Non-Oil Exports and Economic Growth in Nigeria

By

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Abstract

This research focused on the relationship between non-oil exports and economic growth in Nigeria spanning from 1981-2018. The paper investigated the impacts of the independent variables such as non-oil output, trade openness, exchange rate, inflation and interest rates on the dependent variable (GDP) since the contributions of non-oil section to the economic growth have been depressing over the years due to oil-boom leading to over-relying on petroleum products.

Autoregressive Distributed Lag (ARDL) cointegration bound tests technique, error correction regression and Granger causality were used to achieve the objectives of the study.

The result showed that there existed a positive significant long-run relationship between non-oil exports and economic growth. Non-oil exports exhibited a positive significant short-run impacts on GDP, and a uni-causality was established between non-oil exports and economic growth which ran from non-oil exports to economic growth.

The study recommends that adequate attention be paid on non-oil sector now that prices of crude oil are scandalous in world market in order to improve non-oil performance and to create conducive environment for all to boost the activities of non-oil exports through export promotion so as to increase the foreign earnings of this country.

Key word: Non-oil, export, economic growth, ARDL cointegration, Bound test, Error correction model, Wald test, Granger causality.

1.0 Introduction

Exports have been described as a substance for overall development and increase the earnings of the nations of the World thereby creating an avenue for growth by raising the national income of the countries (Ewubare, Ajie and Ojiya, 2017). Non-oil exports being the products which are produced within the country in the agricultural, mining, quary and industrial sectors that are sent outside the country in order to generate revenue for the growth of the economy without considering oil products. These non-oil export products are coal, cotton, timber groundnut, coca, beans, etc. Economic growth is the desire for higher levels or real per capita income, real output which must grow faster than the production of the economy in question (Ugwu, 2017).

Preceding to the oil boom of the 1970's, Nigeria's export trade was largely focused on non-oil products such as groundnuts, palm kernel, palm oil, cocoa, rubber, cotton, and coffee amongst others. Other non-oil exports so significant then were; tin ore, columbine, skin and cattle. Over 66% of total exports on the average were accounted for by these commodities, and this continued into the early 1970s. Agriculture through export of non-oil products had a high record of contribution up to 80% to the gross domestic product (GDP) and providing employment for over 70% of the working population (Ogunkola, 2008 cited in Ogunjimi, Aderinto and Ogunro, 2015). So, from the period the Structural Adjustment programme was introduced in Nigeria, concerted efforts had been made to diversify Nigerian export sector by promoting non-oil exports (Ogbonna, Uwajumogu, Chijioke and Agu, 2013).

Successive Nigerian governments on its part have shown efforts over the years to grow the non-oil export trade by establishing supportive policies. Some of these policies with varying degrees of successes include but not

restricted to: protectionism policy in the mode of import substitution policy of industrialization in the 1960s; trade liberalization policy (this took the form of Structural Adjustment Programme) of the mid 1980s and export promotion policy of 1990s which was executed through intensified policy support to Small and Medium Scale Enterprises (SMEs) to enhance productivity and subsequently, export of local products (Onodugo, Ikpe and Anowor, 2013).

1.1 Statement of the Problem:

The need for a change in the policy focus and a shift from oil dependency to the non-oil sector to motivate growth is very imperative if the Nigerian economy must return to the path of sustainable growth and external capability. This raises the need to re-examine the role of non-oil exports in the economic growth of Nigeria. Furthermore, there is huge number of studies that investigated the impact of non-oil export on economic growth across different countries and regions of the world. However, this study mainly focuses on the relationship between non-oil exports and dependent economy in Nigeria, using modern empirical econometric techniques. The contributions of non-oil sector to economic growth have been discouraging over the years. Non -oil exports constituted 33% of total exports in 2010, while oil exports constituted 67% in the same year as against non-oil export's contribution of 67% and oil export's contribution of 33% in 1970 (CBN, 2010). Non-crude oil exports rose by over 30% in value between 2018 and 2019. The government in Nigeria disclosed that the total value of exports grew by 2.5% to hit ₦14.4 trillion as at the 3rd quarters of 2019 (Okunade, 2019).

