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Abstract

Foreign direct investment has been described as catalysts for boosting economic performance which is expected to lead to increases in country’s earnings thereby creating an avenue for growth by raising the national income of the country and subsequently overall development. But the question many researchers and policy makers are interested to its answer is does FDI’s effect trickle down to the small and medium scale economic activities which provide employments to the greater populace of the economy especially developing economies? Thus, this study assesses the impact of foreign direct investment on the growth of Small and Medium Scale Enterprises in Nigeria. The study determined the long run relationship between foreign direct investment and the growth of Small and Medium Scale Enterprises in Nigeria using annual data between 1986 and 2016. The Phillip Perron (PP) and the Engel-Granger Model (EGM) for co-integration were employed in the analysis. Findings revealed a strong evidence of co-integration relationship of foreign direct investments in influencing rate of change in the growth of Small and Medium Scale Enterprises in Nigeria. The study, apart from empirically providing information that has contradicted recent claims of foreign direct investment led growth of SME’s in Nigeria, has also made some recommendations which include the need for Government to play more roles towards empowering Small and Medium Scale Enterprises in enhancing their capacity and competitiveness; and also in facilitating the linkages between Foreign Direct Investment and Small and Medium Scale Enterprises. This call for repositioning strategy – government should improve in the area of funding the activities of Small and Medium Scale Enterprises in Nigeria, so as to discourage them from collecting loans from commercial banks at a higher interest rate which has a negative impact on the growth of SMEs as seen in this study. Consequently, government should also make the process of getting these funds through the coordinating agencies of SMEs in Nigeria, softer and faster; so as to encourage SMEs to develop new technologies and obtain the pertinent information about the operations of the international markets to enhance their performances.

Keywords:
Foreign Direct Investment, Small and Medium Scale Enterprises, Nigeria

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Background to the Study
This study investigated the impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises in Nigeria using annual time series data from 1986 – 2016. Foreign Direct Investment (FDI) is expected to contribute to Small and Medium Scale Enterprises (SMEs) not only by providing foreign capital but also by crowding in additional domestic investment. By promoting both forward and backward linkages with the domestic economy, additional employment is indirectly created and further economic activity stimulated in as much as factors like institutions and agglomeration economies, natural resource, low labour cost, trade liberalization and less restriction in bureaucracy which attract Foreign Direct Investment are in place (Jenkin and Thomas, 2002).

Foreign Direct Investment consists of external resources including technology, management, marketing expertise and capital. All these generate a considerable impact on host nation’s productive capabilities. The success of government policies of stimulating the productive base of the economy depend largely on her ability to control adequate amount of Foreign Direct Investment comprising of managerial, capital and technological resources to boost the existing production capacity (Udoh, 2015).

Developing nations such as Nigeria characterized as low income earners by the World Bank, value Small and Medium Scale Enterprises for several reasons, viewed in static terms, the main argument is that Small and Medium Scale Enterprises, on average achieves decent levels of productivity especially of capital and factors, taken together (that is total productivity factor) while also generating relatively large level of socio-economic development. In dynamic terms, the Small and Medium Scale Enterprises sector is viewed as being populated by firms most of which have considerable growth potentials. Small and Medium Scale Enterprises in developing countries achieve productivity increase to a great extent simply by borrowing from shelf of technologies available in the world (Christopoulos and Tsionas, 2004).

The dwindling revenue accruing to developing countries, (Nigeria in particular) has made it mandatory for these countries to depend less on self-efforts and seek assistance elsewhere. Thus, many developing countries had to turn to foreign private resources or Foreign Direct Investment in order to fill the resource gap in their quest for economic development (Victor, 2013). Due to the technological advancement and abundance of capital in the world, Small and Medium Scale Enterprises must increase their productivity through adequate financing if they are to maintain or improve on their contribution to the socio-economic development of a developing country like ours. This brings to bear the importance of capital and its cost of sourcing for Small and Medium Scale Enterprises development, among other factors like efficient manpower, disciplined management, cheap source of funds, infrastructure and enabling environment, production equipment and availability of markets (both local and international) that improve their operations by ensuring sustainable socio-economic development; although, a set of variables hampers the performance of Small and Medium Scale Enterprises maximum contribution to the economy.
Countries impose restrictions on Foreign Direct Investment because higher international flow can also create instability by leaving countries open to sudden reversal in capital flows. This risk can increase if domestic macro-economic and financial policies are weak, inconsistent, or if the financial systems are not adequately developed to cope with large capital flows. Poor prospects for growth and unfavorable economic environment have hampered the Foreign Direct Investment flows to many nations, a number of other factors (such as the structural and political factors) have also been important discouraging factors.

