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IMPACT OF NON-OIL EXPORT ON NIGERIA'S ECONOMIC GROWTH: A DISAGGREGATED APPROACH

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Abstract

This study used a disaggregated macroeconomic model and an Error Correction Mechanism (ECM) to analyze the effects of non-oil exports (NOE) on Nigeria's economic growth from 1980 to 2021. Before estimating the model, unit root and co-integration tests were conducted to determine the stationarity and long-run properties of the variables. The Augmented Dickey-Fuller (ADF) unit root test results indicated that all-time series were non-stationary at level but became stationary after first differencing. The Johansen co-integration test results revealed that the variables are co-integrated, suggesting a long-run equilibrium relationship among them. The ECM findings indicated that NOE components positively impacted Nigeria's economic growth in both the short and long run, although the impact was largely insignificant. Based on these results, it was recommended that Nigeria's export development strategy be refocused and reinforced to address supply capacity constraints in various NOE sectors. The argument is that the government can initially manage and develop these non-oil sectors and later transfer them to private enterprises.

Keywords: Economic Growth, Non-Oil Export (NOE), Trade Openness, Exchange Rate.

1. Introduction

The meaning of products, particularly non-oil trades (NOE), to Nigeria's financial development and advancement has been widely considered (Enoma and Mustafa, 2011; Riti et al., 2016; Abdulrahman, 2021). It has been contended that NOE are essential for the general improvement of Nigeria's economy (Abou-Stait, 2005). Be that as it may, the country's overreliance on the unrefined petroleum area, especially its product, has adversely affected monetary development (Osabohien et al., 2019). This mindfulness, combined with the way that unrefined petroleum is a limited asset, has increased summons for expanding Nigeria's economy from oil (Onodugo, 2013). Supporters of this viewpoint, as featured by Enoma and Mustafa (2011), propose that rising the portion of NOE can possibly drive Nigeria's economy towards a reasonable development direction. Areas like horticulture, monetary administrations, data and correspondence, mining, industry, the travel industry, and diversion have been distinguished as promising non-oil areas in Nigeria (Salami, 2018). Albeit various specialists, including Zoramawa et al. (2020), Iwuoha and Arose (2019), Kawai (2017), Kromtit et al. (2017), Riti et

al. (2016), Adenuga and Dapo (2013), Onodugo (2013), Onwualu (2012), Uniamikogbo (2012), Enoma and Mustafa (2011), and Gobna, Usman and Mohammed (2022), have analyzed the impact of NOE on Nigeria's monetary development, this study noticed an impediment in their methodology. A large portion of these examinations have estimated NOE utilizing a solitary total marker, disregarding its parts. Utilizing totaled NOE markers limits the viability of approaches, as they can't be explicitly focused on at chosen areas (Akeem, 2011). A vital commitment of this paper is its mean to quantify both the short-and long haul impacts of NOE on Nigeria's financial development. Moreover, this study tries to give new bits of knowledge by involving late information that reflect current advancements in worldwide macroeconomics and the Nigerian arrangement climate. Occasions, for example, the Coronavirus pandemic and strategies pointed toward broadening Nigeria's economy away from the oil area are especially pertinent to this investigation.

This paper intends to separate the non-oil area into its significant parts farming, fabricating, strong minerals, and administrations-and exactly research the effect of every part on Nigeria's monetary development from 1980 to 2021. Following this presentation, segment two covers the writing audit and hypothetical system. Segment three layouts the philosophy, while area four presents the information, examination, and conversation of the outcomes. At long last, segment five gives the end and proposals.

2. Literature Review

2.1 Conceptual Review

2.1.1 Non-Oil Exports

Nigeria's non-oil send out area (NOE) is separated into four significant classes: rural, made, strong mineral and administrations trades (Akeem, 2011). There are various non-oil items, including rural harvests, produced products, strong minerals, and administrations connected with diversion and the travel industry, among others (Abogan et al., 2014). As per Akeem (2011), the

non-oil area envelops all unfamiliar trade workers barring the oil and gas areas. Prior to the ascent of unrefined petroleum, non-oil items, principally horticultural, ruled Nigeria's product exchange the 1960s. Be that as it may, center moved from NOE to unrefined petroleum as the essential income worker, transforming Nigeria into a mono-item economy. Because of the oil area's continuous predominance over the non-oil area, Nigeria changed from being a net exporter of rural items to a net shipper (Riti et al., 2016).

