The Impact of Manufacturing on Economic Growth in Nigeria: An Autoregressive Distributed Lag Model Approach

Dogara Egbiku Joshua
[#]*Department of Economics, Shepherd's International College, Akwanga, Nigeria.*

Abstract

The manufacturing sector has been considered as being pivotal to the achievement of economic growth and development in any economy. The several policies and programmes adopted at one point or the other in order to achieve industrial development in Nigeria underscore this fact. Due to weak manufacturing base the country still grapples with Economic and social issues ranging from dwindling growth rates and low human development indices. This research investigates the impact of manufacturing on Economic growth with particular reference to Nigeria. The research uses the Autoregressive Distributed Lag (ARDL) model to examine the impact of manufacturing on economic growth using time series data spanning the period of 1981-2015. The Bounds testing result reveals that manufacturing has a long run positive impact on economic growth and development. One of the recommendations of the study is that government should make adequate foreign exchange available to manufacturers to acquire raw materials for production. Another recommendation was that government should sustain the ban on this list of imported manufactured products to induce patronage of locally manufactured products. Increase in the percentage of credit facilities reserved for local manufacturers is also recommended by the study.

Keywords — *Manufacturing, Economic Growth,.*

I. INTRODUCTION

A. Background

Manufacturing has been accepted as the major panacea to the Economic prosperity of any modern economy. It is the means for the production of goods and services, creation of employment opportunities and a major source of income. The view point of economists who propounded the structural change models is that the instrument for economic transformation lies in the structural change in an economy from primary production to manufacturing (Todaro & Smith, 2012). The structural change is the process of moving an economy away from dependence on agriculture as the major source of national income to manufacturing. 'More generally, it is a major alteration in the industrial composition of any economy'. (Todaro & Smith, 2012).

The development of the industrial sector in Nigeria of which manufacturing is a subset began with the first republic. It has been the cardinal objective of the several development plans in Nigeria since it is considered as the spring board to economic prosperity.

Import Substitution strategy was adopted in the 60s but it did not reduce Nigeria's dependence on importation of manufactured goods. As observed by Adedipe (2007), this was not successful because the goods manufactured in Nigeria could not meet up with international competition. Nigerian manufacturing became dependent on import especially during the oil boom of 1970s. When the world oil market collapsed, the resultant reduction in oil earnings the situation became worst for the sector which was dependent on imported raw materials. Akinlo, (1996).

The current Industrial policy of Industrial Clusters Parks introduced in 2009 as part of Vision 20:2020 has a clear vision for the manufacturing sector which is to be *'a technologically driven and globally competitive manufacturing sector, with a high level of local content and contributing a high proportion of the National GDP'*.(Ministry of Budget and National Planning, (2009) P.5. Since the introduction of the policy, the manufacturing sector contribution to GDP had experienced a rise since 2010. (CBN, 2015).

B. Objectives of the Study

The cardinal objective of this study is to investigate the impact of manufacturing on economic growth and economic development.

This study has the following specific objectives:

(a) To measure empirically the extent to which manufacturing impacts on growth and development in Nigeria.

(b) To find out the challenges bedevilling the growth of manufacturing sector in Nigeria.

(c) To come up with relevant recommendations for development of a robust manufacturing sector in Nigeria.

C. *Statement of the Problem*

The discovery of oil in commercial quantity in the 1960s led to the relegation of manufacturing. This phenomenon is referred to as the "Dutch disease"- an

economic concept that explains abandonment of manufacturing sector in an economy in the wake of exploitation of primary commodity such as oil. It was framed in 1977 by The Economist magazine to describe the decline of the manufacturing sector in the Netherlands after the discovery of a natural resource in 1959. Nigeria has also become an example of the concept ever since.

When oil revenue shrank in the early 80s, in the face of high imports it resulted in balance of payment problems and also resulted in government incurring high budget deficit. This resulted in the collapse of many industries as raw materials became scarce. Many workers were laid-off and this resulted to low standard of living bringing the economy to a very serious downturn. This was part of the reason for introduction of structural adjustment programme (Akinlo, 1996).