Thus, the major problem currently facing the Nigerian economy is the substantial decreased in price of crude oil in 2020 due to the COVID-19 pandemic and the 2020 Russia-Saudi Arabia oil price war and still, Nigeria is over relying on petroleum products without considering the enormous potential of non-oil exports particularly agricultural crops. This is traceable

to the decline in non-oil exports and loss of market share in global non-oil trade performance from 40% in 1970 to 5% in 2010 (Abogan, Akinola and Baruwa, 2014; Krauss, 2020). Although, initiatives and strategic programmes have been enacted for the purpose of economic diversification and resurging the fortunes of agriculture for the Nation's growth as it will reflect on the level of Gross Domestic Products (GDP).

1.3 Significance of the Study

The relevance of this study is to enable the government to determine the inadequacies and difficulties that have been confronting the non-oil exports in Nigeria that can be helpful in the future. It will enable the policy makers such as the Central Bank of Nigeria (CBN) and relevant stakeholders to implement various policies and reforms with the aim of restructuring our economy. Also, it will be vital for existing knowledge and enlightening the general public on the importance of non-oil exports and sub-sectors in sustainable economic growth in Nigeria and will bring into light facts that are essential for Nigerian economic growth.

2.0 Literature and Theoretical Reviews

Export earnings shoulder vital significance not only for developing, but also for developed countries. Developed countries mainly export capital and final goods, while the main part of export of developing countries consists of mining-industry goods especially natural resources (Ewubare, Ajie and Ojiya, 2017). It has been rightly established that export trade is an engine of growth as it enhances employment generation through the development of export oriented industries, increase foreign exchange earnings and improves balance of payment position of a given economy.

Non-oil sector comprises those groups of economic activities which are outside the petroleum and gas industry such as manufacturing, agriculture, telecommunication, service, finance, tourism, real estate, construction and health sectors. Mostly, non-oil agricultural products such as groundnuts,

palm kernel, palm oil, cocoa, rubber, cotton, coffee, beans, hides, skin and cattle surpassed Nigeria's export trade in the 1960s. But it was the discovery of oil boom that shifted the attention of Nigeria from non-oil exports to mono-cultural economy since the 1970s. So, the increasing of petroleum export has weakened non-oil exports in Nigeria (Onodugo, Ikpe and Anowor, 2013).

Exports play a vital role in the growth of any economy just as Ricardo (1817) pointed out that foreign trade is highly beneficial to a nation. Also, as observed by Singh (2010), trade is one of the several catalysts of productivity and growth and hence its contribution is contingent on its weight in the aggregate economic activity. The knowledge of this has helped many nations to achieve economic growth and development. In light of this, the Nigerian economy left import substitution policies for the export promotion strategies or export-led growth approach.

Export promotion strategies are policies that encourage exports, often through the free movement of capital, workers, enterprises, and students; a welcome to multinational corporations; and open communications (Todaro and Smith, 2011).

According to Abou-Stait (2005), an export led growth strategy aims to provide producers with incentives to export their goods through various economic and governmental policies. These strategies are aimed at increasing the level of national output in order to increase the volume of exports of the nation. Also continued reliance on developed countries as markets for oil and non-oil exports has caused Nigeria great misfortunes, as recessions in developed countries are usually fully transmitted to Nigeria.

Onwualu (2009), identifies key impediments to the growth of the non-oil sector as follows: Weak Infrastructure as a national challenge; Supply side

constraints due to low level of technology; Low level of human capital development in general; Weak Institutional framework in general and Poor Access to finance.

Consequently, efforts have been made over the years by Nigerian governments to grow the non-oil sector of the economy by initiating supportive policies and incentives to encourage the diversification of the economy. These policies can be classified as follows:

Protectionism Policy (1960 to 1986) - Import substitution industrialization was aimed at expanding the industrial base, enhancing cash crop exports, encouraging farmers to expand their farms and increasing the production of cash crops. The ultimate goal was to protect domestic industries that were set up to produce import substitutes.

