The Nexus of Non-oil Export and Economic Growth: a case of Nigeria.

Agu Anthony Ogbonna, Adokwe Ekene Ignatius, Agu Sunday Virtus

Department of Economics, Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria. Phone no 08033196231

Department of Economics, Chukwuemeka Odumegwu Ojukwu University, Anambra state, Nigeria Department of Economics, Enugu State University of Science and Technology, Nigeria

Abstract: The exportation of non-oil products from agriculture, construction, solid minerals and services has significant role to play in inducing the economic growth of any developing economy. Nigerian economy, which is abundantly endowed with natural and human resources has heavily depended on the exportation of crude oil for her foreign exchange earnings and the growth of her economy. This study therefore, intends to examine the role of non-oil exports in influencing economic growth in Nigeria for the period of 1986 to 2018. The sources of the data were: Central Bank of Nigeria, National Bureau of Statistics and World Development Indicator. Time series data were adopted with the use of Real Gross Domestic Product, Non-oil Exports, Labour Force Participation Rate, Interest Rate and Exchange Rate variables for the analysis. The preliminary tests of Unit Root and Granger Causality were conducted on the time series data, while Autoregressive Distributed Lag (ARDL) technique was employed for the main analysis. The study found that, a unidirectional causal relationship existed between non-oil exports and economic growth in Nigeria. The findings of the study also showed that while non-oil export has a negative impact on economic growth in the short run, it however, has a positive impact in the long run. Based on our findings, the study recommended among others that capital investment in infrastructural base of the economy should be intensified to drive manufacturing activities in the non-oil exports.

Keywords: Non-oil exports, Economic growth, Export led policy, Economy, Nigeria.

Date of Submission: 10-02-2020 Date of Acceptance: 25-02-2020

I. Introduction

The expansion of non-oil export trade could lead to growth in an economy when the proceeds from the trade are judiciously utilized. The non-oil export trade expansion can as well discourage growth if the trade benefits are not ploughed back into the productive sectors of the economy. This has generated a long-standing debate concerning the efficacy of export trade in achieving or discouraging economic growth in the developing economies of the world. Though numerous empirical studies have provided results on the nature of potential impact which exports had on economic growth in some economies using different methodologies, an agreement on such impact has not been reached. According to Bbaale and Mutenyo (2011), the relationship between export trade and economic growth has remained a controversial issue.

One of the school of thoughts believed that export trade induces economic growth which follows the standpoint of Export-Led Growth (ELG) hypothesis (Arnade & Vasavada., 1995; Fosu, 1990; Thornton, 1996). The other argued in support of the Growth-Led-Export hypothesis (GLE) citing that growth precedes export growth (Lancaster, 1980; Krugman, 1984; Henriques & Sadorsky, 1996; Al-Yousif, 1999; Kemal & Qadir, 2005). The basis of the above contention is that knowledge and technological development is an output of economic growth in different sectors of the economy which was achieved by the effect of learning by doing. Thus, the basis for assessing export trade particularly in commodities in which the country has a comparative advantage is the holistic effect on the entire economy (Chukwu, 2014).

Since exploration of oil in commercial quantities in 1970's, the Nigerian economy has been petroleum driven. Though the economy is diversified, 90% of the country's foreign exchange comes from oil sector. For instance, the non-oil growth only got highest in 2013 recording 8.42% as shown in figure 1.1.



Source: Authors' Compilation 2020 Using Data from National Bureau of Statistics.

Figure 1.1 showed a downward trend of non-oil growth though in a positive form from 2013 to 2016, where it recorded a negative growth of -0.22% which is also the poorest growth rate for the period of assessment. Picking up from the negative trend, the non-oil growth in Nigeria stood at 0.47% in 2017. The attainment of more positive growth rate in the non-oil sector of Nigeria may be likened to the outcome of aggressive non-oil export promotion policies for the past decade in the country.

The analysis in Fig.1.1 also showed that oil sector growth rate recorded almost negative growth rate for all the years examined except in 2017 when it had the highest positive growth rate of 4.69%. The least growth rate was witnessed in 2016 with a record of -14.45%. From the trend analysis, oil sector growth rate had a rapid fall from 2013 to 2016 which was the worst growth period for the period under assessment. Considering the more negative trends in the growth rate of non-oil sector, it is obvious that the economy has de-emphasized the over-dependency syndrome in Nigeria.

