

Achieving Sustainable Development through Non-Oil Sector Development: Is this Feasible in Nigeria?

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Abstract: The aim of this study is to analyze the contribution of non-oil sector development in fostering sustainable development in Nigeria, utilizing time series data from 1986 to 2018. The study used pairwise granger causality and OLS estimation techniques to determine the impact of non-oil sector development (agriculture, manufacturing, and services) in supporting sustainable development, as measured by unemployment and poverty rates. The pairwise granger causality results reveal that agriculture output, industrial output, and service sector output all have unidirectional causality with unemployment and poverty rates. The findings of the OLS estimate indicated that the components of non-oil sector development are significant and negatively associated to sustainable development in Nigeria. The results also offer the foundation for arguing the postulate of resources cause theory, which states that countries endowed with non-renewable natural resources typically experience sluggish economic growth and development. Thus, this implies that non-oil sector development is a crucial predictor of Nigeria's sustainable development. As a result, we urge that the Nigerian government increase its investment in the agricultural, manufacturing, and service sectors.

Keywords: Nigeria, non-oil export, sustainable development.

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INTRODUCTION

The difficulties in transforming Nigeria economy from import dependent to a diverse, vibrant and technologically driven productive economy as envisaged in Vision 2020 strategic plan continue to present insurmountable challenges to its policy makers. The issue of engendering a sustainable and production-based economy through resource diversification has been the subject of countless national and international debate since independence in Nigeria (La Follette & Maser, 2019). Thus, Sustainable development appeared to be an all-encompassing approach that aims to strike a balance between social inclusion, economic progress, and environmental preservation in order to ensure that present needs are met without endangering the ability of future generations to meet their own (United Nation, 1987). According to the OECD's 2023 projections on green



growth and the sustainable development forum, governments must ensure the need for long term growth due to its numerous benefits to people, the environment, and the economy (Arjomandi et al., 2023). As a result, this balances social justice, economic progress, and environmental protection while also tackling global concerns such as poverty, inequality, and climate change. Hence, the United Nations' 2030 Agenda also underlined the need of sustainable development strategies. The agenda also argued that it raises living standards and increase access to basic services such as healthcare and education by encouraging innovation, job creation, and international cooperation, while also promoting long-term economic growth, environmental responsibility, and natural resource preservation. Over the years, Nigeria has faced several obstacles in its pursuit of sustainable development, including but not limited to its reliance on oil exports, insurgence, corruption, and insufficient infrastructure (Bala & Tar, 2021). On this note, it becomes expedient to policy makers and economists to improvise on available develop models and policy to achieving sustainable development.

Nigeria, Africa's most populous and largest economy, has long relied on the oil sector as its principal source of revenue (Oludimu & Alola, 2022). However, the country's substantial reliance on oil has exposed it to a number of economic vulnerabilities, including shifting oil prices and economic volatility (Afangideh et al., 2018). To achieve sustained growth, Nigeria must diversify its economy by expanding non-oil sectors. By minimizing its dependency on oil, the country can protect its economy from global oil price fluctuations (Agu et al., 2023). As a result, the development of non-oil sectors such as agriculture, manufacturing, and services has enormous potential to drive economic growth, creating employment, improving social fairness, and protecting the environment. Nigerian agriculture in the 1960s was dominated by a wide range of goods, including groundnuts, beans, wheat, hides and skin, yams, Irish potatoes, palm kernels and oil, cocoa, cotton, rubber, and cattle (Adeyemi & Abiodun, 2013). These commodities provided considerable money to the government and played an important part in the economy. However, the discovery of crude oil in the 1970s redirected the country's economic focus toward oil, resulting in a drop in agricultural investment and productivity (PwC, 2020). Groundnuts, cocoa, and oil palm were especially important, contributing significantly to Nigeria's economic prosperity. The spike in crude oil discoveries, notably at Oloibiri in Bayelsa State, resulted in a rapid transfer of economic priority to the oil sector, resulting in a decrease in agricultural output and relevance. Consequently, Nigeria's leadership in cocoa and oil palm output diminished, compounded by disinvestment, a shortage of better seedlings, and insufficient funding (PwC, 2020).

