



**Revenue Diversification in a Constrained Economy:
Implications for Economic Growth in Nigeria**

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ABSTRACT

The aftermath of lockdown occasioned by the covid-19 pandemic, in addition to global recession descended on economies of the world and more on revenue constrained economies of less developed world like Nigeria. This was manifested in the rising budget deficit rate, occasioned by limited revenue sources, high interest rates, inflation and debt stock with its attendant negative implication respectively. The study was carryout to ascertain if revenue diversification is panacea to the declining economic growth in Nigeria's constrained revenue profile and also, to identify the key target sectors for policy intervention towards achieving revenue diversification away from oil dominated sector. Utilizing the cause and effect research design, secondary data spanning the period 1986-2022 from diverse sources was analyzed using ARDL analytical tool. The results obtained showed an impressive revelations. The findings from the study established the existence of significant positive long run characteristic among the variables included. This is implying that any incremental policy interventions targeted to these variables, in this case the Tourism, Solid Minerals, Agric, Manufacturing, and the Diversification index variables could translate to accelerated economic growth rate in the long run rather than contemporaneous effect through increased GDP. The study therefore, recommended the need for a special attention to be accorded to these sectors in terms of policy making to encourage private investments in addition to government effort to spur the ratio of their contribution to GDP.

KEYWORDS: Revenue diversification, constrained economy; economic growth

JEL CLASSIFICATION: B22, B30, G10, H20

1. Introduction

Economic growth and the broad sources of revenue inflow are not only correlated, but there exist a bilateral relationship between the two. While robust revenue base enable countries invest, acquire inputs and establish production outlets that boost output hence,

economic growth on the other hand, can bring about huge revenue generations. Thus, there is interdependence between the two. Economic growth is a complex, long run phenomenon, subjected to constraints like: limited resources, excessive rise in population, inadequate infrastructure,

Inefficient utilization of resources, and excessive

government interventions, etc. Potentials to growth are abound in economies with varied sources of revenue base than in those with restricted revenue sources. Diversifying economies are expected to do better in terms of growth over a long time dimension as noted by Gelb (2010). Fiscal stability and rapid economic growth is the hallmark of countries with multiple revenue sources, because of their ability to withstand any external shock and therefore stifle growth. Developing countries with natural resources rents have not had domestic investment rates commensurate with increased resource revenue. (Collier, et al 2020). Nigeria is the most populated African nation with a population of about 222 million and therefore, can only be supported with high growth rate (Worldometer, 2023). In which case, the rhythm of population and that of economic growth should be at part

The nation is made up of people of diverse cultures and richly endowed with numerous resources. These have given the country an edge and recognition not only in Africa but also in the world (Durodola, 2014). Having endowed with these numerous resources from various sectors of the economy do not warrant the nation's economic growth. Economic growth depends on the proper utilization of endowed resources and contributions from various sectors of such an economy and not to be dominated by a few resources or sectors as the case of Nigeria. As an economy endowed with lots of potentials from diverse sectors, the country suffers from prolonged one sector syndrome known as monoculture for her major sources of revenue. This is as a result of the phenomenon known as "Dutch Disease" occasioned by the discovery of oil with its huge revenue and the subsequent neglect of the other sectors, hence, constrained the economy to only limited sectors for its sources of revenue. This situation has resulted in a lot of fiscal and by extension monetary challenges to include budgetary problems, fiscal obligation of government is hampered, deficit budget has become the order of the day, debt servicing obligations on government continue to grow

to alarming proportion. The economy is endowed with numerous potentials to mitigate the mono economy problems; For example, the manufacturing and the agricultural sectors just to mention few, can generate significant revenue that can surpass that of oil sector, if fully harnessed (Owan, Ndibeand Anyanwu, 2020).

The commodity-dependent developing country like Nigeria has held on to the short term approach to management of mono-resource based revenue, instead of tackling the root causes i.e absence of attention to diversified productive sectors, continue to experienced slow and dwindling growth rate overtime. This, Usman and Landry (2021) affirmed that the continuous reliance on this single source of revenue, the economy is further exposed to external shocks. For instance, following the drastic drop in price of international crude oil, the country internal economic environment was thrown into trembling problems. All the facets of the economy were affected to the point that goods produced locally are priced along these problems. This is happening when great potentials sectors like the agriculture and manufacturing and the tourism sector among others are given less attention. It is on this basis that the study was designed to assess the effect of revenue diversification on the economic growth, as well as to examine the interdependence of revenue diversification and economic growth of Nigeria. Following the introduction above, section two focuses on the review of related issues in the subject area.. Methodology discussion is presented in section three, while section four examined the data presentation and discussions of results. Summary, conclusion and policy implications are captioned in section five.

