

# Foreign Direct Investment and Employment Generation in Nigeria

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## Abstract

This paper examined the relationship between foreign direct investment and employment generation in Nigeria between the period of 1999 and 2016. To empirically establish the relationship, some variables are incorporated into the study such as employment rate as the dependent variables while the independent variables include foreign direct investment, gross domestic product and exchange rate. Findings showed that foreign direct investment has a positive relationship with employment rate in Nigeria. Thus, it is recommended that government should make concerted efforts to attract foreign investors into Nigeria so as to encourage production and generate employment opportunities.

## 1.0 Introduction

Nigeria is the most populous country in Africa and it is blessed with a large pool of surplus labour. Nigeria's labour market is dualistic as it is characterized with both formal and informal employment with the bulk of its labour force engaged in agriculture particularly at the subsistence level (Ogunlela and Mukhtar, 2009). Oni (2006) argues that reducing the level of unemployment will increase the income level in the economy and thereby reduce the level of poverty. To reduce the level of unemployment, some scholars have argued that the flow of goods and services (trade flows) could propel employment generation, especially in developing countries. Growth in employment has a feedback on economic growth, such that an increase in labour incomes would expand domestic demand, which in turn would lead to sustainable GDP growth and reducing risks of excessive reliance on uncertain foreign markets (Wheeler and Moody, 1992). Although Nigeria has large oil revenue, but because there is a tenuous nexus between the oil sector and the rest of the local economy, unemployment is high, poverty is prevalence and security is a current challenge (Okonjo-Iweala 2012, Olugbile 2012). This implies that the large oil revenue is not used to generate employment in the economy. The erratic movement in the rate of unemployment in the country is not unconnected with the various short-run policies put in place to curb unemployment from time to time. In general, Nigeria like any other countries in the world has realized that, as a matter of fact, apart from education, the second most important form of empowerment that a state can bequeath to its citizen is to assure them of gainful employment, hence, successive governments have incorporated one form of employment policy or the other into their programmes. The issue of employment is very germane to Nigeria as well as every economy that is why high or full rate of employment is one of the macroeconomic goals of every economy. The goal of increasing the level of employment among other macroeconomic objectives is an important one in many developing nations where unemployment and underutilization of resources has led to rising rate of poverty. To increase the level of employment, some scholars have argued that the flow of goods and services (trade flows) could propel employment generation, especially in developing countries (Kareem, 2010). However, employment creation still poses a major challenge to the Nigerian government. World Bank (2013) reports that job creation in Nigeria has been inadequate to keep pace with the expanding working populace. As published by National Bureau of Statistics (2010) in the Labour Force sample survey, among the youths in the 15-24 age brackets, the rate of unemployment was observed to be over 40%. Employment rate declined continuously from 52.7% in 1991 to 50.6% in 2004. In 2005, however, the employment started to increase, rather sluggishly, from 50.8% to 51.4% in 2010.

Since full employment is one of the core elements of economic developments, it is very imperative to find out the likely impact of the inflow of FDI to the employment generation in Nigeria. It has become necessary to establish the relationship between FDI and employment generation since FDI is seen as a driver of employment, technological progress, productivity improvements, and ultimately economic growth. It also plays the critical roles of filling the development, foreign exchange, investment, and tax revenue gaps in developing countries.

## 2.0 Literature Review

### 2.1 Conceptual Review

#### 2.1.1 Foreign Direct Investment

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. 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. Foreign direct investments (FDI) define overseas investments by private multinational corporations. In other words, foreign direct Investments are

multinational investments overseas, (Todaro and Smith, 2003).

Investor Words (2010) defined foreign direct investment as productive assets by a company incorporated in a foreign country, as opposed to investment in shares of local companies by foreign entities and stand as an important feature of an increasingly globalized economic system. Foreign direct investment plays an extraordinary and growing role in global business. It can provide a firm with new markets and marketing channels, cheaper production facilities, access to new technology, products skills and financing. For a host country which receives the investment, it can provide a source of new technologies, capital, processes, products, organizational technologies and management skills, and as such can provide a strong impetus to economic development.

