The Effects of Manufacturing and Service Sectors on Economic Growth in Nigeria

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Abstract
The manufacturing and service sectors are the most dominant sectors that propelled the rapid growth and development of many industrialized nations. They are regarded as the engine of growth. However, their performances have remained largely slow in Nigeria. Therefore, the research investigated the influence of the manufacturing and service sectors on Nigeria’s economic growth and development in the period under review. The methodology employed to test the levels of stationarity of the variables is the Augmented Dickey-Fuller, while the dependent variable proxied by GDP and that of the independent variables are manufacturing sector, value added, service sector, value added, government expenditure and consumer price index. The obtained results indicated all variables are of order one. Also, the study found the existence of a long run relationship existing among the variables of manufacturing and service sectors which are positive and significant meaning that as the manufacturing and service sectors grow, the economy also grows rapidly. The recommendations of the study among other things are that the central authorities should, therefore, endeavor to massively invest and boost the infrastructural needs of the manufacturing and service sectors of the economy to further enhance the economic growth potentials of the economy.

Keywords: Economic growth, Manufacturing, Relationship, Service sectors. JEL Classification: L67, L80, Q48

1. Introduction
The expansion of the manufacturing and service sectors are generally seen as the greatest crucial machine of the development process. Kaldor (1966, 1967) suggests that the growth of manufacturing output with respect to the GDP have a strong positive affiliation. Which is founded on specific features of the manufacturing sector, thereby, making it the significant input of GDP increase well as reduces the poverty rate in the country? Firstly, inert and energetic growing revenues to scale are features of manufacturing activities, in the same vein, diminishing returns are tantamount to other non-manufacturing activities (Kaldor, 1966: Olamade and Oni, 2016). Growth law as postulated by Kaldor (1966), which were created based on the GDP increase characteristics of the manufacturing sector. It says that the manufacturing sector is a key determinant of the rapid increase in the GDP of the country. He also enacted a law that describes the efficiency of the manufacturing sector, stating its own contribution to its increases, that is, the output of the manufacturing sector has contributed vastly to its own growth. He lays emphasis on the efficiency of the other sectors aside from the manufacturing sectors, on how their output has also positively enhanced the great increase in the manufacturing segment(Olamade and Oni, 2016).

It is important to know that the manufacturing sector offers no positives inputs at the initial stage of development, it is ultimately strengthened by the “post-Keynesian growth model” in line with the hypothesis used by Kaldor’s in his study called ‘engine of growth’. Some of the important features of the manufacturing sector are to promote its competitiveness in the long-run and bring about helpful and resourceful advantage to every other significant segment of the country economy.
Due to the industrial revolution in the western world between the period of the 18th to 19th centuries, adoption of scientific innovations and the huge change in the socio-economic activities in those eras brought about the establishment of manufacturing industries. The activities of the industrial revolution started in Britain, replacing mechanization and the usage of fuels for the labor-intensive textile production (Delivani, 1991).

Governments of West African countries have taken keen interests in industrialization since the accomplishment of independence. As part of the positive effect of the industrial revolution in Nigeria, this brought about the adaptation industrialization by changing of all agrarian and commercial land space to a sophisticated mechanized oriented one. This brings about high inputs in the agricultural productivity of the country, thereby enhancing international trades as the number of the agricultural products drastically increased and also increases the GDP of the country through the revenue recovered from the export trades.