2. Conceptual Issues and Review Of Literature

2.1 Revenue Diversification in context

In its literary meaning, diversification is a broad concept, embracing so many disciplines and thus is imperative to provide the meaning of the word as it is used in this work. There is export diversification; we also have

production diversification etc. In the general context however, diversification means broadening, or expansion and the augmentation of something. However, as employed in this perspective, diversification in relation to revenue means broadening the sources of income stream that is due to the public coffers of a nation. Imodu (1995) defined revenue diversification as an expansion of revenue base of an economy by stimulating and moving into new sectors of the economy. Joya (2015) described it as a process of reducing revenue dependency on one sector of economy and successfully maintaining sound economic growth by generating revenue from other sectors of the economy. In addition, Gerard (2012) admitted that revenue diversification as a transformation of economic base from a few sectors to various sectors of the economy. He considered three factors in determining the appropriate strategies for revenue diversification as follow;

- i. Which sectors have the most potential to stand on their own feet without relying for the long run on government spending.
- ii. Which sectors are likely to have the best linkages with the rest of economy.

Revenue diversification means that economic growth should focus on various sectors, it can take place in selected sectors and thus, reduces the extent of concentration on a few sector (Wiig & Kolstad, 2012). Synthesizing insights of these definitions, revenue diversification can be defined as of an economy rather than depending on a few sectors so as to improve revenue stability and predictability of revenue inflow in an economy.

2.1.1 Economic Growth

Economists have been engrossed by the myriad of conceptualization of the word economic growth and it has yielded lots of misunderstandings by different authors. However, certain universal description of the concept is generally acceptable. Jhingan (2006) acknowledged that economic growth is quantitative and sustained upturn in output

accompanied by an increase in labour force, consumption, capital and volume of trade. Ochejele (2007) self-confessed that economic growth is characterized by high rate of growth in per capita income, output, high rate of productivity, high rate of structural transformation, international flows of labour, goods and capital. Begg, Fischer and Dornbusch (1994) defined economic growth as a percentage annual increase in the real per capita income in the long run. Economic growth is a sustainable increased in per capita income bring about an increase in consumption, production and entrepreneurial skills acquisitions over a period of time. Lipsey (1986) admitted that economic growth can be seen as a positive trend in the nation's total output over long period. Thus, economic growth can therefore be summarized as an increase in productivity of goods and services in a country sustained over a long period of time which lead to increase in labour force, expansion in terms of trade, increase in consumption of the masses and equitable transformation among various sectors in the economy.

2.2 Theoretical Underpinning

Theories provide the foundation upon which subject issues are rooted, economic discipline is not an exception. Theories try to explain the reason(s) why certain phenomenon happened. In other words, what determines the occurrence or the working and changes of certain things? There are numerous theories that dwelled on the issue at hand; however, the suitable is that which convey the intention of the study. In this context, the doctrine of balance and unbalance growth squarely fit this study. The theory of unbalanced growth was propounded by Hirschman due to the shortcomings entrenched in the theory of balanced growth. It was propounded as a strategy to be used by the developing countries since resources (human and capital) needed for balanced growth are insufficient in the developing countries. Hirschman (1958) emphasized that the strategy of unbalanced growth is mostly suitable in breaking the vicious circle of poverty in underdeveloped

countries. The under-developed countries are poor and in a state of equilibrium at a low level of income, production, consumption, saving and investment. The low level of poverty and equilibrium can be eliminated by deliberately create imbalances in the economy according to a pre-designed strategy. He opined that shortages created by unbalanced growth offer considerable incentives for inventions and innovations, thus, give incentive for intense economic activity and push economic progress.

Hirschman asserted that rapid and sustainable economic growth can be achieved by the developing countries through investment in a few selected sectors rather than investing simultaneously in all sectors of the economy. Therefore, the revenue accruing from the selected sector(s) can be effectively and efficiently utilised for the development of other sectors.

2.2 Empirical Studies

There are plethora of empirical studies seeking to validate the effect of revenue diversification on economic growth in this area and other related ones. This section is devoted to appraising the diversity of these findings to ascertaining its depth of coverage in the terms of methodology adopted in previous literature, findings and for the purposes of identifying the gap.