This structural adjustment brought more serious economic problems. Nigeria suffered economic crisis .This in turn resulted to prevalence of poverty, unemployment and rising demand-pull inflation. For example, as found out by Akinlo (1996), not fewer than 1,500 manufacturing workers were retrenched between 1987 and 1991. In 1987 alone, s representing 64.8% of workers were retrenched. These economic quagmire still lives with us till today..

The research questions therefore are:

1. Is the manufacturing sector a major determinant of economic growth in Nigeria?
2. How can the manufacturing sector be well positioned to stimulate growth?

D. Hypotheses of the Study

This research primarily aimed at determining the impact of the manufacturing sector on the economic growth of Nigeria. Accordingly, to achieve the objectives of the study, the following hypotheses were drawn.

i. H_o: Manufacturing sector has no positive impact on Economic growth in Nigeria.

ii. H_i: Manufacturing sector has positive impact on Economic growth in Nigeria.

E. Scope Of The Study

The study covers manufacturing and economic growth in Nigeria. The manufacturing sector measure used is the manufacturing output and the average manufacturing capacity utilization. The main economic growth indicator used is the GDP. The uses economic data ranging from 1981 to 2015 i.e. 35 years..

II. LITERATURE REVIEW

A. Conceptual Issues and Importance of Manufacturing

The Nobel laurel, Arthur Lewis, explained manufacturing in his Structural-change theory which focuses on the ways by which underdeveloped economies change their economic structures from reliance on agriculture to industrial manufacturing and service economy. "More generally, it is a major alteration in the industrial composition of any economy" (Todaro & Smith, 2012).

Manufacturing is is the conversion of raw materials into finished consumer goods or producer goods. Kaldor (as cited in Obioma, Kalu, & Anyawu,(2015), in his theories that border on manufacturing and economic growth explained that Manufacturing generates employment, boosts agriculture.

Obioma, et al (2015), defined manufacturing as " the application of modern technology, equipment and machineries for the production of goods and services, alleviating human suffering and to ensure continuous improvement in their welfare".

Kaldor (as cited in Cantore, Clara, & Soare (2014) conceptually introduced the benefits of manufacturing:

"As the industrial sector expands, it absorbs a growing amount of goods and services produced outside the industrial sector: these may be the products of agriculture or mining (food and industrial materials), or manufactures which it does not provide itself, or not in sufficient quantities, and which have to be imported… Further industrial growth generates demand for many kinds of services – banking, insurance and professional services of various kinds – and is thus partly responsible for a fast expansion of the tertiary sector (p. 1).

Kaldor was the first to come up with facts and conceptual issues on the benefits of the manufacturing sector for the entire economy. These facts are summarized in the following laws.

1. The manufacturing sector is the engine of growth in an economy. This is referred to as "engine of growth hypothesis".
2. The productivity of manufacturing sector is positively related to the growth of the manufacturing sector (this is also known as Verdoorn's Law
3. The productivity of the non-manufacturing sector is positively related to the growth of the manufacturing sector

As noted by Enebeli-Uzor, (2012), the manufacturing sector has higher productivity than in the agricultural sector which. This explains why there is high incidence of poverty in Nigeria despite economic growth. When compared with agriculture, the manufacturing sector provides opportunities for capital accumulation than agriculture.

B. Economic Growth: Theoretical Framework

Jhingan (2011) identified six characteristics of modern economic growth which is of great interest to this study. These characteristics include high rates of

growth of per capita product and population, the rise in productivity, high rate of structural transformation, urbanization, and international flow of men, goods and capital. Of particular interest is the rise in productivity and high rate of structural transformation which go hand in hand with growth of modern manufacturing sector as driver. Structural transformation itself involves shift away from agriculture to non-agricultural activities such as manufacturing and services.

Todaro and smith (2012) opined that the the traditional classical economists were more interested in economic growth because that was the concern of the developed countries. For developing countries however, the attention is on development.