Additionally, the manufacturing sector plays an important role in fostering Nigerian sustainable development by driving economic diversification, job creation, and environmental sustainability. According to Li et al. (2018), robust manufacturing operations improve economic resilience and industrial growth, both of which are necessary for long-term development. Also, Bennett et al. (2015) contended that manufacturing increases productivity and encourages technological innovation, which lessens the nation's dependency on oil earnings and helps to create a more stable and diversified economy. In addition, Bennett et al. (2015) provide credence to the idea that the manufacturing sector encourages investments in human capital and infrastructure. Their study illustrates how the expansion of the manufacturing industry raises the need for improved energy and transportation networks as well as expenditures in labor training and education. This investment improves living standards, promotes economic stability, and fosters long-term sustained growth in addition to increasing the industrial sector's productivity and efficiency. It also enhances the economy's overall level of the infrastructure and human capital. On the other hand, it has been argued that agricultural expansion follows the growth of the manufacturing sector. For example, Evenson & Gollin (2003) underline how agricultural productivity innovations,

such as irrigation systems and better crops, boost the accessibility and quality of raw materials required for manufacturing. Thus, these innovations not only boost productivity in agriculture but also promote industrial expansion by assuring steady and economical inputs. Hence, the Nigeria's economic growth and sustainability rely heavily on the link between agriculture and the industrial sector.

Previous studies have extensively examined why Nigeria's non-oil industry has struggled to make a meaningful contribution to long-term growth. First, the historical over-reliance on oil earnings has resulted in a lack of investment and growth measures in areas like as agriculture, manufacturing, and services. Also, Okubor (2014) suggested that weak global integration has resulted in major imbalances, impeding diversification efforts required for long-term economic growth. Abogan et al. (2014) further noted that infrastructural weaknesses, such as unstable power supply, poor transportation networks, and restricted access to contemporary technology, increase the non-oil sector's problems. These concerns undermine productivity, competitiveness, and the capacity to attract local and international investment. Furthermore, studies such as Oyejide (2007) and Amankwah-Amoah et al. (2022) argued that regulatory discrepancies, bureaucratic bottlenecks, and corruption have created a difficult business environment that discourages potential investors and stifles entrepreneurial activity. Furthermore, Acemoglu et al. (2005) identified inadequate governance and institutional quality as a significant source of a bad regulatory and commercial climate. Their research underlines that policy inconsistency and inadequate governance frameworks cause uncertainty, discouraging investment and impeding long-term economic planning. Similarly, Eifert et al. (2005) argued that policy instability and governance failures are significant barriers to development in Nigeria and other African countries, whereas the Nigerian Economic Summit Group and the World Bank highlight how policy inconsistency and governance failures have created an unpredictable economic environment in Nigeria. Additional evidence suggests that policy instability and governance shortcomings lead to economic uncertainty and impede long-term planning and development initiatives. Understanding the drivers of sustainable development in Nigeria necessitates a thorough grasp of the non-oil sector's involvement. The study's findings may encourage the implementation of policies that improve infrastructure development, institutional capacity building, and the promotion of a favorable business climate. As a result, this can help Nigeria realize its full potential in non-oil industries and support long-term economic growth.

In light of the foregoing arguments, the broad objective of this study is to investigate the relevant of achieving sustainable development through non-oil export in Nigeria. However, prior research has focused on other factors that can promote Nigeria's sustainable development, with little or no attention paid to the critical role of poverty and unemployment reduction (Kromtit et al. 2017, Okezie & Azubike, 2016; Aljebrin, 2017; Daluma & Saleh, 2017; Salami, 2018; Shirazi et al. 2020). This study varies from previous studies in a variety of ways. Nonetheless, by disaggregating the non-oil sector into the manufacturing, service, and agricultural sectors, we examine the following causal relationships between: a) the net output of the agricultural sector, unemployment, and poverty reduction; b) the number of people employed in the agricultural sector, unemployment, and poverty reduction; c) the total production levels within the manufacturing sector, unemployment, and poverty reduction; and d) the net output of the service sector, unemployment, and poverty reduction. We do this by applying pairwise granger causality techniques. In addition, we use the ordinary least squares method (OLS) to determine whether net output of the agricultural sector, total production levels within the manufacturing sector, and net output of the service sector have a significant impact on unemployment and poverty reduction in Nigeria. Also, we want to know if the number of persons engaged in the agricultural industry has a major influence on poverty reduction in Nigeria.