Although oil sector accounts for just 10 percents of the country GDP, it represents 94% of export earnings and 62% of Government revenues (Federal and State) in 2011-2015. The real growth of oil sector was 25.89% (year-on-year) in Q3 2017. This denotes a rise of 48.92 per cent (quarter on quarter) in the year 2016. Economic growth also rose by 22.36% quarter on quarter by year 2017 which was reviewed to 3.53 per cent from 1.64 per cent. The oil sector increased by 21.10 per cent in Q3 2017 Quarter-on-Quarter. As a share of the economy, the Oil sector recorded 10.04 per cent contribution total real GDP in Q3 of 2017, the contribution to GDP in the same year is 8.9 per cent from 9.04 per cent achievement in the year 2016. In real terms, a growth of -0.76 per cent was recorded in non-oil sector in the reference quarter. This shows a decrease by -0.79 per cent as against the records of 2016 and a decrease of -1.20 per cent in relation to Q2 of 2017. The non-oil sector in Nigeria which is majorly driven by Agriculture, Electricity and other services, steam and air conditioning supply, and gas has in real terms achieved 89.96 per cent contribution to GDP. This is lower than 91.91per cent recorded in Q3 of 2016, and 90.96 per cent in Q2 of 2017 respectively. The Non-oil export in Nigeria has increased by 55 per cent to monetary value of \$1.26bn in 2017. This shows a representation of 2.6 per cent of total export trade which is proposed at \$48bn for 2017. The implication is that, Nigeria is still heavily dependent on oil sector for its export (NBS, 2017).

Premising on the above conflicting findings on the relationship between non-oil export and economic growth, this study would investigate the effect of non-oil export on the economy of Nigeria using time series data from 1986-2018, and adopting Autoregressive Distributed Lag model approach.

II. Theory and Related Literature

2.1 Review of Export-Led-Growth Theory

The law of comparative cost advantage by David Ricardo states that economies should specialize in production of goods and services in which they are most efficient when compared to other economies, and

should exchange the goods and services with rest of the economies of the globe. The situation demands that an economy can earn foreign exchange through exporting her commodities, from which it can import from other countries the commodities of her needs. An economy of high comparative advantage is expected to generate higher revenue from exports which would be available for more importation of basic commodities in need of. The theory of comparative cost advantage gave rise to a new dimension of economic policy called "Export-led growth (ELG) hypothesis" (Zuniga, 2000).

The ELG hypothesis states that the expansion of export is a major promoting factor for long-run economic growth. According to Giles and Williams (2000), an export-led-growth theory is an international trade literature which proposes that exports exhibit a positive impact on the economic growth. To justify ELG hypothesis, different arguments can be theoretically put forward. Firstly, the demand side view argued that in the domestic markets, sustained demand growth cannot be attained, because any economic impulse that is centered on the expansion of local marked is likely to be exhausted rapidly. On the contrary, export markets are virtually unlimited, thus growth restrictions on the demand side are not involved. Export therefore can be a substance for growing income as a part of aggregate demand (Herzer et. al., 2004).

The main idea of export-led growth hypothesis is that production for exportation leads to higher efficiency which raises the level of output, thereby increasing national income which would lead to meaningful economic growth. Besides, there is a direct relationship between microeconomic theory on production possibility frontiers and export-led growth model. However, exports is specified as an independent variable in a production function, and this creates a link between exports and aggregate output which forms the foundation of large number of available pragmatic studies on trade and development (Zuniga et. al., 2000).

There has been various explanations on ELG hypothesis by different authors pointing out different views. According to Sharma and Panagiotidis (2003), through the use of better management techniques, some positive externalities, dynamic competitiveness, efficient allocation and increasing scale of economies', and increase in export could lead to growth in output. There would be reallocation of resources for export oriented industries if the above factors took place in the export sector. This situation could unfavorably influence the other sectors, because of the net positive impact and improvement in the foreign exchange market which is expected to have a positive effect on productivity rate. In their own view, Rana and Dowling (1991), as long as the developing economies are always in lack of foreign exchange other than reallocation of resources, export will be favourable to the balance of payment. To Esfahani (1991), the emphasis was on the external impacts of the orientation in export, noting that more experienced managers and unskilled labors have tendency of moving to competing sectors in importation thereby giving room for increase in output. This implies that the ELG hypothesis shows that growth in export brings about increase in the productivity of the economy.

