

Modelling Diversification of the Nigerian Economy via Non-oil Sector

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Abstract

The over-reliance of the Nigerian government on oil revenue has jettisoned the expected level of development in the nation and thus paralysed every order sectors in the nation thereby leading to Dutch disease. On this premises, this paper set out to investigate the response of some specific sector of the economy and their contribution to economic growth in Nigeria with emphasis on the agricultural sector, manufacturing sector and mining & quarry sector among others between the periods 1981 to 2015. Study employed granger causality in vector auto regression model where eleven (11) models were formulated. Findings reveal that the lagged value of the agricultural and mining & quarry sector exhibit a significant contribution to the Nigeria economy. The output of these empirics validates the postulation of Rosenstein Rodan (1943) in his well-designed pig push theory. The theory is a concept in development economic which articulate that for the underdeveloped countries to attained a sustainable level of development, large quantum of investment is paramount and that bit-by-bit investment on the preferred sector of the economy will not help in actualising the expected level of growth. On this note, study thus conclude that diversification of the Nigeria economy will be profitable to the nation as the non-oil sector is capable of contributing over 35% of the total generated revenue if key policies are implemented. Based on our findings, study recommends that mangers of the Nigeria economy should embrace the diversification programme and allocate more funds to all order sector of the economy as this will help in stimulating government generated revenue and thus lead to creation of more employment opportunity all over the nation.

Keywords: Economic Diversification, Econometrics Modelling, Economic Development

Introduction

The profile of the federal government revenue reveals that in the last half-decade, oil earnings accounted for over 80.0 per cent of the foreign exchange earnings, while the non-oil sector, despite its improved performance contributed 20.1 per cent (CBN, 2010), thus revealing the extent of the vulnerability of the economy to swings in the price of oil in the international market. The renewed emphasis on the production of Shale oil in the United States and other alternatives to fossil-fuel energy, such as solar, wind and bio-energy in the advanced economies, has reduces oil demand and price, and further weaken Nigerian earnings and thus promoted the urgent need to diversify the economy if the nation must survive.

With the Nigerian Oil sector accounting for almost all the country's export and government revenue however, a nation which has earned billions of dollars from its oil export is currently considered the fifth poorest country in the world out of the hundred and fifty-six nations of United Nations Organization (UNO.) Earnings from the oil sector alone in 1990 as a result of Gulf war was about \$13.1 billion. Yet many of her citizens above fifty-five percent (55%) to be precise are still living below the poverty line. There is lack of infrastructural facilities, her educational system is at the verge of collapse Omotola (2006). The health sector has nothing good to write home about, the cost of life and standard of living is becoming more difficult apparently. Politics has taken over every place and industrial Agricultural sector have been neglected.

Monogbe, et al (2016) reported that overtime before independent and discovery of oil, Nigeria economy has been sustained by series of agro output and all other natural resource. Emphasis was laid on agriculture and farming of all kind (fishery, piggery, mini mining) etc. the discovery of oil has led to Dutch disease syndrome where those sectors that sustained economic growth in the early 30's were ignored at the expense of crude oil.

However, Government needed money to execute her social obligations to the public and these social obligations include but not limited to the provision of infrastructure and social services (Ayuba, 2014). Exportation is required by any economy to enhance revenue and usher in economic growth and development. It is therefore crucial for economic progress and this has informed the idea of export-led growth. Export is a catalyst necessary for the overall development of an economy (Adefala, 2012).

In a country like Nigeria where the over centralisation on the oil sector has jettisons the expected level of development, rapid diversification is very much needed in order to accelerate the creeping rate of economic growth in the system.

On this backdrop, this study tend to examine how the non-oil sector could contribute to the Nigeria economy via diversification influx between the periods 1981 to 2015 using granger causality analysis in VAR model.

2.0 Literature review

The Wagner's Law/peacock Wiseman hypothesis

According to Wagner Adolph (1835-1917), Adolph Wagner moved a step forward in his 'law of rising public expenditures' by analysing the movement in the growth of public expenditure and in the size of public sector. His hypothesis emphasizes that as the economy experience more development, the financial and administrative function of the government increases. In other words, increase in economic expansion is seen as a function of government spending. That is, the more the country experience development, the more the government increase her financial and administrative capacity. On the order hand, peacock-Wiseman carried out a new study based on Wagner law, they empirically investigated the effect of government expenditure on the UK economy between the periods 1891 to 1955. The output of their findings validates Wagner's postulation and hence concludes that Wagner's law is still valid.