C. *Manufacturing And Economic Growth: Emperical Framework*

The relationship between industrialization and economic growth has been a controversial issue among economists but not many of them doubt the impact of industry on rapid growth .

Guo, Dall'erba, & Le Gallo (2012) did a review of Kaldor laws on the impact of manufacturing on Economic Growth. The first law also known as "The Engine of Growth Hypothesis" states that

$Q_{GDP} = A_1 + A_2Qm, A2 > 0$

Where Q_{GDP} is the growth rate of GDP, Qm is the growth rate of manufacturing output growth.

The second law, also called Verdoorn's law, states that

$P_m = B_1 + B_2Q_m, B_2 > 0$

Where,

P_m is the growth rate of labour productivity in manufacturing.

B_2 is often called Verdoorn's coefficient, and was found to be 0.5 empirically. It implies that one percentage of growth in output will induce 0.5 percentage increase in productivity growth.

It important to note at this point that Kaldor's Models of Manufacturing and Economic growth is devoid of recent development of statistical and econometric tools of analysis which has been adopted in this study. Some of them include the Unit Root Test, and the ARDL model. This therefore constitutes a gap which has been empirically covered by this research thesis.

Libanio and Moro, (2009) analysed the relation between manufacturing output growth and economic performance from a Kaldorian perspective by estimating Kaldor's first and second growth laws for a sample of eleven Latin American economies during the period 1980-2006. The study confirmed the fact that manufacturing is the engine of growth and suggest the existence of significant increasing returns in the manufacturing sector in the largest Latin American economies.

Elhiraika, (2008), examined the key determinants of manufacturing share in aggregate output and its relationship with real GDP growth and growth volatility using data from 36 African countries the study showed that manufacturing has positive impact on economic growth.

The above empirical statistics justify the fact that the manufacturing sector is the biggest driver of a modern economy. No nation can achieve sustained growth and development free from external shocks without a viable domestic manufacturing sector.

Other studies however revealed that the manufacturing as engine of growth has not come true in some regions and countries like Africa and Nigeria although there is high potential in the manufacturing. This was confirmed by Obioma, et al (2015) in their investigation of the effect of Industrial development on the Nigerian economic growth 1973-2013. Using Ordinary Least Squares, the study found that manufacturing was not statistically significant and thus does not stimulate economic growth. They observed that industrial output was not significant to improving the level of economic growth, although it has a positive relationship with GDP.

III. RESEARCH METHODOLOGY

A. *Sources of Data*

The Data from this research study is entirely secondary data from research organizations which include; National bureau of statistics (NBS), Central bank statistical bulletins (CBN) and other research materials sourced from academic and research publications of scholars and institutions of learning covering the period 1981-2015.

This research adopts conceptual, descriptive and empirical methods of analysis. Relevant Literatures, empirical findings as well as data from secondary sources make up the ingredients of carrying out this study.

B. *Technique of Data Estimation*

This shows and explains the relevant technique of estimating the data for the analysis. Thus every relevant test used in this research is comprehensively explained for clarity and better understanding. These tests are clearly stated below:

1. *Unit Root Test*

The unit root test is a pre-test carried out on the data for the analysis in order to confirm or ascertain the stationarity of data for the analysis.

When the data are not stationary, the regression model is spurious or nonsense resulting in the risk of making faulty decisions and conclusions as some parameters which may be insignificant may turn out to be significant. For this purpose, the augmented dickey-fuller test (ADF) is used. It is formulated thus:

$$\Delta Yt = \rho Yt - 1 + Ut \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1$$

The Hypothesis test for the Unit root:

H_0: P=0 (unit root)

$H_1 = P \neq 0$ (no unit test).

Decision Rule: If t^* < ADF Critical value, reject the null hypothesis, and accept the alternative hypothesis that unit root does not exist.

