



IS FOREIGN DIRECT INVESTMENT THE WAY FORWARD FOR MANUFACTURING SECTOR RENAISSANCE IN NIGERIA?

Ndibe, Beatrice
C.¹⁺

Ojiula,
Uchemefuna
Ben²

Asalu, Emmanuel
N.³

¹Ph.D Student, Department of Management, University of Nigeria, Enugu Campus c/o African Heritage Institution, Independence Layout Enugu, Enugu State, Nigeria.

Email: ndibebeatrice@yahoo.com Tel: +234(0)8037582893

²Ph.D Student, Department of Marketing, University of Nigeria, Enugu Campus Enugu State Nigeria.

Email: Uchebeno20@yahoo.com Tel: +234(0)8037789738

³Research Associate, African Heritage Institution, Independence Layout, Enugu Enugu State Nigeria.

Email: emyasalu@yahoo.com Tel: +234(0)8033603222



(+ Corresponding author)

ABSTRACT

Article History

Received: 28 January 2021

Revised: 3 March 2021

Accepted: 30 March 2021

Published: 21 April 2021

Keywords

FDI
Manufacturing sector
GDP
Policy options
Merger and acquisition
Nigeria.

JEL Classification:

L88, L69.

The study was an attempt to investigate the relationship between foreign direct investments (FDI) and the manufacturing sector contribution to GDP in Nigeria. Specific objectives included finding out the direction of causality between FDI and the growth of the manufacturing sector; and establishing the relationship between FDI net inflows and manufacturing sector contribution to GDP. To achieve the objectives, two research questions and hypotheses were formulated. Secondary data sourced from World Bank Development Indicators were used. The Granger causality model and linear regression model were employed to test the hypotheses. The empirical implementation of the model made use of macro-economic data covering the period of 30 years (1990–2019). The result showed that there is a unidirectional causality from FDI to manufacturing sector contribution to GDP. This implies that manufacturing sector contribution to GDP was not as a result of FDI inflows to Nigeria. Further findings revealed a statistically no significant linear relationship between FDI net inflows and manufacturing sector contribution to GDP in Nigeria. The implication of the study is that the little contribution made by the manufacturing sector in Nigeria is not as a result of FDI net inflows, hence there is need for government and policy makers to consider policy options that will attract FDI to the manufacturing sector.

Contribution/Originality: This study contributes to existing literatures on foreign direct investments and manufacturing sector performance in Nigeria in a highly unstable business environment. Its analysis reveals the need for policy makers to rethink existing business investment policies in Nigeria in order to harness the potentials of the manufacturing sector.

1. BACKGROUND OF THE STUDY

Since the Washington Consensus in 1989, there has been a remarkable trend in the world economy caused by increased global economic integration and symbolized by a rising wave of foreign direct investment (Adejumo, 2013; Lopes, 2012). The Washington consensus as argued is not entirely a global consensus but a set of policy reform recommendations shared by Williamson (1989) and agreed upon by power circles in Washington DC as at that time (Bergsten & Henning, 2012; Williamson, 2004). The ten recommendations including “liberalization of inward foreign direct investment (FDI)” were tossed as necessary for economic recovery of Latin America and

developing countries (Williamson, 2004). The move resulted to structuralism given way for neoliberalism and subsequently, a shift towards the view that foreign investment was good for development.

Prior to that, many developing countries thought that opening up the market economy, FDI and trade were irrelevant and could be counterproductive. Although, there was assumption that the economic rationale for policy changes that favored trade liberalization and FDI was based on the belief that FDI bridges the 'idea gaps' between the rich and poor nations, beyond its attraction of technological transfers and spillovers to poor countries (HarunaDanja, 2012).

These assumptions notwithstanding, Nigeria and other African countries were skeptical and reluctant in accepting FDI caused by the fear that it could lead to loss of political sovereignty, push domestic firms into bankruptcy occasioned by increased competition and even increase the risk of environment degradation as a result of multinational companies investing more on the natural deposits of the developing nations (Opaluwa, Ameh, Alabi, & Abdul, 2012). Beyond these concerns, the developing and least developed countries including Nigeria, still embraced FDI because they needed the powerful countries to survive; and subsequently initiated policy options favourable to attracting FDI's (Opaluwa et al., 2012).

Several years after opening its borders for FDI, Nigeria has remained in the list of countries with the highest inflow of FDI, attributable to its population size and its potentials for enormous demand for goods and services. Besides, nature's endowment of natural deposits is also a major factor for FDI inflow to Nigeria (Subair & Salihu, 2011) with most FDI's occurring through Greenfield investments and cross-border merger and acquisition (Davies, Desbordes, & Ray, 2015). Corroborating this assertion, Hill (2011) noted that most FDI inflows were in the form of Greenfield and merger and acquisition; with over 50% occurring in the form of mergers and acquisitions.

FDI inflow to Nigeria grew from US\$2.03 billion in 2003 to US\$4.98 billion in 2004 (representing 145% increase) and further rose to US\$9.92 billion in 2005 (representing 87% increase). The figure has been fluctuating since then and as at 2015 FDI flows into Nigeria declined by 27% to an estimated sum of US\$3.4 billion; an indication of a consecutive fall in four years from a high level of US\$8.9bn in 2011 but increased by US\$673.95 million in the second quarter of 2016 (UNCTAD, 2016). In 2018, a total of US\$1.99 billion FDI inflows to Nigeria was reported by the World Bank (2020) showing a decrease of 45% from FDI in 2016. Evidently, Nigeria has attracted more FDI since the Washington consensus (World Bank, 2020).

