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ISSN (Online): 2455-7838
SJIF Impact Factor (2016): 4.144

EPRA International Journal of Research & Development (IJRD)
Monthly Peer Reviewed & Indexed International Online Journal
Volume: 2, Issue: 2, February 2017

Published By:
EPRA Journals

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ADDRESSING DIVERSIFICATION AND GROWTH OF THE NIGERIAN ECONOMY: EMPIRICAL EVIDENCE

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ABSTRACT

Nigeria’s over-dependency on the oil sector has only shown the vulnerability of the economy to external (international) oil price variations or shocks. This has brought untold hardship and increasing unemployment and inflation in the country. Against this background, the thrust of this paper is to address the economic growth and development through economic diversification. This paper shows the contributions of the non-oil sector with particular reference to agriculture and solid mineral to Nigeria’s economy. The paper employed a time-series data for the periods 2000 – 2013 which was obtained from National Bureau of Statistics. With GDP as the dependent variable and, agriculture and solid mineral as the independent variables, a multiple regression analysis showed a positive relationship between agriculture, solid mineral and the GDP where agriculture and solid mineral increases GDP by 4.013% and 6.623% respectively. The result also showed a statistically significant relationship between agriculture and GDP whereas no statistically significant linear dependence of GDP on solid minerals was detected as indicated by the P-value. A granger causality test established a uni-directional causality link between GDP and agriculture where GDP granger causes agriculture, and also between agriculture and solid mineral where solid mineral granger causes agriculture. However, no causality link was established between GDP and solid mineral. The paper concludes that though agriculture and solid mineral triggers economic growth, it is at a minimal rate and so, efforts should be made to exploit the full potentials of the two sectors. The paper, amongst other recommendations, proffered that government should review and implement more policies and reforms that will develop the non-oil sector.

KEYWORDS: Agriculture, Economic Diversification, GDP, Non-Oil Sector, Solid Mineral.

1. INTRODUCTION

The dynamism of Nigeria’s economy is one that is creating waves globally. The country’s GDP was marked the continent’s largest toppling South Africa, (Ojiabor, 2014). This feat was represented by the economy hitting an estimated nominal GDP of $500 billion surpassing South Africa’s $352 billion. This economic performance according to the African Economic Outlook (2014) is owed to the favourable improvements in the non-oil sectors with real GDP growth of 5.4%, 8.3% and 7.8% in 2011, 2012 and 2013 respectively. It also reports that agriculture (with particular reference to crop production), trade and services continue to be the main drivers of the non-oil sector growth.

Long before now, Nigeria has been seen as having an economy that thrives and depends only on the oil sector. The oil sector provided approximately 90% of foreign exchange earnings...
and about 80% of Federal Revenue and contributes to the growth rate of Gross Domestic Product (Baghebo and Atima, 2013). No doubt, the oil sector is a predominant source of Nigeria’s revenue and foreign exchange but it is evident that most recently, the non-oil sector has had its own contributions with regards to economic growth.

The speed at which an economy grows depends on resource mobilization, especially finance. For a country to attain economic growth and development, the potentials of all the sectors of the economy should be exploited and developed. Instead of practicing monoculturalism, there should be a simultaneous development of the various sectors (Awe and Ajayi, 2009). The implication of Nigeria’s sole dependence on the oil sector is such that other sectors are stagnated and the country has been rendered vulnerable to fluctuations in world prices of petroleum and its products. In other words, economic diversification is very important in economic growth and development.

There is every need for diversification in the economy because of what the economy stands to gain. Economic diversification will contribute immensely to the provision of employment opportunity. It will also reduce the anomalies in the balance of payment position. The level of demand within the economy will increase through income earned as a result of diversification. In a nutshell, an underdeveloped economy can be turned into a prosperous one if it diversifies. This paper seeks to establish the nature of relationship and the contributions of the non-oil sector with regards to agriculture and solid minerals to the economy. A time series data is employed.

2. THEORETICAL AND CONCEPTUAL FRAMEWORK

It is imperative to first and foremost, look into certain economic theories of growth that link diversification with economic growth;

The Neo-Classical Growth Model/Theory

This theory, credited to Robert Solow, is one that suggests that economic growth requires an increase in all aspects of growth. It outlines how a steady economic growth rate can be attained with the proper amounts of the 3 driving forces; Labour, Capital and Technology. It went on to argue that technological change has a major influence on an economy, and that economic growth cannot continue without advances in technology.