Trade Liberalization Policy - Trade policy of this era was aimed at deregulation, commercialization, privatization and liberalization of the economy in order to achieve greater openness to trade and integration with the world economy. This policy during Structural Adjustment Programme (SAP) was to tackle the challenges of imbalances in the economy and thereby pave way for sustainable economic growth and development.

Export Promotion Policy – After SAP era, government policies from 1999 till date are aimed at facilitating the diversification of the economy through policy support to SMEs to enhance the export of their products. Export grant, as reported by Onwualu (2012), is given to exporters to cushion the impact of infrastructural disadvantages faced by Nigerian exporters and to make exports competitive in the international market.

Nigerian Agricultural Policy (1988 and 2000) - Under the Nigerian Investment Promotion Commission (2015) web-feed, the then comprehensive overview on the agricultural policy document was

amended with a new policy document with more improved delivery and goals including to achieve self-sufficiency in basic food production and the attainment of food security; to increase supply of agricultural raw materials for industries; to generate gainful employment; to increase production and processing of export crops through sophisticated technological means and to promote the increased application of modern technology to agricultural activities involving exports.

Promoting Small and Medium-scale Enterprises (SMEs) - According to Adeyemi and Abiodun (2013), the state of the economy is well-versed by the vast failure of the Import Substitution Industrialization model because local firms could not compete globally, draw backs from the transformative roles of Small and Medium scale Enterprises (SMEs) in other countries, and the Government undertook the promotion of SMEs for the Nigerian economy. The major features of SMEs initiative that can benefit Nigerians include providing the environment for the development of indigenous or domestic entrepreneurial, technical and marketing skills. It serves as an important source of raw materials and intermediate inputs for large scale industries. SMSs serve as a major vehicle for mobilization of savings and domestic capital formation and act as catalysts for market competition because of the ease of entry and exit in the activities of sub-sectors and make use of highly Labour-intensive technologies.

The Unbalanced Growth Theory

The custodians of the unbalanced growth theory include scholars like, Hirschman, Streeten, Fleming and Singer (1968). They promulgated the theory of unbalanced growth as a plan for development and growth to be used by underdeveloped countries. The theory emphasizes the need for investment in key strategic sectors of the economy rather than all the sectors simultaneously, for instance, investing into agriculture exports. According to this theory, the other sectors would genuinely develop themselves via what is called "Linkages effect". The theory contends that an intentional

unbalancing of the economy in agreement with predetermined plans by researchers and scholars, is the best means to attain economic growth of a nation. An ideal case maintains that when disequilibrium calls for a development move, this should in turn lead to further disequilibrium and soon ad-infinitum. Hirschman, (1968) incited in Dodaro (1991) observed that development has proceeded in this way with growth being transmitted from the key leading sectors such as agriculture or industry of the economy to other sub- sectors.

2.1 Empirical Review:

There are numbers of studies on non-oil exports and economic growth in Nigeria which include;

Ijirshar (2015) studied the effects of non-oil export on the Nigerian economy for 41 years from 1970 – 2011. The study adopted Johannsen co-integration test and error correction model (ECM) for significance among the variables (NOEX, TOP, EXCR, INFL, GDP). The result from the co-integration test revealed a long-run equilibrium relationship among the variables between the periods of 1970 to 2011. There was a positive contribution of non-oil export to the economic growth of Nigeria from the result of error correction model. The study recommends that measures should be taken to diversify, reduce and eliminate the supply constraints that determine the performance of the export sectors so as to maximally exploit the advantages of other sectors via export promotions of non-oil products.

Onodogu, Ikpe and Anowor (2013) investigated the impact of non-oil exports on the Nigerian economic growth for 31 years from 1981 – 2012. The study used secondary data sourced from CBN statistical bulletin. Then, it adopted the endogenous growth model, augmented production function, co-integration and conventional tests for mean reversion to test for significance between non-oil exports and the economic growth of Nigeria.