Based on several studies, the main driving force of the Economy worldwide is said to be the positive effect of industrialization. The industrial sector is particularly helpful in proving employment, facilitating the provision of goods and services and also the generation of incomes. The significant role of the manufacturing sector in the development of most underdeveloped nations can’t be overemphasized. For decades, there have been several studies conducted by Economists to study the major inputs that bring about economic growth and the machinery behind it. These have led to Nigeria employing several strategies which targeted at promoting economic growth by enhancing the productivity of the sector. Emmanuel (2015) illustrated that a strategy was adopted called Import substitution industrialization strategy which was targeted at minimizing the rate of importations of processed foods and stimulating the masses to patronize the locally produced goods to limit the rate of external spending thereby having effects on the economy. This was done during the 1st National Development Plan (NDP) between 1962 to 1968. This same strategy was consolidated in the 2nd era of NDP, which was between 1970 to 1974, which was the same time Nigeria experienced high revenue in the oil sector. The manufacturing productivity solely relied on raw materials imported from abroad owing to inability to produce raw materials locally and due to the weak technological foundation of the country (Emmanuel and Oladiran, 2015:136-152). The country was enjoying the juicy revenue from the oil earnings not until the 1980s when the world oil market experiences a big fall in their revenue from the oil exports. During the oil boom era in Nigeria, the country relied on import-dependent structure owing to the revenue coming in from the sales of oil, when the world oil market earnings crashed, the country could not survive the import-dependent structure and was unable to pay for the excess import bills(Sola, Obamuyi, Adekuno & Ogunleye, 2013:1195). Nigeria is classified by the World Bank as a country that is highly trade oriented, also, the country was considerably said to be inwardly trade-oriented during the production era between 1963-1973 and 1973-1985(Ebong, Udoh & Obafemi, 2014:12-24). There has been a growth of other aspects of the Nigerian economy since 2001 at a percentage of 7%, increasing to about 8.9% despite the apparent financial crisis, thereby, doubling the growth rate in the country prior to 1999. In 2009, when there was a global financial crisis, Nigeria’s growth performance dropped only to about 4.5%. This has been credited to the speedy growth rate in the non-oil export (Ajakaiye and Fakiyesi, 2009:). However, an investigation by the World Bank (2012) had exposed that the shape of development in the Nigerian economy had not grown substantial contribution from the industrial segment and development.

Despite Nigeria massive earning in the oil sector, statistics from the World Bank Development in 2012, illustrated that most Nigerians live averagely on less than $2 on daily basis amounting to almost 84.5% of the entire Nigeria population. Nigeria is being ranked by the United Nations Human Development Index, which was conducted in 2011, they were ranked 156th out of the 197 countries on the way to decline in its human development ranking as against 151st position in the year 2004. The country is considered among the forty-seven poorest countries in the world, according to the survey carried out by the World Bank Development in the year 2012(Adofu, Taiga & Tijani, 2015:001-006). It is rarely seen that manufacturing industries are absent in countries that have accumulated wealth, and industrialization is usually tantamount to a strong and thriving manufacturing sector. Africa’s development has been said to be hinged on the manufacturing sector, and the industry is labor-intensive and export-focused. The exports rates and the financial accomplishment of a nation are directly related. By progressively adding worth to goods before they are traded, incomes are enhanced, thereby increasing regular incomes per unit. Also, the manufacturing sector is also more supportable and less susceptible to outward shocks than commodities (KPMG, 2014).

In any country, be it developed or developing, manufacturing and service sectors are major drivers to development and growth of the economy. The manufacturing and service sectors in Nigeria have been said to be failing and this is meant to be taken seriously by both the government ruling and the citizens of the country. Firstly, the growth rate of our manufacturing sector is declining each year, due to poor infrastructures, prohibitive cost of machineries acquisition and poor motivation and lack of necessary support from government for industrialization drive of medium, small and micro enterprises, operations and management, distribution and logistics, marketing and

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branding, lack of properly trained workers, inadequate raw materials, production of substandard goods, political instability and militancy, the never-ending demand of exported goods by Nigerians and if I may add the insecurity in the country can also be seen as a problem to the manufacturing sector. Lack of credit or access to credit is still one of the foremost deterrents to industrialization in Nigeria. Industrialists, the government and financial institutions are to be blamed for this. In order to have the adequate finance to run their businesses, most industrialists are reluctant in involving others in the control of their businesses. Clearly, without doubts, this makes their financial outlook to remain bleak and persistent and curtailing their growth abilities. In addition, the stringent controls on credits limits access to finance from the financial institutions and coupled with government negligence discourage industrialists from borrowing. This stifles industrialization in the country (Eugene, 2015).

The study paper investigated the effects of the manufacturing and service sectors performances on economic growth in Nigeria. The rest of the study is outlined thus: Section two dealt with the literature and theoretical review of the study, while section three is the methodology and rest is the conclusion and recommendations.

2. Literature Review

2.1. Economic Growth

The term usually refers to a situation of enlargement and increases in the value and worth of a country’s goods and services over a period and this is measured by economists, using the GDP. Therefore, economic growth according to Hadji et al., (2014) may be unnoticeable in the short term. Meaning, an increase in a nation’s GDP may not immediately be translated into a corresponding betterment of the welfare of its people. Infrastructural development needs to be invested in by the nation in order to provide a suitable environment for economic development which would ultimately result in a better standard of living (Wilkins and Zarawski, 2014).

