NIGERIA’S INDUSTRIAL DEVELOPMENT, CORPORATE GOVERNANCE AND PUBLIC POLICY

Editors
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Essays in Honour of Michael O. Adejugbe
Professor of Industrial Economics

Edited by
Ndubisi I. Nwokoma
Wakeel A. Isola
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Abstract
The paper analysed the extent of inclusiveness of the growth of Nigerian economy. It adopted simple econometric techniques and new measures of inclusive growth to generating a unique index of inclusiveness from the three conventional measure of inclusive growth. The paper then used granger causality test to determine whether economic growth is inclusive by reducing poverty and inequality in Nigeria. It was also found to have little linkage with industrialisation, hence, economic growth cannot be a good measure of economic development. More importantly inclusive growth and industrialisation were found to be causally related and industrialisation impacted negatively on poverty incidence and inequality suggesting that policies that promote industrialisation also help in alleviating poverty and reducing inequality in Nigeria.

Keywords: Inclusive Growth, Industrialisation, Inequality, Poverty Incidence, Nigeria

1.0 Introduction
The focus of this study is to examine the extent of non-inclusiveness of industrial and economic growth in Nigeria and it implications on industrialisation policy in Nigeria. There are several reasons for such analysis. One, recently attention in the literature has shifted from mere growth to inclusive growth. Secondly recent change in the Nigeria’s economic analysis, by accounting for contributions of rapidly-growing sectors to GDP such as telecommunications, banking and the entertainment industry, makes it the largest economy in Africa. In spite of her relatively strong and growing gross domestic product (GDP) over the last decades, Nigerian economy has been characterised by high unemployment rates, limited or lack of progress in alleviating poverty and in addressing other social and infrastructural problems that the country faces. The role of productive employment in human capital development, which the
country has inadequacies, cannot be overemphasised as it has the potential to promote capital formation, bridge the income inequality gap, and ensure socio-economic stability.

Third, Industrialisation\(^1\) and equitable distribution of the benefits of growth through productive and sustainable human capital investment are essential antidote for reducing unemployment and creation of gainful employment. In fact, there is no single country in the world that has reached a high stage of economic and social development without having developed as advanced industrial sector (Murphy, Shleifer and Vishny, 1989).

More importantly the economic policy makers in Africa in different fora have initiated move and made commitments towards ensuring inclusiveness a core indicator and performance index of their economic and development policy agenda. Specifically, in September 2004 in Ouagadougou at the African Union’s Extraordinary Summit on Employment and Poverty Alleviation in Africa, as well as the objectives of New Partnership for Africa’s Development (NEPAD) which Nigeria is a prominent member and player, African leaders have made commitments and laid emphasis on the vital need for African countries to target productive employment in the long-term development plans formulated, implemented and monitored by African countries. Similarly, the action plan tagged “the Action Plan for Accelerated Industrial Development of Africa (AIDA)” developed by Conference of Africa Ministers of Industry (CAMI) in 2007 and endorsed by African Union Heads of States emphasised the key role of industrialisation, through structural transformations and value additions, in the transformation of the member nations economy and achievement of an inclusive growth performance. Embedded in these plans is strong support for sectoral strategies and policies, especially the industrial and labour market related, that have the capability to bridge the infrastructural gap, boost investment in human capital, increase productivity and incomes of the informal sector (ECA and AUC\(^2\), 2010).

When the benefits of economic growth are properly expended, it may generate employment. However, the total number of jobs created will depend on the aggregate growth rate and the sectoral employment elasticity of growth. The sectoral employment elasticity is the contribution of each sector that are the engine of economic growth and it is unlikely that rapid economic growth based on sectoral contribution by the mineral exports alone can create enough jobs to absorb the

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1 Industrialisation and industrial sector in this study is used interchangeably as manufacturing sector
2 ECA is Economic Commission for Africa and AUC is an acronym for African Union Commission
Non-inclusive Growth and Industrialisation...

growing labour force because of the sector’s capital intensiveness, few linkages with the domestic economy and relatively small share of the labour force (UNECA, 2014). Rather than address the fundamental problems facing African economies, the new concept of inclusive growth was conceptualised, formalised and implemented with the known notion of economic development appearing to have been subsumed into the concept.