2. Autoregressive Distributed Lag (ARDL) Model Specification

In its basic form, an ARDL regression model looks like this:

$y_t = \beta_0 + \beta_1 y_{t-1} + ...+ \beta p y_{t-p} + \alpha_0 x_t + \alpha_1 x_{t-1} + \alpha_2 x_{t-2} + ... + \alpha_q x_{t-q} + \varepsilon_t$ ---------- (2)

Where ε_t is a random term. (Giles, 2013).

The following is the procedure for estimating the ARDL Model.

- Formulation of Unrestricted Error Correction Models (ECMs) to Select Best Model
- Test for Serial Correlation
- Test for Stability
- Bounds Testing (Long run Equilibrium Test)
- Testing for Short Run Causality from Independent Variables

1V. DATA ANALYSIS

A. Data Presentation

The raw data collected for the estimation of the model and test of hypotheses show the variables and the time series data with Nigerian Gross Domestic Product (GDP), as the dependent variable, Gross Domestic Product from Manufacturing sector (GDMP) and Average Manufacturing Capacity Utilization (AMCU) as independent variables. The following table shows the set of data used for this study:

Table 1. Nigerian Gross Domestic Product (GDP) at 2010 constant basic prices in ₦ Billion, Manufacturing Output (GDMP) in ₦ Billion and Average Manufacturing Capacity Utilization are in percentages**.**

YEAR	GDP	GDMP	AMCU
1981	15258.00	1558.70	73.30
1982	14985.08	1764.89	63.60
1983	13849.73	1167.89	49.70
1984	13779.26	1018.91	43.00
1985	14953.91	1416.79	38.30
1986	15237.99	1373.66	38.80
1987	15263.93	1398.10	40.40
1988	16215.37	1618.25	42.40
1989	17294.68	1665.09	43.80
1990	19305.63	1670.73	40.30
1991	19199.06	1829.34	42.00
1992	19620.19	1758.61	38.10
1993	19927.99	1706.70	37.19
1994	19979.12	1670.72	30.40
1995	20353.20	1592.49	29.29
1996	21177.92	1599.94	32.46
1997	21789.10	1609.83	30.40
1998	22332.87	1412.44	32.40
1999	22449.41	1459.02	34.60
2000	23688.28	1505.66	36.10
2001	25267.54	1666.49	42.70
2002	28957.71	1813.81	54.90
2003	31709.45	1918.09	56.50
2004	35020.55	2143.45	55.70
2005	37474.95	2350.99	54.80
2006	39995.50	2574.29	53.30
2007	42922.41	2823.53	53.38
2008	46012.52	3079.04	53.84
2009	49856.10	3323.41	58.92
2010	54612.26	3578.64	55.82
2011	57511.04	4216.19	56.30
2012	59929.89	4783.66	56.80
2013	63218.72	5826.36	58.30
2014	67152.79	6684.22	59.80
2015	69023.93	6586.62	59.90

Source: CBN Statistical Bulletin 2015 and Annual Report 2015

B. Model Specification

The model specifies that Gross Domestic Product in Nigeria (GDP) depends on Manufacturing Output GDMP and Average Manufacturing Capacity Utilization (AMCU) and this is stated as

GDP =f (GDMP, AMCU) ……5

$GDP = \beta_0 + \gamma GDMP + \delta_k AMCU + Ui$…….6

From the equation above we can develop the ADLM model as follows

$\Delta GDP_t = \beta_0 + \Sigma \beta_i \Delta GDP_{t-i} + \Sigma \gamma_j \Delta GDMP_{t-j} + \Sigma \delta_k \Delta AMCU_{t-k} + \theta_0 GDP_{t-1} + \theta_1 GDMP_{t-1} + \theta_2 AMCU_{t-1} + e_t$ .....7.

Where:

GDP= Gross Domestic Product in Nigeria

GDMP= Manufacturing Output in Nigeria

AMCU = Average Manufacturing Capacity Utilization

β0 = the intercept of ARDL equation

β= the slope of the dependent variable in the regression equation

γj = slope of Manufacturing Output in Nigeria

δ = the slope of Average manufacturing capacity utilization in the equation

θ0= coefficient of the fixed regressors

Ui = Error term or stochastic variables

The presence of error term (U1) takes care of other variables that have influence on the growth of the non-oil sector but not specified in the model like private sector investment, tax holidays and other fiscal policy measures.