The words Economic growth and Economic development are used interchangeably, but are different, though both measured using GDP. However, since the two are differentiated, incorrect economic development will result from using GDP to measure both. Several authors have called for new ways to capture the well-being of people, one of them is Robert et al (2009), they argued that GDP is not a good measure of economic growth and that a high GDP does not necessarily translate to a high standard of living. The authors suggested that GDP should be replaced by indicators that promote sustainable development. The Human Development Index (HDI) is stated to be a measure of economic development (Tajvan, 2015).

2.2 Performance of the Nigerian Manufacturing Sector

Manufacturing sector can be satisfactorily funded by the Federal government of Nigeria, as a way of diversification to foster the economic growth and to ensure full integration of Nigerian manufacturing system into a global market. Malik (2004) examined the possibilities and feasibilities studies of the best practices to put in place before a manufacturing activity can flourish. Examples are notable infrastructure, stable and well-organized markets and the establishment of enabling and a suitable environment to encourage investors and discern the chances and motivations for firms, job creation and enlarge old businesses and creation of new ones. In Nigeria, there are some identified challenges which place major constrictions on the development of the manufacturing industry, they are: (a) Infrastructural limitations (b) limited access to credits, and (c) the macroeconomic environment restricting demand for goods produced by the manufacturing sector.

Several studies have asserted that the well-functioning markets are significant components for endorsing economic growth. Industrialized financial markets give rooms to firms to access new emerging markets and aid promotion of competitive advantage fosters industrial revolution and enhances productivity in the economy. Firms lack the goodwill to embraces the above-mentioned opportunities despite being subjected to profitable investments opportunities. In lieu of the development of the inability of the financial markets grudging attitudes towards lending, the firm’s investment decisions tend to be reliant on internally sourced funds or capitals from personal funds, friends. It is deduced that weak financial markets are vital constrictions to the regular Nigerian manufacturers. Alti (2003), surveyed the cash flow problems in the manufacturing sector and discovered a huge mainstream of firms in their operations perceived cash flow hitches. It was deduced that only a few of the firms pursued credits from recognized financial organizations because many are unsure of their chances. From the survey, it was revealed that a high number of firms, representing (31%) were frightened of applying for bank credits because of the high-interest rates. The table 1 reveals why many firms is not applying for Bank loans.
Following the report of this survey, it was gathered that many firms have agreed that financial institutions take the responsibilities of providing bank overdraft, which is a subject to annual renewal with interest rates oscillating between 21% to 25%. There is an obvious loophole in the banking system, due to lack of ability to provide the needs of its customers, especially the SME companies. It becomes highly imperative that the government improves the operating system of the financial markets. A survey done by the World Bank in 2005, it was concluded that innovative strategies become important while designing a strong financial environment, which should include: encouraging healthy competition amongst its financial institutions, easing the hoarding of information, averting unnecessary carefree and endorsing macroeconomic permanency. It is clearly known that providing the needed credits to the banking sector will generate capital to move the sector forward and indeed the whole economy.

However, the idle dimensions of the manufacturing industry is a major issue as the results of the study carried out indicates the reasons for poor performance in the manufacturing and service sectors is under capacity utilization. The scorecard reveals the utilization level to vary from 2% to 69% for Power usage, level of demand, telephone challenges, problem of I.T, foreign competition, amongst others.

The study argues that to achieve high productivity in Nigeria Manufacturing sector, there is a need to tackle the complications antagonizing the sector which are little technical expansion, Prohibitive cost of production, inadequate credits. Ebong (2014), discussed the industrial sector using time series data, showed that although the share of manufacturing and mining had a helpful impact on the growth of the actual GDP, the share of electricity consumption, skills, and dummy as a proxy for policy shift showed a negative relationship with growth in output.