Against this background, this paper aims to evaluate the degree of inclusiveness of the industrial and economic growth process in Nigeria. This paper attempts to contribute to emerging and growing literatures on inclusive growth by examining the role and contribution of the Nigerian industrial sector towards the achievement of an economic growth process that is inclusive.

As further contribution, this study adopts the methodology used by Ramos, Ranieri and Lammes (2013) to compute the inclusiveness of Nigerian growth. Ramos et al. (2013) defines inclusive growth in terms of benefit-sharing (poverty and income inequality) and participation (employment). Based on this methodology, the paper analyses the level of inclusiveness (or non-inclusiveness) of the country’s growth and the process of achieving such growth. Countries with poverty rates which are higher than 65 percent were given an index of 1 which theoretically implies that their growth is none-inclusive. Observations of data on Nigerian poverty headcount ratio show that the country falls within this category of low-level of inclusiveness (except improvement observed in the poverty data in 2011). Hence, the emphasis in this paper is to evaluate the degree of severity of the non-inclusiveness of Nigerian growth using different components of inclusive growth as defined by Ramos et al. (poverty, inequality and employment) vis-à-vis the growth in the economy’s GDP.

The paper is structured as follows: the next section presents a nexus between inclusive growth and industrialisation in Nigeria. Section III discusses the methodology of the study and data used in the estimation. The analysis and interpretation is presented in section IV, while section V concludes the study.

2.0 Inclusive Growth and Industrialisation Nexus in Nigeria

In the early years of the post-World War II era, the prevailing understanding was that rapid growth with industrialisation was the most effective way to bring about transformations conducive to improving poor people’s living conditions. Largely informed by the trajectory of early developers, the development literature tended to assume the process of development to be virtually automatic once it is set in motion, incrementally following the same steps towards high levels of average income and industrialisation. This understanding is based on the trickle-down effect notion that
the spurt of growth eventually trickles down thus improving the lot of poorer people from the initial worsening of income distribution with a subsequent improvement in the lot of the poorer people.

A series economic reform have been formulated and implemented over the past decades to put the country on the path towards achieving its full economic potential. Nigerian GDP at purchasing power parity (PPP) has almost tripled from $170 billion in 2000 to $451 billion in 2012. Correspondingly, the GDP per capita doubled from $1400 per person in 2000 to an estimated $2,800 per person in 2012. The Nigerian economy has been growing at an accelerated and sustained rate over the years. The real GDP growth rate has persistently increased from 5.4 percent in 2001 to 7.4 percent in 2012, with the peak in 2005 at about 10.6 percent. This growth measured in terms of GDP growth is mainly driven by increasing revenue from mineral exports, particularly from oil exploration and exportation. In 2011, oil and gas exports accounted for more than 96% of export earnings and about 89% of federal government revenue. The level and pace of the Nigerian economic growth, however, has not manifested positively in terms of job creation, poverty eradication and sustainable infrastructural developments. The concurrent and persistent decline of other economic sectors with expansion in oil revenue and a lurch towards a statist economic model fueled massive migration to the cities and led to increasingly widespread poverty, massive unemployment and collapse of basic infrastructural and social services.

The poverty profile of Nigeria reported by the World Bank Development Research Group shows that the country’s efforts and performance in terms of reduction of poverty has not manifested. The information provided by PovcalNet shows that for more than two decades Nigeria did not record much significant improvements in terms of poverty reduction. The poverty headcount shows that in 1992 about 62 percent of the people were poor and living under the poverty line of US$2 a day. The percentage increased to about 68 percent in 2009. However, significant improvement was observed with a decline in the poverty headcount by about 20 percent between 2009 and 2011 to 54 percent (See Fig 1).