The production function of neoclassical growth theory is used to measure the growth and equilibrium of an economy, and is depicted as: \( Y = AF(K, L) \). \( Y \) denotes an economy's gross domestic product (GDP); \( K \) represents its share of capital; \( L \) describes the amount of unskilled labour in an economy; and \( A \) represents a determinant level of technology. However, due to the relationship between labour and technology, an economy's production function is often re-written as: \( Y = F(K, AL) \).

The Neo-Classical growth implies that the part and speed of an economy’s growth are endogenous policy variables that are within the ambit of policy makers and not homogenous policy. This therefore, implies that Nigerian policy makers should make every urgent effort to encourage diversification of our resources (endogenous) and not encouraging mono-economy which is (homogenous) (Uzonwanne, 2015).

Comparative Advantage Theory

This economic theory is about the work gains from trade for individuals, firms or nations that arise from differences in their factor endowments or technological progress. It is the ability of an individual, company or country to produce goods or services at a lower opportunity cost than its competitor. This 1817 theory is attributed to David Ricardo. This theory demonstrates that if two countries capable of producing two commodities engage in the free market, then each country will increase its overall consumption by exporting the good for which it has a comparative advantage while importing the other good, provided that there exist differences in labour productivity between both countries (Arthur and Sheffrin, 2003). Widely regarded as one of the most powerful yet counter-intuitive insights in economics, Ricardo's theory implies that comparative advantage rather than absolute advantage is responsible for much of international trade (Suranovic, 2010).

Economic diversification has been proposed to be an instrument through which two polar goals of stability and growth can be achieved simultaneously (Pirasteh, Sayadi and Saghafi, 2009). This being that the process of export diversification may seem at first to contradict the concept of comparative advantage. Trade theory suggests that growth should be derived from economic specialization (non-diversification) of activities based on competitive advantage which in turn is based on relative factor endowments. On the other hand, economic development theory also suggests that stability is achieved through diversity (Pirasteh, Sayadi and Saghafi, 2009). Policy makers are forced between these two polar goals (growth and stability) and contradictions seem to arise in an attempt to pursue both goals simultaneously (Bauer and Deller, 1997). Amidst this, some scholars have argued that growth and stability can be simultaneously pursued without contradictions when viewed in terms of short and long run (Wagner and Deller, 1998). Diversification policies can be viewed as the long-run envelope of a country’s short-run efforts in promoting growth. Therefore, within this framework, it is vitally important to remember that short-run policies are aimed at promoting growth and long-run policies are aimed at promoting...
stability with growth. As diversity and hence stability increases, so should the potential for growth. Diversity is not the absence of specialization, but reflects the presence of multiple specializations. Thus, the apparent contradictory goals and policies can be pursued simultaneously and consistently.

Concept of Economic Diversification

Economic diversification pose a very important issue for many developing countries (Nigeria inclusive) as most of these countries rely predominantly on the production of a primary commodity that is evidently vulnerable to price and climate variability as the case maybe.

Diversification implies movement into new fields and stimulation and expansion of existing traditional products. Diversification does not discourage specialization, but requires that resources be channelled into the best alternative uses. In macroeconomic planning, diversification promotes growth and development through the mobilization of savings from surplus sectors for use in the development of deficit sectors of the economy (Eko, Utting and Onun, 2013).

Fluctuations and crashes are inevitable. This is evident in the recent happenings in the Nigerian economy and indeed, some other countries that have had heavy reliance on the oil sector. A drop in the oil price resulted to untold economic hardship on these countries. The domino effect resulted to thousands of job losses and increasing unemployment rate. Economic diversification is vital to ensure the country as a whole is not heavily affected by factors which would result in market or economic crash (Ali-Haroun, 2015).

The United Nations Framework Convention on Climate Change (2014) sees economic diversification as a process in which a growing range of economic outputs is produced. It is the diversification of markets for exports or diversification of income sources away from domestic economic activities (i.e income from overseas investments). Economic diversification, whether in terms of diversity of economic activities or markets or income sources, is aimed at increasing economic resilience and reducing reliance on vulnerable economic sectors.

