument that extractive FDI might not be growth enhancing as much as manufacturing FDI.

Egwaikhide (2012) also investigates the relationship between foreign direct investment (FDI) and economic growth in Nigeria, Johansen Cointegration technique and Vector Error Correction Method in which FDI is disaggregated into various components are used. The Johansen Cointegration result establishes that the impact of the disaggregated FDI on real growth in Nigeria namely: agriculture, mining, manufacturing and petroleum sectors is very little with the exception of the telecom sector which has a good and promising future, especially in the long run. Furthermore, past level of FDI and level of infrastructures are FDI enhancing.

Ayadi (2009) investigates the relationship between FDI and economic growth in Nigeria and discovered weak correlation and causality between the variables and recommends that infrastructural development, human capital building and strategic policies towards attracting FDI should be intensified. In the same vein, Osinubi and Amaghionyediwe (2010) examined the relationship between Foreign Private Investment (FPI) and poverty alleviation in Nigeria. Their findings suggest that FPI, domestic investment growth, net export growth and the lagged error term were statistically significant in explaining variations in Nigeria poverty alleviation while Ayashagba and Abachi (2002) evidenced a significant impact on poverty alleviation.

Jerome and Ogunkola (2004) assessed the magnitude, direction and prospects of FDI in Nigeria. They noted that, FDI regime in Nigeria was generally improving but some serious deficiencies or shortcomings still remain. These deficiencies are predominant in the area of the corporate environment (such as corporate law, labour law and bankruptcy) and institutional uncertainty, as well as the rule of law.

3.0 Methodology

The paper estimated a static and a dynamic Autoregressive Distributed Lag (ARDL) models of poverty in Nigeria. The dependent variable was poverty rate while the independents variables were population, inflation, real GDP and foreign direct investment.

3.1 Estimation Technique

The study examined the time series characteristics of the models' variables using the Phillips-Peron stationarity test. The rationale for this test was to ascertain whether the variables are stationary or non-stationary; and therefore, to determine the number of times each variable has to be differenced to arrive at stationarity. The two (2) models in the study were estimated with the use of E-views version 10.

3.2 Model Specification

Static Model of Poverty in Nigeria

$POV_t = a_0 + a_1POP_t + a_2INF_t + a_3RGDP_t + a_4FDI_t + e_t$

Where:

POV = Poverty Rate

POP = Population

INF = Inflation Rate

RGDP = Real Gross Domestic Product

FDI = Foreign Direct Investment

e_t = Error Term

A-priori expectation: $a_1, a_2 > 0; a_3, a_4 < 0$.

ARDL Model of Poverty in Nigeria

The autoregressive distributed lag (ARDL) model for this study is specified thus:

$POV_t = a_0 + a_1POV_{t-1} + a_2POP_t + a_3INF_t + a_4RGDP_t + a_5FDI_t + e_t$

A-priori expectation: $a_1, a_2, a_3 > 0; a_4, a_5 < 0$.

3.3 Estimation Procedure

The two (2) models in the study were estimated using Ordinary Least Square (OLS) estimation technique. The estimated models were thereafter evaluated to ascertain whether the results obtained satisfy theoretical, statistical as well as econometrics requirements.

4.0 Results

4.1 Stationarity Test Results

Table 1: Phillips-Peron Stationarity Test Results

Variables	‘t; Values at Levels	Probability	‘t’ at First Difference	Probability	Order of Integration
POV	-1.7733	0.3874	-5.8298	0.0000	I(1)
POP	-6.5615	0.0000	-	-	I(0)
INF	-2.8925	0.0558	-9.9026	0.0000	I(1)
RGDP	-3.1489	0.0315	-	-	I(0)
FDI	-3.3567	0.0193	-	-	I(0)

Source: Author’s Computation (2021)

Table 1 above shows that while population (POP), real GDP and Foreign direct investment (FDI) are stationary at levels, poverty rate (POV) and inflation rate (INF) are stationary at first difference.

4.2 Estimated Models

Table 2: Static Model of Poverty in Nigeria

Static Model of Poverty in Nigeria		
Dependent Variable: Poverty Rate		
Independent Variable	Coefficient	Probability
FDI	-0.7745	0.0004
POP	2.7152	0.0000
RGDP	-1.2796	0.0051
INF	0.0926	0.4445
C	8.2346	-
R-squared	0.4530	
F-stat	125.3424	

(***) Significant at 1%, (**) Significant at 5% and (*) Significant at 10%.

Table 2 above shows the estimated static model of poverty in Nigeria. It can be observed that foreign direct investment, population, real GDP and inflation all satisfy the a-priori expectations. The result indicates that population and inflation have positive impact on poverty while foreign direct investment and real GDP have negative impact on poverty. The positive impact of population is statistically significant at 1% while that of inflation is not statistically

significant. The negative impact of foreign direct investment and real GDP are statistically significant at 1%. These imply that increases in population and inflation will aggravate the poverty situation in the country while increases in foreign direct investment and real GDP will lead to reduction in poverty in Nigeria. The model explains about 45.3% of the variation in the level of poverty in Nigeria. The model as a whole is statistically significant at 5 per cent.

Table 3: Autoregressive Distributed Lag (ARDL) Model of Causes of Poverty in Nigeria

Autoregressive Distributed Lag Model of Poverty in Nigeria		
Dependent Variable: Poverty Rate		
Independent Variable	Coefficient	Probability
POV(-1)	0.8317	0.0000
FDI	-1.3945	0.3214
POP	0.5192	0.1111
RGDP	-0.0729	0.8074
INF	0.0926	0.4445
C	12.2346	-
R-squared	0.8054	
F-stat	37.4435	

(***) Significant at 1%, (**) Significant at 5% and (*) Significant at 10%.

Table 3 above shows the estimated autoregressive distributed lag model of poverty in Nigeria. It can be observed that all the explanatory variables satisfy their a-priori expectations. The results that while poverty in the previous period, population and inflation have positive impact on poverty; foreign direct investment and real GDP have negative impact on poverty in Nigeria.

It can also be observed that among all the explanatory variables, only the positive impact of poverty in the previous period is statistically significant. The impacts of other explanatory variables are not statistically significant. The model explains about 80.5 per cent of the variation in the level of poverty in Nigeria. The model as a whole is statistically significant at 5 per cent.

5.0 Conclusion and Recommendations

The paper examined the impact of FDI on poverty in Nigeria. It was observed that FDI and real GDP have negative impact on poverty while population and inflation have positive impact on poverty in Nigeria. It is therefore evident that increase in FDI and real GDP will result in reduction in poverty in

Nigeria while increase in population and inflation will aggravate the poverty situation in the country. It is therefore recommended that the government should pursue more vigorously the attraction of FDI into the country in order to bring down the level of poverty in Nigeria. Also, the government should put macroeconomic policies in place to spur the real sector of the economy. Population growth and inflation rates should be curtailed.

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