C. Presentation of Results

In estimating the ARDL Model, the raw data was transformed into logarithms as found on Appendix I. The transformed data is used for the estimation which is preceded by a series of pre-tests to test for stationarity, after which the Autoregressive Distributed Lag Model and the OLS models are estimated.

1. Unit Root Test

Test would be employed to avoid the problem of spurious regression. In conducting this test, the Augmented Dickey-Fuller (ADF) unit root test would be employed to determine the stationarity of data. The unit root test was done using the E-views software. Table 2 shows the summary of the test.

Table 2. Augmented Dickey Fuller unit root test

Series	ADF test statistics	1% critical values	5% critical values	10% values	Order of Integration
L(GDP)	-3.602	-3.653	-4.262	-3.209	1(1)
L(GDMP)	-6.103	--4.262	-3.552	--3.209	1(1)
L(AMCU)	-3.743	-4.263	-3.552	-3.209	1(1)

Source: Author's computation using e-views 9.0 econometrics software (package)

The Augmented Dickey Fuller(ADF) unit root testing reveals that Gross domestic Product at constant basic prices are stationary after first differencing i.e. integrated of the order1(1) while Manufacturing GDP and average manufacturing capacity Utilization are also stationary after first differencing i.e. 1(1).

This is because even though the variables are stationary at first difference some are not stationary when only intercept is tested. Some of the variables appear to be fractionally integrated.

2. Model Lag Order Selection

This is the process of selecting the best model to be used for bounds testing or long run equilibrium testing. In the process the selected is the model with a maximum of 3 lags for L(GDP), 4 lags for L(GDMP) and 3 lags for L(AMCU) because it gives us a relatively small Akaike criterion and Schwarz (Bayes) criterion (SC) values of -5.27 and -4.60 respectively as found on appendix. Also, it is free of autocorrelation which is not desirable in ARDL model. According to Peasaran and Shin, (1997), where U_t are correlated the ARDL needs to be augmented with an adequate number of lagged changes in the regressors before estimation and inference are carried out.

3. Test for Serial Correlation

The table below shows the result for the test for serial correlation.

Table 3: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.553854	Prob. F(2,12)	0.5887
Obs*R-squared	2.366228	Prob. Chi-Square(2)	0.3063

Source: Authors' computation using Eviews.

Since our probability value from the table is 30.6% which is greater than 5%, we accept the null hypothesis and conclude that the residuals of our equation have no serial correlation. That means our model is free from autocorrelation.

4. Test for Stability

Using Cusum test, our model exhibited stability. This is because all of the squares of the residuals of the equation associated with our model lie strictly inside the boundaries of the Cusum graph as depicted in the table below.

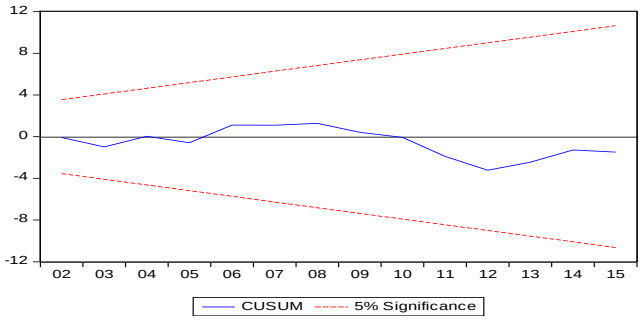

Figure 1: CUSUM Test of stability

5. Bounds Testing

From table 4 below, our F-statistic is 14.06904. Since the F statistic is greater than the Upper bound of the pesaran critical values at 5% level of significance we reject the null Hypothesis and conclude that Gross Domestic Product, Manufacturing output and Average Manufacturing Capacity Utilization have long run relationship. The lower bound (1(0) of pesaran table is 2.86 while the upper bounds 1(1) is 4.488. Since the F statistic is greater that the Upper bounds of pesaran table i.e. 14.06904> 4.488, we reject null hypothesis of non-long run relationship among the variables.