Peacock-Wiseman hypothesis articulated that increase in government generated revenue is a function of government spending. In other words, the more the government generate revenue, the greater they spend on the economic welfare of the citizen. Peacock-Wiseman sees generated government revenue as a function of government expenditure. Wagner's law and peacock-Wiseman concluded that government spending has a tendency of increasing overtime.

Review of related literature

Reynod (1975) tend to examine how a nation could diversify into all order sector such as agriculture, industries and manufacturing. Findings suggest that the agricultural sector can significantly contribute to the economy in different from such as agriculture is capable of promoting the development trend in the LDC's and thus boost level of job creation. Study sighted four ways through which agriculture could contribute to development if the LDC's and their includes; it increase the size of domestic market for consumption of locally manufactured goods, it promote the supply of consumables which leads to job creation, increase in job creation stimulate income level and thus increases the savings capacity of the citizen.

According to Iledare (2004a) cited a fact about crude oil contribution to the Nigeria economy from the time past. According to his study, it was discovered that the oil sector has significantly contribute to the development of the Nigeria economy and as such, it has made the economy one of the fastest growing nation in the world. Study further identified that more development can be attained if an only if the nation swap toward diversifying the economy. This diversification would help in discovering order sector that could be a source of more income to the nation and thus promote the generated income of the country.

Ezeudu (2014) tend to study the danger in over-reliance on the oil sector as the major source of financing the national budget. Study discovers that the economy has wasted the generated revenue from the oil sector and that has amount to low level of economic development overtime. Study further noted that despite the increase in the oil income in the country, the expected level of economic development is not been attained and that calls for re-check. Diversification is the key answer to over-reliance on oil revenue.

Ikpe (2012) has made an earlier postulation by forecasting that the price of crude may fall in the international market in the 21st century since there are all order elements like solar, nuclear, geothermal and other forms of energy that could be used as a substitute for crude product. his study postulated that this new developed element will bench the world celebrated crude product and embrace this newly developed element which will lead to massive fall in the price of crude oil in the world market. The study further explained that Nigeria would have maintained its record as one of the fast growing countries if she has diversified her economy into sectors like agriculture, manufacturing, industries and services has this sector are capable of contributing more into the economy if quality attention of given. The study see's the Nigeria economy has a monoculture economy that heavily relay on sector of the economy for survival which is dangerous for economic development.

Egbogah (2004) was concern about the recent nosedive in the crude oil revenue generated in the country due to low demand of crude in the world market. Consequently, he express his optimism of suggest that there is every possibility for more oil boom in the 21st century.

Akinole (2001) using Nigerian data with the help of ordinary least square examine the responsiveness of foreign demand to Nigeria local agricultural product. Study identified that Nigeria's kola and ground nut attract more demand in the international market of France, Belgium, and U.K and so on. Study therefore suggest that giving more attention to the agricultural sector is capable of bailing out the country from the stress of fall in the oil price and thus hedge against economical redundancy.

Helleiner (2002) introduced two theoretical underpinning of the Keynesian and Harrods Domar in examining the processing of the locally made goods in the developing countries. Finding reveals that very few of the total agricultural output in the developing countries were processed locally while the larger percentage of the natural resources in the developing countries are usually sent abroad for final processing. He explained that processing some of these raw resources in the local country will equip the local industries and thus lead to job creation which is capable of reducing poverty rate for economic development purposes.

Asanebi (2007) reported that the contribution of non-oil sector to the gross national income is insignificant and that it not sufficient enough in promoting and sustaining the economy in terms of growth and development. The study employed secondary data using linear correlation and thus conclude that for non-oil sector to be efficient in contributing a significant quota to the gross national income of the nation, government must allocate more fund to those sectors and adequate monitoring must be embarked upon.

Okoro (2009) examine the extent to which the non-oil sector can contribution to development of the Nigeria economy between the period 1981 to 2000 using secondary data source from the central bank of Nigeria statistical bulletin. Study proxies the non-oil sector with manufacturing, agricultural and industrial sector. Findings reveals the existence of strong bound among the non-oil sector to the economy and that if more fund are channelled toward the non-oil sector, the contribution of the this sector to gross domestic product will be significant.