The result showed that a weak impact of non-oil export existed and it influenced the change in the level of growth in the Nigerian economy.

Ulakpa (2013) examined the impact of non-oil exports on the economic growth of Nigeria for 24 years from 1986 – 2010. Multiple regression technique was used in analyzing the data in order to achieve the objective of the study. The result revealed that non-oil exports were statistically significant to Nigeria economic growth within the specified period. On the other hand, Government Expenditure (GEX) was not significant to Nigerian economy. Due to this, some recommendations were made which includes; encouraging financial institutions, improving in data collection and banking, efficient allocation and use of resources, and creating economic environment that will help boost the activity of the non-oil export sector.

Akinlo and Adejumo (2014) investigated the impact of exchange rate volatility on non-oil exports in Nigeria and found that exchange rate volatility has positive and significant effects on non-oil exports in the long-run while the short-run impact of the exchange rate volatility was statistically insignificant. The policy implication indicated that the exchange rate volatility was only effective in the long run but not in the short run in the Nigerian economy.

Olurankinse and Fatukasi (2012) used ordinary least square (OLS) to analyze the impact of non-oil exports on the growth of the Nigerian economy during the period 2000-2008. The findings revealed that non-oil export has positive effect on the growth of Nigerian economy during the period, though the performance in terms of output level and revenue generation was below expectation. They recommended the need to increase production in both agricultural and manufacturing sectors to ensure product availability for both local and export purposes. Also, there is a need to complete the export processing zones in earnest to promote the

establishment of export oriented firms that will produce solely for export market.

Abogan., Akinola., and Baruwa. (2014) examined the significant role of non-oil export on economic growth in Nigeria using the Ordinary Least Square (OLS) Method involving Error correction mechanism. The findings revealed that the impact of non-oil export on economic growth was moderate as a unit increase in non-oil export impacted positively by 26% on the productive capacity of goods and services in Nigeria during the period.

Adenugba and Dipo (2013) analyzed the effectiveness of Nigeria's export promotion strategies in diversifying the productive base of the Nigerian Economy from Crude oil as the major source of foreign exchange. Time series data ranging from 1981 to 2010 and regression analysis was adopted. The findings from the study revealed that non-oil exports have performed weakly.

3.0 Methodology

Model specification

The study employed the ex-post-factor research design where the data were collected from World Bank Indicators and Knoema Statistical bulletin. The study adopted descriptive statistical technique, ARDL cointegration bound test, error correction model, chi-square Wald test and Granger causality technique. And, the model is a revised version of the work of Ewubare, 2017.

GDP = f(NOIL, TOP, EXCR, INFL, INTR) …… equ 1.

Where;

GDP = Gross domestic product at current US$

NOIL = Non-oil proxied by non-oil exports

TOP = Trade openness

EXCR = Exchange rates

INFL = Inflation
INTR = Interest rates.

4.0 Results analysis and findings

Table 1: Descriptive Statistic for the variables

	GDP	NOIL	TOP	EXCR	INFL	INTR
Mean	1.88E+11	3.65E+10	31.68568	90.34568	19.61649	9.547027
Median	9.71E+10	2.09E+10	33.72000	101.7000	12.88000	6.220000
Std. Dev.	1.67E+11	3.80E+10	12.38392	87.61855	17.39837	11.31482
Skewness	0.853135	1.308201	-0.364261	0.761878	1.703329	3.623915
Kurtosis	2.270857	3.788068	2.175807	2.916767	4.692356	18.00064
Jarque-Bera	5.307969	11.51103	1.865476	3.590172	22.30698	427.8898
Probability	0.070370	0.003165	0.393475	0.166113	0.000014	0.000000
Sum	6.95E+12	1.35E+12	1172.370	3342.790	725.8100	353.2400
Sum Sq. Dev.	1.00E+24	5.19E+22	5521.016	276372.3	10897.32	4608.904
Observations	37	37	37	37	37	37

Source: Authors' Computation, 2020.