The key issue here, is that, do these Foreign Direct Investments trickle down to impact on the growth of Small and Medium Scales Enterprises in Nigeria? If yes, then the sustainability of Foreign Direct Investment is a worthwhile venture and ways of achieving its sustainability must be ascertain by identifying those factors that contributes to its growth with the view to ensuring its enhancement.

The empirical studies reviewed in this research, shows that most of the studies made used of the Ordinary Least Square (OLS) technique and chi-square as their models for data estimation, which seems to be inferior models of estimation that suggest why the research adopts the Vector Autoregressive (VAR) model and the Engel Granger technique as tools for the data analysis, which none of the studies reviewed have ever combined. The Vector Autoregressive model is a superior model because of the fact that it does not require any theoretical backing and it treats all variables as apriori endogenous. This study examines the impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises from 1986 – 2016 which other studies reviewed have not covered up to. Also, none of the studies reviewed has ever used the Vector Autoregressive Model as tools of estimation.

It is in the light of these conflicting views between FDI and growth of Small and Medium Scale Enterprises, the possible long run relationship that may exist between the two that has called for this study, and hence, the study aims to contribute in that way. Therefore, the objectives of this study is to empirically assess the impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises in Nigeria and also to determine the long run relationship between Foreign Direct Investment and the growth of Small and Medium Scale Enterprises in Nigeria.

The paper is organized into five sections, given the introduction as section one. The rest of the paper is organized as follow: Section two presents the literature review. In section three, the methodology adopted for this study is presented. Presentation of results is done in section four and conclusion is drawn in section five with policy implication.

Literature Review and Theoretical Framework
The empirical literature provides mixed and conflicting evidence with respect to Foreign Direct Investment impact on the growth of Small and Medium Scale Enterprises in different studies. Beginning with the pioneering researches in the area (see Hualinpu and Yongdan, 2015; Vasco, 2015; Udoh, 2015; Simon – Okeand Johaosh, 2014; Israel, 2014; Olusanya, 2013; Ogbonna, Nwajumogu, Onwuka and Nwokoye, 2013; Victor, 2013; Nkechi, 2013; Abubakar
and Yahaya, 2013; Emmanuel, 2012; Christopher and Adepoju, 2012). This phenomenon can be attributed to a number of factors, including estimation techniques and or statistical/econometric technique, choice of variables, study period, and level of development of the country being studied, among other things.

Udoh (2015) conducts a research on Foreign Direct Investment and growth of small and medium scale enterprises in Nigeria. The objective of study include; to evaluate the impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises and to determine the impact of the volume of Foreign Direct Investment on the funding of Small and Medium Scale Enterprises in Nigeria. ANOVA Test and Ordinary Square Techniques of test were employed. The finding of the study shows that Foreign Direct Investment have significant relationship with the growth of Small and Medium Scale Enterprises in Nigeria (75%). Also, Foreign Direct Investment impacts significantly on the funding of Small and Medium Scale Enterprises in Nigeria.

Subair and Salihu (2011) examines the impact of Foreign Direct Investment on development of Small and Medium Scale Enterprises in Nigeria. Using secondary data and Ordinary Least Square (OLS) technique of estimation, it was discovered that Foreign Direct Investment has a positive and significant relationship with small scale farmers output in Nigeria.