METHODS

This study adopts the Solow growth model which assumed that production exhibits a constant return to scale, that is, if all inputs are increased by a certain multiple, output will increase by exactly the same multiple. The Solow neoclassical growth model uses a standard aggregate production function in which;

$$Y_t = A_t K_t^\alpha L_t^{1-\alpha}, 0 < \alpha < 1 \dots\dots\dots 3.1$$

In this case, Y is the gross domestic product, K is the stock of capital, L as labour while A depicts the productivity of labour which has been assumed to grow at an exogenous rate with n and g established as the number of effective units of labour A_t . According to Solow, L_t grows at the rate of $n + g$ for developed countries. Hence, in developing countries, it may be small or large. From equation 3.1, α represents the elasticity of output with respect to capital (the percentage increase in GDP as a result of a 1% rise in human and physical capital). This is usually measured statistically as the share of capital in a country's national income accounts. The model further assumes that a constant fraction of output, s is invested defining k as the stock of capital per effective unit of labour described as $k = \frac{K}{AL}$ and y as the level of output per effective unit of labour as $y = \frac{Y}{AL}$ making k to be guided by

$$K_t = sy_t - (n + g + \sigma)K_t = sK_t n - (n + g + \sigma)K_t \dots\dots\dots 3.2$$

From equation 3.2, σ depicts the rate of depreciation and k explains convergence to a steady state with k^* defined as:

$$sk^{*\alpha} = (n + g + \sigma)K_t^* \text{ or } k^* = \left(\frac{s}{(n + g + \sigma)} \right)^{\frac{1}{1-\alpha}} \dots\dots\dots 3.3$$

The steady-state capital-labour ratio is positively related to the rate of saving and inversely connected to the population rate. The central predictions of the Solow model deals with the impact of savings and rate of population on real income. The model assumes factors to be proportional to their marginal products. In the case of a competitive market, the growth rate of the economy is defined as the weighted sum of growth rate of efficiency parameter g . Sometimes g is referred to as technical progress which describes labour and capital as gL and gK respectively. The weights on capital and labour are the shares of payment to labour and capital in Gross Domestic Product as demonstrated below:

$$gY = gA + \alpha gL + \alpha gK \dots\dots\dots 3.4$$

Following the assumption of the Solow growth model, marginal product of capital decreases with the amount of capital in the economy. While in the long-run, as the economy accumulates more and more capital, gK advances toward zero and the growth rate is determine by technical progress and growth in the labour force. And in the short-run, the economy that swiftly stock capital will enjoy a higher level of output. From the traditional neoclassical growth model, rate of growth in output results from one or three of the following factors as opined by Todaro & Smith (2004): increase in the quantity and quality of labour force (i.e growth in population and qualitative education); increase in capital stock (via increase savings and investment); and improvement in technology. In line with the neoclassical perspective that is based on a technical relationship between output and productive inputs as considered in the pioneering work of Robert Solow with its extension finding variants in the Cobb-Douglas production function. The Solow's residual method and its estimate are inappropriate on the basis that: the residual approach was not of significant use in comprehending the growth

process because it operates from the standpoint stable production function; the approach was condemned on the premise of its unrealistic assumptions of perfect competition, constant returns to scale and complete homogeneity among other criticisms.