A diversified economy provides nations with ability for sustainable growth and security because there is no reliance on one particular type of revenue as such, if a revenue stream fails, other revenue options are available. Economic diversification takes the dependence on oil and low-wage expatriate labour and refocuses it on all economic activity. As a matter of fact, economies that are diversified are less likely to go through economic volatility. Options abound for diversifying an economy. These options range from agriculture, manufacturing to services etc.

To further buttress the importance of economic diversification, the GCC (Gulf Cooperation Council), which comprised the countries of Bahrain, Qatar, Oman, Kuwait, United Arab Emirates and Saudi Arabia, reached a consensus in 2014 that they needed to create a non-oil tradable sector and competitive business environments in order to attain desired economic growth.

Dimensions of Economic Diversification

Adeoye (2016) outlined 3 dimensions which economic diversification can be pursued; National Output, Government Revenues and Exports. Diversification of National output or product diversification shows how distributed, among various sectors, productive activities within a country are. A largely agrarian economy may be as non-diversified as a mineral resource rich economy. Both economies, being about the same type of economic activity (extraction), will be subject to fluctuations in global commodity prices. Esanov (2013) says it is the process in which the economy becomes more diverse in terms of goods and services it produces. Going further on this, Adeoye (2016) maintained that, in this output perspective, it is safe to say that the Nigerian economy is diversified since, to an extent, a significant number of Nigerians are employed outside any one major sector with the exception of agriculture although further diversification is possible and needs to be pursued.

Government Revenue Diversification addresses the over-dependence of government on commodity-price related revenue. It is possible that revenue that accrues to a government becomes concentrated in the production of a few commodities. This presents even more serious dangers when the prices of such commodities are determined outside the domestic economy. An economy with a strong productive base with significant activity (high employment levels) across sectors and in which the government implements a broad-based tax strategy with efficient tax assessment and collection systems will indeed avert or address the non-diversification in this regards (Government Revenues).

Export base diversification according to Esanov (2013) is a deliberate policy intended to change the shares of commodities in the existing export mix, introduce new products in the export portfolio, and/or break into new geographical markets. Export diversification can be viewed in two perspectives; Product Diversity and Process Complexity. A country’s export can be well diversified across various products (agricultural, solid minerals, oil etc) but the country lacks process complexity. Process complexity is the transformation of these base resources into finished goods. Importation of finished goods and intermediate inputs in a diversified but low-
complexity economy will consequently be very high. This will put the exchange rate under constant pressure and will constantly expose the export base to external shocks.

From an export perspective, economies are rated in four ways; Quadrant 1 economy which is marked by low diversification and low complexity, Quadrant 2 economy which is marked by high diversification and low complexity, Quadrant 3 economy which is marked low diversification and high complexity and finally Quadrant 4 economy which is marked by high diversification and high complexity hence, the most optimal path to true economic development. As it is, from this view, Nigeria is a Quadrant 1 economy but a move to Quadrant 4 will help stabilize our foreign exchange situation, raise employment levels, improve income generation, and reduce poverty levels and economic inequality. A well-diversified economy with complex production will export more high valued output, so to say, and import less of finished goods. Such an economy will create larger opportunities for both semi-skilled and higher skilled jobs in different sectors (Adeoye, 2016).

Lyakurwa (1991) also posited that export diversification is important because it will play an important role in reducing the variability of the export earnings of developing countries and raising the growth rates of both exports and domestic output. According to the World Trade Organisation (2010), diversification of countries export base increases local production, employment, income and economic growth. This gives credence to Adeoye’s (2016) conclusion that a significant diversification and upgrade of Nigeria’s export base would largely address the diversification of government revenue and would also enhance the diversification of economic output and employment with the country’s boundaries.

**Contributions of the Oil and Non-Oil Sectors to the Nigerian Economy**

Since the discovery of oil in Nigeria in 1956, it has become the main source of foreign exchange earnings and government financing. Oil constitutes 80% of revenue and 95% of export earnings, 83% of Federal government revenue and 65% of government budgetary revenues and 95% of foreign exchange earnings, while the non-oil sector, despite its improved performance, contributed 20% (CBN, 2010).

Before now, Nigeria is seen to be the highest exporter of oil having the U.S and Europe as among its major markets. The over-dependency of Nigeria on the oil sector has as a matter of consequence, shown the level of vulnerability of the economy to external oil price shocks or the variability of oil price in the international markets.