Olumide, Sabastine and Udefuna(2013) wrote on **Economic Diversification in Nigeria: Any Role for Solid Mineral Development** **A The study, they acknowledged that over four decades, Nigeria's has mostly depended on the proceeds from the sales of crude oil at the expense of other sectors such as Solid minerals and agriculture that hitherto contributed significantly to the economy of Nigeria. Both qualitative and quantitative methods were adopted in the study. The finding from their analysis indicated that solid mineral sector has the potential to contribute to the economy of the country. Specifically, the paper opined that the development**

of the solid mineral sector can help to combat poverty via job creation by way of forward linkages with other sectors of the economy.

Orji et al (2018) studied the diversification of Nigeria economy through solid mineral sector. One hundred and thirty five (135) questionnaires were administered in Zamfara and Taraba states to generate data and one hundred (100) were returned successfully within one year. The researcher used parametric $-z$ test at significant level of 0.05% to accept or reject the hypotheses and Probit analysis to confirm results. A survey design was adopted in analyzing the hypotheses which led to the findings; that funding was greatly retarding the mining of solid mineral in Nigeria and lack of necessary laws and policies also affects solid mineral mining in Nigeria. Estheticism also contributed adversely on solid mineral mining to economic diversification. In conclusion, it was discovered that poor funding, ethnic sentiment and inadequate laws and policies of government were some of the factors that militate against development of solid minerals and hence diversification of the Nigeria economy. In view of the observations the following recommendations were given by the researcher: that adequate science data relating to solid mineral should be generated by the government to determine the actual capacity of solid mineral in Nigeria, to recover the cost implication, government should issue sale licenses to investors on the sector at a reasonable price, government should employ Professionals to add value to solid minerals education and investment. Those interested in the solid mineral mining sector should be encouraged by the government by providing an enabling environment on the area of tax reduction, security, infrastructural facility etc.

Ayodele, et al (2019) examined the relationship between tourism and economic growth using Least Square. The result revealed that there is a significant relationship between tourism and economic growth. This confirmed the tourism

led growth hypothesis that tourism triggers economic growth because tourists' spending provides foreign exchange earnings and job opportunities. It was acknowledged that if well annexed, tourism can serve as a good alternative to oil reliability thereby bringing an end to Nigeria's over dependence on oil with the attendant volatility. The paper recommended provision of infrastructural facilities and improvement in security architecture to serve as a motivation to the prospective tourists.

Ahmed, Adama, Obasaju, Asaleye and Owa (2019) wrote on Economic diversification: The prospect of Tourism. The paper examined the prospect of tourism as a source of income generation, foreign exchange earner and a source of employment. Secondary data were sourced from CBN Statistical Bulletin and the World Tourism Organization respectively. The paper went further to establish the relationship between tourism and economic growth using Least Square estimation technique, and the result revealed a significant positive relationship between tourism and economic growth. This confirmed the tourism led growth hypothesis that tourism triggers economic growth owing to tourists' spending effect with also positive impact on foreign exchange earnings and job opportunities etc. It follows therefore, that if well annexed, according to tourism development can serve as a good alternative to oil unpredictable revenue sources and its over dependence. The paper concluded by recommending provision of functional supporting infrastructural facilities like light, internet and above all improvement in security architecture to serve as incentive to attract prospective tourists

Oyelami and Alege (2019) examined the impact of trade diversification on the macroeconomic performance of Nigeria. The study employed an ex-post facto research design using a bound test of the Autoregressive distributed lag (ADRL) correlation technique, using key macroeconomic variables. The result of the analysis revealed that trade diversification had a positive relationship with

economic growth. In addition, the study revealed that trade diversification had a positive effect on economic growth and was capable of sustaining economic growth.

Owan, et al. (2020) studied the effect of diversification on economic growth in Nigeria and the study covered a period of 36 years from 1981 to 2016. The study employed ex-post facto using secondary data, as gross domestic product was used as a measure of economic growth, non-oil diversification, non-oil exports and investment and the exchange rate from 1981 to 2016 constitute the parameters for the study. Using the ordinary least square method, the study carried out a regression analysis and found that non-oil GDP had a positive and significant effect on economic growth in Nigeria. In addition, the study revealed that exports and other investments had a positive but insignificant effect on economic growth in Nigeria.