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Persistently high levels of unemployment, along with an increasing share of young people not in employment, education or training, represent a serious threat to human capital development, poverty eradication and social stability in the country. Unemployment in the country consistently rose from 13.1 percent in 2010 to 23.9 percent in 2011. Even though human capital is not the only factor that drives the economy, it is a very crucial factor in the development process and the inclusiveness of the human capital in terms of capacity enhancement and involvement in the development process which determines the productive capacity of such nation. The latest value of the Human Development Index (HDI) which provides a measure of human capital in three dimensions, income, health and education, ranked Nigeria 156 among 187 countries thus placing the country at the bottom.

For most people, gainful employment is the only way out of the doldrums of poverty. A significant share of the economic active population of Nigeria is unemployed and those employed are engaged in less productive employment referred to as vulnerable employment (UNECA\textsuperscript{4}, 2014), especially in the informal and traditional sector of the economy. There are a number of factors responsible for the growing unemployment rates in Nigeria and it is also clear that the economy has not been able to create enough jobs for the growing labour force. One prominent factor is that sectors that anchor economic growth in Nigeria tend to be capital-intensive (solid minerals, oil and gas) and less labour-intensive enclave sectors. Also, the situation has further been aggravated by the rapidly expanding labour force due to high population growth and increased labour participation with no harmonising growing demand for labour.

\textsuperscript{4} UNECA is an acronym for the United Nations Economic and Social Council Economic Commission for Africa
The oil boom of the 1970s led Nigeria to neglect the agricultural and manufacturing sectors that were the drivers of the economy prior to oil discovery. This neglect in favour of an unhealthy dependence on crude oil revenue has led to the near collapse of these two prominent sectors. Apart from having a high elasticity of employment, the agricultural and manufacturing sectors guarantees the sustainable achievement of poverty reduction, even income redistribution, productivity and full capacity utilisation which are all sources and essential components of inclusive growth. Overtime government at all levels has put in place policies, strategies and programmes in order to put the country on the path of achieving inclusive growth. Some of the policy targets of the programmes include but are not limited to alleviation of poverty, improvement of living standard and increased participation in the growth process through productive employment. The success of these programmes based on expectations by economic agents over the years has not been satisfactory. The result and performance of key economic variables, social and infrastructural indicators all suggest that growth indeed is not inclusive (Ekpo, 2013).

Along with the endemic malaise of Nigeria's non-oil sectors, the economy continues to witness massive growth of the "informal sector" economic activities, estimated to be as high as 75% of the total economy. While part of the reason alluded for low job creation in the country is the rapid growth in the country’s labour force based on growth in population and migration from neighbouring African states; a large part is still attributable to the inability of the economy to generate productive jobs, with resultant effect of capacity underutilisation and the increasing number of low paid, vulnerable informal jobs. Empirical literature has shown that employment generation from economic growth lies to a large extent on the sectoral composition of growth (Mahmoud, 2008). However, the reality in Nigeria is that the main source of growth which is the oil and gas sector is a sector with low employment elasticity. Meanwhile, agriculture and manufacturing sectors which together employ more than 80 percent of the labour force represents a small share of the country’s economic growth. The service sector contribution to the national output (about 10 percent in 2011) also surpasses the manufacturing contribution which stood at about 2 percent in 2011.

The contribution by different sectors to GDP captured in Figure 2 shows that agricultural sector and oil and solid minerals sector contributes the largest share to Nigeria’s GDP with manufacturing sector contributing less than 4 percent. Interestingly and contrary to what is observed in the country, experience by some countries has shown that productivity is higher in manufacturing than agriculture sector. The transfer of resources from the latter to the former provides a structural
change bonus and the manufacturing sector provides a special opportunity for capital accumulation and economies of scale with stronger linkage and spillover effects.