The oil boom of the 1970s brought about the neglect of the non-oil sector with particular reference to agriculture which was the mainstay economically then. The agricultural sector was mostly hit. Rural urban migration increased as people attempted to reap or benefit from the windfall from oil and as such, production for agricultural commodities for export declined. By 1974, huge foreign exchange earnings were utilized in food importation as the economy became a net importer of basic foods. Ever since then, oil has been the mainstay of the Nigerian economy.

However, over the years, oil price has declined continually. The U.S ceased oil importation from Nigeria in July 2014 due to the emergence of Shale oil and gas production (Wikipedia). There has been a sharp decline in oil price since then and a country like Nigeria that has over 85% of her revenue sourced from the oil sector, has had various aspects of her economy affected by the decline (Odeyemi, 2015). Growth slowed sharply from 6.2% in 2014 to an estimated 3.0% in 2015. Inflation increased from 7.8% to an estimated 9.0% (African Economic Outlook, 2016).

The performance of the non-oil export sector in the past three decades leaves little or nothing to be desired, in spite of the efforts to promote non-oil exports in Nigeria (Onodugo, Amujiri and Nwuba, 2015). The share of non-oil export in the country’s total export earnings has remained very low; 1% in 2008 and up to 4.8% in 2013 (CBN, 2013).

Past leaders has made moves to diversify the economy through growing the non-oil sector but it would really be seen as paying “lip service” to the call since a significant or slight rise in oil price would see them falling back to the revenues of the oil section. This is made evident by the policies and incentives that were put in place; the Protectionism Policy of the 1960s which through the removal of agricultural export and sales taxes, and increased tariffs on agricultural imports, encouraged agricultural production; the Trade Liberalization Policy of the 1980s which aimed at liberalization of the economy as well as achievement of greater openness and greater integration with the world economy. The policy included doing away with marketing boards, introduction of the second tier foreign exchange market (SFEM), various expansion incentive schemes and establishment of the Nigerian Export-Import Bank (Riti, Gubak and Madina, 2016). It was during this era that the Structural Adjustment Programme (SAP) was introduced to deal with the problem of imbalances in the economy so as to allow for stable growth and development; the Export Promotion Policy of the late 1990s (Democratic Era) which intensified policy support to SMEs to enhance export of their products though the Export Expansion Grant (EEG) Scheme. This grant was to cushion the impact of infrastructural disadvantages faced by Nigerian exporters and make our exports competitive in the international market. The non-oil sector witnessed significant
growth during these afore-mentioned policy eras (Adeloye, 2012).

Nigeria’s Gross Domestic Product has contracted by 2.1% in the second quarter of 2016, according to data from the National Bureau of Statistics. However, some activities in the non-oil sector recorded positive growth. Although growth in the sector declined by 0.38 in real terms in Q2 2016, the sector contributed 91.74% to the nation’s GDP, higher from shares recorded in Q1 which was 89.71 per cent and Q2 2015 which was 90.2%, according to the NBS data (Business News, 2016).

The sharp decline in oil prices in Q3 2014 and 2015 with the untold economic hardship and poverty, and the skyrocketing inflation that is on a geometrical increase, which it has brought along is a clear indication that the revenue from the famous black gold can no longer sustain Africa’s largest economy. Therefore it is imperative that economic diversification and its full potentials be embraced in order to avert future danger and economic turbulence as oil price has been envisaged to still be on the downward trend.

Economic diversification otherwise known as economic complexity will help cushion the shock created by the price volatility of oil in the international market as it will steer the economy away from depending solely on oil revenue and then exploiting other sectors for sustenance.

The former President of Nigeria, Olusegun Obasanjo reportedly noted that diversification, with particular reference to agriculture, will stimulate industrialization, generate employment and engender economic growth and as such, all hands should be on deck to fully and practically embrace agriculture in order to overcome these looming economic challenges (Babalola, 2016).

Moreso, the Executive Director/CEO of the Nigerian Export Promotion Council (NEPC) said that Nigeria can earn $100bn annually from non-oil sector. He buttressed this fact by saying that Nigeria can lead the export revolution in Africa as a continent by leveraging on its diversities and natural resources in a way that “the One State One Product Programme (OSOP)” can be a success for all the states in the federation (Babalola, 2016).