Muhammad, et al (2020) Conducted a study on the role of agriculture in the economic diversification of the Nigerian economy, spanning the period of 1980 – 2016. Using Cointegration and Vector Error Correction technique, the results obtained indicated that agricultural output has a positive significant impact on non-oil exports (NOE) and vice versa. It was recommended that, government should endeavour to increase agricultural productivity by improving its expenditure on the sector so as to enhance the growth of the economy. Government should also increase its non-oil revenue and revive the sector through sufficient budgetary allocation and efficient utilization of allocated resources in order to guarantee poverty reduction, sustainable livelihood and enhanced food security

Nwagba (2021) studied the impact of the diversification of the Nigerian economy on economic development from the perspective of tourism. The study employed a survey research

design using a questionnaire administered to a total of 290 respondents. The source data was analyzed using the Pearson Moments Correlation Coefficient analysis estimator and the study found that diversification through tourism had a positive and significant relationship with the economic development of Nigeria. The study also revealed that tourism development is significantly vital to

the diversification possibilities of the Nigerian economy considering the revenue inflows from the tourism business.

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Ogbonnaya et al (2022) investigated the effectiveness of economic diversification on economic growth in Africa with a particular reference to Nigeria using annual time series data spanning from 1970 to 2017. The main objectives of the study are to examine the effect of agricultural revenue, trade revenue and tourism revenue on the Nigerian economy over the periods under review. The secondary data used for the variables (GDP, AGRICR, TRADER and TOURR) were investigated to ascertain the stochastic properties through the use of various pre-estimation techniques like Augmented Dickey Fuller (ADF) and Philips Perron etc. All the variables were found to be trending, but were stationary only after first difference. In other words, they exhibited a long run characteristic inherent of macroeconomic variables. This justified the researcher used of Johanson co integration results and the Error Correction Mechanism (ECM) techniques to investigate long and short run interactions in the model, and that was confirmed with a reasonable speed of adjustment in case of disequilibrium in the short run. Implying that economic diversification in the key sectors like agriculture; trade and tourism

have improved the revenue base of Nigeria and consequently stimulated growth within the periods under review. Based on the above findings, the study submits inter-alia, that agriculture; trade and tourism should be adequately funded and equipped to ensure greater outputs and contributions to the growth of Nigerian economy.

Adegbie, Ajayi, Theophilus and Otitolaiye (2023) studied diversification of the economy, tax revenue and sustainable growth in Nigeria. The ex-post facto research approach was adopted using time series data sourced from the Central Bank of Nigeria's statistical bulletin. The study covered 30 years from 1990 to 2020. Descriptive and inferential statistical tools were used in analyzing the data after carrying out unit root tests for stationarity to avoid obtaining invalid and unreliable regression estimates. The study found that the GDP growth rate exhibited a positive and significant effect on sustainable growth. Furthermore, the study revealed that infrastructural expenditure had a positive but insignificant effect on sustainable growth. The study concluded that diversification had a positive effect on sustainable growth in Nigeria. Based on the results, the study recommended that Nigeria should maximize its resources and diversify the economy and ensure optimal utilization of tax revenue towards sustainable growth in Nigeria

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Having reviewed several literatures on revenue diversification and economic growth, there is no doubt that revenue diversification is very crucial in revitalizing economic growth in Nigeria. However, in quantifying diversification, authors of many studies have failed to use diversification index in their variables measurement, thereby casting doubt in the reliability of their results. This, the study considers such as the missing link in the body of the literature. In addition, the study employed an unbalanced growth theory and dual-imperatives approach of revenue diversification, using Autoregressive Distributed Lag (ARDL) econometrics technique to estimate the model specified. The researcher advocated agricultural sector and manufacturing sector as the viable sectors for revenue diversification in Nigeria, this is justified based on the fact that both sectors have economic multiplier effects on the economy and complement one another.

3. Methodology And Empirical Model

The paper adopted the causal research design to address its objectives and research questions. This design investigates the cause and impact relationship among variables in the model and is suitable for time series study of this nature. Secondary data were obtained from the Central Bank of Nigeria Statistical Bulletin and World development indicators for the variable included in the model which will aid in parameters estimation. The scope period of the study spanned from 1986-2022A famous period as for as the history of Nigeria is concerned. The period coincided with the World Bank Structural Adjustment

programme, where the country suffered structural misalignment arising from external distortion in the international oil market and grossly affected the revenue sources of the country, hence the need for revenue diversification approach. Analytically, the study employed ARDL technique and estimated the parameter with the aid of econometric software (E-Views Version 9). Log-linear modeling was specified to eliminate the effect of differential in variable measurement, and for cease of economic interpretation of the coefficients. Preliminary and post diagnostic tests will be conducted to ascertain the stochastic behaviour of the variables and the reliability of the results.