Ogbonna (2010) cited that the export promotion policies have failed in Nigeria responding to the fact that their effort in ensuring improvement in the performance of the non-oil sector in the country has not been felt. The study tends to correlate export promotion policies and non-oil export to see their direction of contribution into the Nigeria economy. Findings shows that the quota contributed by the non-oil sector into the gross national income is too minute than expected. Study employed ordinary least square method to examine the short run dynamic, study report that more policies has to be implemented if non-oil export must contribute a significant quadrant to the gross national income.

Ozoudo (2010) using econometrics methodology in examine the dominance of oil and gas sector on the non-oil sector of the economy. Findings reveal that over dependent on the oil revenue has a negative effect on the development of the non-oil sector. That is, the higher the oil generated revenue, the better hope for the non-oil se to and viz visa.

Odularu, (2008) also suggest that it's high time for the economy to diversify. Following the report of the World Bank that by the end of 1996, the country has espounch about 50% of her known total crude oil which implies that the propensity of continuity and expectation of oil revenue becomes a mirage.

Akinlo, (2012) being a onetime mister of petroleum express his discomfort on the over dependent of the oil revenue and petroleum export as the expense of other sector like agriculture, industries and manufacturing which has resulted in immediate transmission of external shocks such as fluctuations in crude oil price to Nigeria in the economic and financial spheres, this notwithstanding he predicted an increase within the next five years. In the world petroleum consumption then added that there will not be pronounced fluctuation in our earnings from crude oil in the next few years.

Making his own contribution Baghebo & Atima, (2013) pointed out that Nigerians in ability to consume its petroleum which amounts to gross under-utilization of resources through an uncontrolled export of crude oil should be considered a big problem. He added that since oil is not only a domestic commodity but also a foreign exchange earners as well as a weapon of international politics conservation should be deemed a necessity. Dele also regretted to mention the facts that natural gas of which Nigeria has between 85 to 100 proven recoverable

resources is currently wasted through flaring. In his own view in order to conserve oil reserve he called for: A revival of the use of coal as a source of fuel in homes and industries and Application of natural gas in productive use such as industrial feedback, domestic use of fertilizer plants.

3.0 Methodology

Data Source

This study employ ex post facto research design with time series data obtained from the CBN statistical bulletin between the periods 1981 to 2015. Where percentage of agriculture to GDP (PAGDP), percentage of manufacturing to GDP (PMGDP) and percentage of mining & quarry (PQAMG) were proxies for Non-oil sectors and real gross domestic product (RGDP) was proxy for the Nigeria economy.

Model specification

In consonant with the empirical work of Samuel, et al (2013), we formulate our model in its functional form thus:

$$RGDP = f(PAGDP, PMGDP, PQAMG) \dots\dots\dots(1)$$

We convert the above formulated model into econometrics form by introducing constant, slope and error term (μ) thus:

$$RGDP_t = \beta_0 + \beta_1 PAGDP_t + \beta_2 PMGDP_t + \beta_3 PQAMG_t + \epsilon_t \dots\dots\dots(2)$$

Model is thus transform into log linear form to avoid extremer's and outliers thus;

$$\log RGDP_t = \beta_0 + \beta_1 \log PAGDP_t + \beta_2 \log PMGDP_t + \beta_3 \log PQAMG_t + \epsilon_t \dots\dots\dots(3)$$

Where

- RGDP = Real Gross Domestic Product
- PAGDP = Percentage of Agriculture to GDP
- PMGDP = Percentage of Manufacturing to GDP
- PQAMG = Percentage of Quarry and Mining to GDP
- β_0 = Constant
- β_1 - β_3 = Slope
- ϵ = Error Term
- Log = Natural log

A priori Expectation

Based on theories and empirical Justification, we expect that the predictor variables have a positive nexus with the dependent variable and it is mathematically stated thus:

$$\beta_1, \beta_2, \beta_3 \text{ and } \beta_4 > 0$$

Estimation Tools for Analysis

Unit Root Test

The paper begins data analysis by first testing the properties of the time series data adopted for the research. This is done by testing for unit root using Augmented Dickey Fuller (ADF) tests. Thus, the ADF test dwells on the following regression as proposed by Omoke and Ugwuanyi (2010) as:

$$\Delta y_1 = \alpha_0 + \alpha_1 y_{i-1} + \sum_{i=1}^n \alpha_i \Delta y_i + \delta_1 + e_1 \quad (4)$$