This study utilized annual time series data obtained for the period 1986 to 2018 with 33 observations. The dataset was drawn from Central Bank of Nigeria Statistical Bulletin, Annual Report and Statements of Account, the National Bureau of Statistics and the World Bank Development Indicators online database. The study used agricultural output (Agr), manufacturing output (Mf) and output from service industry (Serv) as proxies non-oil sector development with emphasis on the export of the sector's output (referred to as non-oil export). In this study, we viewed unemployment and poverty as a major challenge to achieving sustainable development in Nigeria. To this effect, we chose Unemployment (Unr) and poverty levels (Pov) as a measure of sustainable development, believing that non-oil sector development plays a significant role in poverty and unemployment reduction which may be an incentive for sustainability. The variables are used at constant prices to ensure having a reliable parameter estimates from the time series regression.

The adopted OLS and granger causality estimation techniques for the study. Granger causality technique is employed to ascertain the direction of causality between sustainable development and the non-oil export in Nigeria. Granger proposed that for a pair of linear covariance stationarity time series X and Y , that X causes Y if the past values of X can be used to predict Y more accurately than simply using the past values of Y . As presumed, X is said to cause Y if;

$$\delta_1^2(Y_t : Y_{t-j}, X_{t-j}) < (Y_t : Y_{t-j})$$

where δ describes the variance of error forecast and $j = 1, 2, 3, \dots, k$. The Granger causality test requires the use of F-statistic to affirm whether lagged information on a variable say " Y " offer any relevant statistical information about another variable say " X ", if not then ' Y ' does not Granger cause ' X '. Hence it provides a suitable technique for evaluating the given problem. On the other hand, Ordinary Least Square (OLS) approach will be employed to ascertain the impact of non-oil export on sustainable development in Nigeria. The OLS model is fit for this study because it explains the trend of responses between the continuous variable (Y) and the continuous response of the explanatory variables (X). If the relationship is linear, it will be appropriate to represent it mathematically using straight line equation. The study used multiple regression analysis owing to the underlying axioms that, the parameters of the model must be linear; the data are random sample of the population with its residual being statistically uncorrelated from each other; the independent variables are not strongly collinear and are precisely measured to avoid negligence of measurement error.

The model is specified in consonance to the premise explored in theoretical framework to incorporate the policy variables used in the study. Hence, the model for the study follows the established model by Milbourne et al. (2003) as explicitly and functionally specified below:

$$Unr_t = f(Agr_t, Mf_t, Serv_t) \dots\dots\dots 3.5$$

$$Pov_t = f(Agr_t, Mf_t, Serv_t) \dots\dots\dots 3.6$$

Where Unr_t : Unemployment rate, Agr_t : Agricultural output, Mf_t : Manufacturing output, $Serv_t$: Output from service sector and Pov_t : Poverty rate. All at time t . The causality level can be however established as:

$$SD_t = \sum_{i=1}^n \alpha_i NO_{t-i} + \sum_{j=1}^n \beta_j SD_{t-j} + \mu_{1t} \dots\dots\dots 3.7$$

$$NO_t = \sum_{i=1}^n \theta_i SD_{t-i} + \sum_{j=1}^n \varpi_j NO_{t-j} + \mu_{2t} \dots\dots\dots 3.8$$

Where SD_t : Sustainable development measured by unemployment and poverty rates, NOT_t : Non-oil export to be proxied by output from agriculture, manufacturing and service sectors. μ_{1t} and μ_{2t} are assumed to be uncorrelated. From equations 3.7 and 3.8, the current SD_t is related to past values of SD_t as well as those of NOT_t ; and the current NOT_t is also related to past values of NOT_t and SD_t . Note also that, α , β , θ , and ϖ are the parameter estimates of the coefficients drawn from the model. The apriori expectation is set to design if SD_t and NOT_t would be statistically significantly different from zero as obtainable from the regression model above. Thus, if $\sum \alpha_i \neq 0$ and $\sum \beta_j \neq 0$, it implies a feedback or a bilateral causality between SD_t and NOT_t in Nigeria. The causal relationship could exist between growth in each sector and the measures of sustainable development. The decision rule will be made with the help of the probability value of the F-statistic. If the computed probability value of the F-statistics exceeds the critical value at 5% (0.05) level of significance, the null hypothesis will be rejected or otherwise do not reject.