Table 4: Bounds Testing Result

Test Statistic	Value	Df	Probability
F-statistic	14.06904	(3, 14)	0.0002

Source: Author's computation using E-Views.

6. Estimating the Long Run Model and the Speed of Adjustment

From appendix, 0.09 represents the speed of adjustment to long run equilibrium. Although the speed of adjustment is significant, it is positive. This implies that there is divergence of the speed at which the variables adjust to long run equilibrium. However, since the earlier tests reveal the presence of long run equilibrium we can draw conclusion based on the Pesaran Bound testing.

D. Economic Interpretation of Results

The bounds testing result of the ARDL shows that there is long run equilibrium between Manufacturing and Economic growth. This means that a change in manufacturing the output will have a long run impact on Economic growth since the F wald staitistic of 14 is greater than upper bounds of pesaran critical values.

The coefficient of determination when adjusted for degree of freedom based on the adjusted coefficient of determination (Adjusted R-bar squared = 0.81) shows that the ARDL (3,4,3) model has about 81% explanatory power with respect to variations in economic growth of Nigeria.

The Speed of adjustment in terms of the error correction term is 0.09 and is statistically significant. This means that the entire variables adjust to long run equilibrium at a speed of 9%. The fact that the ECT is positive indicates a divergent move towards the long run instead of a convergent adjustment. Concerted effort must therefore be made to ensure the variables in the manufacturing sector are developed to ensure that the entire sector converges towards long run equilibrium.

V. CONCLUSION, SUMMARY AND RECOMMENDATIONS

A. Summary of Findings

This has made a number of findings both from the qualitative analysis and the quantity analysis. This chapter summarises the findings of the research work.

1. The ARDL model developed and used for bounds test reveals long run equilibrium of the GDP, manufacturing output and capacity utilization with the F statistics of 14 which is greater than the pesaran critical values.
2. The entire system, including the manufacturing and Economic Growth adjusts to equilibrium in the long run.

B. Recommendations

From the foregoing, it has been established that manufacturing is instrument to economic revolution of Nigeria. Against this backdrop the study has come up with the following recommendations:

1. Government should deliberately make foreign exchange available for manufacturers
2. Since we have manufacturing companies manufacturing cars in Nigeria, there should legislation for use of only made in Nigeria cars to be used as official cars to serve as a stimulus for domestic car manufacturing in Nigeria.
3. The use of foreign exchange controls should never be used to enforce local sourcing of raw materials. Instead, government should give tax holidays and local sourcing rebate to those who source raw materials locally.

C. Conclusion

The manufacturing subsector is catalytic in stimulating economic growth. The path to economic recovery for Nigeria lies in developing the manufacturing sector. Unfortunately the sectors performance as growth driver is declining largely due to capacity underutilization.

The study uses Autoregressive Distributed lag model to test long run effect of manufacturing on Economic growth. It is the best model because it gives room for the researcher to make adjustment to lag lengths in the model and come up with reliable results. From our result, there is long run equilibrium between manufacturing and Economic Growth.

The study recommends that government should encourage the manufacturing through incentives such as tax holidays and local sourcing rebates as well as energy revolution to revamp, manufacturing in Nigeria. It is also recommended that exchange controls should not be used to encourage local sourcing of raw materials.

D. Limitations Of Study

One of the limitations of the research is the non-inclusion of other measures of manufacturing performance such as the manufacturing purchasing index (MPI), manufacturing Export, Number in manufacturing Employment which is not covered extensively in this study in order to streamline focus of the study and come up with meaningful conclusion. Non usage of the data constitutes a limitation to the study.

Another limitation is the non-availability of current data for the research work especially for economic development indices such as poverty, unemployment Life Expectancy etc.