3.1 Model Specification

From the identified dependent and independent variables the implicit function of the study becomes.

$$RGDP = f(\text{rags}, \text{rmas}, \text{rsm}, \text{rtrs}, \text{dvi}) \quad (1)$$

Thus, behavioural equation is given by:

$$\ln(RGDP) = \beta_0 + \beta_1 \log(\text{rags}) + \beta_2 \log(\text{rmas}) + \beta_3 \log(\text{rsm}) + \beta_4 \log(\text{rtrs}) + \beta_5 \log(\text{rdvi}) + u_t \quad (2)$$

Where:

LOG = Natural logarithm.

RGDP = Real Gross Domestic Product.

RMAS= Revenue from Manufacturing Sector.

RAGS = Revenue from Agricultural Sector.

RSMS = Revenue from Solid Mineral Sector.

RTRS = Revenue from Tourism Sector.

RDVI = Diversification Index

β_0 = Constant Intercept.

$\hat{\alpha}_{1---n}$ = are the coefficients to be estimated
 μ = Stochastic Term.

The *a priori* expectation of the coefficient of the equation 2 is as follows; $\beta_{1--n} > 0$.

3.2 Estimation Techniques

Autoregressive Distributed Lag (ARDL) Model

The behavioural equation is thus further transformed to include the long run equation as indicated below:

$$\Delta \ln(\text{RGDP})_t = \beta_0 + \beta_0 \Delta \ln(\text{RGDP})_{t-1} + \beta_1 \Delta \ln(\text{RAGS})_{t-1} + \beta_2 \Delta \ln(\text{RMAS})_{t-1} + \beta_3 \Delta \ln(\text{RSMN})_{t-1} + \beta_4 \Delta \ln(\text{RTRS})_{t-1} + \beta_5 \Delta \ln(\text{DVI})_{t-1} + U \quad (2)$$

$$\Delta \ln \text{RAGS}_{t-j} + \sum_{i=1}^b \beta_{2k} \Delta \ln \text{RMAS}_{t-k} + e \quad \Delta \ln \text{RGDP}_t = \beta + \sum_{j=0}^c \Delta \ln \text{RGDP}_{t-1} + \sum_{k=0}^d \beta_{1j} \Delta \ln \text{RAGS}_{t-j} + \sum_{m=1}^e \beta_{3k} \Delta \ln \text{RSMN}_{t-k} + \sum_{n=0}^f \beta_4 \Delta \ln \text{RTRS}_{t-1} + \sum_{n=0}^f \beta_{5k} \Delta \ln \text{DVI}_{t-k} + \rho \text{ECM}_{t-1} + U_t \quad (3)$$

Equation 1 simply states that real growth rate (RDGP) can be explained by the explanatory variables namely; revenue from agricultural sector (RAGS), revenue from manufacturing sector (RMAS), revenue from solid mineral sector (RSMN), revenue from tourism sector (RTRS) and diversification index.

The *a priori* expectation of the coefficient of the equation 2 is as follows; $\beta_0 > 0, \beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0$.

3.2.1 Unit Root Test Result

Unit root is taken as a pretest meant to check the stationarity of the data used in estimating the model. The LOGRGDP, LOGRDVI and LOGRAGS were found to be stationary at first difference, while LOGRMAS was found to be stationary at level. The result is presented below:

Table 1. Unit Root Test with Structural Breaks

VARIABLES	DATE BREAK	ADF STATISTICS	CRITICAL VALUE AT 5%	LEVEL OF STATIONARY
LOGRGDP	2007	-6.889	-4.444	I(1)

LOGRAGS	1994	-8.110	-5.176	I(1)
LOGRMAS	2007	-8.341	-5.176	I(0)
LOGRSMS	2014	-4.425	-3.532	I(1)
LOGRTRS	2018	-6.435	-4.443	I(0)
LOGDVI	2013	-8.529	-4.444	I(1)

Source: Researcher's computation with E-views 9.

A unit root result like this where the variables are stationary at different levels justified the use of autoregressive distributed lag (ARDL) model in estimating the equation.