It is imperative to state that ELG hypothesis admits that from output to export, there may be a causal relationship between the two macroeconomic variables. In furtherance to this, Lancaster (1980) and Krugman (1984) argued that from output to exports, there is a one way causality. They maintained that growth in output has a positive impact on productivity, and that labor and capital cost's reduction would lead to increase in exports.

2.2 Related Empirical Studies

On export and economic growth in Nigeria, Ozughalu (2009) assessed the impact of oil and non-oil export on the growth of Nigerian economy using granger causality test. The study found that a unidirectional causality exists from oil export to GDP which lends support to workability of export-led growth theory in Nigeria. The study also unveiled that non-oil export does not granger cause economic growth in Nigeria.

Using vector error correction model and granger causality test' technique, Rahmaddi and Ichihashi (2011) analyzed export and economic growth in Indonesia. The study variables were economic growth and export covering the period of 1971 to 2008. Their findings showed that, a bi-directional causality exists between exports and economic growth for the period of the study in Indonesia.

Velnampy and Achchuthan (2013) studied export, import and economic growth in Sri Lanka using annual time series data from 1970 to 2010. Applying ordinary least squares method with import, export and economic growth as their variables, the study found that export has a positive but significant impact on the economic growth.

In their investigation of causal relationship between non-oil international trade and the GDP using a panel of 11 oil export countries, Mehrara (2013) unveiled that a strong causality abound between economic growth and trade in the selected oil exporting countries. The variables included in their study were oil revenue, economic growth and oil export, while the technique used for their analysis was panel unit root test and panel cointegration analysis.

Adopting ordinary least square technique, Adenuga and Dipo (2013) studied non-oil exports and economic growth in Nigeria with emphasis on agricultural sector and mineral resources. Employing annualized time series data, they introduced non-oil export and GDP as the variables of their study. The outcome of their study showed that, non-oil exports has insignificant impact in the economy of Nigeria.

In their econometric investigation of non-oil export and economic growth in Nigeria, Onodugo, Ikpe and Anowor (2013) found a very weak and infinitesimal impact of non-oil export on the economic growth. They adopted annualized time series data from 1981-2012 using long-run regression technique. The variables of their study included oil export, non-oil export, GDP, and gross capital formation.

Olabanji and Henry (2013) econometrically analyzed export and economic growth in Nigeria using time series annual data from 1970-2010. They adopted cointegration and Granger causality tests for their analysis of causal relationship between the variables of GDP, exports and imports. The outcome of their study showed, a unidirectional causality between export and economic growth in Nigeria.

Nwachukwu (2014) did cross examination of non-oil export strategies on economic growth in Nigeria using regression analysis on the time series annual data from 1970 to 2013. The findings showed that non-oil export has a positive impact on the economic growth of Nigeria.

Ogunjimi, Aderinto, and Ogunro (2015), analyzed the relationship between non-oil sector and economic growth from 1980-2012 using time series annualized data. They employed cointegration test and Error correction model technique for the analysis, and adopted GDP, non-oil export, trade openness, oil export and exchange rate as their variables. The results of their study indicated that a long-run relationship exists between the variables, and that non-oil export has a negative but significant impact on the economy of Nigeria.

The study of Igwe, Edeh and Ukpere (2015) which centered on the impact of non-oil sector on economic growth in Nigeria, was done using Johansen cointegration test and vector error correction mechanism. Spanning from 1981-2012, their study employed annualized time series data using GDP and non-oil export as their variables. Their study found that a long-run and short-run relationship existed between the variables.

Most recently, Kawai (2017) took analysis of the impact of non-oil exports and economic growth in Nigeria with the use of Phillip Perron and Engle Granger model for cointegration. Using time series annual data from 1980-2016 for the analysis, the study included annual growth rate, non-oil export and exchange rate as its variables. The findings of the study showed a strong evidence of cointegrating relationship of non-oil exports in influencing level of change in the rate of economic growth in Nigeria.

Similarly, Kromtit, Kanadi, Ndagra and Lado (2017) studied the contribution of non-oil exports to economic growth in Nigeria from 1985-2015. They chose ARDL technique to ascertain the relationship between the variables. The outcome of their research showed that a positive but significant relationship existed between non-oil exports and economic growth in Nigeria.

It has been shown from the empirical literature that non-oil export has an existing relationship with economic growth. However, the form of the relationship has not been conclusive depending on the methodology and nature of data adopted for each study. Thus, there is need to re-investigate the nature of relationships existing between non-oil export and economic growth in Nigeria using more recent data and improved econometric approach.