2.1.2 Agricultural Sector

Agribusiness is the science, craftsmanship, or practice of delivering yields and raising animals, including the arrangement and advertising of the subsequent items (Daramola, 2004). Nigeria, quite possibly of the biggest nation in sub-Saharan Africa, has an expanse of land of around 98.3 million hectares, of which 71.2 million hectares (72.4%) are cultivable, yet just 34.2 million hectares (34.8%) are presently being used (Daramola, 2004). Nigeria positions 6th overall and first in Africa as far as homestead yield. In the Nigerian economy, the help area represents 32% of the Gross domestic product, fabricating 11%, and farming 30%. Hence, it is clear that the farming area assumes a huge part in the monetary development and improvement of Nigeria (Sertoglu et al., 2017).

2.1.3 Manufacturing Sector

The assembling area alludes to ventures that proselyte or cycle unrefined components to make new wares or enhance existing items (Adebayo, 2010). As per Dickson (2010), in created nations, the modern area is overwhelmed by assembling, with yield serving either as purchaser merchandise or halfway products. Loto (2012) recommends that the assembling area offers valuable chances to increment efficiency, unfamiliar trade profit, work, and per capita pay.

2.1.4 Mining Sector

The mining area offers Nigeria an amazing chance to drive economic development and improvement. The nation is plentiful in different mineral assets, and development in this area can give an elective wellspring of unfamiliar trade, diminishing the overreliance on raw petroleum. It's vital to take note of that the proprietorship freedoms of mineral assets are vested in the Nigerian government, which awards titles to respectable associations to investigate, mine, and sell these assets (Olalekan et al., 2016).

2.1.5 Service Sector

The Nigerian assistance economy is presently one of the quickest developing in Africa. The rebasing of Nigeria's public records in 2014 uncovered critical development in the assistance area, which represented around 55% of Nigeria's Gross domestic product in 2014 and almost 60% in 2015 (Timmer et al., 2015). Since the 1990s, a prominent change in Nigeria's administration area has been the fast expansion in cell phone supporters, following the issuance of cell phone licenses by the public authority in 2002. Moreover, the financial area experienced resurgent development because of changes by the Nigerian national bank, which expanded capital prerequisites for banks, prompting broad union and an expansion in work in the business (Ibrahim et al. 2024).

2.1.6 Economic Growth

In the most straightforward terms, monetary development is characterized as the expansion in an economy's useful limit after some time. It alludes to the extension of an economy's capacity to deliver labor and products that upgrade the prosperity of its residents in more prominent amounts and variety (Usman and Salami, 2008). Pritzker et al. (2015) portray financial development as a macroeconomic marker that actions the worth of labor and products created in an economy inside a particular period. They state that Gross domestic product is a critical proportion of financial result.

2.2 Empirical Review

There is an abundance of exact investigations on the effect of NOE on financial development. For instance, Zoramawa et al. (2020) analyzed the commitment of NOE to Nigeria's economy from 1981 to 2019. Utilizing the ARDL headed test for co-joining, they tracked down a negative and measurably huge connection among NOE and monetary development, with the exception of farming products over the long haul. The review prescribed that Nigerian specialists do whatever it may take to make NOE items more alluring in the worldwide market.

Kawai (2017) utilized the Engel-Granger co-incorporation and completely changed OLS (FMOLS) to examine the effect of NOE on Nigeria's financial development from 1980 to 2016. The outcomes demonstrated a long-run connection among NOE and monetary development, prompting the end that NOE have fundamentally added to financial development.