The impact of non-oil export on sustainable development can be ascertained by logging the policy variables to streamline their effect as established below:

$$\log Unr_t = \beta_0 + \beta_1 \log Agr_t + \beta_2 \log Mf_t + \beta_3 \log Serv_t + \varepsilon_{1t} \dots\dots\dots 3.9$$

$$\log Pov_t = \varpi_0 + \varpi_1 \log Agr_t + \varpi_2 \log Mf_t + \varpi_3 \log Serv_t + \varepsilon_{2t} \dots\dots 3.10$$

With ε_{1t} and ε_{2t} being stochastic or random error terms with the properties of zero mean and serially uncorrelated.

RESULTS AND DISCUSSION

The Granger Causality can be estimated using eqns. 3.7 and 3.8 above as presented in Table 3:

Table 3 Pairwise Granger Causality Test Results

| Null Hypothesis | Obs | F- stat | P.Value | Causal Direction |
|---------------------------------|-----|---------|---------|--------------------------|
| AGR does not Granger cause UNR | 30 | 3.275 | 0.029 | Unidirectional Causality |
| UNR does not Granger cause AGR | | 2.749 | 0.084 | No Causality |
| MF does not Granger cause UNR | 30 | 3.333 | 0.043 | Unidirectional Causality |
| UNR does not Granger cause MF | | 0.181 | 0.836 | No Causality |
| SERV does not Granger cause UNR | 30 | 3.419 | 0.045 | Unidirectional Causality |
| UNR does not Granger cause SERV | | 1.386 | 0.269 | No Causality |
| AGR does not Granger cause POV | 30 | 4.636 | 0.014 | Unidirectional Causality |
| POV does not Granger cause AGR | | 1.514 | 0.240 | No Causality |
| MF does not Granger cause POV | 30 | 5.205 | 0.006 | Unidirectional Causality |
| POV does not Granger cause MF | | 1.916 | 0.169 | No Causality |
| SERV does not Granger cause POV | 30 | 3.318 | 0.043 | Unidirectional Causality |
| POV does not Granger cause SERV | | 0.632 | 0.540 | No Causality |

Source: Author's Concept

From the results presented in Table 3, it has been affirmed that agricultural sector measured with agricultural output (AGR) granger causes unemployment (UNR). This suggests that the development of

agricultural sector is of important in checking the high rate of unemployment in Nigeria. Also, the revenue generated from the exporting agricultural output may be diverted or invested in developing other sectors of the economy. In addition, we also observed unidirectional causality running from the manufacturing sector (MF) to unemployment (UNR). This is evidence also show the need for developing the manufacturing sector as it may be a sure way of addressing the unemployment rate. However, from the results also, there exist a bidirectional causality from service sector to unemployment. In like manner, we observed the same result when investigated the causal direction between the measures of non-oil sector development and the second proxy of sustainable development (poverty rate). The results also show that both agricultural, manufacturing and service sector granger causes poverty, suggesting that the sector's development could be vital in poverty reduction in Nigeria. Given the outcome of granger causality results, we can infer that development of non-oil sector is likely to promote non-oil export and the revenue generation in Nigeria, and in turn create the opportunity for more job creation and improvement in the per-capita income and welfare of the people. Therefore, policies that can enhance the development of the sectors, and efficient utilization of the revenue that may be generated from the output can promote sustainable development in Nigeria. However, to negate the postulates of resource curse theory, Nigeria endowed with amazing natural resources should endeavour to investment her proceeds from the oil sector to the development of the non-oil sector. In turn, there will be increase in non-oil export proceed and economic growth and, thus promoting the chances of sustainable development in the country.

Furthermore, the impact of impact of non-oil export on sustainable development was ascertain. Hence, OLS estimation techniques was adopted. Also, before the proper estimation, we observed the assumptions of OLS so as to avoid the possibility of spurious result. The data for the study was described and subjected to pre and post estimation tests. The essence of the descriptive statistics is to ensure that the series do not deviate largely from the mean. It provides the summaries about the sample and the variables descriptions. The standard deviation of the variables in the model indicates the variations in the sample for the study as shown in Table 4. However, we also carried out the regression analysis with Newey-West Hec standard error to take care of autocorrelation, heteroscedasticity, Serial Correlation and multicollinearity issues in the models. The outcome of the descriptive statistics and Unit root tests are shown in Table 4.