3. **EMPIRICAL EVIDENCES**

There are several empirical evidences that attest to the fact that economic diversification is very vital as it concerns economic growth and development. Empirical studies have established relationships that exist between diversification (in economic sense) and the economy with specific reference to the non-oil sector.

In examining the non-oil sector growth as key to diversification and performance of the economy, Riti, Gubak and Madina (2016) employed the Auto-regressive Distributed Lag and VECM Granger Causality model to estimate the short run and the long run parameters as well as the direction of causation of the variables. The granger causality results showed that agriculture, manufacturing and telecommunication components are statistically significant and granger caused economic growth at 5% significance level. The long run parameters indicated that agriculture and telecommunication components are positively contributing to GDP.

Abogun, Akintola and Baruwa (2014) investigated the impact of non-oil export on economic growth in Nigeria between 1980 and 2010. Johansen Co-integration test revealed that the variables are co-integrated which confirms the existence of long run equilibrium relationship between the variables, though the study also revealed that the potentials of non-oil export have not been fully exploited due to negligence in those periods.

Muhammad and Atte (2006) are of the opinion that the Nigeria’s rich human and material resource endowments give it the potential to become Africa’s largest economy and a major player in the global economy. Compared with other African and Asian countries, economic development in Nigeria has been disappointing, with GDP of about 45 billion, 32.953 billion and 55.5 billion dollars in 2001, 2002 and 2003 respectively and per capita income of about $300 a year, Nigeria has become one of the poorest countries in the world.

Awe and Ajayi (2009) used the Co-integration analysis which involved the use of unit root test and the error correction model to determine the effect of the non-oil revenue on economic development. The impact of the revenue from the agricultural sector, solid mineral and manufacturing sector was carried out. The study revealed that dynamic relationship exists between the revenue from the non-oil sector and economic development. Tested individually on the total revenue, the major sub sectors of the non-oil sector (agriculture, solid mineral) have significant results except manufacturing.

Using a 30-year time series data, having oil, manufacturing and agricultural share of total exports of Nigeria as independent variables and Per Capita Income (which captured economic development and welfare) as the dependent variable, Olaleye et al (2013) tried to relate export diversification and economic growth in Nigeria. The study showed that all the variables used in the study are stationary at first differenced and also the Johansen co-integration test confirm the existence of a long run relationship between the variables. It is of high importance to note that the granger casualty test indicated that there is a uni-directional relationship between Per Capita income and all the variables except Agricultural share of export which exhibits a bi-directional causal effect. This goes to show that diversifying the economy through deepening the non-oil sector is very needful.
4. METHODOLOGY

This paper which aimed at establishing the nature of relationship and the contributions of the non-oil sector with regards to agriculture, solid mineral to the economy employed a time series data which covered period from 2000 to 2013. The data relied upon in this research are purely secondary and are obtained from the National Bureau of Statistics, Nigeria. The data used are GDP at 2010 constant basic prices, the contributions of agriculture and solid mineral (Mining and Quarry sub-sector excluding crude petroleum and natural gas) sub-sectors to GDP (all at 2010 constant basic prices). The data was analyzed using SPSS 17 and Eviews statistical applications. The model used for the study is in semi-logarithmic form as follows:

\[ \text{LOGY} = \beta_0 + \beta_1(X_1) + \beta_2(X_2) \]

Where \( Y = \text{GDP}, \ X_1 = \text{Agriculture}, \ X_2 = \text{Solid Mineral}, \ \beta_0 = \text{Constant Intercept}, \ \beta_1 = \text{Coefficient of Agriculture}, \ \beta_2 = \text{Coefficient of Solid Mineral} \) and \( \text{LOGY} = \text{Logarithm} \). The “model 1” was used because it met the multicollinearity, linearity and independence of observations (Autocorrelation) assumptions of multiple regressions. The Durbin Watson test was used to check for Autocorrelation. Again, the Pairwise Granger Causality test was used to check the causality of the variables.