Rita et al. (2016) utilized the autoregressive dispersed slack (ARDL) model and Granger causality test to gauge the short-run and long-run boundaries and the heading of causation between financial development and the non-oil area. Their outcomes affirmed a co-incorporating relationship among the factors. The Granger causality results showed that horticultural, assembling, and media transmission parts were genuinely huge and Granger-caused financial development at the 5% importance level, albeit the assembling part was essentially negative.

Adenugba and Dipo (2013) concentrated on NOE and financial development in Nigeria, zeroing in on the agribusiness and mineral assets areas from 1981 to 2010. Their outcomes showed that NOE performed underneath assumptions, demonstrating that the commodity advancement procedures took on in Nigeria have been to a great extent wasteful. The absence of a unit root test before assessment might have sabotaged their outcomes.

Onodugo (2013) inspected the particular effect of NOE on Nigeria's monetary development from 1981 to 2012 utilizing an expanded creation capability and an endogenous development model. The outcomes showed an extremely frail and minor effect of NOE on financial development.

Udude and Okulagu (2012) explored whether there is a bi-directional connection among sends out and financial development in Nigeria and whether trades fundamentally influence monetary development. Their review uncovered that financial development and products are co-incorporated.

While numerous scientists have found a positive relationship among NOE and monetary development in Nigeria, different examinations make tracked down negative or unimportant impacts. For example, Iwuoha and Arose (2019) concentrated on the effect of NOE on financial development in Nigeria from 1981 to 2017. Utilizing the ARDL econometric methodology, they found that NOE unimportantly affected financial development during the review time frame, in spite of all factors moving in a similar course.

Imoughele and Ismaila (2015) inspected the effect of trade rates on Nigeria's NOE utilizing information from the National Bank of Nigeria (CBN) for 1986 to 2013. Utilizing the Expanded Dickey-Fuller unit root test and Johansen co-incorporation, they found that swapping scale appreciation adversely impacted NOE and prescribed endeavors to balance out the conversion scale.

Outside Nigeria, Abdulrahman (2021) concentrated on the impact of oil and NOE on Saudi Arabia's monetary development from 2005 to 2009 utilizing the OLS approach. The creator found that both oil and NOE emphatically affected Saudi Arabia's financial execution.

Mohsen (2015) researched the job of oil and NOE in the Syrian economy from 1975 to 2010. The review found a bidirectional short-run causality connection between Gross domestic product, oil trades, and NOE, as well as a bidirectional long-run causality connection among

NOE and Gross domestic product and a unidirectional long-run causality relationship from oil commodities to Gross domestic product.

3. Methodology

3.1 Nature and Sources of Data

The study utilized time series data for the period 1970 to 2021. Data was sourced from the Central Bank of Nigeria (CBN) statistical bulletin, 2021 and the National Bureau of Statistics (NBS) data abstract 2021.

3.2 Model Specification

Empirically, to examine the impact of NOE on economic growth in Nigeria, the study adapted the model of Riti et al. (2016) given as:

$$RGDP_t = \beta_0 + \beta_1 AGR_t + \beta_2 MAN_t + \beta_3 TEL_t + \varepsilon_t \quad 1$$

Where: $RGDP_t$ is Real Gross Domestic Product, AGR_t is agricultural component of NOE, MAN_t is manufacturing component of NOE, TEL_t is telecommunication component of NOE and ε_t is error term.

While β_0 is the intercept of the model, $\beta_1, \beta_2, \beta_3$ are parameters of the explanatory variables, expected to be greater than zero.