![Fig. 2: Sectoral Contribution to GDP](image)

Consequently, to accelerate productive employment growth in the country, large sectors with high employment elasticity such as manufacturing need to be fostered to be the main engines of growth. Policies tailored towards structural transformation become imperative to enable the transition from capital-intensive to labour-intensive sectors and from low-skilled, vulnerable sectors to high-skilled sectors. Lessons need to be adapted from countries like South Africa, Algeria and Tunisia whereby shift from fairly low and declining agricultural employment to rising share of industrial employment has given room for economic diversification, productivity and job creation. Thoughtful action is required to fortify the link between inclusive economic growth through productive industrial employment and subsequent reduction in poverty. Policies needed are such policies that will facilitate the increase in employment intensity of growth, coordinate labour demand and supply and ensure that the poor and disadvantaged have access to basic social services and human capital development, through education and health.

### 3.0 Methodology and Data

To achieve the stated objectives, this study starts examining the inclusiveness of Nigerian growth vis-à-vis the level of growth over the sample period considered in the study. Descriptive and correlation analysis is carried out to explain and compare the changes in inclusiveness (or non-inclusiveness) of growth in terms of benefit-
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sharing (poverty and inequality) and participation (employment-to-population ratio) with the level of GDP growth.

The lack of theoretical underpinnings on the concept of inclusive growth has been a severe constraint in empirical studies. Hence, in the absence of a uniform definition of the concept of inclusive growth, attempts to measure it have involved a number of tentative operationalisation of aspiring definitions by different authors. To measure inclusive growth, this study adopts the methodology proposed by Ramos et al (2013). Their analysis of inclusive growth index includes three indicators: income poverty and inequality (both used to capture benefit-sharing dimension), and employment to population ratio (a proxy for participation). The index is constructed on a 0 to 1 scale with lower values representing better performances, that is, the closer the index to 0, the more inclusive the country.

To further examine the relationship between industrialisation and inclusive growth in Nigeria, the empirical analysis starts with the bi-causality test to establish the direction of relationship among the variables. The Granger causality test approach is adopted to examine the direction of causality among each components of the inclusive growth index (poverty, inequality and employment), growth in GDP and industrial sector performance. Ordinary Least Square (OLS) regression analysis is further carried out based on the result of the Granger causality tests.

To achieve this objective, the conventional bivariate causality model of solving the causality issue was adopted. This model involves the following regression models:

\[ T_t = \sum_{i=1}^{m} \alpha_i P_{t-i} + \sum_{j=1}^{n} \beta_j T_{t-j} + U_{1t} \]  
\[ P_t = \sum_{i=1}^{m} \gamma_i P_{t-i} + \sum_{j=1}^{n} \delta_j T_{t-j} + U_{2t} \]

Where \( T \) is the target variable (Inclusive growth measures), \( P \) is conventional growth variable (economic and industrial growth variables) and \( U_{1t} \) and \( U_{2t} \) are the disturbances which are assumed to be uncorrelated. In this framework, there are four possible null hypotheses:

\[ H_0: \beta_j = 0 \quad \text{for} \quad j = 1, 2, \ldots, n \]
\[ H_0: \delta_j = 0 \quad \text{for} \quad j = 1, 2, \ldots, n \]

Case 1: Unidirectional causality from P to T. This is indicated if $\sum \alpha_i \neq 0$ and $\sum \delta_j = 0$

Case 2: Unidirectional causality from T to P. This is indicated if $\sum \alpha_i = 0$ and $\sum \delta_j \neq 0$.

Case 3: Bilateral causality. This is indicated if $\sum \alpha_i \neq 0$ and $\sum \delta_j \neq 0$.

Case 4: Independence. This is indicated if $\sum \alpha_i = 0$ and $\sum \delta_j = 0$.

Similarly the OLS regression estimation technique is also employed to examine the direction of relationship between the dependent and explanatory variables. The aim is to pinpoint aspects where concerted efforts to promote inclusiveness are required based on the measures of inclusiveness adopted. In this case equation 1 was estimated for the three measures of inclusive growth with economic growth and industrial growth serving as the independent variable one after the other.