Table 1 showed the descriptive statistical technique of the variables where the value for mean ranged from interest rate (9.547027) to gross domestic product (1.88E+11). The median shows values from interest rate (6.220000) to gross domestic product (9.71E+10). The standard deviation of low variability and high variability. The kurtosis that measures the flatness and thickness of the distribution indicated that gross domestic, TOP and EXCR exhibited the flatness of the distribution while NOIL, INFL and INTR exerted the thickness of the variables because they are greater than 3. The Jarque-Bera which measures the normality of distribution ranged from TOP (1.865476) to INTR (427.8898).

Table 2: Philip-Perron Unit Root Test

Variables	I(0)		I(1)		Order of Integration
	PP-Stat	5% C. V	PP-Stat	5% C. V	
GDP	-0.388002	-2.943427	-3.691039	-2.945842	I(1)
NOIL	-1.479236	-2.948404	-6.455625	-2.954021	I(1)

TOP	-2.225900	-2.943427	-7.895115	-2.945842	I(1)
EXCR	1.530859	-2.943427	-4.167536	-2.945842	I(1)
INFL	-2.756436	-2.9s43427	-9.447210	-2.945842	I(1)
INTR	-10.46677	-2.943427			I(0)

Source: Authors' Computation, 2020.

Table 2 above shows the Phillip-Perron unit root test for the stationarity of the variables where only interest rate (INTR) is stationary at level while the remaining variables GDP, NOIL, TOP, EXCR, and INFL are stationary at 1st difference. Based on this fact, ARDL cointegration bound test would be employed to examine the long-run significant relationship among the variables.

Table 3: ARDL Cointegration Bound Test

Dependent Variable: GDP
Method: ARDL
Sample (adjusted): 1985 2018
Included observations: 30 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (3 lags, automatic): EXCR INFL INTR NOIL TOP
Fixed regressors: C
Selected Model: ARDL(4, 3, 3, 2, 3, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	0.020455	0.268968	0.076048	0.9419
GDP(-2)	0.470065	0.227119	2.069691	0.0839
GDP(-3)	0.188086	0.119994	1.567456	0.1681
GDP(-4)	-0.216069	0.069403	-3.113234	0.0208
EXCR	-1.59E+09	2.38E+08	-6.693223	0.0005

EXCR(-1)	1.03E+09	6.11E+08	1.679144	0.1441
EXCR(-2)	9.71E+08	7.19E+08	1.350776	0.2255
EXCR(-3)	1.85E+08	1.59E+08	1.162797	0.2891
INFL	-5714585.	1.45E+08	-0.039292	0.9699
INFL(-1)	1.33E+08	1.60E+08	0.830122	0.4382
INFL(-2)	77681611	1.90E+08	0.409823	0.6962
INFL(-3)	4.43E+08	1.65E+08	2.694087	0.0359
INTR	-1.55E+08	3.74E+08	-0.415153	0.6925
INTR(-1)	-6.64E+08	3.93E+08	-1.691096	0.1418
INTR(-2)	-5.04E+08	4.25E+08	-1.186134	0.2804
NOIL	0.703951	0.152089	4.628542	0.0036
NOIL(-1)	0.211801	0.173482	1.220880	0.2679
NOIL(-2)	0.663049	0.223250	2.969989	0.0250
NOIL(-3)	0.710170	0.266062	2.669190	0.0371
TOP	-76121260	3.92E+08	-0.194339	0.8523
TOP(-1)	93003932	3.07E+08	0.302723	0.7723
TOP(-2)	-7.46E+08	3.38E+08	-2.208679	0.0693
TOP(-3)	-3.61E+08	3.59E+08	-1.004718	0.3538
C	2.63E+10	1.36E+10	1.935290	0.1011
		Mean dependent		
R-squared	0.999729	var		2.10E+11
Adjusted R-squared	0.998689	S.D. dependent var		1.78E+11
		Akaike info		
S.E. of regression	6.44E+09	criterion		48.00052
Sum squared resid	2.49E+20	Schwarz criterion		49.12147
		Hannan-Quinn		
Log likelihood	-696.0077	criter.		48.35912
F-statistic	961.8274	Durbin-Watson stat		2.383895
Prob(F-statistic)	0.000000			

Source: Authors' Computation, 2020.