Equation 1 is however modified to suit the purpose of this study.

$$\begin{aligned} \Delta RGDP_t = & \delta_0 + \delta_1 \Delta AGREX_t + \delta_2 \Delta MANEX_t + \delta_3 \Delta SOLEX_t + \delta_4 \Delta SEREX_t + \delta_5 \Delta TPN_t \\ & + \delta_6 \Delta EXCHR_t + \eta ECM_t + \varepsilon_t \end{aligned} \quad 2$$

Where $RGDP$ is real gross domestic product; $AGREX$ is agricultural export; $MANEX$ is manufacture export; $SOLEX$ is solid minerals export; $SEREX$ is service export; TPN is trade openness; $EXCHR$ is exchange rate; δ_0 is the drift component; $\delta_1, \delta_2, \delta_3, \delta_4, \delta_5$ and δ_6 are the coefficients of the short-run variables; Δ is the first difference operator; the variables with first difference operator signs are used to model the short-run dynamic structure; ECM is the error correction mechanism representing the residual of the co-integrating equation; η represents error

correction coefficient which shows how quickly the variables converge to long run-equilibrium, and it is theoretically expected to be statistically significant and negative; ε_t is the error term; and t is time.

3.3 Estimation and Evaluation Techniques and Procedure

The ordinary least squares (OLS) estimation technique is used to estimate the parameters of the specified Error Correction Model (ECM) owing to its desirable properties (i.e., the BLUE properties). The estimated model is evaluated using diagnostic and summary statistics such as t-statistic test, coefficient of multiple determinations (R^2), adjusted R^2 and F-statistic test. These set of statistics help to ascertain the robustness, reliability and healthiness of the estimated model.

4. Data Presentation, Analysis and Interpretation of Results

4.1 Descriptive Statistics of Data

Table 4.1: Summary Statistics

	RGDP	AGREX	MANEX	SOLEX	SEREX	TPN	EXCHR
Mean	502.7135	2059722	3002660	89908.01	92552.40	0.664054	77.80892
Median	388.5000	112410.0	717786.5	88137.80	27602.13	0.640000	24.87000
Maximum	1636.400	10375746	14607440	103210.2	998450.3	0.950000	325.4500
Minimum	156.8000	21386.10	5401.600	81696.46	13340.00	0.340000	0.550000
Std. Dev.	304.4500	3237992	4459832	5777.476	220102.4	0.190021	78.88815
Skewness	1.711772	1.239660	1.395813	0.433598	3.802632	-0.009452	0.854495
Kurtosis	6.373927	2.944555	3.589318	2.047627	15.82484	1.722517	3.480758
Jarque-Bera	35.61872	9.481403	12.54989	2.557694	342.7378	2.516494	4.858991
Probability	0.000000	0.008733	0.001883	0.278358	0.000000	0.284152	0.088081
Sum	18600.40	76209727	1.11E+08	3326596	3424439	24.57000	2878.930
Observations	42	42	42	42	42	42	42

Source: Computed using E-Views 9 software.

The summary of descriptive statistics of relevant variables of study is as reported in Table 4.1.

The mean measures the average value of the series. It is obtained by adding up the values of the series in the current sample and dividing by the number of observations. Max and Min are the maximum and minimum values of the series in the current sample. Standard Deviation (Std. Dev.) measures the dispersion or spread in the series. Thus, the higher (lower) the value, the higher (lower) the deviation of the series from its mean.

As can be observed from table 4.1, the mean, standard deviation as well as the skewness, kurtosis and Jarque-Bera measures of our variables of interest are given. The mean values of RGDP, AGREX, MANEX, SOLEX, SEREX, TPN and EXCHR are 502.7135, 2059722, 3002660, 89908.01, 92552.40, 0.664054 and 77.80892 respectively while their respective standard deviations are 304.4500, 3237992, 4459832, 5777.476, 220102.4, 0.190021 and 78.88815. The results showed that TPN and EXCHR had the lowest or least mean and variability (standard deviation) while AGREX and MANEX had the highest or largest mean and variability (standard deviation). Lastly, from Table 4.1, the Jarque-Bera statistic values showed that SOLEX, TPN and EXCHR were not normally distributed while RGDP, AGREX, MANEX, and SEREX were normally distributed. This result is supported by the skewness and kurtosis statistics for the series.