Where:

y represent a time series, t represent a linear time trend, Δ represent the first difference operator, α_0 represent a constant, n denotes the number of lags from the dependent variables and e represent the stochastic variable

Considering a VAR of order P:

$$y_1 = A_{i-1} + \dots + A_p y_{i-p} + Bx_1 + \varepsilon_1 \quad (5)$$

Where y_1 represent the dependent variable of the series expressed above, x_1 represent the independent variables and E_1 is the stochastic variable. This is used to test for the stationarity of variables. If the stationarity tests are co-integrated we then utilize VAR which is expressed as follows:

$$\Delta y_1 = \pi y_{i-1} + \sum_{i=1}^{p-1} \Gamma_1 \Delta y_{i-1} + Bx_i + \varepsilon_1 \quad (6)$$

$$\text{where, } \pi = \sum_{i=1}^p A_1 - 1, \text{ and } \Gamma = - \sum_{j=i+1}^p A_1 \quad (7)$$

Granger theory present “that if the coefficient matrix π lowers rank $r < k$, and there exist $k \times r$ matrices α and β each with rank r such that $\pi = \alpha\beta$ and βy_t is $1(0)$. While Johansen’s methodology is used to establish the π matrix form of unrestricted VAR and to access the null hypothesis that the restriction occasioned by a reduced rank of π matrix is full ranked”. (Omoke and Ugwuanyi, 2010).

Granger Causality in VAR Model

According to Omoke and ugwuanyi (2010), “Granger causality tests are conducted to determine whether the current and lagged values of one variable affect another”. Grange theory also establish that “when two variables, Y_t and X_t are co-integrated and each is stationary, then either Y_t must Granger-cause X_t or X_t must Granger-cause Y_t ”. In absence of co-integration with stationarity at first difference the unrestricted VAR takes the following form:

$$\Delta RGDP = \sum_{i=1}^n b_{1t} \Delta PAGDP + \sum_{i=1}^n c_{1t} \Delta PMGDP_{t-1} + \sum_{i=1}^n d_{1t} PQAMG_{t-1} + e_{1t} \quad \dots(8)$$

$$\Delta PAGDP_t = \sum_{i=1}^n b_{2t} \Delta RGDP_{t-1} + \sum_{i=1}^n c_{2t} PMGDP_{t-1} + \sum_{i=1}^n d_{2t} PQAMG_{t-1} + e_{2t} \dots(9)$$

$$\Delta PMGDP_t = \sum_{i=1}^n b_{3t} \Delta PMGDP_{t-1} + \sum_{i=1}^n c_{3t} \Delta RGDP_{t-1} + \sum_{i=1}^n d_{3t} PQAMG_{t-1} + e_{3t} \dots(10)$$

$$\Delta PQAMG_t = \sum_{i=1}^n b_{3t} \Delta PMGDP_{t-1} + \sum_{i=1}^n c_{3t} \Delta PAGDPP + \sum_{i=1}^n d_{3t} RGDP_{t-1} + e_{3t} \dots(11)$$

Where:

PAGDP = Percentage of Agriculture to GDP

PMGDP = Percentage of Manufacturing to GDP

PQAMG = Percentage of Quarry and Mining to GDP

$b_{1i} = c_{1t} = d_{1t}$ The parameter Estimates

$e_{1t} =$ The Random Variable or Error Term.

4.0 Econometric Analyses

Unit Root Tests

Unit root tests for stationarity among variables. Thus, before our estimation, study makes a move to check the time series character of the variables to reduce spurious results due to non-stationarity. The decision rule is that the absolute value of the Augmented Dickey-Fuller (ADF) statistic should be more than the value of the Test Critical Value utilizing the E-view software package. Below are the results;

Table 1: ADF Unit Root Test Results

Variables	ADF-statistic	Test Critical Values	Order of Integration	Prob.
LOG(RGDP)	-6.175299	1% level = -3.596616 5% level = -2.933158 10% level = -2.604867	I(1)	0.0000
LOG(PAGDP)	-5.255483	1% level = -3.596616 5% level = -2.933158 10% level = -2.604867	I(1)	0.0001
LOG(PMGDP)	-6.895663	1% level = -3.596616 5% level = -2.933158 10% level = -2.604867	I(1)	0.0000
LOG(PQAMG)	-5.453478	1% level = -3.596616 5% level = -2.933158 10% level = -2.604867	I(1)	0.0002

Source: E-View 7.1 Output.