Vasco (2015) examines the role of Foreign Direct Investment and impact of Small Scale Enterprises in Mozambique, the essence of the study is to understand the role of Foreign Direct Investment and its impact on Small Scale Enterprises in Mozambique. Data were collected from the review of literature as well as studies already done by scholars, think tanks, research organizations, NGOs, Government document and websites. The study observe that Foreign Direct Investment in Mozambique has a negative impact on domestic Small and Medium Scale Enterprises but positive impact on foreign firms and therefore, recommends that it is an opportunity for the Domestic Small and Medium Scale Enterprises to learn from foreign Small and Medium Scale Enterprises through joint venture or partnership.

Agreement in the literature which is supported by several empirical evidences seems to be emphasizing that foreign firms through Foreign Direct Investment do transfer technology to their affiliates, a process that can equally allow spill over to unaffiliated firms in the host economy which in turn augments growth through productivity and efficiency gains by local firms. Foreign Direct Investment contributes to economic growth through technology transfer with the multinational firms transferring technology either directly to their foreign owned enterprises or directly to domestically owned and controlled firms in the host country.

From the empirical literature reviewed in this research, it is observed that 60% of the researches agreed that Foreign Direct Investment do have a significant impact on the growth of Small and Medium Scale Enterprises, a country’s economy; its contribution to Gross Domestic Product (GDP); poverty reduction and employment generation. 20% stated that Small and Medium Scale Enterprises are tools for employment generation and sustainable development. 10% also said that Foreign Direct Investment have had a negative effect in the
long run on the Nigerian manufacturing sector, while the remaining 10% observed that, Foreign Direct Investment has a negative impact on domestic Small and Medium Scale Enterprises but positive impact on foreign firms, which suggest that, it is an opportunity for domestic Small and Medium Scale Enterprises to learn from foreign Small and Medium Scale Enterprises through joint venture or partnership.

There are some theoretical models which investigates the impact of Foreign Direct Investment on Small and Medium Scale Enterprises. For instance, Aswathappa (2015) discusses the following theoretical rationale for Foreign Direct Investment to occur: the theory of Product Lifecycle, Market imperfections, Market power, internalization and Eclectic (spill over).

Product Life Cycle: Product life cycle theory states that a company will begin by its product and later undertake Foreign Direct Investment as the product moves through its life cycle. The theory identifies four stages in the life cycle of a product: innovation, growth, maturity and decline, as will be seen Foreign Direct Investment occurs in the latter two stages.

In the innovation stage, production takes place in the home country and any demand from overseas markets is met by exports. In the growth stage, sales tend to increase and to meet increasing demand from foreign markets, the firm sets up manufacturing facilities abroad. In the maturity stages, exports from home country decrease because of increased production in overseas location. Foreign manufacturing facilities are put in place to counter increasing competition and to maximize profits from higher sales in foreign markets. In the declining stage, the product becomes a commodity. Competitors take over production and distribution often with better scale economies. The original manufacturing country needs no investment overseas.

Market imperfection: Market imperfections, also called internalization theory, focus on imperfections in the market (for example trade barriers) that would decide Foreign Direct Investment. If trade barriers render a transaction less efficient than it could be a company will undertake Foreign Direct Investment to internalize the transaction thereby remove the imperfections. In other words, a firm chooses to invest in overseas facilities if a transaction with a foreign firm (through franchise, licensing or supply agreement) proves to be more costly. The transaction tends to be costlier because of lengthy negotiations, entering and monitoring, all brought about by market imperfections. In order to capture this phenomenon, from the theoretical and empirical literature reviewed on the relationship between FDI and Small and Medium Scale Enterprises, the theoretical framework for this research work was established based on the review of Aswathappa (2015).

\[ \text{GSME} = \text{FDI} + \text{GFCF} + \text{CBL} + \text{INT} \] \hspace{1cm} (1)

Where:
\text{GSME} = \text{SME Contribution to GDP (Proxy for growth of SMEs)}
\text{FDI} = \text{Foreign Direct Investment}
\text{GFCF} = \text{Gross Fixed Capital Formation}
Methodology
In this research, the impact of FDI on the growth of Small and Medium Scale Enterprises was analyzed using a data over the period of 1986-2016. This was accomplished by utilizing the econometrics technique of VAR co-integration test and unit root test.