4.2 Inferential Statistics

4.2.1 Unit Root Test Results

Table 4.2: Augmented–Dickey Fuller (ADF) Test Results

Variables	ADF Statistics		Remark
	Level	First Difference	
RGDP	4.149548	-3.359045**	I(1)
AGREX	-0.366942	-9.728072**	I(1)
MANEX	5.625282	-3.795796**	I(1)
SOLEX	1.308997	-5.516504**	I(1)
SEREX	1.939662	-6.117016**	I(1)
TPN	-2.086367	-9.051077**	I(1)
EXCHR	2.751511	-3.057057**	I(1)

Note: ** indicates the rejection of the null hypothesis of existence of unit root at 5% significance level. Lags are selected based on Schwarz Information Criteria (SIC).

Source: Computed using E-Views 9 software.

The ADF unit root test results as reported in Table 4.2. Results showed that all variables in the regression model were non-stationary at level. This means that each of the variables has a mean, variance and covariance that are not constant overtime. However, after differencing, each of the

time series variables became stationary. The implication of the unit root test results is that all the tested time series variables are integrated of order one, i.e., I (1).

4.2.2 Johansen Co-integration Test Results

The Johansen co-integration test was carried out since variables under consideration are of first order of integration.

Table 4.3: Co-integration Trace Statistic for all the Variables

Hypothesized No. of Co-integrated Equation(s)	Eigenvalue	Trace Statistic	5 Percent Critical Value	Probability Value**
None *	0.859605	172.9810	125.6154	0.0000
At most 1 *	0.680722	106.2291	95.75366	0.0078
At most 2	0.559111	67.41153	69.81889	0.0766
At most 3	0.464964	39.56683	47.85613	0.2384
At most 4	0.276113	18.30252	29.79707	0.5438
At most 5	0.183106	7.316426	15.49471	0.5411
At most 6	0.012860	0.440072	3.841466	0.5071

Notes: Superscript * denotes rejection of the null hypothesis of no co-integration at the 5% level of significance, while ** indicates MacKinnon-Haug-Michelis(1999) p-values.

Trace test indicates 2 co-integrating equation(s) at 5% level of significance.

Source: Computed using E-Views 9 Software.

Table 4.4: Co-integration Maximum Eigen value Statistic for all the Variables

Hypothesized No. of Co-integrated Equation(s)	Eigenvalue	Maximum Eigen Statistic	5 Percent Critical Value	Probability Value**
None *	0.859605	66.75193	46.23142	0.0001
At most 1	0.680722	38.81753	40.07757	0.0688
At most 2	0.559111	27.84470	33.87687	0.2207
At most 3	0.464964	21.26432	27.58434	0.2606
At most 4	0.276113	10.98609	21.13162	0.6487
At most 5	0.183106	6.876354	14.26460	0.5039
At most 6	0.012860	0.440072	3.841466	0.5071

Notes: Superscript * denotes rejection of the null hypothesis of no co-integration at the 5% level of significance, while ** indicates MacKinnon-Haug-Michelis (1999) p-values.

Maximum Eigenvalue test indicates 1 co-integrating equation(s) at 5% level of significance.

Source: Computed using E-Views 9 Software.

From Tables 4.3 and 4.4, it is observed that the trace statistic indicates two (2) co-integrating equations while the maximum Eigen value test statistic indicates one (1) co-integrating equation at the 5% level of significance. Based on this evidence, we safely reject the null hypothesis of no co-integrating vectors of the variables in the specified error correction model. This implies that a long-run equilibrium relationship exists between the variables that have entered the specified error correction model of study.

4.2.2 Regression Results

This section presents the estimated error correction model following the Granger Representation Theorem which states that if variables in a regression model are co-integrated, the appropriate model to estimate is the Error Correction Model (see Engle & Granger, 1987).