FDI is believed to be stable and easier to service than bank credit. FDI are usually on long term economic activities in which repatriation of profit only occur when the project earns profit. As stated by Dunning and Rugman (1985), Foreign Direct Investment (FDI) contributes to the host country's gross capital formation, higher growth, industrial productivity and competitiveness and other spinoff benefits such as transfer of technology, managerial expertise, improvement in the quality of human resources and increased investment.

### **2.1.3 Employment**

Employment also has varying concepts. Employment is a relationship between two parties, usually based on a contract, one being the employer and the other being the employee. It is also defined as situations whereby able-bodied men and women who are qualified by the condition to work in any given society can gainfully secure jobs whereby he or she will not exploited on securing the job and equally optimise his or her capability in terms of his marginal labour production.

Employment could also mean the number of people gainfully employed from ages 15 and above, that is, the employment to population ratio (+15), which is the proportion of the country's population that is employed. It refers to persons in employment that are aged 15 years and above who work for pay. Employment rate is the proportion of total number of employed persons to the total number of persons in the labor force. Full employment does not mean zero unemployment; rather it implies the level of employment that results when the rate of unemployment is normal, considering both frictional and structural factors.

### **2.1.3 Unemployment**

Unemployment can be defined as the situation whereby those who are willing and able to work are unable to find job. According to Ozughalu and Ogwumike (2013), unemployment is a situation where people who are willing and able to work at the prevailing wage rate and cannot find jobs. Okigbo1986 in Ozughalu and Ogwumike (2013) said that the taxonomy of unemployment include a condition of being out of job, an activity of searching for job, an attitude of desiring a job under certain condition and the need for a job. This means that these elements have to be present before someone can claim to be unemployed. As defined by International Labour Organisation (2007), unemployed workers are those who are currently not working but are willing and able to work for pay, currently available to work and have actively search for work.

## **2.2 Theoretical Review**

### **2.2.1 The Eclectic Paradigm**

The Eclectic paradigm was developed by John Dunning (1993), as the explanation for why FDI is chosen by MNCs. This theory combines the factors that are key to the other theories of FDI namely ownership-specific advantages (O), Location-specific advantages (L) and internalization advantages (I). Ownership advantages refer to those assets of a firm that allow it to compete successfully in overseas markets, despite – in comparison with local firms – a lack of knowledge of the local market and the costs of setting up a foreign affiliate. Ownership advantages usually comprise superior technology or management knowledge. According to Sean-Leigh (2007), ownership advantage must be present in a host country which is sufficient enough to counter disadvantage of competing with firms in disadvantage of competing with firms in their home country. He said that the advantages are effective production and marketing and at the same time having international competitive advantage over local firms. Similarly Shenkar (2007) identified natural resources endowments, manpower and capital, technology and information, managerial and marketing skills and organization systems to constitute ownership advantage. Location advantages are those benefits that a host country can offer a firm: large markets, low labour or production costs or both, and a good infrastructure. According to Wall and Ress (2004) there must be increased profitability from exploiting a firm's ownership advantage in different locations than its domestic market which could result from either economic, market or cultural prospects benefits.

Internalization advantages refer to transaction-costs, and occur when it is cheaper to exploit ownership and location advantages through FDI rather than exporting. With internalization, firms have opportunities to fully exploit the ownership advantage which emanate from the knowledge of marketing a commodity or providing a service and also confer opportunity to keep that particular information secure in as much as he considers it to be core of their competitiveness (Sean-Leigh, 2004). While ownership and internalization advantages are investor specific determinants, the location advantage is specific to the host country.