5. ANALYSIS AND RESULTS

<table>
<thead>
<tr>
<th>LogY</th>
<th>X1</th>
<th>X2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>LogY</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>.994</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.912</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>LogY</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2  Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.995a</td>
<td>.990</td>
<td>.988</td>
<td>.015094</td>
<td>1.834</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X2, X1, b. Dependent Variable: LogY

Table 3  ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.250</td>
<td>2</td>
<td>.125</td>
<td>547.859</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.003</td>
<td>11</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.252</td>
<td>13</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), X2, X1  b. Dependent Variable: LogY

Table 4  Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>7.166</td>
<td>.017</td>
<td>432.603</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>4.013E-8</td>
<td>.000</td>
<td>.911</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>6.623E-7</td>
<td>.000</td>
<td>.093</td>
</tr>
</tbody>
</table>

Source: (TABLES 1 to 4) Author’s Computation using SPSS 17
A multiple linear regression was calculated (as indicated in the above tables) to predict GDP based on Agriculture and Solid Mineral. A significant regression equation was found; \( F(2,11) = 547.859, p<.000 \), with an \( R^2 \) of .990. It was predicted that GDP (LogY) is equal to 7.116 + 4.013(X1) + 6.623(X2). The analysis demonstrates that if there is 1% increase in agriculture and solid mineral, there is going to be an increase in the economic growth by 4.013% and 6.623% respectively. This shows that both components have a positive impact on the economy. Agriculture proved to be a significant predictor of GDP, as the P-value for agriculture is statistically significant. However, no statistically significant linear dependence of GDP on solid mineral was detected as indicated by the P-value.

The regression also showed that the constant or intercept is 7.166 which implies that when all the model parameters are zero, there will still be an effect of 7.166 on the GDP. Other factors not specified in the model, accounts for this. The \( R^2 \) of .990 goes to show that 99% of the variations in GDP can be explained by agriculture and solid minerals.

The Durbin-Watson statistic shows that the model is free from autocorrelation. The acceptable value for Durbin-Watson is 2 but it allows a range of ±0.2. So the Durbin-Watson statistic is 1.834 and it falls within the acceptable range.

Again, the Pairwise Granger Causality tests (TABLE 5) indicate that LogY (GDP) granger causes agriculture and not the other way round. The granger causality identifies uni-directional causality. These granger causality results are based on the criterion that alternative hypothesis should be accepted if \( F \geq 3.84 \).

Finally, the correlation table (TABLE 1) above shows that agriculture and solid mineral has effects of about 99.4% and 91.2% respectively. This is a strong relationship as it tends towards 100%.

### 6. CONCLUSIONS

The over-reliance of the Nigerian economy on the oil sector has made the economy vulnerable to international oil price shocks and as such, has posed negative effects on the economy. This gives credence to any argument or advocacies for economic diversification. This study has examined the relationship and contributions of the non-oil sector, with particular reference to agriculture and solid minerals, to the economy using GDP as proxy.

From the analysis, which employed a time series data from 2000 – 2013, it is observed that there is a positive relationship between agriculture, solid mineral and the GDP. However, there was no significant linear dependence of the GDP on solid mineral. Agriculture and solid mineral increase economic growth by 4.013% and 6.623% respectively. There is also a causal relationship between GDP and agriculture with GDP granger causing agriculture. A causal relationship also exists between agriculture and solid mineral with solid mineral granger causing agriculture. These granger causality tests indicate uni-directional causality. However, there is no causal relationship existing between the GDP and solid mineral. This buttresses solid mineral being insignificant to GDP.

Changes in the independent variables (agriculture and solid mineral) triggers economic growth however, as shown by the results, it is evident that there is not much contribution to GDP. This is akin to the fact that other sectors of the economy are neglected as there is over-dependency on oil.

### 7. RECOMMENDATIONS

Based on the results and conclusion, this paper finds it imperative to proffer the following recommendations. The government should, as a matter of urgency,

i. Review and implement more policies and reforms that will develop the non-oil sector.
ii. Implement schemes and platforms that will encourage and increase exportation of mineral resources and agricultural products.

iii. Improve infrastructure in order to enhance the operations of the SMEs which represent a great proportion of the non-oil sector.

iv. Encourage agro-allied ventures by making provisions for incentives which will boost the afore-mentioned.

v. Plan and implement national budgets and government expenditures on the earnings of the oil sector.

vi. Relevant agencies in charge of the non-oil sectors should ensure good corporate governance among directors in the industry.

vii. The agricultural sector should be revitalized and over-hauled to make it attractive for onwards national effectiveness.

REFERENCES:


