FOREIGN DIRECT INVESTMENT AND ITS EFFECT ON THE MANUFACTURING SECTOR IN NIGERIA

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Abstract- The research investigates the effect of foreign direct investment (FDI) on the manufacturing sector in Nigeria, and its importance in the Nigeria economy in general. The main issues in this paper relates to understanding the effects and impact of foreign direct investments on the manufacturing sector, as well as our ability to attract adequate funds, sufficient enough to accelerate the pace of our economic growth and development. In order to analyse the data, both econometric and statistical methods were used. The econometric regression model of ordinary least square was applied in evaluating the relationship between foreign direct investment and major economic indicators such as manufacturing output, exchange rate and interest rate. The model revealed a positive relationship between foreign direct investment and each of the variables (manufacturing output, exchange rate and interest rate). Foreign Direct Investment has a positive relationship on the manufacturing sector in Nigeria. In addition, there is a positive and significant relationship between Exchange rate (EXCH) and manufacturing output (MOUTPUT) in Nigeria. Some recommendations were made therein that government should step up efforts in attracting foreign direct investment into the sector by ensuring that investor confidence is protected. The study also suggest that despite the fact that the importance of FDI cannot be over accentuated, there is the need for government and policy makers to realize the fact that the fundamental element in any successful development strategy ought to be the encouragement of domestic investors first before going after foreign investors.

Index Terms- Foreign Direct Investment, Manufacturing sector, Exchange rate, Interest rate, Manufacturing output

I. INTRODUCTION

Most countries strive to attract Foreign Direct Investment (FDI) in the manufacturing sector because of its acknowledged advantages as a tool of economic development. Africa and Nigeria in particular joined the rest of the world to seek FDI as evidenced by the formation of New Partnership for Africa’s Development (NEPAD), which has the attraction of foreign investment to Africa as a major component. Improvements in economic policies are needed to augment macroeconomic performance and attain the minimum growth rate required to meet the Millennium Development Goals set by the United Nations. An increase in investment is crucial to the achievement of sustained growth and development in the country. This requires the mobilization of both domestic and international finances. Given the unpredictability of aid flows, the low share of the country in world trade, the high volatility of short-term capital flows, and the low savings rate of the country, the desired increase in investment has to be achieved through an increase in FDI flows, at least in the short – run (De Gregorio, 2003).

Until recently, FDI was not fully embraced by Nigeria and other African leaders as an essential feature of growth in the manufacturing sector, reflecting largely to fears that it could lead to the loss of political sovereignty, push domestic firms into bankruptcy due to increased competition and, if entry is predominant in the natural resource sector accelerate the risk of environment degradation. Akinlo (2006) argue that much of African skepticism toward foreign investment is rooted in history, ideology, and the politics of the post – independence period. They also argue that the prevailing attitudes and concerns in the region are due in part to the fact that policy – makers in the region are not convinced that the potential benefit of FDI could be fully realized.

Although most of the concerns of Nigeria regarding foreign investment are legitimate, for example, there is some evidence that the activities of foreign oil firms in Nigeria have had perverse effects on local environment (Ekpo, 2003). It has been shown that if a host country creates conducive environment to investment, FDI can play an important role in its development efforts. Its potential benefits include; employment generation and growth by providing additional capital to a host country supplementing domestic savings, integration into the global economy and transfer of modern technology (Opaluwa, Ameh and Umeh, 2010). The inadequacy of infrastructure has been one of the major constraints for the manufacturing sector.

Apart from the telecommunications industry and oil and gas sector, the brewing industry has been the largest source of Foreign Direct Investment (FDI) in the country. Such investment includes Heineken’s investment in Nigeria Breweries Plc, which is its largest investment outside Europe. It also became a major stakeholder in consolidated breweries Plc with 50.2% (Omolara, 2006). The Nigerian brewery market is currently a 15mhl market and typifies a classic illustration of a duopoly (Ahmed, 2010). However, the manufacturing sector has contributed much to the growth and development of Nigerian economy. The brewery industry has been the largest contributor in the manufacturing sector as Ola (2001) in Okwo and Ugwunta (2012) noted that the brewery industry
contributed about 28 percent of Manufactured Value Added (MVA) and provides direct employment for over 30,000 person and indirect employment close to 300,000 persons including the firms producing ancillary services. FDI have been adjudged to have a positive impact in the brewery industry and the economic growth at large that is likely to lead to an enlarged market size, which in turn will attract further FDI.

Numerous studies have identified foreign direct investment, as key to other sectors of the economy, but relatively little research seem to have investigated foreign direct investment and the relation with manufacturing sector. There is need therefore for more research in the subject to determine the impact of foreign direct investment on the management of the manufacturing sector in Nigeria. The rest of this paper is structured into section two, review of related literature, section three, the methodology, section four analysis and discussion of findings and section five conclusion and recommendations.

II. REVIEW OF RELATED LITERATURE

Foreign Direct Investment (FDI)
FDI is the investment made by a company outside its home country. It is the flow of long-term capital based on long-term profit consideration involved in international production (Caves, 2007). This definition is correct but not complete as the important issues of control and management are not included in it. International investment can take two forms. It could be either portfolio investment, where the investors buy some non-controlling portion of the stock, bond or any other financial security, or direct investment where the investor participates in the control and management of such business venture. This is the type of investment by multinational companies and it tends to contribute more to economic growth than the portfolio investment.

Nigeria Foreign Direct Investment
Investors see the three regional hub markets — namely South Africa in the south, Nigeria in the west and Kenya in the east — as the most attractive investment destinations. These three countries account for over 40% of total FDI projects (EY, 2014; fDi Intelligence). Foreign Direct Investment in Nigeria averaged 1404.84 USD Million from 2007 until 2015, reaching an all time high of 3084.90 USD Million in the fourth quarter of 2012 and a record low of 624.87 USD Million in the second quarter of 2015 (www.tradingeconomics.com). By the third quarter of 2015, Foreign Direct Investment increased to 1213.98 USD Million. FDIs have constituted the biggest single source of employment opportunities for the country’s teeming population. FDI is an engine of growth in terms of their assistance in transforming the structure of the economy from a single vector to a composite sector; from a primary agrarian enclave to an industrial one. They have assisted in and induced the government in providing needed infrastructure. More importantly, they have facilitated in bringing imported technology that has led to greater utilization of resources. Consequently, Foreign Direct Investment in Nigeria is expected to be 590.13 USD Million by the end of the second quarter of 2016, according to Trading Economics global macro models and analysts expectations. Looking forward, Foreign Direct Investment in Nigeria is projected to stand at 955.25 in 12 month's time. In the long-term, the Nigeria Foreign Direct Investment is projected to trend around 996.62 USD Million in 2020. (www.tradingeconomics.com)

Nigerian manufacturing sector
An ad-hoc study conducted in 1989 by Chete and Adenkinju (2002), indicated that the overall productivity level of the Nigerian manufacturing sector over the years has seen very little increase and most of these companies have even faced a decline in productivity as well as profitability. These findings was confirmed further by a report by the Manufacturers’ Association of Nigeria (MAN), which revealed that there was a generally negative trend in the growth of the Nigerian manufacturing sector during the period of 1980-1989. The report also stated that the expectations were low of observing any considerable improvement in the situation. The research studies conducted after that period confirmed this expectation, as they provided evidence that the trend of negative productivity continued and that neither was there an improvement in the profitability level of the sector well into the 1990s and 2000s Akinlo (1996) and Ku, Mustapha & Goh (2010). Ayanwale (2007) studied the effects of foreign direct investment on the performance of the Nigerian economy and manufacturing sector, and revealed that the country is striving to attract more foreign investors. This is so that the revenue gained through these investments can support the operations and activities of the manufacturing sector. However, available statistics of the Nigeria’s manufacturing and macro-economic data did not paint a good picture of manufacturing production in Nigeria as at 2015 as shown in figure 2. Manufacturing production in Nigeria decreased 0.30 percent in June of 2015 over the same month in the previous year. Manufacturing Production in Nigeria averaged 8.43 percent from 2007 until 2015, reaching an all time high of 24.60 percent in the fourth quarter of 2015 and a record low of -0.70 percent in the first quarter of 2015 (www.tradingeconomics.com). Another vital point that Ayanwale’s work brought to light is that while foreign investments in manufacturing could be beneficial to the economy, it is necessary that human resource issues are resolved as well so that the financial resources can be effectively utilized.

Alli (2009) reviewed the situation and stated that after going through several vicissitudes, the final shape of the Nigerian manufacturing sector is mainly made up of a few players. These players are the multinational, national, regional and local manufacturers, investors, and companies. It was also disclosed that while the multinational companies are still operating and surviving in the country because of strong financial and resource support, the other operators have either disappeared from the scene or are
struggling to survive in the manufacturing industry. This is because of the unpredictable policies and strategies implemented by the government, effects of globalization, and the lack of raw materials obtained locally for the manufacturing process. As a result, the aforementioned players of the sector started diminishing from the scene, and the productivity and efficiency of the manufacturing sector were negatively affected. Okejiri (2003) revealed that one of the largest constraints for the high productivity of the Nigeria’s manufacturing sector is, again, the low level of technology; as advancements in technology are changing the manufacturing sectors of countries all over the world. Developing countries are rapidly adopting new technologies so that they can secure higher productivity and revolutionize their manufacturing industry. Unfortunately, the Nigerian manufacturing companies are still not focusing enough on acquiring modern machinery and as mentioned, up to now they are still using the same methods and machinery that were introduced as far back as the 1960s and 1970s. This stagnant, almost stubborn, mindset greatly limits this solution for the future growth of the sector.

The reasons behind the low growth and performance of the Nigerian manufacturing sector during the last few years include “high production costs caused by energy, high interest and exchange rates, influx of inferior and substandard products from other nations, multiplicity of taxes and levies, poor sales partly as a result of low purchasing power of the consumers, bogged down with delay in clearing consignments due to existence of multiple inspection agencies at the ports, etc” (MAN, 2007).

**Foreign Direct Investment and the Manufacturing Sector**

The effort by several African countries to improve their business intimate stems from the desire to attract FDI. In fact, one of the pillars on which the New Partnership for Africa’s Development (NEPAD) was to increase available capital to US $ 64 billion through a combination of reforms, resource mobilization and a conducive environment for FDI (Funke and Nsouli, 2003). Unfortunately, the efforts of most African countries to attract FDI have been futile. This is in spite of the perceived and obvious need for FDI in the continent. The development is disturbing, sending very little hope of economic development and growth for these countries. Further, the pattern of the FDI that does exist is often skewed towards extractive industries, meaning that the differential rate of FDI inflow into sub-Saharan Africa has been adduced to be due to natural resources, although the size of the local market may also be a consideration (Morriset 2000; Asiedu, 2001). Many countries (especially developing countries) now see attracting FDI as an important element in their strategy for economic development. This is most probably because FDI is seen as an amalgamation of capital, technology, marketing and management. Sub-Saharan Africa as a region now has to depend very much on FDI for so many reasons, some of which are amplified by Asiedu (2001). The preference for FDI stems from its acknowledged advantages (Obwona, 2001, 2004).

Asiedu (2005) viewed Nigeria as a country, given her natural resource base and large market size, qualifies to be a major recipient of FDI in Africa and indeed is one of the top three leading Africa countries that consistently received FDI in the past decade. However, the level of FDI attracted by Nigeria is mediocre compared with the resource base and potential need. Further, the empirical linkage between FDI and growth of manufacturing sector in Nigeria is yet unclear, despite numerous studies that have examined the influence of FDI on Nigeria’s economic growth with varying outcomes (Akinlo, 2004). Most of the previous studies of FDI and the growth of manufacturing sector in sub-Saharan Africa are multi country studies. However, recent evidence affirms that the relationship between FDI and manufacturing sector may be country and period specific. Asiedu (2001) submits that the determinants of FDI in one region may not be the same for other regions. In the same vein, the determinants of FDI in countries within a region may be different from one another. Though the Nigerian manufacturing sector cannot support economic development in its present condition, it has great potential since Nigeria is one of the most attention-grabbing markets of the region (Ali, 2009). Many investors view Nigeria as the most attractive consumer market in Africa, given its large population of about 170 million and its improving business environment. Investors are optimistic about Nigeria, with its sizable, young and increasingly urbanized population (www.tradingeconomics.com, 2014).

Imoudu (2012), submits that there has been some diversification into the manufacturing sector in recent years, although FDI in Nigeria has traditionally been concentrated in the extractive industries. He further stated that the manufacturing and processing sector received enormous attention within the period of 1980–2009. In 1980-84, its share of total FDI stood at 38.3 percent; it reaches the peak of 43.7 percent between the periods 1990-94, fell to 23.6 percent in 1995-99 and rose to 40.7 percent in 2005-09. Its average total all through the period was, however, 34.8 percent in 1980-2009. Ogbanje et al, (2010) in their findings revealed that the manufacturing and processing sector was the most highly favoured by the net flow of foreign investment. This result is in conformity with Fabayo (2003) that the manufacturing sector attracts more FDI than other sectors of the economy. However, many problems are hindering the growth of the manufacturing sector in Nigeria and as a result the country is progressing very slowly towards economic diversification. Dipak and Ata (2003) summed up the economic scenario in Nigeria and the role of the manufacturing sector by identifying the main hurdles that mostly and historically affect its development and growth. These barriers include insecurity, political instability, market-distorting, state-owned monopolies, weak infrastructure and unavailability of finance while Adenikinju (2003) added excessive bureaucracy and rampant corruption.

Thorough look at views of the immediate afore mentioned researchers, indicate that they fail to consider the forces of demand and supply, a critical view reviews that some of the decline in the manufacturing sector is because of the forces of demand and supply. Improvement in the standard of living and advancement in technology have made some people feel that they have outgrown some
certain things and therein the need to encourage foreign investors who will in turn bring about some of the technological advancement and high standard of living the country needs.

III. METHODOLOGY

The focus of this study is to examine foreign direct investment on the management of the manufacturing sector in Nigeria, for the period, 1981-2012. Annual data set for the period 1981-2012 were extracted from the Central Bank of Nigeria Statistical Bulletin and researcher's computation. The statistical technique employed in this study is the ordinary Least Squares (OLS) multivariate regression.

Model Specification
The model for this study examines the effect of foreign direct investment into the manufacturing sector on output growth.

MOUPUT = $\lambda_0 + \lambda_1$ FDIMS, $\lambda_2$ EXCRT, $\lambda_3$ INTR + $u$ 

Where:
MOUPUT= Manufacturing sector output
FDIMS = Foreign direct investment into the manufacturing sector
EXCRT = Exchange rate
INTR = Interest rate
Ut = Stochastic term

Apropi expectations:
$\lambda_1$, $>0$, $\lambda_2$, $<0$, $\lambda_3$, $<0$.

Variables
Dependent variable: MOUPUT – Manufacturing Sector Output
Independent Variables: FDI – Foreign direct investment
EXCRT = Exchange rate

Hypotheses
H01: Foreign Direct Investment has no significant impact on the manufacturing sector in Nigeria.
H02: Exchange rate has no significant impact on the manufacturing sector in Nigeria.

IV. PRESENTATION AND EMPIRICAL RESULTS

Data Description

Table 1: Data for Analysis

<table>
<thead>
<tr>
<th>YEAR</th>
<th>MOUPUT</th>
<th>FDI</th>
<th>EXCH</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>13837.9</td>
<td>334.7</td>
<td>0.6955</td>
<td>7</td>
</tr>
<tr>
<td>1982</td>
<td>15633.5</td>
<td>290</td>
<td>0.7242</td>
<td>10.25</td>
</tr>
<tr>
<td>1983</td>
<td>10797.4</td>
<td>264.3</td>
<td>0.7649</td>
<td>7.25</td>
</tr>
<tr>
<td>1984</td>
<td>9532.75</td>
<td>360.3</td>
<td>0.8938</td>
<td>10.5</td>
</tr>
<tr>
<td>1985</td>
<td>12032.4</td>
<td>646.1</td>
<td>2.026</td>
<td>17.5</td>
</tr>
<tr>
<td>1986</td>
<td>11582.6</td>
<td>735.8</td>
<td>4.0176</td>
<td>16.5</td>
</tr>
<tr>
<td>1987</td>
<td>12041.6</td>
<td>2452.8</td>
<td>4.5367</td>
<td>26.8</td>
</tr>
<tr>
<td>1988</td>
<td>13713.9</td>
<td>1718.2</td>
<td>7.3916</td>
<td>25.5</td>
</tr>
<tr>
<td>1989</td>
<td>14011.5</td>
<td>13877.4</td>
<td>8.0378</td>
<td>20.01</td>
</tr>
<tr>
<td>1990</td>
<td>14702.4</td>
<td>13877.4</td>
<td>8.0378</td>
<td>20.01</td>
</tr>
<tr>
<td>1991</td>
<td>16078.5</td>
<td>6916.1</td>
<td>17.2984</td>
<td>36.09</td>
</tr>
<tr>
<td>1992</td>
<td>15357.2</td>
<td>14463.1</td>
<td>22.0511</td>
<td>21</td>
</tr>
<tr>
<td>1993</td>
<td>14788.1</td>
<td>29675.2</td>
<td>21.8861</td>
<td>20.18</td>
</tr>
</tbody>
</table>
Table 2: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>MOUPUT</th>
<th>EXCH</th>
<th>FDI</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>17830</td>
<td>73.86612</td>
<td>476582.2</td>
<td>19.90904</td>
</tr>
<tr>
<td>Median</td>
<td>14702.4</td>
<td>71.8</td>
<td>92795.5</td>
<td>20</td>
</tr>
<tr>
<td>Maximum</td>
<td>34711.3</td>
<td>164.21</td>
<td>5699233</td>
<td>51.48</td>
</tr>
<tr>
<td>Minimum</td>
<td>9532.75</td>
<td>0.6955</td>
<td>264.3</td>
<td>7</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>7199.016</td>
<td>63.73375</td>
<td>1316892</td>
<td>7.688368</td>
</tr>
<tr>
<td>Skewness</td>
<td>1.250865</td>
<td>0.1148</td>
<td>3.486912</td>
<td>1.99013</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>3.283997</td>
<td>1.330833</td>
<td>13.44625</td>
<td>10.61995</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>8.188269</td>
<td>3.666828</td>
<td>203.7712</td>
<td>95.46214</td>
</tr>
<tr>
<td>Probability</td>
<td>0.01667</td>
<td>0.159867</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sum</td>
<td>552730</td>
<td>2289.85</td>
<td>14774050</td>
<td>617.1802</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>1.55E+09</td>
<td>121859.7</td>
<td>5.20E+13</td>
<td>1773.33</td>
</tr>
<tr>
<td>Observations</td>
<td>31</td>
<td>31</td>
<td>31</td>
<td>31</td>
</tr>
</tbody>
</table>

Source: Eviews 8.0

Table 2 presents the result for the descriptive statistics for the variables. As observed, Manufacturing Output has a mean value of 17830.00 and standard deviation of 7199.016. The standard deviation is large and suggests considerable deviation of manufacturing sector output over time from the mean. The maximum and minimum values are 34711.3 and 9532.75 respectively. The mean value for foreign direct investment (FDI) is 476582.3 with a standard deviation of 1316892 which is large and suggests considerable deviation of FDI flows over time from the mean. FDI flows have actually been increasing over time. The maximum and minimum values are 476582.3 and 264.300 respectively. Exchange rate with respect to the dollar has a mean value of 65.805 and standard deviation of 63.73372 which reflects the extent to which it deviates from its mean. The maximum and minimum values are 164.2100 and 0.696 respectively. Interest rate (INTR) is observed to have a mean value of 19.9094 and a standard deviation of 7.6883 which reflects the extent to which it deviates from its mean. The maximum and minimum values are 51.4800 and 7.00 respectively. The
Jacque-bera statistics for the variables shows that all the variables (MOUTPUT, FDI and INT) are normally distributed since the p-value is less than 0.05 except for EXCH that the normality condition does not hold for the data since the p-value is greater than 0.05. We proceed to examine the correlation estimates for the variables.

### Table 3: Correlation Matrix

<table>
<thead>
<tr>
<th></th>
<th>MOUTPUT</th>
<th>EXCH</th>
<th>FDI</th>
<th>INT</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOUTPUT</td>
<td>1</td>
<td>0.782491</td>
<td>0.667738</td>
<td>0.293455</td>
</tr>
<tr>
<td>EXCH</td>
<td>0.782491</td>
<td>1</td>
<td>0.439877</td>
<td>0.265642</td>
</tr>
<tr>
<td>FDI</td>
<td>0.667738</td>
<td>0.439877</td>
<td>1</td>
<td>0.090515</td>
</tr>
<tr>
<td>INT</td>
<td>0.293455</td>
<td>0.265642</td>
<td>0.090515</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Eviews 8.0

From the correlation matrix in Table 3, Manufacturing Output (MOUTPUT) shows a positive correlation with Exchange rate (EXCH) (78 percent), Foreign Direct Investment (FDI) (67 percent), and Interest rate (INT) (29 percent). Similarly, Exchange rate (EXCH) shows a positive correlation with Foreign Direct Investment (FDI) (44 percent), and Interest rate (INT) (27 percent), while Foreign Direct Investment (FDI) shows a positive correlation with Interest rate (INT) (9 percent). The result suggest that there is absence of multicollinearity among the independent variables since the correlation among them are less than 80 percent.

### Table 4: Regression Result with AR(4)

- **Dependent Variable:** MOUTPUT
- **Method:** Least Squares
- **Date:** 04/03/16   **Time:** 23:58
- **Sample (adjusted):** 1985-2012
- **Included observations:** 28 after adjustments
- **Convergence achieved after 37 iterations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>9289.103</td>
<td>3872.052</td>
<td>2.399013</td>
<td>0.0249</td>
</tr>
<tr>
<td>EXCH</td>
<td>74.20643</td>
<td>29.41581</td>
<td>2.522672</td>
<td>0.0190</td>
</tr>
<tr>
<td>FDI</td>
<td>0.001977</td>
<td>0.000770</td>
<td>2.568029</td>
<td>0.0172</td>
</tr>
<tr>
<td>INT</td>
<td>99.24732</td>
<td>108.2379</td>
<td>0.916937</td>
<td>0.3687</td>
</tr>
<tr>
<td>AR(4)</td>
<td>0.229094</td>
<td>0.477655</td>
<td>0.479623</td>
<td>0.6360</td>
</tr>
</tbody>
</table>

| R-squared | 0.756323 | Mean dependent var | 18535.96 |
| Adjusted R-squared | 0.713945 | S.D. dependent var | 7213.220 |
| S.E. of regression | 3857.927 | Akaike info criterion | 19.51408 |
| Sum squared resid | 3.42E+08 | Schwarz criterion | 19.75197 |
| Log likelihood | -268.1971 | Hannan-Quinn criter. | 19.58681 |
| F-statistic | 17.84686 | Durbin-Watson stat | 1.879021 |
| Prob(F-statistic) | 0.000001 |

**Inverted AR Roots**

| .69 | .00-.69i |

Source: Eviews 8.0

A close examination of the estimated model shows that the results are satisfactory. A high value of the R² given to us as 0.756323 implying that a 75.6% systematic variation in Manufacturing Output (MOUTPUT) is explained by Foreign Direct Investment (FDI), Exchange rate (EXCH), and Interest rate (INT). Only 24.4% is left unexplained and this is assumed to be captured by the error term, U. The adjusted R² is given as 0.713945. This means that after adjusting for the degree of freedom, the adjusted R² explains approximately 71.4% systematic variation in the dependent variable. The higher the adjusted R², the lower the residual variance error due to a one-on-one relationship between the both of them and this means our model have a better predictive ability. The F-ratio with the value of 17.84686 shows that the model easily passes the F-test at 1% and 5% level of significance and this means that the hypotheses of a significant linear relationship between the dependent and independent variables taken together is validated. This is also shown with a p-value of 0.000001. The T-statistics using the rule of thumb (which states that when the t-value of the parameter
estimate is greater than or equal to 2 then it is statistically significant in explaining the dependent variable but when it is less than 2, then it is not). The t-values shows that intercept, exchange rate, and foreign direct investment which have values of 2.399013, 2.522672 and 2.568029 taken in their absolute form, are statistically significant in explaining the manufacturing output while interest rate value of 0.916937 is not statistically significant in explaining manufacturing output. This means that interest rate is not an important variable in explaining rate of manufacturing output in Nigeria. The Durbin Watson test for 1st order serial correlation shows the absence of autocorrelation as we have a value of 1.879021. A close observation of the co-efficients shows that they are not all correctly signed based on economic theory. All the variables are positively related to manufacturing output in the country. The intercept and co-efficients are interpreted as follows:

**Intercept**
The intercept of 9289.103 means that the model passes through the point 9289.103. This indicate that when all the independent variables are zero, then manufacturing output is increased by 9289.103 units.

**Exchange Rate**
The coefficient of exchange rate is positive which conforms to the economic theory. The co-efficient of 74.20643 indicate that a one-unit increase in exchange rate will lead to an increase in manufacturing output by 74.20643 units on the average.

**Foreign Direct Investment**
The sign of import coefficient is positive. This conforms to the theoretical postulation, which stressed that foreign direct investment is positively related to manufacturing output. The co-efficient of 0.001977 implies that a one unit increase in foreign direct investment will lead to an increase in manufacturing output by 0.001977 units on the average.

**Interest rate**
The coefficient of interest rate is also positive. This conforms to a priori expectation that reduced interest rate increases manufacturing output. Reduced interest rate will increase the productive capacity of the country thereby increasing manufacturing output. The coefficient of 99.24732, indicates that a one unit decrease in interest rate will lead to an increase in manufacturing output by 99.24732 units on the average.

**Test of Hypotheses**
The hypotheses are tested in the course of the analysis:

**H01:** Foreign Direct Investment has no significant impact on the manufacturing sector in Nigeria.

We observed from the analysis that there is a positive and significant relationship between foreign direct investment (FDI) and manufacturing output (MOUTPUT) in Nigeria. Hence, foreign direct investment is a major determinant of manufacturing output (MOUTPUT) in Nigeria. Based on the empirical findings, it can be said that the contribution of FDI to growth is estimated to be positive from the sector’s (manufacturing sector) point of view. It also shows that Foreign Direct Investment in the manufacturing sector has a significant impact on economic growth in Nigeria.

**H02:** Exchange rate has no significant impact on the manufacturing sector in Nigeria.

The result indicates that there is a positive and significant relationship between Exchange rate (EXCH) and manufacturing output (MOUTPUT) in Nigeria. Hence, exchange rate is a major determinant of manufacturing output in Nigeria. Thus, Exchange rate (EXCH) has an effect on the growth of manufacturing output (MOUTPUT) in the Nigeria economy.
V. SUMMARY, CONCLUSION AND RECOMMENDATION

The focus of this study is to examine the impact of foreign direct investment on the management of the manufacturing sector in Nigeria, for the period, 1981-2012. Annual time series data sourced from the Central Bank of Nigeria Statistical Bulletin, 2012 to examine the relationship between the variables. From the findings, it was observed that there is a positive and significant relationship between foreign direct investment (FDI) and manufacturing output (MOUTPUT) in Nigeria from the first hypothesis, that is, foreign direct investment is a major determinant of manufacturing output (MOUTPUT) in Nigeria. Again, it is also observed that there is a positive and significant relationship between Exchange rate (EXCH) and manufacturing output (MOUTPUT) in Nigeria. Hence, exchange rate is a major determinant of manufacturing output in Nigeria.

Foreign direct investment (FDI) is unique among economic concepts in that there are often pervasive opinions among national populations, which wholly attribute economic success to FDI or wholly fault it for economic stagnation. Thus, attracting foreign direct investment has become very crucial for most countries because of its perceived positive impact on manufacturing sector output as well as productivity spillover to domestic and industrial firms. Successive government policies have been directed towards structural and regulatory reforms such as privatisation of state enterprises, liberalisation of their foreign exchange markets and establishment of fiscal incentives in order to attract more foreign direct investments. This calls for a major concern by the current administration of President Buhari and Professor Osinbajo led government to radically tackle the loopholes that have adversely affected the impact of these international bodies against the Nigerian economy concerning the manufacturing sector. If this holds, the manufacturing sector will be one of the major recipients of foreign direct investment in Nigeria.

Premised on this, it is therefore recommended that the Nigerian government put stringent measures/policies to ensure the enormous benefit accrued to FDI in the manufacturing sector are taken advantage of and well utilized to positively enhance the Nigerian economy. Further, appropriate policy measures to attract foreign capital should be formulated and implemented to boost increased manufacturing sector output. The policies that will bring about improvement in foreign direct investment should be encouraged, as well as policies and programmes that would promote or stimulate foreign capital in the form of FDI and reduced interest rate should be encouraged. The study also suggest that despite the fact that the importance of FDI cannot be over accentuated, there is the need for government and policy makers to realize the fact that the fundamental element in any successful development strategy ought to be the encouragement of domestic investors first before going after foreign investors.

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