### **2.2.2 Theory of Labour Demand**

Labour demand can be defined as a set of decisions that the employers must take in relation to their workers in terms of hiring, wages, accents and training (Hamermesh, 1993). One of the most important variables affecting the demand for labour according to economic theory is the price of labour, or the average wage of the labour force. Other exogenous variables affecting the demand for labour includes real prices of other factors of production, the capital stock, output, technical progress etc. Demand for labour is a derived demand implying that if there is increase in the demand for goods and services, the demand for labour would increase. Traditional microeconomic theory assumes perfect competition in all product market as well as in the labour market. Under these circumstances, the demand for labour like the demand for any other input, by each profit maximizing firm depends on (a) the price of the input, that is, the wage rate that it must pay; (b) the marginal contribution on physical terms of each unit of input to the firm's total output; and (c) the price at which that output can be sold. The firm's demand for labour depends on the real wage it must pay, a function derived from the firm's production function. The more labour the firm employs, the more output it produces. This is called the

Marginal product of labour (MPL). It is the extra amount of output the firm gets from one extra unit of labour. In other words, if the firm hires an additional hour of labour, its production increases by MPL units. Most production functions have the property of diminishing marginal product; holding the amount of capital fixed, the marginal product of labour decreases as the amount of labour increases.

### **2.3 Empirical Review**

FDI encourages the inflow of technology, skills and fills the gaps between the domestically available supplies of savings, foreign exchange and government revenue (Onu, 2012). It implies that more investment will be stimulated and thereby making the absorptive capacity of the economy to be increased and in the long run more employment of labour will be generated. From the classicalist point of view, unemployment and wage rate are negatively related showing that as there are more demand for goods and services, wages will increase and employment will be demanded for. According to Obadan and Odusola (2000), the growth of employment is demand determinants of long term growth of output also influence the growth rate of employment.

Salami and Oyewale (2013) investigated the relationship between FDI and employment for the period 1990- 2012. The study employed the Ordinary Least Square (OLS) estimation technique. The variables used for this study includes total employment growth rate, export rate, import rate, exchange rate, inflation rate and FDI. The analysis found a significant link between FDI and employment in Nigeria both in the short run and long run.

Abaukaka (2014) examined relationship between foreign direct investment and employment generation in Nigeria using multiple linear regression model for data which covers the period from 2002 to 2012. To empirically establish the relationship, some variables are incorporated into the econometric model which include Employment level (100 – published unemployment level for the year review) as the dependent variable while the explanatory variables are FDI (percentage of nominal value of FDI in Nbn), GDP (annual GDP growth rate) and the nominal interest rate. From the empirical results, FDI exhibit negative relationship with the level of employment in Nigeria while GDP, interest rate are positively related with the level of employment but none of the explanatory variables significantly impact on the level of employment in Nigeria within the period of the study.

Ugwu (2014) examined the impact, causality and long run relationship between foreign direct investment and employment in Nigeria. The study employed multiple regression analysis, Johansen co-integration and Granger causality to ascertain the specific objectives of the study. The study employed data from CBN Statistical Bulletin, National Bureau of Statistics, and the World Bank indicators. The findings of the study suggest that FDI has a significant and positive impact on employment, and other significant determinants of employment include; GDP and wage. Also the results show that there exist a significant long run relationship between FDI and employment. Finally the results suggest that FDI granger causes employment but employment does not granger cause FDI. This means that FDI has a significant role on employment in Nigeria and this should not be minimized.

Empirically, the relationship between FDI and economic growth has been severally established in both developed and developing countries with varying degrees of causal relationship which have been associated with marcoeconomic factors as well as political conditions of the economy in question. Oyatoye, Arogundade, Adebisi and Oluwakayode (2011) established a direct long term impact of foreign direct investment on output and equally found out that significant and positive relationship exist for comparatively economically less advanced Philippines and Thailand but negative in the more advanced Japan and Taiwan.