E. Contribution to Knowledge

This study has contribution to Economics as a body of knowledge in two ways. Firstly, previous studies did not take into consideration the problems associated with time series data. This research adopts

advanced econometric techniques of Augmented Dickey Fuller test of Stationarity and the Autoregressive Distributed lag Model which wetre not used in the previous studies.

REFERENCES

[1] Adedipe, B. (2007): Manufacturing: Way out of the Precipice. Zenith Economic Quaterly.2 (12), 33-41.

[2] Akinlo, E. A. (1996). Improving the Performance of the Nigerian Manufacturing: Selected Issues and Proposals. The Nigerian Journal of Economic and Social Studies. 38(2), 91-110.

[3] Central Bank of Nigeria (2015): Statistical Bulletin. Retrieved from www.cbn.gov.ng/documents/statbulletin.asp.

[4] Elhiraika, B (2008, November), Promoting manufacturing to accelerate economic growth and reduce volatility in Africa. Paper presented at the African Economic Conference on Globalization, Institutions and Economic Development of Africa.Tunis, Tunisia.

[5] Enebeli-Uzor, S. (2009). Economic Meltdown: The Realities for the Manufacturing Sector. Zenith Economic Quaterly.4 (2), 38-44

[6] Enebeli-Uzor, S. (2012). Recent Trends in Nigeria's Manufacturing Sector: Cause for Optimism? Zenith Economic Quaterly.8 (4), 49-55.

[7] Giles, D. (2013). ARDL Models-Part II-Bounds Test. Retrieved from http://davegiles.blogspot.com.ng/2013/06/ardl-models-part-ii-bounds-tests.html

[8] Guo, D., Dall'erba, S. & Le Gallo, J (2012). The Leading Role of Manufacturing in China's Regional Economic Growth: A Spatial Econometric Approach of Kaldor's Laws. International Regional Science Review 36(2), 139 – 166. doi: 10.1177/0160017612457779

[9] Jhingan, M. L (2011). Economics of Development and Planning, New Delhi: Vrinda Publication.

[10] Libanio, G & Moro, S. (2006). Manufacturing Industries and Economic Growth in Latin America: A Kaldorian Approach. Research Gate. Retrieved from https://www.researchgate.net/publication/255652796

[11] Ministry of Budget and National Planning (2009): Report of Vision 20:2020 National Working Group on Manufacturing Thematic Area. Nigeria: Author www.nationalplanning.gov.ng.

[12] National Planning Commission, (2009). Nigeria Vision 20:2020 Economic Transformation Blue print. Abuja, Nigeria: Author.

[13] NBS, (2016). Nigerian Poverty Profile. Abuja: Author.

[14] Obioma, B. K., Anyawu, U. N., & Kalu, A.O.U (2015). The Effect of Industrial Development on Economic Growth Empirical Evidence in Nigeria 1973-2013. European Journal of Business and Social Sciences, 4(2), 127 – 140. Retrieved from http://www.ejbss.com/recent.aspx

[15] Pesaran, M. H., Shin, Y. and Smith, R. J., (2001). Bounds Testing Approaches to the Analysis of level relationships. Journal of Applied Econometrics, 16, 289–326. DOI: 10.1002/jae.616.

[16] Soniyi, T (2017, January, 24). Manufacturers List Challenges to Economic Growth. ThisDay. Retrieved from http/www.thisdaylive.com/index.php/2017/01/24/manufacturers-list-challenges-to-economic-growth

[17] Todaro, M. & Smith, S (2012). Economic Development 11th ed. Boston: Pearson. Education.

[18] UNDP (2016). Human Development Report: Nigeria. Retrieved from hdr.undp.org/en/countries/profiles/NGA

[19] World Bank, (2016 a). Nigerian Overview. Retrieved from http://www.worldbank.org/en/webarchives/archive?url=http%3A%2F%2Fwww.worldbank.org%2Fen%2Fcountry%2Fnigeria%2Foverview%232

[20] World Bank. (2016 b), World Development Indicators Database. Retrieved from http://data.worldbank.org/data-cataloq/world-development -indicators