The data source for the variables described above include a number of sources. The poverty data (POV) is collected from the Povcal Net while GDP growth rate at local currency unit and manufacturing sector value added (MVA) is extracted from the World Development Indicator (WDI) both published by the World Bank; income inequality (INE) measured as the Gini coefficient is extracted from the Standardised World Income Inequality Database (SWID) and the employment-to-population ratio (EPR) is collected from the International Labour Organisation (ILO) database.

4.0 Analysis and Interpretation

4.1 Correlation between Inclusive Growth, GDP Growth and Industrial Growth

The available data on poverty and employment for Nigeria suggests that growth in the country is non-inclusive (or low-level). However, this section presents a correlation analysis between the components of inclusive growth in terms of benefit-sharing and participation with the level of growth in GDP per capita and manufacturing sector value added in Nigeria. GDP growth in Nigeria over the period considered yielded interesting insights as the performance of the country is positive and increasing. The correlation between poverty, inequality, employment-to-population ratio, and manufacturing value added growth and GDP per capita growth is presented in Table 4.1. The table shows that there is a positive correlation between manufacturing sector value added and growth in GDP per capita. Also, the
correlation coefficient result shows that there is a positive relationship between GDP growth and growth in poverty head count. This result implies that as the country economy is growing in terms of GDP, the population of people that live below the poverty line of US$2 per day is also increasing. This result is also obvious in the poverty trend in the country (see Fig 1).

Table 4.1: Correlation between Degree of Inclusiveness, Economic Growth and Industrial Growth

<table>
<thead>
<tr>
<th></th>
<th>GGDP</th>
<th>INDVA</th>
<th>POVT</th>
<th>INEQ</th>
<th>EPR</th>
</tr>
</thead>
<tbody>
<tr>
<td>GGDP</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDVA</td>
<td>0.4630</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POVT</td>
<td>0.3442</td>
<td>0.2332</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INEQ</td>
<td>-0.5473</td>
<td>-0.7662</td>
<td>-0.3719</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EPR</td>
<td>-0.6340</td>
<td>-0.7358</td>
<td>-0.6397</td>
<td>0.2708</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation

Table 1 further shows an inverse relationship between income inequality in the country and growth in the GDP per capita. This indicates that as the economy is experiencing growth in its GDP, the income gap between the rich and poor measured using the Gini coefficient is also increasing. Thus, this indicates that the benefits of growth in the country lie in the hands of a few. The correlation coefficient between employment-to-population ratio and GDP per capita growth indicates the participation of people in the growth process. Participation dimension is an important aspect of inclusive growth beyond the income dimension, it emphasis the goals of involving the people in the economic process and the continuity of their involvement. The correlation coefficient result above shows a negative correlation between growth in GDP and employment-to-population ratio.

The above result shows a high correlation between EPR and poverty. When very high EPR coincides with a high incidence of poverty and of working poverty, it shows that a country’s population will be highly involved in the economic process (high participation levels) but without earning the appropriate value for their work (Ramos et al., 2013). Hence the result shows that in Nigeria, labour remuneration does not suffice to pay for the access to basic goods, services and amenities and probably working under poor conditions.

Obviously correlation analysis is weak in detecting the sign and direction of effect. A mere correlation is insufficient to make any policy inference, hence the need to examine both the causality and estimate the size of the effects on each of the
variables. The result of the pairwise Granger causality test is presented in the table above. Although, Granger causality does not really implies the causal relationship between the variables, however when the result is statistically significant it shows that one variable can be used to predict the other. The decision criteria is to reject the null hypothesis as specified when the probability value is less than 0.05, significance level. The interpretation from the table above is summarised as follows: There is a unidirectional Granger causality from employment-to-population ratio (EPR) to each of GDP growth rate, income inequality (INE) manufacturing value-added (MVA). There is a bi-causal relationship between POV and EPR, also between MVA and INE. INE unidirectional Granger cause GDP. POV also unidirectional Granger cause GDP. There is a bi-causal relationship between. There is also a bi-causal relationship between POV and INE and there is also a unidirectional relationship from POV to MVA.