Mpanju (2012) analyzed the impact of FDI inflows on employment generation/creation in Tanzania for the period of 1990–2008. The study adopted a case study design with a quantitative research approach, representing an econometric analysis using ordinary least squares (OLS). The results indicated that a strong positive relationship exists between the variables, implying that FDI has a significant impact on the pattern of employment opportunities.

Mohd Shahidan, Nor Ermawati and Mohd Suberi (2012) examined the impact of foreign direct investment (FDI) on the unemployment rate and economic growth in Malaysia from 1980 to 2010. The ordinary least squares method is employed to analyze the data in this study. Findings indicate that FDI helped reduce the unemployment rate and increased the gross domestic product (GDP). A 1% increase in FDI caused a decrease of 0.009% in unemployment and an increase of 1.219% in GDP.

A study was carried out by Fu and Balasubramanyam (2005) on the role of FDI in employment determination in China. This article found a strong linkage between FDI and employment as well as FDI and exports. The result shows that a 1% increase in Foreign Direct Investment would bring about a 3% increase in employment rate and also a 9% increase in exports.

Nunnenkamp and Bremont (2007) conducted an empirical research on whether FDI contributed to employment generation in Mexico. The analysis drew on highly disaggregated FDI and employment data covering almost 200 manufacturing industries. They estimated a dynamic labour demand function for blue and white collar workers including both FDI and its interaction with major industry characteristics. The study employed the GMM estimator suggested by Arellano and Bond to account for the short dimension of the study period, 1994 to 2006. The result indicated that FDI has a significantly positive though quantitatively modest impact on manufacturing employment in Mexico. The study however found no evidence that FDI adds to white collar employment but found a positive effect on blue collar employment which overtime, diminished with increasing skill intensity of manufacturing industries.

### 3.0 MODEL SPECIFICATION

In order to estimate the relationship between foreign direct investment and employment generation in Nigeria, the ordinary least square method would be employed. The model would be written as:

$$EMP_t = \beta_0 + \beta_1 GDP + \beta_2 FDI + \beta_3 EXR$$

WHERE

EMP<sub>t</sub> = employment rate

GDP = gross domestic product (proxy for economic growth)

FDI = foreign direct investment

EXR = exchange rate

### 4.0 RESULTS AND DISCUSSION

#### 4.1 Pre-Estimation Results

##### Unit Root Test using Augmented Dickey Fuller Test (ADF)

Variables	Level	First Difference	Order of Integration
<i>FDI</i>	-0.2275	-5.3295	I(1)
<i>LEMP</i>	1.0418	-5.2205	I(1)
<i>LEXR</i>	2.1041	-3.4302	I(1)
<i>LGDP</i>	-0.9756	-5.4897	I(1)
<i>Critical Values</i>	1%: -2.708 5%: -1.963	1%: -2.718 5%: -1.964	

Source: Author, 2018

The time series properties of the variables was conducted using Augmented Dickey Fuller (ADF) test and the results from this test showed that none of the variables was stationary at level. However, all the variables were stationary at first difference meaning that all the variables were integrated of order one. The implication of this is that all the variables were I (1) series. This therefore called for further long-run co-movement among the variables using Johansen co-integration technique. Also, the Johansen co-integration technique was employed so that the number of co-integrating equations would also be determined.

##### Johansen Co-Integration Result

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
$r \leq 0$	62.06183*	47.85613	34.99294*	27.58434
$r \leq 1$	27.06889	29.79707	14.52406	21.13162
$r \leq 2$	12.54483	15.49471	9.757473	14.26460
$r \leq 3$	2.787356	3.841466	2.787356	3.841466
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Author, 2018

The results of the Johansen co-integration test showed that there was long-run co-movement among the

variables. This was evidenced from the Trace statistic and Max-Eigen statistic which showed that the Johansen co-integration had one co-integrating equations emanated from each statistic. Thus, this result showed there was a convergence relationship among the variables in the long-run.

#### Error Correction Mechanism

Dependent Variable: D(LEMP)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.231075	0.062605	3.691028	0.0031
ECM(-1)	-1.076784	0.160995	-6.688288	0.0000*
D(FDI)	6.75E-07	9.23E-07	0.731503	0.4785
D(LEXR)	0.304338	0.292876	1.039136	0.3192
D(LGDP)	-2.809734	0.531656	-5.284877	0.0002*
R-squared	0.890446	Akaike info criterion		-2.350785
Adjusted R-squared	0.853928	Schwarz criterion		-2.105722
F-statistic	24.38376*	Durbin-Watson stat		2.101850

Note: \*(\*\*) implies 1% (5%) significance level

Source: Author, 2018

Having established the long-run relationship and co-movement among the variables, there was a need to examine the speed of adjustment that took all the variables to converge in the long-run. This test was done using error correction mechanism (ECM). The principle behind the result of the ECM was that the coefficient of the ECM must be negative and significance at 5% level. However, this would be used to calculate the speed of adjustment. That is, the time it takes the variables to converge in the long-run. Therefore, the coefficient of the ECM was negative and significant at 5% as evidence in the table 4.5 above. Hence, it took the variables 0.93years to converge in the long-run.

This result had no serial correlation and the overall model was statistically significant at 5% level. Also, the explanatory power of the model explained 74% of the total variations in the growth of the economy. Hence, the model had high goodness of fit.

The coefficient of gross domestic product was negative and statistically significant at 1% level of significance. The negative sign exhibited by the coefficient of gross domestic product implies that a 1% increase in gross domestic product leads to about 2.81% reduction in employment rate in Nigeria, although this does not conform to theoretical postulation.

The coefficients of both foreign direct investment and exchange rate are positive but not statistically significant at 5% level of significance. The implication of this is that both foreign direct investment and exchange rate do not exert significant influence on employment rate in Nigeria within the periods under review.

## 4.2 Estimation Results

### Result of the Relationship between FDI and Employment Generation

Dependent Variable: EMP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	25.37834	20.20734	1.255897	0.2331
LOG(FDI)	5.785403	1.512657	3.824664	0.0024
LOG(GDP)	-7.446664	2.984271	-2.495304	0.0282
EXR	0.034673	0.025494	1.360057	0.1988
R-squared	0.800580	F-statistic		16.05821
Adjusted R-squared	0.750725	Prob(F-statistic)		0.000168
Durbin-Watson stat	1.735905			

Source: Author, 2018

The R- square is 0.8006, meaning that approximately 80% of the variability of employment rate is accounted for by the variables in the model. In this case, the adjusted R-square is 0.7507 which indicates that about 75% of the variability of Employment rate is accounted for by the model; even after taking into account the number of predictor variables in the model such as the Gross Domestic Product, Exchange rate and the Foreign Direct Investment (FDI). The coefficient of Foreign Direct Investment is 5.7854 implying that FDI is positively related to employment rate. The t-cal (3.82) is greater than the t-tab (1.796) implying that there is a significant relationship between FDI and employment in Nigeria. The Durbin Watson statistics of 1.7359 shows absence of autocorrelation.

## 5.0 CONCLUSION AND RECOMMENDATIONS

Based on the study, it has been noted that FDI has a positive and significant relationship with employment rate in

Nigeria, thus, it is recommended that government should make concerted effort to attract foreign investors into the country so as to encourage production and to create employment opportunities. Conscious efforts should also be made to discourage the importation of readymade goods into the country. Importation of raw materials is what Nigeria needs as it will, contrary to the effects of finished goods importation, encourage local and foreign firms' productivity, favour employment as well as exportation of goods to other nations of the world. FDI could be encouraged by reducing the level of insecurity in Nigeria especially with the recent terrorist attacks and creates a safe environment to entice prospective investors as well as reducing the overall cost of production especially in providing adequate road infrastructure, electricity and water amongst others.

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