Data Description
Sample Selection
For the purpose of this study, SME Contribution to GDP was used as the dependent variable and as a proxy for growth of SMEs. The Central Bank of Nigeria (CBN) published annual figures for SME’s contribution to GDP, FDI, GFCF, Interest rate and the CBL.

Estimation Procedure and Robustness Test
The analysis begins with ascertaining the order of integration of the variables. The procedure adopted in this study involves the use of the Phillip-Perron (1988) PPTest. The null hypothesis of PP test are non-stationarity, thus failure with respect to rejection implies unit root in the series. Following these unit root test, the Vector Autoregressive (VAR) co-integration Models is employed to examine the presence of any long-run association among the variables. To account for the sensitivity of results using this approach to co-integration to the automatic choice of lag length, the Schwarz Information Criterion (SIC) is used. The analysis of the data has been done using the EViews 9 econometric package.

Specification of the Model
Based on the objectives of the study, this work adopts the model of Aswathappa (2015). with minor modifications. It employed a multiple regression model based on FDI inflow, which makes it very similar to the model chosen for this study.

Phillip-Perron Unit Root Tests
For this purpose, the study uses the conventional Phillip-Perron unit root test as a tool for identifying the stationarity (or non stationarity) of a variable by running OLS regression of levels variables on their lag values.

Consider a variable Y that has unit root represented by a first-order autoregressive AR (1):

\[ \Delta Y_t = \alpha + \beta T + \gamma Y_{t-1} + \varepsilon_t \]

Where \( \alpha \) and \( \beta \) are parameters, \( \varepsilon_t \) is assumed to be a white noise, \( \Delta Y_t \) expresses the first difference of the variable with p lag, \( \Delta Y_t = Y_t - Y_{t-1} \). Y is a stationary series if -1 < p < 1. If p = 1, \( \gamma \) is a non-stationary series; if the process is started at some point, the variance of \( \gamma \) increases steadily with time and goes to infinity. If the absolute value of p is greater than one, the series is explosive. Therefore, the hypothesis of a stationary series can be evaluated by testing whether the absolute value of p is strictly less than one. If the series is correlated at higher order lags, the assumption of the white noise disturbance is violated.
Co-integration Analysis
The co-integration technique popularized by Engel and Granger (1987) which corrects disequilibrium is used to test for the long run relationship between the variables.

\[ \Delta Y_t = \alpha + \alpha \Delta X_t + \alpha \mu_t + \epsilon_t \]

Where
\( \Delta = \) First Difference Operator
\( \epsilon_t = \) Random Error Term
\( \mu_t = (Y_t - \beta - \beta X_t) \)

Empirical Results and Discussion
Unit root Results
Before performing the co-integration test, it is essential to check for the stationarity of the data series to be used. The test is conducted using one unit root model. That is, the Philips-Perron (PP) model. The essence of using the PP test is for confirmatory testing and the result of the unit root test is shown in table 1:

Table 1: Results of Unit Root Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>PP at level</th>
<th>PP at First Difference</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSME</td>
<td>-0.629230</td>
<td>-5.677795*</td>
<td>I(1)</td>
</tr>
<tr>
<td>FDI</td>
<td>-0.834396</td>
<td>-5.103064*</td>
<td>I(1)</td>
</tr>
<tr>
<td>GFCF</td>
<td>1.022387</td>
<td>-3.624777**</td>
<td>I(1)</td>
</tr>
<tr>
<td>CBL</td>
<td>-1.77532</td>
<td>-5.944074*</td>
<td>I(1)</td>
</tr>
<tr>
<td>INT</td>
<td>-2.537204</td>
<td>-4.821706*</td>
<td>I(1)</td>
</tr>
</tbody>
</table>

Source: Researchers computation using EVIEWS software version 9.0.
*(**)*** denote rejection of the null hypothesis of no level impact at 1%, 5% and 10% respectively.