Table 4 Summary Statistics

| Var | LUNR | LPOV | LAGR | LMF | LSERV |
|-----------|--------|--------|--------|--------|---------|
| Mean | -0.032 | 1.115 | 2.062 | -0.005 | 0.0001 |
| Median | 0.022 | 1.341 | 2.617 | -0.015 | 0.0012 |
| Max | 5.247 | 2.426 | 9.211 | 20.14 | 7.651 |
| Min | -7.013 | -4.162 | -13.20 | -18.13 | -12.515 |
| Std. Dev. | 1.612 | 0.881 | 5.518 | 1.715 | 3.005 |
| Skewness | -2.143 | -1.711 | 0.073 | 0.304 | -5.248 |
| Kurtosis | 8.032 | 4.317 | 4.216 | 7.425 | 12.13 |

Source: Authors' computation

From Table 4, close observation shows that the minimum and maximum coefficients were -18.13115 and 20.14104 respectively. The Skewness and the kurtosis indicates that the series were not distributed normally,

and the distribution does not vary largely from the normal distribution as also shown in standard deviation, observed to be close to the mean of the series on average. In addition, since we have obtained the descriptive statistics which enable us to understand the behaviour of the variables, we extended the investigation to stationary tests to ensure that the variables have no unit root (see Table 5).

Table 5 Unit root tests

| Variables | ADF | Order of Integration | | PP | Order of Integration | |
|-----------|-----------|----------------------|------------|-----------|----------------------|------------|
| | | Level | First Diff | | Level | First Diff |
| LUNR | -3.519** | I(0) | - | -6.104*** | I(0) | - |
| LPOV | -2.432** | I(0) | - | -2.403** | - | I(1) |
| LAGR | -6.111*** | - | I(1) | -6.100*** | I(0) | - |
| LMF | -4.615*** | I(0) | - | -3.920** | I(0) | - |
| LSERV | -2.762** | | I(1) | -3.560** | I(0) | - |

Source: Authors' computation

Since time series data are high frequency data, the understanding of the series stationarity becomes necessary to ensure that the variable is integrated. Hence, to ascertain if the variables have unit root or not, we adopted Augmented Dickey–Fuller (ADF) and Philip-Perron test (PP) as shown in Table 5. The results from the tests show that almost all the variables are integrated of order zero (I(0)). After the description of the data and the stationarity tests, pre and post estimation test were carried out. Hence, because of the out of the pre and post estimation tests reported in Table 6, we estimated equations (3.9) and (3.10) using Newey-West Hec standard error as stated earlier.

Evidence from the OLS estimation shows that non-oil sector development as measured by agricultural (LAGR), manufacturing (LMF) and services (LSERV) sectors significantly impacted on sustainable development proxied with LUNR and LPOV. Similary, it implies that non-oil sector is a significant determinants of unemployment and poverty reduction. From the results, a % increaese in LAGR and LMF result to about 53% and 76% fall in unemployment (LUNR) and poverty rate (LPOV) respectively in Nigeria. Furthermore, this result somehow supported the evidence from the Pairwise grenger causality test. Though, we found positive and significant impact of service sector (LSERV) on unemployment (LUNR), but significantly and negatively related to poverty rete (LPOV). The result shows that a % increaese in LSERV results to 53% increase in unemployment (LUNR), while a % increaese in LSERV, results to 55% decrease in poverty rete (LPOV) respectively. The outcome of the impact of LSERV on LUNR contracted the apriori expectation and this may be as a result of the data used for the study, and increased access to services like insurance, transport, banking, and medical expertise amidst in Nigeria. Given the outcome of the findings, Non-oil sector development proxied by agricultural output, manufacturing output and servicing output significantly impacted sustainable development. The study's findings is consistent with the works of Okubor (2014) and Igwe et al. (2015). It also provide the premise to contend the postulate of resources cause theory which stipulated that countries endowed with non-renewable natural resources are usually stagnant in economic growth and development. The R2 suggest that variation in LUNR and LPOV are explained by 79% and 83% variation in LAGR, LMF and LSERV respectively. Therefore, sustainable development could be attained in Nigeria if only the government authority could invest more money in developing the sectors under study, and it should be noted that the development of these sectors are significant to reducing the height