The above Table 3 showed the ARDL cointegration bound test results indicating that non-oil export (NIOL) has positive significant long-run relationship with economic growth in Nigeria, exchange rate (EXCR) exhibited negative significant long-run relationship with GDP, while inflation (INFL), interest rate (INTR) and trade openness (TOP) have insignificant long-run relationship with GDP within the specified period of 1981-2018.

Table 4: ADRL Error Correction Regression

ARDL Error Correction Regression Dependent Variable: D(GDP) Selected Model: ARDL(4, 3, 3, 2, 3, 3) Case 2: Restricted Constant and No Trend Sample: 1981 2018 Included observations: 30				
ECM Regression Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-0.442082	0.085180	-5.189966	0.0020
D(GDP(-2))	0.027983	0.052707	0.530910	0.6145
D(GDP(-3))	0.216069	0.038252	5.648492	0.0013
D(EXCR)	-1.59E+09	1.11E+08	0.000000	0.0000
D(EXCR(-1))	-1.16E+09	2.53E+08	0.000000	0.0000
D(EXCR(-2))	-1.85E+08	85391348	0.000000	0.0000
D(INFL)	-5714585.	77314250	0.000000	0.0000
D(INFL(-1))	-5.21E+08	77634585	0.000000	0.0000
D(INFL(-2))	-4.43E+08	93444686	0.000000	0.0000
D(INTR)	-1.55E+08	1.72E+08	0.000000	0.0000
D(INTR(-1))	5.04E+08	1.88E+08	0.000000	0.0000
D(NOIL)	0.703951	0.072136	9.758683	0.0001
D(NOIL(-1))	-1.373219	0.174626	-7.863782	0.0002

D(NOIL(-2))	-0.710170	0.162785	-4.362615	0.0048
D(TOP)	-76121260	1.56E+08	0.000000	0.0000
D(TOP(-1))	1.11E+09	2.21E+08	0.000000	0.0000
D(TOP(-2))	3.61E+08	1.90E+08	0.000000	0.0000
CointEq(-1)*	-0.537463	0.047952	-11.20832	0.0000
		Mean dependent		
R-squared	0.994145	var		1.00E+10
Adjusted R-squared	0.985850	S.D. dependent var		3.83E+10
		Akaike info		
S.E. of regression	4.55E+09	criterion		47.60052
Sum squared resid	2.49E+20	Schwarz criterion		48.44123
		Hannan-Quinn		
Log likelihood	-696.0077	criter.		47.86947
Durbin-Watson stat	2.383895			

Source: Authors' Computation, 2020.

Table 4 indicated that non-oil export has short-run positive significant impact on economic growth (GDP) in Nigeria, while EXCR, INFL, INTR and TOP have short-run negative significant impacts on economic growth (GDP) with the time series (1981-2018) used. Anyway, there is causal relationship among the variables running from the independent variables to the dependent variable as confirmed by CointEq(-1) having the coefficient of -0.57463) and p(value) of 0.0000.

Table 5: Breusch-Godfrey Serial Correction LM Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	0.349644	Prob. F(2,4)	0.7245
Obs*R-squared	4.464213	Prob. Chi-Square(2)	0.1073

Source: Authors' Computation, 2020.

From Table 5 above, the results showed that the value of the f-statistic is 0.349644 whereas the p-value (0.7245) is more than 5%. Hence, the H_0 of no serial correlation is accepted and reject H_1. Thus, the model can be relied upon as a basis for making inferences and policy recommendations.

Table 6: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	0.278304	Prob. F(23,6)	0.9884
Obs*R-squared	15.48504	Prob. Chi-Square(23)	0.8764
Scaled explained SS	0.637956	Prob. Chi-Square(23)	1.0000

Source: Authors' Computation, 2020.

From the above table 6, the heteroscedasticity test has f-statistic value of 0.278304 and the probability value is more than 5% at 0.9884. Based on this information, the null hypothesis (H_0) of no heteroscedasticity is accepted for the variables.

Table 7: Pairwise Granger Causality

Pairwise Granger Causality Tests				
Sample: 1981 – 2018				
Lags: 2				
Null Hypothesis	Obs	F-Statistic	Prob	Decision
NOIL does not Granger Cause GDP GDP does not Granger Cause NOIL	33	4.52752 0.05303	**0.0198** 0.9484	Uni-causality
TOP does not Granger Cause GDP GDP does not Granger Cause TOP	36	1.71048 0.67210	0.1974 0.5179	No causality

EXCR does not Granger Cause GDP GDP does not Granger Cause EXCR	36	3.83564 3.04006	**0.0325** 0.0623	Uni-causality
INFL does not Granger Cause GDP GDP does not Granger Cause INFL	36	0.00252 1.34977	0.9975 0.2741	No causality
INTR does not Granger Cause GDP GDP does not Granger Cause INTR	36	1.26515 0.79769	0.2964 0.4594	No causality
TOP does not Granger Cause NOIL NOIL does not Granger Cause TOP	33	0.52461 1.24918	0.5975 0.3022	No causality
EXCR does not Granger Cause NOIL NOIL does not Granger Cause EXCR	33	1.46666 1.07502	0.2479 0.3550	No causality
INFL does not Granger Cause NOIL NOIL does not Granger Cause INFL	33	0.06240 1.44739	0.9396 0.2522	No causality
INTR does not Granger Cause NOIL NOIL does not Granger Cause INTR	33	0.20609 0.31483	0.8150 0.7325	No causality
EXCR does not Granger Cause TOP TOP does not Granger Cause EXCR	36	1.32277 0.85837	0.2810 0.4337	No causality

INFL does not Granger Cause TOP TOP does not Granger Cause INFL	36	0.90530 0.58087	0.4148 0.5654	No causality
INTR does not Granger Cause TOP TOP does not Granger Cause INTR	36	0.08958 0.33697	0.9146 0.7165	No causality
INFL does not Granger Cause EXCR EXCR does not Granger Cause INFL	36	0.76785 1.77432	0.4726 0.1864	No causality
INTR does not Granger Cause EXCR EXCR does not Granger Cause INTR	36	0.40652 1.42861	0.6695 0.2550	No causality
INTR does not Granger Cause INFL INTR does not Granger Cause INFL	36	0.49621 4.15020	0.6136 **0.0253**	Uni-causality

Source: Authors' Computation, 2020

Table 7 from the above showed the direction of causality among the variables where non-oil export (NOIL) granger caused economic growth (GDP) in Nigeria but GDP did not granger cause NOIL. Exchange rate (EXCR) also granger caused GDP running from EXCR only and inflation rate (INFL) granger caused interest rate (INTR) while INTR did not granger cause INFL. But the remaining variables showed no causality.

5.0 Conclusion and Policy Recommendations

Having examined the relationship between Non-oil exports and economic growth in Nigeria between 1981 and 2018, it was concluded from the

findings that there existed positive significant long-run relationship between non-oil exports and economic growth which is aligned with the work of Ewubare, et. al., (2107). Also, non-oil export has a positive significant short-run impact on economic growth in Nigeria while EXCR, INFL, INTR and TOP have negative significant short-run impacts on economic growth. The Granger causality test established uni-directional causality between NOIL and GDP; and EXCR and GDP which ran from non-oil exports (NOIL) and exchange rates (EXCR) to economic growth (GDP). It is therefore recommended that adequate attention should be paid on non-oil sector in order to improve its performance and conducive environment should be created for all to boost the activities of non-oil export. All the economic strategies backing up non-oil exports should be revamped in order to encourage non-oil export to enhance Nigeria's foreign earnings.

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