The Augmented Dickey-Fuller (ADF) from (Table 3) above indicate that all variables at their first differenced were stationary integrated of order one I(1).

Table 2 Johansen Co-Integration Test

Date: 01/16/17 Time: 17:23				
Sample (adjusted): 1983 2014				
Included observations: 32 after adjustments				
Trend assumption: Linear deterministic trend				
Series: LOG(RGDP) LOG(PAGDP) LOG(PMGDP) LOG(PQAMG)				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None	0.535616	47.66996	47.85613	0.0520
At most 1	0.417236	23.12457	29.79707	0.2400
At most 2	0.113388	5.845422	15.49471	0.7137
At most 3	0.060420	1.994308	3.841466	0.1579
Trace test indicates no cointegration at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Source: Extraction from e-view Output

From the trace test output above, judging by the lack of signed rank there exist no long run association and movement amongst employed variables, indicating that there is an absence of

long run Cointegration amongst employed variable since the probability level exhibited values greater than 0.05 alpha levels in which case we do not proceed to Vector Error Correction.

Having established absence of co-integration among employed variables, we proceed to VAR estimation using the appropriate VAR lag length. This implies that we first determine the appropriate VAR lag length. The results are presented in the Table below;

Table 3 Presentation of VAR Lag Length Selection Criteria Output

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-544.1412	NA	6.88e+12	35.23492	35.32743	35.26508
1	-467.6606	138.1585	6.41e+10	30.55875	30.83630	30.64922
2	-445.6760	36.87742*	2.02e+10	29.34845*	29.86103*	29.54924*
3	-440.9169	7.369031	1.94e+10*	29.39948	29.99708	29.56058

* indicates lag order selected by the criterion
 LR: sequential modified LR test statistic (each test at 5% level)
 FPE: Final prediction error
 AIC: Akaike information criterion
 SC: Schwarz information criterion
 HQ: Hannan-Quinn information criterion

Source: Extraction from e-view Output

From the VAR Lag length selection criteria above, the appropriate lag length for the analysis is lag one. Having ascertained the appropriate lag length, we proceed to VAR estimation using lag order one. The results are presented in the Table below;

Table 4 Vector Auto regression Estimates

	LOG(RGDP)	LOG(PAGDP)	LOG(PMGDP)	LOG(PQAMG)
LOG(RGDP(-1))	0.893960 (0.06916) [12.9261]	0.118702 (0.15159) [0.78304]	-0.022145 (0.03157) [-0.70147]	0.412907 (0.20819) [1.98334]
LOG(PAGDP(-1))	0.023617	0.711157	0.043450	0.356503

	(0.06441)	(0.14117)	(0.02940)	(0.19388)
	[0.36669]	[5.03753]	[1.55410]	[1.83880]
LOG(PMGDP(-1))	-0.330570	0.282492	0.711583	-0.289260
	(0.18943)	(0.41521)	(0.08647)	(0.57022)
	[-1.74511]	[0.68036]	[8.22939]	[-0.50727]
LOG(PQAMG(-1))	0.074177	0.140233	0.007623	0.335693
	(0.05663)	(0.12413)	(0.02585)	(0.17048)
	[1.30980]	[1.12970]	[0.29488]	[1.96912]
C	1.498916	0.970735	0.770721	-2.180945
	(0.59045)	(1.29422)	(0.26953)	(1.77741)
	[2.53859]	[0.75005]	[2.85954]	[-1.22703]
R-squared	0.993842	0.970162	0.900153	0.957407
Adj. R-squared	0.992963	0.965899	0.885889	0.951322
Sum sq. resids	0.854592	4.105887	0.178071	7.744034
S.E. equation	0.174703	0.382934	0.079748	0.525902
F-statistic	1129.799	227.5998	63.10720	157.3455
Log likelihood	13.46007	-12.43756	39.33937	-22.90682
Akaike AIC	-0.512731	1.056822	-2.081174	1.691323
Schwarz SC	-0.285988	1.283565	-1.854430	1.918066
Mean dependent	3.359797	8.531896	3.803188	1.403813
S.D. dependent	2.082559	2.073687	0.236077	2.383628

Source: E-View 9 Output.

The table 4 above has the summary of Vector Auto regression Estimate. Our main focus in this study is the diversification of the Nigeria economy (RGDP) via non-oil sector. The result of the estimate shows that the lagged value of percentage of manufacturing, agriculture and mining & quarry are statistically and significantly related to gross domestic product in their various lags respectively.