of unemployment and poverty in the country *ceteris-paribus*. The F-stat (34.54846 and 46.91161) is greater than 5% level of significance with probability (0.00000). This shows that the model is relevant, robust and reliable. Hence, the F-statistics also explained the joint statistical significance of the explanatory variables at 5% level of significance.

Table 6 OLS Estimated results

| Variables | (1) | (2) |
|-------------------------|---------------------|----------------------|
| LAGR | -0.535** [0.049] | -0.766*** [0.002] |
| LMF | -0.331** [0.044] | -0.026*** [0.008] |
| LSERV | 0.518*** [0.001] | -0.553*** [0.001] |
| C | 2.096*** [0.007] | 1.872*** [0.000] |
| R ² | 0.793 | 0.839 |
| R-Adjusted | 0.770 | 0.821 |
| F-stat. | 34.55 | 46.91 |
| Prob(F-Stat) | 0.000 | 0.000 |
| Durbin Watson | 1.159 | 1.112 |
| Normality Test | 9.915 (0.006) | 11.21 (0.001) |
| Serial Correlation Test | 0.335 (0.928) | 0.122 (0.761) |
| Ramsey Reset Test | 0.2629 (0.049) | 0.103 (0.028) |
| Heteroscedasticity Test | 8.057 (0.077) | 5.051 (0.059) |

Source: Author's Concept. ***, ** and *: represents 1%, 5% and 10% levels of significance. LUNR and LPOV are dependent variables for model 1 and 2 respectively. [...] is the probability values.

This study highlights the importance of developing non-oil sectors such as agriculture, manufacturing, and services in fostering sustainable development in Nigeria, with clear managerial implications. The government needs to enhance strategic investments in these sectors through subsidies, modern technologies, and supporting infrastructure. Economic diversification should be prioritized by promoting non-oil exports and implementing supportive policies, such as tax incentives and reducing bureaucratic hurdles. Additionally, workforce training for the agricultural and industrial sectors is crucial to reducing unemployment and poverty. These findings reinforce the Resource Curse theory (Auty, 1993), which posits that reliance on natural resources can hinder growth, while also aligning with Solow's (2005) and Oyejide's (2007) views on the importance of

diversification, global integration, and investments in infrastructure and technology for sustainable economic growth. Implementing these strategies can help Nigeria reduce its dependency on oil, improve welfare, and achieve inclusive development.

CONCLUSION

This research offered a reliable measure of assessing the causal link between non oil export and sustainable development as well as its impact on sustainable development in Nigeria. Based on the Granger Causality test, there exists a unidirectional causality between non-oil sector development and sustainable development. Hence, the estimated results using OLS techniques affirmed that, non-oil sector development/export significantly impacted on unemployment and poverty reduction in Nigeria. Therefore, the key driving forces of unemployment and poverty reduction are the agricultural, manufacturing and service sectors. Therefore, we suggest that more funds should be channeled to the development of the sectors, and quality policies should be initiated by the government to create an enabling environment that may serve as an incentive in attracting foreign direct investment into the sectors. Hence, to encourage the attainment of sustainable development in Nigeria, the cost of doing business in Nigeria should be drastically reviewed, and there must be incentive to both local and foreign investors who are desired to commit their fund in the sector. Such incentives include; (a) tax holiday or exception, (b) ensuring safety of investor's property right, (c) improving on the social amenities such as road, power supply etc, and provision of some agricultural technologies. The agricultural, manufacturing and service sectors therefore, have been identified as necessary engines that would stimulate growth in non-oil sector. Given the poor performance of these sectors in Nigeria, the study submits that, government should create an enabling environment for their survival by ensuring that basic infrastructures needed by farmers, manufacturers and service providers are available and made conducive for a sustained development to be achieved.

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