The Phillip-Perron test for unit root shows all the variables were examined and found to be non-stationary at levels I(0). However, each series of the variables became stationary at first difference indicating that such variables are integrated of order one, I(1) as presented in table 1. Therefore, all variables are considered to be integrated of order one and this implies that there might exist a long-run relationship among the series. However, if two or more variables are integrated of the same order, co-integration is said to exist among such variables. Therefore, the paper proceeded to test for their long run co-integration relationship using the Engel and Granger co-integration framework.

Table 2: Engel-Granger test for co-integration

<table>
<thead>
<tr>
<th>Variables from Engel-Granger</th>
<th>T - test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual series from Engel-Granger</td>
<td>0.0050***</td>
</tr>
</tbody>
</table>

Source: Researchers computation using EVIEWS software version 9.0.
***(**)*** denote rejection of the null hypothesis of no level impact at 1%, 5% and 10% respectively.
The results of co-integration test based on the Engel - Granger test for co-integration approach are presented in Table 2. Indeed, contend that a linear combination of variables integrated to the same orders may yield a stationary series. However, argues that given the problems associated with the testing procedures for co-integration, if the chosen set of variables (dependent and independent) co-integrated among themselves so as to produce a stationary residual, there is need to produce the degree of integration of the individual variables. This supports our choice of estimator which allows for inclusion I(1) processes in the same equation to estimate long run elasticities.

As indicated earlier, a fully modified ordinary least squared (FMOLS) regression was estimated using the variables presented and the residuals from this FMOLS regression was tested for stationarity using the unit root test, and also, E-views 9.0 has an in-built Engel-Granger Co-integration test both with Tau-statistic and Z-statistic values as reported in table 2. There was strong evidence of co-integration relationship between the growth of Small and Medium Scale Enterprises and the explanatory variables presented in the model. The implication is that, a linear combination of the variables will follow a stationary process hence convergence to long-run equilibrium is possible. Since the present of co-integration is established, a long-run relationship is said to exist among the variables of the study. The null hypothesis of no long run relationship between Foreign Direct Investment and the growth of Small and Medium Scale Enterprises is therefore rejected.

The results of the co-integration regression based on FMOLS are presented in Table 3. All the variables presented in the model were statistically significant to exert strong impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises in the long-run for Nigeria.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>t-test</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>-24.30412</td>
<td>-3.644840</td>
<td>0.0042***</td>
</tr>
<tr>
<td>GFCF</td>
<td>102.0151</td>
<td>2.715157</td>
<td>0.0121**</td>
</tr>
<tr>
<td>CBL</td>
<td>-0.941231</td>
<td>-0.458696</td>
<td>0.6506</td>
</tr>
<tr>
<td>INT</td>
<td>-0.233653</td>
<td>-0.502487</td>
<td>0.6199</td>
</tr>
<tr>
<td>C</td>
<td>-1494.808</td>
<td>-2.144481</td>
<td>0.0423**</td>
</tr>
</tbody>
</table>

R-squared = 0.908084, Adjusted R-squared = 0.892765

**Source:** Researchers computation using EVIEWS software version 9.0.

***(***)** denote rejection of the null hypothesis of no level impact at 1%, 5% and 10% respectively

The empirical results in Table 3 fully modified ordinary least squared. The regression had a coefficient of determination of about 90% adjusted for the degrees of freedom. This means that about 90% of the variations in the growth of Small and Medium Scale Enterprises in Nigeria could be attributed to the explanatory variables presented and therefore presents a good fit of the regression model. This reinforces the existence of a long-run linear relationship
among the growth of Small and Medium Scale Enterprises, Foreign Direct Investment, Gross Fixed Capital Formation, Commercial Bank Loans to SMEs and Interest Rate.