Paradoxically, this huge amount of FDI inflows is not visible in the performance of the Nigerian manufacturing sector. For instance, the sector contributed only 5% to GDP in 2014, whereas in developed countries, manufacturing sector contributes as high as between 35% to 40% to GDP annually (FinIntell, 2013). Similarly, the Nigerian manufacturing sector GDP growth showed a decrease by 2.98% (NBS, 2016) and was only able to contribute to 7% of the total export in 2013 (UNIDO, 2015). In third quarter of 2019, manufacturing sector real GDP growth was 1.10% representing -0.83% point lower than the same quarter in 2018; and contributing only 8.74% to real GDP (NBS, 2019).

Reviewed literature shows that many studies have been conducted on the relationship between FDI and Manufacturing Sector growth. Although, these studies could not establish a significant relationship between FDI and manufacturing sector growth in Nigeria (Eze, Nnaji, & Nkalu, 2019) the studies did not interrogate which of the variables causes a change in the other. Hence, this study is an attempt to investigate the causal relationship between FDI and manufacturing sector contribution to GDP in Nigeria.

1.1. Statement of the Problem

The manufacturing sector plays a very crucial role in the economic development of any country including Nigeria, hence, FDI was considered as a strong catalyst for any country's manufacturing sector growth. However, the huge FDI received by Nigeria in the past decades does not seem to have impacted positively on the growth of the sector. The Nigerian manufacturing sector contribution to GDP has been very abysmal with a hovering

contribution of about 5% and 8%. This is not the case with other countries, particularly the developed countries where the sector accounts for about 40% of the total GDP. Despite all the promises that FDI will boost economic activities, improve the performance of manufacturing sector through employment and knowledge generation, industrial growth, revenue and skill spillover; most manufacturing companies in Nigeria still depend on their foreign counterparts for most of the needed raw materials, production equipment, facilities, technological know-how, etc. Comparably, it is worrisome that the Nigerian manufacturing sector is not making significant improvement as shown in its contribution to Nigeria's economic growth. Is FDI net inflows to Nigeria actually causing a growth in the manufacturing sector? *The need to understand causal and linear relationship between the variables underscores the motive for the study.*

1.2. Objective of the Study

The main objective of this paper is to conduct a causal relationship analysis of FDI and manufacturing sector contribution to GDP in Nigeria. Specifically, the study is an attempt to examine the direction of causality between FDI and manufacturing sector growth; and also to ascertain if there is a significant linear relationship between FDI net inflows and the performance of the manufacturing sector.

1.3. Research Questions

In order to empirically achieve the objective, the study sought answers to the following research question:

1. What is the causality between FDI and manufacturing sector growth?
2. Is there a significant linear relationship between FDI net inflows and manufacturing sector contribution to GDP in Nigeria?

1.4. Hypotheses

Ha: There is no causal relationship between FDI and manufacturing sector growth.

Ha: There is no significant linear relationship between FDI net inflows and manufacturing sector contribution to GDP in Nigeria.

2. FOREIGN DIRECT INVESTMENT (FDI) AND THE NIGERIAN MANUFACTURING SECTOR

FDI is "a key element in this rapidly evolving international economic integration, also referred to as globalization" (OECD, 2008). It provides lots of benefits to the host or recipient country, including access to foreign knowledge and transfer of technology, employment generation, and creation of direct, stable and long-lasting links between economies. FDI supports integration in the global economy; provides important vehicle for local enterprise development, as well as attract foreign revenue and improvement in the competitive position of both the "host" and the investing "home" economy (Carkovic & Levine, 2002; Dauda, 2006; David, Umeh, & Ameh, 2010; Desai, Foley, & Hines, 2005; Obadan, 2004; OECD, 2008).

FDI happens when a firm invests in another country (outside its original country of operations) to produce or market a product (Hill, 2011). It is a cross-border investment with the objective of lasting interest in an enterprise in another country outside the investor's country of resident (Adeleke, Olowe, & Oluwafolakemi, 2014; OECD, 2008). The "lasting interest" is achieved by minimum of 10% equity investment by the investor, thereby making the investor's business a multinational enterprise (Hill, 2011). FDI is also referred to as "the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments" (Adejumo, 2013). The main motivation for FDI is the need for the investor to exert some level of influence over the management of the investment.

Macaulay (2012) cited in Adeleke et al. (2014) traced the history of foreign investment into Nigeria back to the colonial era; when the colonial masters had the intention of exploiting the country's resources for the development of their economy. At that time, there was little investment by these colonial masters as their effort was focused mainly on research until the eventual discovery of oil in commercial quantity in 1956. The discovery of oil attracted many multinational companies into the country. Since then, the Nigerian government has explored various strategies and promoted policies geared towards improving incentives that attract FDI, including the repealing of laws that are inimical to FDI inflow to Nigeria (Adeleke et al., 2014).