Table 4.2: Pairwise Granger Causality Test Result

<table>
<thead>
<tr>
<th>Null Hypothesis:</th>
<th>F-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPR does not Granger Cause GDP</td>
<td>5.67284</td>
<td>0.0292</td>
</tr>
<tr>
<td>EPR does not Granger Cause INE</td>
<td>7.46169</td>
<td>0.0142</td>
</tr>
<tr>
<td>EPR does not Granger Cause MVA</td>
<td>35.1601</td>
<td>2.E-05</td>
</tr>
<tr>
<td>POV does not Granger Cause EPR</td>
<td>26.7170</td>
<td>8.E-05</td>
</tr>
<tr>
<td>EPR does not Granger Cause POV</td>
<td>10.1890</td>
<td>0.0053</td>
</tr>
<tr>
<td>INE does not Granger Cause GDP</td>
<td>5.91038</td>
<td>0.0264</td>
</tr>
<tr>
<td>POV does not Granger Cause GDP</td>
<td>4.73458</td>
<td>0.0440</td>
</tr>
<tr>
<td>MVA does not Granger Cause INE</td>
<td>9.61860</td>
<td>0.0065</td>
</tr>
<tr>
<td>INE does not Granger Cause MVA</td>
<td>51.0131</td>
<td>2.E-06</td>
</tr>
<tr>
<td>INE does not Granger Cause POV</td>
<td>11.3341</td>
<td>0.0037</td>
</tr>
<tr>
<td>POV does not Granger Cause MVA</td>
<td>6.26546</td>
<td>0.0228</td>
</tr>
<tr>
<td>MVA does not Granger Cause POV</td>
<td>3.89451</td>
<td>0.0649</td>
</tr>
</tbody>
</table>

6 The table only show results that are significant
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The import of this granger causality is the fact that economic growth did not granger cause any of the inclusive growth measure (EPR, INE and POV) which is a little linkage between economic growth and degree of inclusive of the economic growth. There seems to be no relationship between growth of the Nigerian economy and the level of poverty dependency ratio and inequality which implies that economic growth is not trickling down to the masses. Secondly, it was also observed from the granger causality test that industrial growth has no backward or forward linkage with the growth of the economy. The bulk of growth is generated from agriculture and service sector. Industrialisation and inclusive growth were closely related - both grangers cause each other and hence a policy that promotes industrialisation tends to reduce inequality and poverty and also increase employment ratio.

![Diagram showing relationships between economic growth, industrialisation, and inclusive growth indicators (INE, pov, EPR)].

**Analysing the Economic and industrial Growth Effects of Inclusive Growth**

Nigeria's economic growth, based on the criteria established by Ramos et al., could be said to be non-inclusive given the level of poverty and income inequality of the country. Therefore, the section tries to examine the severity of the non-inclusiveness of Nigerian growth as well as the contribution of the manufacturing sector. First, the regression analysis is carried out to estimate the partial impact of GDP growth on each of the components of inclusive growth. The estimation is carried out at one period lag based on the result of the Granger causality test above and the regression result is presented in table 4.3.

**Table 4.3: Regression Result; GDP and Inclusive Growth Indicators**

<table>
<thead>
<tr>
<th>Dependent Variable:</th>
<th>Poverty</th>
<th>Inequality</th>
<th>Emp.-to-Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>II</td>
<td>III</td>
</tr>
<tr>
<td>Constant</td>
<td>65.0243*</td>
<td>46.1957*</td>
<td>51.8631*</td>
</tr>
<tr>
<td>GDP Growth (-1)</td>
<td>0.1177</td>
<td>-0.3031*</td>
<td>-0.0553*</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.556</td>
<td>0.2723</td>
<td>0.3206</td>
</tr>
</tbody>
</table>

* indicates significance at 5% level
The estimated regression result above yield an interesting insight on the comparison of changes in inclusiveness of Nigerian growth in terms of benefit sharing and participation. The result shows a positive impact of GDP growth on poverty, as against the negative coefficient expected. This result is not statistically significant; hence, care must be taken in its interpretation. However, the implication of the result obtained is that as GDP growth increases, the incidence of poverty keeps increasing in the country.