From the height above, we observe that at lag 1 the entire variable under investigation fail the test of hypothesis has their all exhibit an insignificant P-value except for percentage of agriculture to gross domestic product that proves to be significant. Using the impulse response table in the appendix, we observe that percentage of agriculture to gross domestic product (PAGDP) significantly promote the Nigeria economy to the tune of 0.04345 units all thing been equal.

However, viewing from lag 2, percentage of quarry & mining and agriculture to gross domestic product jointly stimulate economic growth in Nigeria which suggests that slight improvement in the allocation to the agricultural, quarry and mining sector will significantly lead to sustainable growth in the Nigeria context. The policy implication of this is that increase in the government allocation towards this sectors will significantly contribute meritoriously to the growth of the Nigeria economy and thus reduce the fear of fall in oil generate revenue in the country.

The output of these empirics validates the postulation of Rosenstein Rodan (1943) in his well-designed pig push theory. The theory is a concept in development economic which articulate that for the underdeveloped countries to attained a sustainable level of development, large quantum of investment is paramount and that bit-by-bit investment on the preferred sector of the economy will not help in achieving the expected level of growth. Hence, study suggests equal proportion into all the sectors of the economy as this will help in solving the Dutch disease syndrome.

Having observed the relationships between the variables using VAR estimation we now proceed to Granger Causality to determine the directional relationship of the variables under study.

Analysis of Causality

Table 5 Pairwise Granger Causality Tests

Pairwise Granger Causality Tests			
Date: 01/17/17 Time: 11:10			
Sample: 1981 2015			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
LOG(AAGR) does not Granger Cause LOG(RGDP)	33	0.02290	0.9774
LOG(RGDP) does not Granger Cause LOG(AAGR)		1.54339	0.2313
LOG(AMANF) does not Granger Cause LOG(RGDP)	33	0.44461	0.6455
LOG(RGDP) does not Granger Cause LOG(AMANF)		2.85893	0.0742
LOG(AMAQR) does not Granger Cause LOG(RGDP)	32	0.42096	0.6607
LOG(RGDP) does not Granger Cause LOG(AMAQR)		4.19411	0.0259

Source: E-views 9 output

The results of the Pair-wise Granger Causality tests presented in the table 5 above shows the following (using 0.05 level of significance);

Uni-directional causalities prevail between real gross domestic product log (RGDP) and percentage of mining & quarry on gross domestic product log (PMAQG). The direction of influence stems from real gross domestic product log (RGDP) to percentage of mining & quarry on gross domestic product log (PMAQG), while there exist no causality trend between PAGDP, PMGDP and RGDP.

5. Discussions, Summary and Conclusion

The over-reliance of the Nigerian government on oil revenue has jettisoned the expected level of development in the nation and thus paralysed every other sector in the nation thereby leading to Dutch disease. On this premises, this paper set out to investigate the response of some specific sectors of the economy and their contribution to economic growth in Nigeria with emphasis on the agricultural sector, manufacturing sector and mining & quarry sector among others between the periods 1981 to 2015. Study employed granger causality in VAR model where eleven (11) models were formulated. Findings reveal that the lagged value of the agricultural and mining & quarry sector exhibit a significant contribution to the Nigeria economy. Minewhile, report from the empirical investigation carried out by Iledare (2004a) suggest that the non-oil sector account for about 20.1% contribution of the total generated revenue in Nigeria. If that be the case, considering the contribution of the agricultural and mining & quarry sector to the Nigeria economy as reported in this empirical research, it therefore means that diversification of the Nigeria economy will be profitable to the nation as the non-oil sector is capable of contributing meritoriously to the growth of the Nigeria economy.

The output of these empirics validates the postulation of Rosenstein Rodan (1943) in his well-designed pig push theory. The theory is a concept in development economic which articulate that for the underdeveloped countries to attained a sustainable level of

development, large quantum of investment is paramount and that bit-by-bit investment on the preferred sector of the economy will not help in achieving the expected level of growth. On this note, study thus conclude that diversification of the Nigeria economy will be profitable to the nation as the non-oil sector is capable of contributing over 35% of the total generated revenue if key policies are implemented. Based on our findings, study recommends that managers of the Nigeria economy should embrace the diversification programme and allocate more funds to all order sectors of the economy as this will help in stimulating government generated revenue and thus lead to creation of more employment opportunity all over the nation.

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