Pursuant to FDI benefits and effect on economic development, Africa as a continent initiated the formation and launching of the new partnership for Africa's development (NEPAD) (Funke & Nsouli, 2003; Opaluwa et al., 2012). Nigeria further changed its economic policy focus to FDI friendly. Trade liberalization policies got easier passage at the executive level of government. This was also to attain the Millennium Development Goals set by the United Nations (Opaluwa et al., 2012). Despite the general improvement recorded in Nigeria through FDI, there were clear deficiencies which bothered on the area of corporate environment, and this led to the establishment of the Economic and Financial Crimes Commission (EFCC), the Independent Corrupt Practices Commission (ICPC), and the Nigerian Investment Promotion Commission (NIPC) to improve the corporate environment and uphold the rule of law. This is basically to portray Nigeria business environment in a good light so that investors will feel safe to come and invest (Jerome & Ogunkola, 2004).

Nonetheless, some are of the view that the capacity of developing countries to attract foreign investment is a function of the presence of natural resources, their market sizes, the level of political stability and other macroeconomic stimulus (Orji, Anthony-Orji, Nchege, & Okafor, 2015). This invariably suggest that supporting local manufacturing firms is not one of the attractions of FDI. Little wonder, that Nigerian manufacturing sector, despite having a vast potential for economic development still struggles; and unable to attract the spillover effect of FDI through technology and knowledge transfer. FDI inflow to Nigeria has focused largely on the extractive industry instead of the manufacturing sector (Ojo & Oloade, 2013).

On the contrary, many schools of thought are of the view that the failure of the manufacturing sector was as a result of lack of modern capital equipment; over dependency on external sector for the supply of inputs; weak demand for the manufacturing sector's products; low export market and the inability of the sector to create forward and backward linkages with the rest of the economy (Ojo & Oloade, 2013; Opaluwa et al., 2012). Perhaps, encouraging merger or outright acquisition by foreign multinational companies, which is an element of FDI would enhance the development of the manufacturing sector.

Growth enhancing effect from FDI on the manufacturing sector appears to be country specific as it varies from one country to another; while the effect could be positive to some, to others it can be adverse (Aseidu, 2001; Borensztein, 1998; Dauda, 2006; HarunaDanja, 2012; Opaluwa et al., 2012). Alluding to this theory, some school of thought asserts that contrary to the overbearing belief in the development tenet, the growth-stimulating effect of FDI is not automatic but stems from country specific factors (Dauda, 2006; Osisanwo, 2013). Hence, a country with a better conducive business environment is more likely to attract more FDI inflows. Although presently, Nigerian manufacturing sector cannot support economic development, the sector remains particularly important in the process of industrialization because of its multi-dimensional benefits to the development process; while being the most attention-grabbing markets in the continent of Africa (Adejumo, 2013; Opaluwa et al., 2012).

2.1. Theoretical Framework

Increase in volume of FDI globally has led to various theories propounded by different schools to explain the wave (Bajrami & Zeqiri, 2019). Theories from the era of Adams Smith in 1776, Ricardo in 1817 to Heckscher in 1919 and Ohlin in 1933 focused on international trade as a form of FDI; although Vernon in 1966 integrated international trade with international investment (Nayak & Choudhury, 2014). Beyond that, there are many

theories of FDI, some of which are: theory of perfect competition by MacDougall in 1958; theory of imperfect markets by Hymer (1976). While the perfect competition theory was established on the assumptions of a perfectly competitive market, Hymer (1976) argued that there must be some form of distortion in the market to enable the realization of direct investment. Other theories include: theory of monopolistic power by Kindleberger (1969) Internalization theory by Buckley and Casson (1976) Oligopolistic theory by Knickerbocker (1973); Theory based on strength of currency by Aliber (1970); Eclectic Paradigm by Dunning (1977) and Investment development cycle or path (IDP) theory by Dunning (1980).

Kindleberger (1969) extending the work of Hymer, argued that monopolistic advantage, such as: superior technology, management expertise, patents, etc., enjoyed by Multi-National Corporations (MNCs) could be useful in the case of market imperfection and the higher the chances of earning monopolistic profit, the higher the motivation among firms to invest directly in other countries (Nayak & Choudhury, 2014). In 1976 Buckley and Casson provided a different perspective to FDI theories by shifting focus from country-specific towards industry-level and firm-level determinants of FDI. The theory, which was later known as internalization theory was based on three assumptions: (a) firms maximize profits in a market that is imperfect; (b) when markets in intermediate products are imperfect, there is an incentive to bypass them by creating internal markets; and (c) internalization of markets across the world leads to MNCs (Nayak & Choudhury, 2014).

Oligopolistic theory of FDI by Knickerbocker (1973) was also based on the assumptions of imperfect market competition. The theory postulates that firms often exhibit imitative behavior. In other words, they follow the internationalization of competitors so that they will not lose their strategic advantage. Knickerbocker (1973) opines “that in oligopolistic market conditions, firms in an industry tend to follow each other’s location decision. The idea is that firms, uncertain of production costs in the country to which they are currently exporting, run the risk of being undercut by a rival switching from exporting to setting up a manufacturing subsidiary in the host country” (Nayak & Choudhury, 2014).

Strength of currency theory of FDI was propounded by Aliber (1970). Aliber argued that FDI is based on the relative strength of the host and source country. He postulated that weaker currencies when compared with stronger investing country currencies are more likely to attract FDI in order to take advantage of differences in the market capitalization rate. Although this theory garnered wide support, yet it had some shortfalls just like the other theories mentioned above (Aliber, 1970; Nayak & Choudhury, 2014).

In his path breaking work, Dunning in the 1970s developed one of the most robust and comprehensive theories of FDI (Read, 2007) known as the Eclectic Paradigm or OLI-Paradigm. He merged the major imperfect market-based theories already discussed above and added a third dimension in the form of location theory in order to explain why firms open foreign subsidiaries (Nayak & Choudhury, 2014). The OLI (Ownership-Location-Internalization) paradigm is the framework for the consideration of the direction of FDI by MNCs. The theory postulates that for FDI to happen, the MNC must have advantage of the three factors – Ownership, Location and Internalization. In other words, Dunning argues that firm will engage in FDI if the following three conditions are fulfilled: (a) Firm should have ownership advantages vis-à-vis other firms (O); (b) There are some location advantages in using a firm’s ownership advantages in a foreign locale (L); and (c) It is beneficial to internalize these advantages rather than to use the market to transfer them to foreign firms (I).

Ownership (O) advantage are specific or intangible assets which are in exclusive possession of the MNCs that differentiates them from domestic companies that will help them make-up for extra costs that the MNCs must incur in acquiring local knowledge needed to operate in a foreign market (Denisia, 2010; HarunaDanja, 2012). Location (L) advantage comes to play when there is existing ownership advantage. Location advantages of different countries are the key factors that determine Multinational Corporation’s preference for one country to another. Internalization (I) advantage makes it more profitable to carry out transactions within the firm instead of depending on external sources. This is particularly important when it is difficult for a firm to license its own unique

capabilities, specific technology and know-how because of asymmetric information. This implies that there is no sort of outsourcing (Denisia, 2010; HarunaDanja, 2012; Hill, 2011).

This theory gained wider acceptance than other imperfect market-based theories because of its ability to combine several complementary theories of FDI. In spite of that, it was criticized for its inclusion of so many variables that it loses any operational practicability. The result of the criticism gave birth to the Investment development cycle of Path (IDP) theory propounded by Dunning (1980); Nayak and Choudhury (2014).

The theoretical framework adopted by the researcher is the eclectic theory also known as OLI framework model by Dunning (1977); Dunning (1979). Eclectic theory is the main theoretical explanations applied to the analysis of spillovers from multinational corporations to host country's firms (Adejumo, 2013).

2.2. Empirical Review of FDI and the Growth of the Nigeria Manufacturing Sector

The empirical linkage between FDI and manufacturing output growth in Nigeria remains unclear. This is despite numerous studies that have examined the influence of FDI on Nigeria's manufacturing output growth (Ayanwale, 2007; Osisanwo, 2013). Lall (2002) cited in Adeleke et al. (2014) argues that "FDI inflow affects many factors in the economy and these in turn affect economic growth; depending on the country, it can be positive, negative or insignificant". Solomon and Eka (2013) examined the empirical relationship between FDI and economic growth in Nigeria covering the period of 1981-2009 using annual data from CBN statistical bulletin and growth model via Ordinary Least Square (OLS) method and found that FDI has a positive but insignificant impact on Nigerian economic growth. Using a panel dataset for 23 OECD countries for the period 1975-2004, Türkcan, Duman, and Yetkiner (2008) testing the endogenous relationship between economic growth and FDI using the generalized methods of moments (GMM) found that FDI and growth are important determinants of each other and that export growth rate is statistically significant of both variables. Similarly, Dupasquier and Osakwe (2006) in a survey of African countries found that poor corporate governance, unstable political and economic policies, weak infrastructure, unwelcoming regulatory environments and global competition for FDI flows were major obstacles to significant FDI flows. Corroborating the result, Jerome and Ogunkola (2004) while assessing the magnitude, direction and prospects of FDI in Nigeria attributed low level of FDI in Nigeria to deficiency in the country's legal framework. Ekpo (1995) using time series data found that the unpredictability of FDI into Nigeria can be explained by real income per capita, rate of inflation, political regime, world interest rate, debt service and credit rating. Ariyo (1998) study on the investment trend and its impact on Nigeria's economic growth from 1970-2005 found that only private domestic investment consistently contributed to the growth of GDP. Ariyo thus concluded that FDI played an insignificant role in GDP growth within the period.

In their study, Wafure and Nurudeen (2010) while investigating the determinants of FDI in Nigeria using the error correction technique method analyzed the relationship between FDI and its determinants. The finding shows that the market size of the host country, deregulation, political instability and exchange rate depreciation are the main determinants of FDI in Nigeria. Following from this, and other findings, country's market size is an important determinant of FDI inflows (Chakrabarti, 2001; Masayuki & Ivohasina, 2005; Wang & Swain, 1995). If the host country is only used as a production base because of its low production costs advantage in order to export products to other countries, then the market size factor will be insignificant (Obida & Abu, 2010). Elijah (2006) using econometric model to analyze the relationship between FDI and exogenous variables (human capital, real exchange rate, annual inflation and economic openness) in Kenya found that economic openness and human capital have a positive effect on FDI inflows in the short-run, while inflation and real exchange negatively affected FDI inflows in both short and long run. This result was corroborated in Erdal and Tatoglu (2002) in their study on the effect of location related factor on FDI inflows into Turkey. They found that the host country's market, infrastructure (represented by share of transportation, energy and communication expenditures in GDP) and openness of the economy (substituted by the ratio of exports to imports) are positively related to FDI inflows. Furthermore, it was

found that both exchange rate instability and economic instability (measured by interest rate) have negative effects on FDI. Anyanwu (1998) paper (as cited in Wafure and Nurudeen (2010) and other scholars – Ekpo (1997); Aremu (1997)) argue that real income per capita, world interest rate, political regime, credit rating, domestic investment, openness and indigenization policy are key determinants of FDI in Nigeria.

Olatunji (2001) opines that foreign investors' unwillingness to invest in Nigeria might be connected with the lingering problems that still persist in Nigeria, such as poor infrastructure, security challenges, sectarian violence and lawlessness and indiscipline. Similarly, Dipak and Ata (2003) highlighted barriers to Nigeria manufacturing sector growth to include "insecurity, political instability, market-distorting, state-owned monopolies, weak infrastructure and unavailability of finance" (Opaluwa et al., 2012). Wafure and Nurudeen (2010) are of the opinion that the other issue that discourages investors into Nigeria is the issue of the stock exchange market. The Nigeria Stock Exchange Market has not been stable in the recent past. Adding to the debate, Soludo (1998) cited in Wafure and Nurudeen (2010) insists that "it is not profitability of investment today that attracts investors to invest, but how long will the profit remain fairly stable overtime. Whenever the socio-political and economic environment is highly volatile, an investor is better off exercising his option to wait. HarunaDanja (2012) study on the applicability of FDI and the impact they make on the Nigerian economy found a positive relationship between FDI and major economic indicators but noted that despite that, FDI has not contributed much to the growth of the Nigerian economy because of repatriation of profits, contract fees, and interest payment on foreign loans to the home countries.

In a study on the relationship between FDI and value added to the manufacturing industry in Nigeria, using autoregressive lag distribution technique, Adejumo (2013) discovered that in the long-run, FDI had a negative effect on the manufacturing sub-sector in Nigeria. Uma, Eboh, and Nwaka (2015) in their study on the effects of resources used by foreign investors and its implications on the economic development of Nigeria, using Augmented Dickey-Fuller (ADF) test and Vector Error correction model (VECM), found that FDI impacted significantly on economic development. Simon-Oke and Jolaosho (2014) looking at the entrepreneurship contribution of FDI in Nigeria, discovered significant domination of FDI in oil and gas and oil servicing industries. Their study further reviewed that indigenous know-how among local artisans is also less competitive. Ojo and Ololade (2013) assessed the impact of Nigerian manufacturing sector in the era of globalization, using OLS econometric technique on time series data. The study found that a negligible effect of globalization on the Nigeria manufacturing sector.

The empirical reviews of previous works were unable to specifically establish the causal relationship between FDI inflows and the Nigerian Manufacturing Sector contribution to GDP. Hence, this study is an attempt to examine the causal relationship between FDI inflows and manufacturing sector contribution to GDP in Nigeria.

3. METHODOLOGY

In order to achieve its objectives, the study adopted the Double log model to determine the effect of FDI on the manufacturing sector contribution to GDP. The Ordinary Least Square (OLS) regression analysis model was used to determine the relationship between FDI and manufacturing sector contribution to GDP. Secondary data sourced World Bank Development Indicators report. The empirical implementation of the model made use of macro-economic data covering the period of 30 years (1990 – 2019), being 30 years since the Washington Consensus.

3.1. Model Specification

The variables used in the study include manufacturing sector contribution to GDP (as a measure of the performance of the manufacturing sector); FDIs net inflows (FDI) (as a measure of Foreign Director investment. The Granger Causality model is specified as follows:

$$FDI_t = \alpha + \theta_t \sum_{t=i}^n FDI_{t-1} + \delta_t \sum_{t=i}^n MCONT_{t-i} + \mu_1 t \quad (1)$$

$$MCONT_t = \alpha + \lambda_t \sum_{t=i}^n MCONT_{t-1} + \delta_t \sum_{t=i}^n FDI_{t-i} + \mu_2 t \tag{2}$$

The above model is standard formula for Granger Causality test.

The Linear Regression model is equally specified as follows:

$$MCONT = \alpha + \beta \log FDI + \mu \tag{3}$$

Where,

MCONT = Manufacturing sector contribution to GDP.

FDI = Nigeria Foreign Direct Investment Inflow.

α = constant or intercept.

δ, λ, β and μ = parameters to be estimated.

μ = Error term or unexplained variation caused by other variables not included in the model.

4. DATA PRESENTATION AND ANALYSIS

Test of Hypothesis 1

The direction of causality between FDI and the growth of the manufacturing sector

Table-1. Granger Causality test between FDI and the growth of the Nigerian manufacturing sector.

| Pairwise Granger Causality Tests | | | |
|----------------------------------|-----|-------------|--------|
| Sample: 1990 2019 | | | |
| Lags: 2 | | | |
| Null Hypothesis: | Obs | F-Statistic | Prob. |
| MCONT does not Granger Cause FDI | 28 | 1.29655 | 0.2927 |
| FDI does not Granger Cause MCONT | | 5.02034 | 0.0155 |

Table 1 above shows the result of the Granger Causality test at lags 2. It indicates the direction of causality between FDI and manufacturing sector growth. The result shows that FDI does not granger cause manufacturing sector growth (contribution to GDP) in Nigeria. Therefore, the null hypothesis is accepted, while the alternate hypothesis is rejected at $p < 0.1$ level of significance. This implies that the direction of FDI net inflow to Nigeria is not determined by the Manufacturing sector contribution to GDP.

Test of Hypothesis 2:

There is no significant linear relationship between FDI net inflow and manufacturing sector contribution to GDP in Nigeria.

Table-2. Linear Regression Analysis of the effect of FDI net inflow on manufacturing sector contribution to GDP in Nigeria.

| . regress manufacturing fdi, robust | | | | | | |
|-------------------------------------|---------------|-----------|-------|---------|----------------------|----------|
| Linear regression | Number of obs | | = | 30 | | |
| | F(1, 28) | | = | 2.15 | | |
| | Prob > F | | = | 0.1541 | | |
| | R-squared | | = | 0.0424 | | |
| | Root MSE | | = | 8.9e+09 | | |
| Robust | | | | | | |
| manufactur~g | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] | |
| Fdi | 0.6880953 | 0.4697304 | 1.46 | 0.154 | -0.2741038 | 1.650294 |
| _cons | 2.54e+10 | 1.99e+09 | 12.75 | 0.000 | 2.13e+10 | 2.95e+10 |

The result in Table 2 shows a statistically no significant linear relationship between FDI net inflows and manufacturing sector contribution to GDP in Nigeria because the $P > |t| = 0.154$ is more than acceptable p-value of not more than 0.05. Although, the t-value is 1.46 which is less than the 1.96 at 95% confidence level, the null hypothesis is accepted meaning that there is no linear relationship between FDI net inflows to Nigeria and Manufacturing sector contribution to GDP.

5. SUMMARY AND CONCLUSION

Although, the study reveals that one point increase in FDI will increase manufacturing sector contribution to GDP by 0.68, this is not significant because the p-value = 0.154 is higher than 0.05 significant level. Similarly, FDI net inflows to Nigeria is not attracted by manufacturing sector performance. This result suggests that FDI is attracted by other sectors affirming Ojo and Ololade (2013) assertion that most FDIs to Nigeria targets the extractive industry. Therefore, the study concludes that FDI net inflows to Nigeria does not have a significant linear relationship with manufacturing sector contribution to GDP.

6. RECOMMENDATIONS

Based on the findings, the following recommendations are made:

1. In reaching bilateral and multilateral agreements with other countries including multinational corporations, Nigerian government should ensure that more focus is placed on the manufacturing sector in Nigeria. This will engender sufficient growth in the sector as well as create opportunity for spillover effects of FDI (in form of technology and knowledge transfer, employment generation, capital and revenue growth).
2. There is need for an enabling environment in Nigeria for FDI that will target the manufacturing sector. Presently, most states in Nigeria lack the basic socio-economic amenities and more importantly, the business environment is not friendly. Improving the business environment will encourage not just FDI but also local investors and even support existing businesses in Nigeria. Thus, it is recommended that those policies and laws that will improve the business climate of the nation should be enacted in the states where they not in existence; and where they exist already, government should enforce its implementation.

Funding: This study received no specific financial support.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- Adejumo, A. V. (2013). Foreign direct investments and manufacturing sector performance in Nigeria (1970-2009). *Australian Journal of Business and Management*, 3(4), 39-56.
- Adeleke, K. M., Olowe, S., & Oluwafolakemi, F. O. (2014). Impact of foreign direct investment on Nigeria economic growth. *International Journal of Academic Research in Business and Social Sciences*, 4(8), 2222-6990.
- Aliber, R. Z. (1970). *A theory of direct foreign investment*. In C. P. Kindleberger (Ed.), *The International Corporation*. MA, Cambridge: MIT Press.
- Anyanwu, J. C. (1998). An econometric investigation of the determinants of foreign investment In Nigeria. In Nigerian Economic Society (1998), (pp. 219 - 241). Ibadan: Rekindling Investment for Economic Development in Nigeria.
- Aremu, J. A. (1997). *Foreign private investment: Issues, determinants and performance*. Paper presented at the Workshop on Foreign Investment Policy and Practice, Nigeria Institute of Advanced Legal Studies, Lagos.
- Ariyo, A. (1998). *Investment and Nigeria's economic growth*. Paper presented at the In Investment in the Growth Process Proceedings of Nigerian Economic Society Annual Conference 1998: 389-415, Ibadan, Nigeria.
- Aseidu, E. (2001). On the determinants of FDI to developing countries: Is Africa different? *World Development*, 30(1), 107-119.

- Ayanwale, A. B. (2007). FDI and economic growth: Evidence from Nigeria. African Economic Research Consortium Research Paper No. 165.
- Bajrami, H., & Zeqiri, N. (2019). Theories of foreign direct investment (FDI) and the significance of human capital. *International Journal of Business and Management*, 7(1), 11-24. Available at: 10.20472/B.M.2019.7.1.002.
- Bergsten, C. F., & Henning, C. R. (2012). *Global economics in extraordinary times: Essays in honor of John Williamson*: Peterson Institute for International Economics.
- Borensztein, E. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115-135.
- Buckley, P. J., & Casson, M. C. (1976). *The future of the multinational enterprise*. London: Macmillan.
- Carkovic, M., & Levine, R. (2002). *Does foreign direct investment accelerate economic growth?* Minneapolis: University of Minnesota Working Paper.
- Chakrabarti, A. (2001). The determinants of foreign direct investment sensitivity analysis of cross-country regressions. *KYKLOS*, 54(1), 89-114. Available at: 10.1111/1467-6435.00142.
- Dauda, R. O. S. (2006). The impact of FDI on Nigeria's economic growth: Trade policy matters. Retrieved from www.repository.unilag.edu.ng/xmlui/handle/123456789/564.
- David, O., Umeh, J., & Ameh, A. A. (2010). The effect of exchange rate fluctuations on the Nigerian manufacturing sector. *African Journal of Business Management*, 4(14), 2994-2998.
- Davies, R., Desbordes, R., & Ray, A. (2015). Greenfield versus merger & acquisition FDI: Same wine, different bottles? G-MonD Working Paper No. 39. Retrieved from: <https://halshs.archives-ouvertes.fr/halshs-01122659/document>.
- Denisia, V. (2010). Foreign direct investment theories: An overview of the main FDI theories. *European Journal of Interdisciplinary Studies*, 2(2), 104-110.
- Desai, M. A., Foley, C. F., & Hines, J. J. R. (2005). Foreign direct investment and the domestic capital stock. *The American Economic Review*, 95(2), 33-38. Available at: 10.1257/000282805774670185.
- Dipak, M., & Ata, M. (2003). *The African manufacturing firm, an analysis based on firm studies in Sub-Saharan Africa*. Port Harcourt: Taylor and Francis Ltd.
- Dunning, J. H. (1977). *Trade location of economic activity and the MNE: A search of an eclectic approach*. In B. Ohlin, P.O. Hesselborn and P.J. Wijkman (Eds.), *The International Allocation of Economic Activity*. London: Macmillan.
- Dunning, J. H. (1977). Trade, location of economic activity and the multinational enterprise: A search for an eclectic approach. In B. Ohlin, P. O. Hesselborn, and P. J. Wijkman (Eds.), *The International Allocation of Economic Activity* (pp. 395-416). London: McMillan.
- Dunning, J. H. (1980). Toward an eclectic theory of international production: Some empirical tests. *Journal of International Business Studies*, 11(1), 9-31.
- Dunning, J. H. (1979). Explaining changing patterns of international production: In defence of the eclectic theory. *Oxford Bulletin of Economics and Statistics*, 41(4), 269-295. Available at: <https://doi.org/10.1111/j.1468-0084.1979.mp41004003.x>.
- Dupasquier, C., & Osakwe, P. N. (2006). Foreign direct investment in Africa: Performance, challenges, and responsibilities. *Journal of Asian Economics*, 17(2), 241-260. Available at: <https://doi.org/10.1016/j.asieco.2005.07.002>.
- Ekpo, A. H. (1995). Foreign direct investment in Nigeria: Evidence from time series data. *CBN Economic and Financial Review*, 35(1), 59-78.
- Ekpo, A. H. (1997). Determinants of foreign direct investment in Nigeria: Evidence from time series data. *CBN Economic and Financial Review*, 35(1), 59-78.
- Elijah, O. K. (2006). *Determinants of foreign direct investment in Kenya*. Dakar: African Institute for Economic Development and Planning Publication.
- Erdal, F., & Tatoglu, E. (2002). Locational determinants of foreign direct investment in an emerging market economy: evidence from Turkey. *Multinational Business Review*, 10(1), 21-27.

- Eze, A. A., Nnaji, M., & Nkalu, N. C. (2019). Impact of foreign direct investment on manufacturing sector output growth in Nigeria. *International Journal of Applied Economics, Finance and Accounting*, 5(2), 55-64. Available at: 10.33094/s.2017.2019.52.55.64.
- FinIntell. (2013). Sectoral analysis of Nigeria economy. Retrieved from: <http://www.myfinancialintelligence.com/banking-and-finance/sectoral-analysis-nigeria's-economy>.
- Funke, N., & Nsouli, S. M. (2003). The NEPAD: Opportunities and challenges. IMF Working Paper, No. 3(69).
- HarunaDanja, K. (2012). Foreign direct investment and the Nigerian economy. *American Journal of Economics*, 2(3), 33-40.
- Hill, C. W. (2011). *Global business today* (7th ed.). New York: McGraw Hill/Irwin.
- Hymer, S. H. (1976). *The international operation of national firms: A study of direct foreign investment*. MA, Cambridge: MIT Press.
- Jerome, A., & Ogunkola, J. (2004). *FDI in Nigeria: Magnitude, direction and prospects*. Paper presented at the African Economic Research Consortium., Special Seminar Series. Nairobi: Poverty Alleviation CRERS.
- Kindleberger, C. P. (1969). *American business abroad*. CT, New Haven: Yale University Press.
- Knickerbocker, F. T. (1973). *Oligopolistic reaction and multinational enterprise*. MA, Cambridge: Division of Research, Harvard University.
- Lall, S. (2002). *Foreign investment transactional and development countries*. London: Macmillan Press Ltd.
- Lopes, C. (2012). Economic growth and inequality: The new post-Washington consensus. *RCCS Annual Review*, 4(4), 69-85. Available at: <https://doi.org/10.4000/rccsar.426>.
- Macaulay, E. D. (2012). *Foreign direct investment and the performance of the Nigerian economy*. Paper presented at the 1st International Technology, Education and Environment Conference.
- Masayuki, H., & Ivohasina, F. R. (2005). The determinants of foreign direct investment into Japan. Kobe University Discussion Paper, No. 0301.
- Nayak, D., & Choudhury, R. N. (2014). A selective review of foreign direct investment theories. ARTNeT Working Paper Series, No. 143. Bangkok: Asia-Pacific Research and Training Network on Trade (ARTNeT).
- NBS. (2016). *Nigerian gross domestic product report, Issue 09 Quarter One*. Abuja: National Bureau of Statistics.
- NBS. (2019). *Nigerian gross domestic product Report Q3*. Abuja: National Bureau of Statistics.
- Obadan, M. I. (2004). *Foreign capital flows and external debt: Perspectives on Nigeria and the LDCs groups*. Lagos: Broadway Press Limited.
- Obida, G. W., & Abu, N. (2010). Determinants of foreign direct investment in Nigeria: An empirical analysis. *Global Journal of Human Social Science*, 10(1), 26-34.
- OECD. (2008). *OECD Benchmark definition of foreign direct investment* (4th ed.). Paris: OECD.
- Ojo, A. S., & Ololade, O. F. (2013). An assessment of the Nigerian manufacturing sector in the era of globalization. *American Journal of Social and Management Sciences*, 5(1), 27-32.
- Olatunji, D. (2001). At home abroad when titles get in the way, *The Nation Newspapers*, Tuesday September 25.
- Opaluwa, D., Ameh, A. A., Alabi, J. O., & Abdul, M. (2012). The effect of foreign, direct investment on the Nigerian manufacturing sector. *International Business and Management*, 4(2), 140-148. Available at: <http://dx.doi.org/10.3968/j.ibm.1923842820120402.1075>.
- Orji, A., Anthony-Orji, O. I., Nchege, J. E., & Okafor, J. (2015). Manufacturing output and foreign direct investment in Nigeria: A new evidence. *International Journal of Academic Research in Economics and Management Sciences*, 4(3), 16-28.
- Osisanwo, B. G. (2013). Manufacturing output effect of non-domestic direct investment: A long-run evidence from Nigeria. *European Journal of Humanities and Social Sciences*, 27(1), 1431-1447.
- Read, R. (2007). Foreign direct investment in small island developing States. World Institute for Development Economic Research, Research paper No. 2007/28. Tokyo: United Nations University.
- Simon-Oke, O. O., & Jolaosho, M. O. (2014). Entrepreneurship contribution of foreign direct investment: A reality of unfulfilled vision in Nigeria. *International Journal of Development and Sustainability*, 3(1), 184-195.

- Solomon, H., & Eka, O. (2013). Impact of foreign direct investment on telecommunication sector on Nigerian economy. *International Journal of Modern Social Sciences*, 2(3), 195-215.
- Subair, K., & Salihu, O. (2011). Foreign direct investment and development of small and medium scale enterprises in Nigeria. *African Journal of Accounting, Economics, Finance and Banking Research*, 7(7), 64-77.
- Türkcan, B., Duman, A., & Yetkiner, I. H. (2008). *How does FDI and economic growth affect each other? The OECD case*. Paper presented at the International Conference on Emerging Economic Issues in a Globalizing World, Izmir, 2008.
- Uma, K. E., Eboh, F. E., & Nwaka, I. D. (2015). Foreign direct investment and resources utilisation: Implications for Nigeria's economic development. *British Journal of Economics, Management and Trade*, 5(2), 112-128.
- UNCTAD. (2016). FDI Recovery is unexpectedly strong, but lacks productive impact. *Global Investment Trends Monitor*, No. 22.
- UNIDO. (2015). The role of technology and innovation in inclusive and sustainable industrial development. *Industrial Development Report 2016. Overview*. Vienna.
- Wafure, O. G., & Nurudeen, A. (2010). Determinants of foreign direct investment in Nigeria: An empirical analysis. *Global Journal of Human Social Science*, 10(1), 26-34.
- Wang, Z. Q., & Swain, N. J. (1995). The determinants of foreign direct investment in transforming economies: Empirical evidence from Hungary and China. *Weltwirtschaftliches Archiv*, 131(2), 359-382. Available at: 10.1007/BF02707440.
- Williamson, J. (1989). *What Washington means by Policy Reform*. In Williamson, J. (Ed), *Latin American Readjustment: How much has happened*. Washington: Peterson Institute for International Economics.
- Williamson, J. (2004). The Washington Consensus as policy prescription for development. A lecture in the series Practitioners of Development delivered at the World Bank, 13 January. Retrieved from: <https://www.piie.com/commentary/speeches-papers/washington-consensus-policy-prescription-development>.
- World Bank. (2020). *World development indicators 2020*. Washington, D.C: World Bank.

Views and opinions expressed in this article are the views and opinions of the author(s). International Journal of Business, Economics and Management shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.