From the results, a negative relationship is found to exist between Foreign Direct Investment and the growth of Small and Medium Scale Enterprises. This indicates that a 1% increase in Foreign Direct Investment brings about 24% decreases in the growth of Small and Medium Scale Enterprises over the long run horizon. This of course is found to be highly significant judging from 1% of the t-statistics of approximately 3.6 which is greater than the standing rule of two point seven. Thus, in the long run, Foreign Direct Investment affects the growth of Small and Medium Scale Enterprises negatively in Nigeria.

Discussion of Findings
An Engel and Granger testing procedure that allows testing for a level relationship of the same order of integration of the underlying series has been applied on the data to ascertain the long run and impact relationships between Foreign Direct Investment and the growth of Small and Medium Scale Enterprises in Nigeria. Findings from the analysis revealed that the main variable of interest (i.e. Foreign Direct Investment) is statistically significant and negative, with a large coefficient in the level of its contribution in stimulating the growth of Small and Medium Scale Enterprises within the period under study. A unit increase in Foreign Direct Investment reduces the growth of Small and Medium Scale Enterprises by 24 percent. This outcome reveals the grossly underdeveloped state of the Foreign Direct Investment in Nigerian economy. This implies that in stepping up, the FDI do not have meaningful impact on the growth of Small and Medium Scale Enterprises for balance and diversification. Where this analysis is stretched further; it means that, for FDI to be able to stimulate and influence the rate of change in the growth of Small and Medium Scale Enterprises, a fast growing Foreign Investors in the real sector economy is required. This result indicates that Foreign Direct Investment can be treated as a long run forcing variable explaining the growth of Small and Medium Scale Enterprises. This results contradict the findings of Udoh (2015), Israel (2014), Emmanuel (2012), Subair and Salihu (2011) among others. The finding however, agreed with the findings of Vasco (2015), Victor (2013), Nkechi (2013), Ogbonna, Nwajumogu, Onwuka and Nwokoye (2013), among many studies.

Summary, Conclusion and Recommendation
This study investigated the impact of Foreign Direct Investment on the growth of Small and Medium Scale Enterprises in Nigeria, with the aim of empirically assessing the long run relationship. In the process of achieving this objective, the Engel and Granger co-integration and Fully Modified OLS (FMOLS) are employed. Findings showed that the co-integration analysis indicates a long run relationship between Foreign Direct Investment and the growth of Small and Medium Scale Enterprises over the period under study. Foreign Direct Investment, Gross Fixed Capital Formation, Commercial Bank Loans to SMEs and interest rate can be treated as the 'long run forcing' variable explaining the growth of Small and Medium Scale Enterprises in Nigeria. In other words, there is long run relationship between Foreign Direct Investment, Gross Fixed Capital Formation, Commercial Bank Loans to SMEs and Interest Rate and the growth of Small and Medium Scale Enterprises in Nigeria. Moreover, the result of FMOLS coefficients is a highly significant negative sign.
In conclusion, the absence of recent time series study to provide empirical proof on the contribution of Foreign Direct Investment to the growth of Small and Medium Scale Enterprises in Nigeria, this study was undertaken to actually bridge this gap in the literature. From the findings, since Foreign Direct Investment has a significant negative impact in the long run on the growth of Small and Medium Scale Enterprises; it means that empirically, Foreign Direct Investment has the potential to significantly contribute to the growth of the economy while the high interest rate SMEs pay on loans collected from commercial banks has affected the growth rate of Small and Medium Scale Enterprises negatively in the long-run, making the SME’s continue losing its prospects.

The study therefore recommends that Government need to play more roles to empower Small and Medium Scale Enterprises in enhancing their capacity and competitiveness and also in facilitating the linkages between Foreign Direct Investment and Small and Medium Scale Enterprises. This call for repositioning strategy – government should improve in the area of funding the activities of Small and Medium Scale Enterprises in Nigeria, so as to discourage them from collecting loans from commercial banks at a higher interest rate which has a negative impact on the growth of SMEs as seen in this study. Consequently, government should also make the process of getting these funds through the coordinating agencies of SMEs in Nigeria, softer and faster; so as to encourage SMEs to develop new technologies and obtain the pertinent information about the operations of the international markets to enhance their performances.

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