3.2.2. Selection of Lag Length.

Table 2. Selection of Lag length result

VAR Lag Order Selection Criteria

Endogenous variables:

logrgdplogragslogrmaslogrsmslogrtrslogdvi

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-634.6110	NA	2.54e+16	49.12393	49.31748	49.17966
1	-505.5693	208.4521*	4.33e+12	40.42840	41.39617	40.70709
2	-474.6032	40.49413	1.51e+12	39.27717*	41.01915*	39.77879
3	-453.5921	21.01111	1.35e+12*	38.89170	41.40789	39.61627
4	-432.1391	14.85207	1.67e+12	38.47224	41.76264	39.41975*

Source: Researcher's computation with E-views 9.

The lag length 2 is decided based on the higher number of asterisks

3.2.2 Bounds Test Result

Bound test is carried out to determine the presence of long run relationship in the model. The result is presented below:

Table 3. Bounds test result.

ARDL Bounds Test		
Test Statistic	Value	K
F-statistic	8.6425	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
5%	3.23	4.35

model and as such we go ahead to get the short run and long run form of the equation.

3.2.3. Long-Run Form

Thus, the long run result is presented below:

Table 4. Long Run Form Result

Long Run Coefficients		
Variable	Coefficient	Prob.
LOGRAGS	1.7274	0.0379
LOGRMAS	4.5282	0.0160
LOGRSMS	0.1538	0.0230
LOGRTRS	0.0853	0.0310
LOGRDVI	1.6333	0.0478
C	342.12	0.0376
CointEq(-1)	-0.0592	0.0248

Source: Researcher's computation with E-views 9

Source: Researcher's computation with E-views 9.

From the result it can be seen that the F-statistics value is 8.6425. This value is greater than the upper bound critical values of I(1) at all level of significance. This result therefore showed the existence long run effect in theTable 4, above displayed long run estimation results, The coefficient of cointegration (CointEq(-1)) which stood at -0.0592 means that 5.9% of the disequilibrium in the model will be corrected annually.

3.2.3 Post Dianostic Tests

Multicollinearity

Test

Table 5 shows multicollinearity test conducted to investigate the present of linear relationship among the explanatory variables. Multicollinearity explained a situation where two or more explanatory variables are highly linearly related and this can undermine the power of estimated coefficients of the explanatory variables, instead of predicting the dependent variable, turned out interact among themselves. Testing for multicollinearity requires the application of the variance inflation factor (VIF) and the Tolerance (which is the reciprocal of VIF) values. The decision rule is that: if VIF is less than 3 ($VIF < 3$), the estimated result is free of multicollinearity problem. If VIF is greater than 3, ($V > 3$), there is the potential problem. If on other hand, VIF is greater than 5 ($VIF > 5$) problem is very likely.

Table 5: Multicollinearity Test for RGDP

Variance Inflation Factors

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LOGRAGS	0.022402	9.714105	5.587386
LOGRMAS	0.078244	3.313694	2.763491
LOGRSMS	1.234131	4.341134	2.013244
LOGRTRS	1.524453	5.234213	3.422521
LOGDVI	1.52E+09	868.9858	2.939599
C	1.20E+08	942.5166	NA

Source: Researcher's computation with E- views 9

The variance inflation factor for the predictors is used to test if there is a strong linear association among them. From the result obtained shows a mild incidences of multicollinearity that does not significantly affect the predictability of the overall results obtained.

3.2.4 Test Of Hypothesis

Table 15: Hypotheses Table

Hypotheses	Apriori Expectations	B	Sig.	Decision
H ₁ (+)	RAGS? RGDP	1.7274	0.0379	Supporte d
H ₂ (+)	RMAS? RGDP	4.5282	0.0160	Supporte d
H ₃ (+)	RSMS? RGDP	0.1538	0.0230	Supporte d
H ₄ (+)	RTRS? RGDP	0.0853	0.0310	Supporte d
H ₅ (+)	DVI? RGDP	1.6333	0.0478	Supporte d