On the other hand, the coefficient of GDP(-1) shows a negative and significant relationship with income inequality. This shows that the benefit of increasing GDP growth in the country accrues only to a few. As the GDP keeps growing, the income gap or inequality between the few rich and the poor keeps widening. Lastly, on the impact of GDP growth on employment (participation), the result shows an inverse and significant relationship. This result is evident in the increasing unemployment rates in the country despite the increasing growth in the GDP. The negative relationship between GDP growth and EPR as well as the high unemployment rates in Nigeria shows that the growth process that has been taking place in the sample period in Nigeria has not been inclusive and severe (significant).

Table 3 below shows the regression estimates of the impact of manufacturing sector performance on the inclusiveness of Nigerian growth over the sample period (1991 to 2011). The partial impact of growth in manufacturing sector value added on the inclusiveness (or non-inclusiveness) of Nigerian growth is examined. The result shows a similar performance on the impact of manufacturing sector performance and the result obtained for growth in GDP.

<table>
<thead>
<tr>
<th>Dependent Variable:</th>
<th>GDP Growth</th>
<th>Poverty</th>
<th>Inequality</th>
<th>Emp.-to-Pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.6843</td>
<td>64.787</td>
<td>47.2173</td>
<td>52.0511</td>
</tr>
<tr>
<td>Manufacturing Value Added (-1)</td>
<td>0.3402</td>
<td>0.1373</td>
<td>-0.4525*</td>
<td>-0.0829*</td>
</tr>
<tr>
<td>R Squared</td>
<td>0.837</td>
<td>0.5276</td>
<td>0.4226</td>
<td>0.5017</td>
</tr>
<tr>
<td>No of Obs.</td>
<td>20</td>
<td>20</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

* indicates significance at 5% level
The estimated regression result shows a positive but no significant relationship between manufacturing sector performance and growth in the economy. This result implies that despite the positive contribution of the manufacturing sector to improvement in the GDP growth, the contribution has not been significant over the sample period considered. In the same vein, the relationship between poverty headcount and manufacturing value added also reveals a positive coefficient with no statistical significance. This result shows that the insignificant growth in manufacturing output has not significantly induced poverty reduction in Nigeria.

Furthermore, the relationship between the income inequality growth and manufacturing sector performance as well as employment-to-population and manufacturing value added, as shown in column III and IV respectively show a negative relationship. These further indicate that the poor performance of the manufacturing sector has not satisfactorily contributed to the inclusiveness of Nigerian growth and growth process.

5.0 Conclusion and Implication
An attempt to evaluate the relevance of the industrial sector on economic growth that is inclusive is considered in this study. Studies in the past have shown that the manufacturing sector is an essential engine of growth given the productivity, economies of scale and high elasticity of employment. The situation of Nigerian manufacturing sector has been dwindling despite her high and increasing GDP growth. The country economic situation has been characterised by high unemployment, increasing informal sector and vulnerable employment, increasing poverty rate and widening income inequality gap between the few rich and many poor, declining performance of the manufacturing sector and neglect of the agricultural sector.

Despite the pivotal role the manufacturing sector could play in the achievement of an inclusive growth, in terms of benefit sharing and participation, the neglect of the sector and its poor performance has led to its poor and insignificant contribution to achieving inclusive growth in Nigeria. The estimated regression equation carried out corroborates this. Therefore, policies, programmes, and strong commitments towards stimulating growth of this sector to achieve an improved performance and employment generation should be sustained. A reduced cost of funds would stimulate the real sector, enhance their growth and foster inclusive growth. Massive investment in the sector through funds from the oil and solid minerals sector should be initiated by the government as this sector is better tailored towards achieving inclusive growth (benefit-sharing and participatory) than the oil and gas sector, which has a very low employment elasticity and is currently the centre of attraction to the government and managers of the economy.
References