Table 4.5: Estimated Error Correction Model
Dependent Variable: $\Delta RGDP_t$

Regressors	Coefficient	Standard Error	t-Statistic	Probability
Intercept	700225.3	9668204.	0.072426	0.9429
$\Delta AGREX_t$	0.695804	2.443346	0.284775	0.7786
$\Delta MANEX_t$	23.46706	4.802336	4.886592	0.0000
$\Delta SOLEX_t$	-810602.4	590494.5	1.372752	0.1843
$\Delta SEREX_t$	11879719	7536249.	1.576344	0.1299
ΔTPN_t	3175.051	64.49246	49.23135	0.0000
$\Delta EXCHR_t$	-2377168.	1014854.	-2.342375	0.0291
ECM_{t-1}	-0.870316	0.256840	-3.388548	0.0028
$R^2 = 0.85$				D.W=2.16
$\bar{R}^2 = 0.81$				F-stat=31.73009 Prob=0.000000

Source: Computed using E-Views 9 Software.

4.3 Interpretation and Discussion of Results

The assessed blunder adjustment model (ECM) in Table 4.5 gives experiences into the short-run and long-run elements of the time series factors viable. The ECM coefficient estimates the speed at which the framework gets back to harmony over the long haul. The outcomes show that the coefficient of the ECM (- 1) is appropriately marked and profoundly critical. The negative

indication of the ECM (- 1) coefficient proposes that the change is in the correct course to reestablish the long-run relationship. The extent of the ECM (- 1) coefficient, 0.87, shows a rapid of change, with around 87% of the disequilibrium revised every year.

The majority of the short-run factors in the mistake remedy model adjust to the deduced assumptions, aside from SOLEX. In the short run, all factors aside from AGREX, SOLEX, and SEREX fundamentally affected RGDP. In particular, MANEX, TPN, and EXCHR were genuinely critical in making sense of contemporaneous changes in RGDP, while AGREX, SOLEX, and SEREX were not. By the by, the changed coefficient of assurance (R^2) recommends that the ECM throws a tantrum, making sense of 81% of the variety in RGDP in the short run. The F-measurement worth of 31.73009, huge at 1%, demonstrates that the model is accurately determined. Be that as it may, the Durbin-Watson measurement of 2.16 uncovers the presence of negative first-request autocorrelation in the series.

The discoveries of this paper propose that commodities, especially NOE, are vital for upgrading and speeding up lengthy run monetary development. Exact investigation showed that agrarian products emphatically yet unimportantly affected RGDP, like the discoveries of Riti et al. (2016). While this study tracked down a positive and huge connection between assembling trades and RGDP, Riti et al. (2016) tracked down an adverse consequence. Furthermore, this study showed that administrations sends out unimportantly affected RGDP, and strong mineral products had a negative and irrelevant effect. The conversion standard, as inspected by Omojolaibi et al. (2015) and Imoughele and Ismaila (2015), essentially affected RGDP, which goes against their discoveries.

5. Conclusion and Recommendations

The discoveries of this study recommend that while most NOE parts affect monetary development, the assembling area is the most suitable non-oil area with the main effect on Gross domestic product in Nigeria for the time being. Consequently, Nigeria's worldwide market

intensity could be essentially improved through the assembling area. In view of this end, we prescribe that in the continuous work to expand the Nigerian economy away from oil, policymakers ought to focus on the quick development of the assembling area and execute exchange improving changes to animate worth added trades in different non-oil parts.

To accomplish this, it is significant to pull together and fortify Nigeria's commodity improvement methodologies. This incorporates giving motivations to development, offering monetary help to little and medium ventures, and tending to supply limit requirements in the NOE areas. Moreover, the public authority ought to effectively partake in the improvement of different non-oil areas and in the long run privatize them to energize proficiency and development. Further developing foundation is likewise fundamental, as it straightforwardly influences the activity of limited scope endeavors.

Besides, policymakers ought to resolve to exchange improving changes that animate exchange esteem added trades across various non-oil areas. This can be accomplished by sanctioning regulation that blessings and works with cooperation in non-oil areas like horticulture, strong minerals, assembling, and administrations for both nearby and unfamiliar financial backers.

References

- Abdulrahman, B. M. (2021). Oil and non-oil export on economic performance in Saudi Arabia. *International Journal of Energy Economics and Policy*, 11(1), 88-92.
- Abogan, O. P., Akinola, E. B., & Baruwa, O. I. (2014). Non-oil export and economic growth in Nigeria (1980-2011). *Journal of Research in Economics and International Finance*, 3, 1-11.
- Abou-Stait, F. (2005). Are exports the engine of economic growth? an application of cointegration and causality analysis for Egypt, 1977-2003. *African Development Bank Economic Research Working Paper*, 76.
- Adebayo, R. I. (2010). Zakat and poverty alleviation: a lesson for the fiscal policy makers in Nigeria. *Journal of Islamic Economics, Banking and Finance*, 7(4), 26-41.
- Adenugba, A. A., & Dipo, S. O. (2013). Non-oil exports in the economic growth of Nigeria: A study of agricultural and mineral resources. *Journal of Educational and Social Research*, 3(2), 403-405.
- Akeem, U. O. (2011). Non-oil export determinant and economic growth in Nigeria 1988-2008. *European Journal of Business Management*, 3(3), 236-257.
- Central Bank of Nigeria (2000). The structure of the Nigerian economy and implication of development. Ream communication Ltd, Lagos, 198-199.

- Central Bank of Nigeria (2021). Annual report for the year ended 31st December, 2021.
- Central Bank of Nigeria (2021). Statistical Bulletin, December, 2021.
- Daramola, B. (2004). Competitiveness of Nigerian agriculture in a global economy: Any Dividend(s) of democracy? *Inaugural Lecture Series 36, delivered at the Federal University of Technology, Akure, Nigeria.*
- Dickey, D. A., & Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of American Statistical Association*, 74(336), 427-431.
- Dickey, D. A., & Fuller, W.A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 49(4), 1057-1072.
- Dickson, D. A. (2010). The recent trends and patterns in Nigeria's industrial development. *Council for the Development of Social Science Research in Africa.*
- Engle, R., & Granger, W. (1987). Co-integration and error correction: Representation, estimation and testing. *Econometrica*, 55, 251-276.
- Enoma, A., & Mustafa, I. (2011). The impact of financial sector reforms on non-oil export in Nigeria. *Journal of Economics*, 2(2), 115-120.
- Gobna, O. W., Usman, G., and Mohammed, S. S. (2022). Public Debt Sustainability Measures and Its Growth Implications for the Nigerian Economy. *CBN Economic and Financial Review*, 60(2). 27-53.
- Ibrahim, K. A., Salihu, A., Yakubu, A., Isah, Y. U., & Isah, M. Y. (2024). Analysis of the Impact of Foreign Reserve Accumulation on Economic Growth in Nigeria. *Journal of Arid Zone Economy*, 3(1), 50-59.
- Imoughele, L., & Ismaila, M. (2015). the impact of exchange rate on Nigeria non-oil exports. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 5(1), 190-198.
- Iwuagwu, O. (2014). Telecommunications reform in China and Nigeria: Same result, different strategies. *Journal of International Social Research*, 7(32), 652-668.
- Iwuoha, J., & Awoke, C. (2019). Impact of non-oil export on economic growth in Nigeria. Retrieved from <https://esutjss.com>.
- Johansen, S. (1988). Statistical analysis of co-integrated vectors. *Journal of Economic Dynamics and Control*, 12(213), 231-254.
- Johansen, S. (1991). Estimation and hypothesis testing of co-integrated vectors in Gaussian vector autoregression models. *Econometrica*, 59(6), 1551-1580.
- Johansen, S. (1995). *Likelihood-based inference in co-integration vector autoregressive models.* Oxford University Press.
- Kawai, V. (2017). An analysis of the impact of non-oil exports and economic growth in Nigeria from 1980-2016. *International Journal of Innovative Research in Social Science and Strategic management Technique*, 4(2), 83-94.
- Kromtit, M., Charles K., Ndangra, P., & Lado, S. (2017). Contribution of non-oil exports to economic growth in Nigeria (1985-2015). *International Journal of Economics and Finances*, 9(4), 2017, 253-261.
- Loto, M. A. (2012). Global economic downturn and the manufacturing sector performance in the Nigerian economy. *Journal of Emerging Trends in Economics and Management Sciences (JETEMS)*, 3(1), 38-45.
- MacKinnon, J. G., Haug, A., & Michelis, L. (1999). Numerical distribution functions of likelihood ratio tests for cointegration. *Journal of Applied Econometrics*, 14(5), 563-577.
- National Bureau of Statistics (2014). Gross Domestic Products for Nigeria. *November, 2014.*
- National Bureau of Statistics (2021). Data Abstract. Abuja.
- Olalekan, O., Afees, O., & Ayodele, S. (2016). An empirical analysis of the contribution of mining sector to economic development in Nigeria. *Khazar Journal of Humanities and Social Sciences*, 19(1), 88-106.

- Omojolaibi, J., Mesagan, E., & Adeyemi, O. (2015). The impact of non-oil exports on domestic investment in Nigeria. *MPRA 70201*, <https://mpra.ub.uni.muenchen.de/70201/>
- Onodugo, V., Ikpe, M., & Anowor, o. (2013). Non-oil export and economic growth in Nigeria: A time series econometrical model. *International Journal of Business Management and Research (IJBMR)*, 3(2), 115-124.
- Onwualu, A. P. (2009). Beyond oil: Diversification options. *Presented at The Leadership Newspaper Conference, held at International Conference Centre, Abuja, Nigeria, 28th April, 2009.*
- Onwualu, A. P. (2012). Agricultural sector and national development: Focus on value chain approach. *Presented at the 5TH Edition of the Annual Lecture of Onitsha Chamber of Commerce, 24th May, 2012.*
- Osabohien, R., Akinpelumi, D., Matthew, O., Okafor, V., Iku, E., & Olawande, T. (2019). Agricultural exports and economic growth in Nigeria: An econometric analysis. *International Conference on Energy and Sustainable Environment*, 1(1), 1-10.
- Pritzker, S., Arnold, K., & Moyer, C. (2015). Measuring the economy: A primer on GDP and the national income and product accounts. *Washington Bureau of Economic Analysis (Bea)*.
- Riti, J. S, Gubak, H. D., & Madina, D. A. (2016). Growth of Non-oil sectors: A key to diversification and economic performance in Nigeria. *Public Policy and Administration Research*, 6(3), 64-75.
- Salami, G. O. (2018). Empirical Analysis of the Impact of Non-oil Revenue on Economic Growth: Nigerian experience. *International Journal of Economics, Commerce and Management*, 5(6), 263-276.
- Sertoglu, K., Ugural, S., & Bekun F. V. (2017). The contribution of agricultural sector on economic growth of Nigeria. *International Journal of Economics and Financial Issues*, 7(1), 547-552.
- Timmer, M. Los, B., & de Vries, G. J. (2015). How global are global value chains? A new approach to measure international fragmentation. *Journal of Regional Science*, 55(1), 66-92.
- Udude, C. C., & Okulagu, B. E. (2012). Export and Nigeria's economic growth: A co-integration analysis. *Asian Economic and Financial Review*, 2(2), 429-444.
- Usman, G. (2018). Public Sector Financing and Economic Growth in Nigeria. *Bingham Journal of Economics and Allied Studies (BJEAS)*, 1(2), 1-13.
- Usman, O. A., & Salami A.O. (2008). The contribution of Nigerian export-import (NEXIM) bank towards export (non-oil) growth in Nigeria (1990-2005). *International Business Management Journal* 2(3), 85-90.
- Yahaya, U. I., Muftahu, O., & Aliyu, I. (2021). Monetary Policy and Stock Market Prices in Nigeria. *LAFIA Journal of Economics and Management Sciences*, 6(1), 177-194.
- Yusuf, I. A. (2012 February 26). How non-oil exports drive economy. *The Nation Newspapers*.
- Zoramawa, L., Machief, P., & Umar, S. (2020). An analysis of the impact of non-oil export on economic growth: Evidence from Nigeria. *Journal of Research in Emerging Markets*, 2(1), 15-23.