The result affirmed the rejection of Null hypotheses in favour of Alternative hypotheses and concluded that revenue from agricultural sector has significant impact on economic growth in Nigeria with the coefficient of 1.7274 and probability value is less than 0.05 (I.e 0.0379<0.05). Moreso, revenue from manufacturing sector has significant impact on economic growth in Nigeria with the coefficient of 4.5282 and probability value is less than 0.05 (I.e 0.0160<0.05). in the same manner, revenue from solid mineral sector has significant impact on economic growth in Nigeria with the coefficient of 0.1538 and probability value is less than 0.05 (I.e 0.0230<0.05). The result also affirmed that revenue from tourism sector has significant impact on economic growth in Nigeria with the coefficient of 0.0853 and probability value is less than 0.05 (I.e 0.0310<0.05). Revenue diversification has significant impact on economic growth in Nigeria as diversification index coefficient stood 1.6333 and probability value is less than 0.05 (I.e 0.0478<0.05).

the following findings are eminent:

4.1 Discussion Of Findings

Arising from the empirical analysis of this study, first and foremost at the pre-analysis stage, the time series variables used for the study showed trending characteristics. Without de-trending will affect the result output. Convergence tendencies were only achieved after second difference, which makes the variables good for any analysis. Therefore,, the unit root test with structural breaks in table 5 revealed that RMAS and RTRS were stationary at level while RGDP, RAGS, RSMS and DVI were all stationary at first difference. The stationarity of the variables at difference level called for the adoption of ARDL.

The bounds test result affirmed the existence of steady-state long run effect among the variables in the model. This in turn demanded the estimation of the long run form equation for the model as the computed F-statistic of 8.652 is greater than the upper critical bound value of 4.35.

The result of the long run form of the model showed that RAGS, RMAS and DVI had positive relationship with economic growth with their coefficient values of 1.274, 4.5282 and 1.6333 respectively. These positive findings of diversification on GDP growth rate are similar to the findings of other studies such as Owan, et al(2020); Oyelami and Alege(2018)

The coefficient of CointEq (-1) term was -0.0526, which suggested a slow adjustment process, 5 per cent of the disequilibrium of shock in the model adjusted back to the long run equilibrium. Thus, the long run equation is therefore expressed below:

$$\logrgdp=342.5+1.72\logrags+4.52RMAS+0.15\logrsms+0.08\logrtrs +1.6\logdvi$$

The model also passed the econometric diagnostic tests; Multicollinearity and the result revealed that the model is free from econometric problems.

4.1 Summary of Findings

From the analysis carried out in this work,

- i. The study discovered that the data employed for the work, exhibited a long run stochastic characteristic signifying that equilibrium can only be achieved within a long gestation period when shocks occur in the short run. Thus, if there is policy intervention in any of the sectors, the outcome of such action will not be instantaneous rather will manifest within two years as evident from the data.
- ii. Each of the independent variables have significant positive effect on the dependent variable, such that any positive variation in them will translate equally on the dependent variable, which is economic growth
- iii. The cumulative net effect of the independent variables (RGDP, RAGS, RSMS, RMAS, DVI and RTRS) on the dependent (RGDP) are significant, implying that the impact is sufficient enough to cause real gross domestic product (RGDP) to change positively too. Additionally, it was discovered that the sectors included in the study are good examples of the sectors to diversify so as to broaden income generation for the government.
- iv. The outcome of diversification variable (DVI) the instrumental variable was also positive and significant.

4.2 Conclusion

The motivation to this work was borne out of the seeming decline in revenue and subsequently growth retardation despite huge revenue from the oil sector. The empirical results confirmed the existence the nexus between the revenue diversification and economic growth variables in Nigeria. This was evident in the ARDL longrun results. In conclusion therefore, it is a truism that when revenue diversification as a policy and growth strategy, economic growth can be realized.

Recommendations

- i. Policy makers and implementers should take into cognizance the time

dimension inherent in time series data when making decisions to diversify the revenue sources. This is very important, so as not to create any lacuna in the achievement of any developmental plan.

- ii. As a solution to mono-economy, the study has open and identified the key sectors that can propel the diversification drive of the government policy. In this context, financial resources should be devoted to the development of these identified sectors to attain the desired objectives. This is bane of unbalanced growth strategy.
- iii. Government should focus on the improving infrastructure specifically, uninterrupted power, water supplies and accessible roads, sea ports, modern highway network and utilities all of which deliver flexibility, reliability, reasonable cost, effective and efficiency functioning of manufacturing and agricultural sectors. government should be conscious and concentrate on the sectors with strongest links with the rest of the economy, enabling other sectors to develop and drawing heavily on domestic goods and services not just on import, such sectors include agricultural and manufacturing sectors.
- iv. Agricultural and manufacturing sectors should be supported by research and development efforts to design, improve the quality of products and develop new products in the sectors.

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