In a related study conducted for Nigeria on macroeconomic determinants of industrial development Aiyedogbon (2015) argues that the Nigerian government had embarked on several industrial programmes with the goal of boosting industrial productivity, but all effort has failed to yield the required positive result(Aiyedogbon, Ohwofasa & Anyanwu, 2015:50-56). Soderbom (2002), Obadan (1999) and Onayemi (2003), observes that Nigeria’s over-dependence on oil has been a curse rather than a blessing due to the blatant mismanagement of the revenue from the oil sector which should have been channeled to the simultaneous investment of other areas of the economy such as agriculture, mining, and manufacturing (Söderbom, Teal & Wambugu, 2002., Mike, 1999.; Onayemi, 2003:). Onayemi, (2003). They further assert that the volatility of oil prices has produced a distortion effect on the manufacturing process because manufacturers have been compelled to expend more than necessary costs on fuel in the manufacturing process.
2.3 Theoretical Review: Kaldor’s Growth Theory

Numerous theories have been propounded to define the connection between manufacturing output and economic development (ALI, 2016:). These theories include the Kaldor growth laws, big push theory, and variants of the endogenous growth theory. This study, however, was anchored on Kaldor’s growth law. Kaldor, (1966) while accounting for the growth rate differences between industrialized economies presents a series of laws. Moreover, drawing from the experiences of economies in the post-war date displayed the connection amid industrial development and the accomplishment of the economy. This reflection is the origin of Kaldor’s 1st law which states that there is a near connection amid the development of manufacturing productivity and the development of the gross domestic product (GDP). This 1st law is illustrated in the expression that truly the “manufacturing industry is the engine of economic growth”. The Kaldor law is specified as:

\[
GDP = a_0 + a_1 \text{gMANU};
\]

Where: GDP is the growth of total output, and MANU is the manufacturing output’s growth.

3. Methodology

3.1 Model specification:

The log-log model specified below will be applied to both sectors as follows:

\[
GDP = B_0 + B_1 \text{MANVA} + \beta_2 \text{SERV} + B_3 \text{AGRIC} + B_4 \text{GEXP} + \beta_5 \text{CPI} + U
\]

And the log transformation of the equation gives

\[
\ln GDP = \beta_0 + \beta_1 \ln MAN + \beta_2 \ln SERV + \beta_3 \ln GEXP + \beta_4 \ln AGRIC + \beta_5 \ln CPI + U
\]

Where;

- GDP = Gross domestic product of Nigeria
- AGRIC = Agriculture value added per worker
- GEXP = Government expenditure
- MAN = Manufacturing value added
- SERV = service sector value added
- CPI = consumer price index

3.2 A priori Expectations

The study expects manufacturing and service sectors value added be positively related to economic growth while CPI which proxy’s inflation is expected to affect growth negatively

3.3 Economic a prior expectation:

The analysis is expected to yield the following results:

- \( \beta_0 > 0, \beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 < 0 \)

Meaning all the variables are meant to exhibit a positive relationship. While the foreign direct investment can yield either a negative or positive relationship depending on the amount of foreign direct investment at the time.

3.4 DATA ANALYSIS AND INTERPRETATION

3.4.1 Stationarity test

Unit root was conducted mainly to found out whether the variables are inactive at the level or not and to know how many of such relationship exists. In addition, an ADF Test and the Phillips Perron techniques were implemented to perform a proper examination of the unit root property of the time series data used.
Table 2: ADF. and Phillips Perron Unit Root Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Augmented (ADF) (Prob t-stat)</th>
<th>Dickey-Fuller (Prob. t-stat)</th>
<th>Phillips Perron (Prob. t-stat)</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>-0.206 0.001*</td>
<td>0.898 0.000*</td>
<td>1(1)</td>
<td></td>
</tr>
<tr>
<td>AGRIC</td>
<td>0.599 0.004*</td>
<td>0.649 0.005*</td>
<td>1(1)</td>
<td></td>
</tr>
<tr>
<td>MAN</td>
<td>0.9862 0.000*</td>
<td>0.986 0.000*</td>
<td>1(1)</td>
<td></td>
</tr>
<tr>
<td>CPI</td>
<td>0.8127 0.937**</td>
<td>0.7463 0.937**</td>
<td>1(1)</td>
<td></td>
</tr>
<tr>
<td>SERV</td>
<td>0.9854 0.000*</td>
<td>0.991 0.000*</td>
<td>1(1)</td>
<td></td>
</tr>
<tr>
<td>GEXP</td>
<td>0.34893 0.0002*</td>
<td>0.4365 0.002*</td>
<td>1(1)</td>
<td></td>
</tr>
</tbody>
</table>

* denote rejection of hypothesis at 0.05 significant level  ** denote rejection of hypothesis at 0.10 significant level

Sources: Computed from data by the Authors

The result in table 2 shows that all variables employed in the study for Nigeria. From the results, it can be observed that the variables are joined in order one. From the results in table 2, the null hypothesis states that there is a survival of unit root, are non-stationary at levels.

3.4.2 Cointegration Test

As noted earlier, the cointegration tests for the existence of a long-run relationship between macroeconomic variables.

Table 3 Cointegration Test

<table>
<thead>
<tr>
<th>Sample (adjusted): 1983 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included observations: 34 after adjustments</td>
</tr>
<tr>
<td>Trend assumption: Linear deterministic trend</td>
</tr>
<tr>
<td>Series: LNGDP LNMAN LNSERV LNGRIC LNGEXP LNPI</td>
</tr>
<tr>
<td>Lags interval (in first differences): 1 to 1</td>
</tr>
</tbody>
</table>

Unrestricted Cointegration Rank Test (Trace)

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>No. of CE(s)</th>
<th>Eigen value</th>
<th>Trace</th>
<th>Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td></td>
<td>0.865954</td>
<td>137.4378</td>
<td>95.75366</td>
<td>0.0000</td>
</tr>
<tr>
<td>At most 1</td>
<td></td>
<td>0.592635</td>
<td>69.11224</td>
<td>69.81889</td>
<td>0.0568</td>
</tr>
<tr>
<td>At most 2</td>
<td></td>
<td>0.454524</td>
<td>38.57870</td>
<td>47.85613</td>
<td>0.2774</td>
</tr>
<tr>
<td>At most 3</td>
<td></td>
<td>0.270962</td>
<td>17.97140</td>
<td>29.79707</td>
<td>0.5682</td>
</tr>
<tr>
<td>At most 4</td>
<td></td>
<td>0.189881</td>
<td>7.226415</td>
<td>15.49471</td>
<td>0.5515</td>
</tr>
<tr>
<td>At most 5</td>
<td></td>
<td>0.001966</td>
<td>0.066904</td>
<td>3.841466</td>
<td>0.7959</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigen value)

<table>
<thead>
<tr>
<th>Hypothesized</th>
<th>No. of CE(s)</th>
<th>Eigen value</th>
<th>Statistic</th>
<th>Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td></td>
<td>0.865954</td>
<td>68.32554</td>
<td>40.07757</td>
<td>0.0000</td>
</tr>
</tbody>
</table>
Max-eigenvalue test indicates 1 co integrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Sources: Computed from data by Authors 2018

In the cointegration test as shown in table 2, it can be observed that the chosen macroeconomic variables are cointegrated. This is indicated by the trace and max-eigenvalue. The trace test and max-Eigen value test results discover the presence of 1- cointegrating equations among the variables which show that the chosen macroeconomic variables are indeed cointegrated.

3.4.3 Error Correction Model (ECM)

Table 4 shows the result of the ECM.

<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>LNGDP(-1)</td>
<td>0.210750</td>
<td>0.183654</td>
<td>1.147539</td>
<td>0.2755</td>
</tr>
<tr>
<td>LNSERV</td>
<td>0.900481</td>
<td>0.132048</td>
<td>6.819367</td>
<td>0.0000</td>
</tr>
<tr>
<td>LNSERV(-3)</td>
<td>0.303047</td>
<td>0.121566</td>
<td>2.492865</td>
<td>0.0299</td>
</tr>
<tr>
<td>LNMAN</td>
<td>0.381253</td>
<td>0.182294</td>
<td>2.091420</td>
<td>0.0464</td>
</tr>
<tr>
<td>LNMAN(-1)</td>
<td>0.592179</td>
<td>0.182928</td>
<td>3.237227</td>
<td>0.0033</td>
</tr>
<tr>
<td>LNMAN(-2)</td>
<td>0.027096</td>
<td>0.011720</td>
<td>2.312066</td>
<td>0.0290</td>
</tr>
<tr>
<td>LNAGRIC</td>
<td>0.025054</td>
<td>0.012094</td>
<td>2.071632</td>
<td>0.0484</td>
</tr>
<tr>
<td>LNAGRIC(-1)</td>
<td>1.547215</td>
<td>0.122936</td>
<td>12.58550</td>
<td>0.0000</td>
</tr>
<tr>
<td>LNGEXP</td>
<td>0.385338</td>
<td>0.184607</td>
<td>2.087339</td>
<td>0.0472</td>
</tr>
<tr>
<td>LNGEXP(-2)</td>
<td>0.029743</td>
<td>0.010686</td>
<td>2.783280</td>
<td>0.0101</td>
</tr>
<tr>
<td>LNPCI</td>
<td>-0.770723</td>
<td>0.248232</td>
<td>-3.104852</td>
<td>0.0047</td>
</tr>
<tr>
<td>LNGEXP(-2)</td>
<td>1.458397</td>
<td>1.960800</td>
<td>0.743776</td>
<td>0.4726</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.020595</td>
<td>0.011113</td>
<td>-1.853234</td>
<td>0.0757</td>
</tr>
<tr>
<td>C</td>
<td>0.352381</td>
<td>0.189487</td>
<td>1.859654</td>
<td>0.0899</td>
</tr>
</tbody>
</table>

R-squared       | 0.936990    | Mean dependent var | 872.4193 |
Adjusted R-squared | 0.916827    | S.D. dependent var | 929.4334 |
S.E. of regression | 268.0465    | Akaike info criterion | 14.2412 |
Sum squared resid  | 179623.    | Schwarz criterion | 14.64616 |
Log-likelihood    | -233.1161   | Hannan-Quinn criteria. | 14.37991 |
F-statistic       | 46.47028    | Durbin-Watson stat | 1.985057 |
Prob(F-statistic) | 0.000000    |                     |     |

*Note: p-values and any subsequent tests do not account for model selection.

Sources: Computed from data by the Authors 2018

Here, it can be observed that the Constant value stands for the intercept of the regression. The coefficient of the intercept when all explanatory variables are held constant is obtained to be 0.3523. It is synonymous with the
autonomous component of the model. Independent variables of the regression model are not statistically significant. The autonomous component also is not affected by variations in the descriptive variables. The obtained $R^2$ of 0.94, meaning 94% of the total disparity of Gross Domestic product level in Nigeria is elucidated by the chosen explanatory variables. Occurring as the golly of fit of the regression persisted to be high despite altering for the degree of autonomy as showed by the accustomed $R$ squared: 92%. The Durbin Watson statistics (1.985) is higher than the $R^2$ (0.94) which implies that the model is non-spurious. The Durbin-Watson statistics suggest the absence of autocorrelation.

Manufacturing sector value addition is found to be positive and significant. The study observed a positive association between manufacturing and GDP. As manufacturing output grows, this is expected to spur economic growth. This positive and significant relationship is also observed in the first and second-period lags of the variable. Similarly, the result of the service sector value addition was found to be positive. The research also noted a positive relationship between the service sector performance and GDP. This means that as the service sector output grows, this is expected to lead to economic growth. This positive and significant relationship is also observed in the third period lag of the variable.

Also, the Agric sector value added is shown to be positive and significant. This shows that as the Agric sector output increases, so did the GDP. This was also observed for the first period lag of the variables.

Consumer price index which represents inflation is shown to be negative and significant. This follows our a priori expectation that a continuous rise in the prices of goods and services do often affect economic growth negatively as it makes it difficult for policymakers to make robust monetary policies.

4. Conclusion and Recommendations

The study studiously examined the accomplishments of Nigerian manufacturing and service sectors, and its impact on the Nigerian economic growth using time series data for Nigeria. It was observed that its accomplishments in the initial time covered by the study were a relatively static period, while the concluding years showed some recovery in the performance of the economy. The study largely agrees with the previous works of Soderhom and Teal (2002), which noted that the more the manufacturing and service sectors grow and become more efficient, the more the export volume, the more the revenue to investment and the better the payment to workers and hence their well being.

The study, therefore, recommends the following that:

1. All efforts should be geared towards ensuring the production of value-added products and the creation of new inter-sectoral linkages to ensure a more integrated production structure in the nation.

2. The Federal government should critically address the high infrastructure deficit been experienced by the manufacturing sector especially the epileptic and erratic power supply, poor roads network and the provision of potable water.

3. Also, the Federal government should enter into a joint partnership with private firms in investing in manufacturing activities that will trigger sustainable economic growth in Africa especially in technology components, human capital development and other areas that are critical to development.

4. Initiating and sustaining the right policies to encourage foreign direct investment and foreign investors will be a right step in the right direction.

References


Mike, I. (1999). Features and Implication of Globalization” being Text of the Welcome Address delivered at the Globalization Seminar in NES NEWSLETTER. Conference proceedings of the Xth conference held in Y.


Soderblom, M., Teal, F. & Wambugu, A. (2002). Does firm size really affect earnings?