III. Research Methods

3.1 Methodological Framework

This study adopted the framework of Cobb-Douglas Production function. According to Tan (2008), this functional form of production function was recommended by Knut Wicksell and was adopted by Charles Cobb and Paul Douglas (1928). The production function was used in modelling the economy of American growth from 1899-1922.

The production function model which shows that the output is dependent on the labour and capital input invested in the economy while keeping other factors that influence economic performance constant is stated thus:

P = F(L,K)(3.1)

Where,

P = total production

L = input of labour

K = input of capital

The total production (P) is likened to all value of goods and services produced in an economy within a given period of time, which is equivalent to total output (Y). Therefore, expanding the model in eq.(3.1) to accommodate non-oil export variable, we have;

Y = f(L,K,X,Z).....(3.2)

Where X represent non-oil export and Z denotes other variables that can influence output growth in the economy.

3.2 Model specification

We specify the model of this study by transforming the model in equation (3.2) to suit the objective of this study.

Thus, we state our mathematical function as; RGDP = f(NOEXP, LFPR, INT, EXR).....(3.3) Where; RGDP = the Real Gross Domestic Product, and a proxy for economic growth NOEXP = Non-oil export LFPR = Labour force participation rate INT = Interest rate EXR = Exchange rate. Expressing equation (3.3) into econometric and log-linearized form, we have; LogRGDP_t = $\beta_0 + \beta_1 \text{LogNOEXP}_t + \beta_2 \text{LFPR}_t + \beta_3 \text{INT}_t + \beta_4 \text{EXR}_t + \mu t$(3.4)

3.3 Method of Analysis

This study adopted different econometric tools for its data analysis to achieve the objectives of the study and produce consistent estimates.

Firstly, the Phillip Perron test was employed to test for the unit root which intended to unveil the characteristics of the data and their suitability for regression analysis. This method of unit root test was selected due to its non-parametric nature and ability to cater for serial correlation problem in the error term. Having observed from the existing literature that most of the financial time series were non-stationary at the level form, which is an indication of cointegrating equations among the variables; the need for long run analysis on the relationship between the two main variables of this study arose.

The Granger causality test was also employed to validate or disprove the ELG hypothesis in Nigeria.

To determine the effect of non-oil exports on the economy of Nigeria; the study would adopt Autoregressive Distributed Lag (ARDL) Technique. The choice of ARDL approach is to take care of different order of integration as identified in the variables and identify the long run relationship between the non-oil export and economic growth in Nigeria.

3.4 Data

The data were sourced from Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS) and World Development Indicators(WDI) database from 1986-2018.

IV. Results

4.1 Philip Perron Test

To check for the presence or absence of unit root in our data, we adopted Phillip Perron test. The adoption of this technique is based on its ability to cater for the problems of serial correlation which is inherent with time series data. Besides, the Philip Perron test had been adjudged a superior test over Augmented Dickey Fuller test.

Table 1.1 Philip Perion Test					
Series	PP Statistic	5% Critical Level	Order of Integration	Interpretation	
LogRGDP	-6.003560	-1.952473	I(2)	No Unit root	
LogNOEXP	-4.927412	-1.952066	I(1)	No Unit root	
INT	-10.52949	-1.952066	I(1)	No Unit root	
LFPR	-3.454120	-1.952473	I(2)	No Unit root	

Table 1.1 Phillip Perron Test

Source: Authors' Compilation 2020 Using Data from CBN Bulletins.

From table 1.1, it was indicated that LogNOEXP and INT series have unit roots. But after the first differencing, the series became unit roots-free. Thus, we can conclude that the variables were integrated of order one I(1). Furthermore, LogRGDP and LFPR series have unit roots up to their first difference levels, but after their second differencing, they became free from unit root problem. In order words, we conclude that the two variables were integrated of order two I(2).

Table 1.2 .	Granger	Causality	Test
--------------------	---------	-----------	------

Sample: 1986 -2018 Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Prob.
LOGNOEXP does not Granger Cause LOGRGDP	31	2.97510	0.0686

Pairwise Granger Causality Tests

LOGRGDP does not Granger Cause LOGNOEXP	2.50543	0.1012

Source: Authors' Compilation 2020 Using Data from CBN Bulletins.

To validate or invalidate the ELG Hypothesis in Nigeria, we ran Granger causality test between non-oil export and economic growth. The result from table 1.2 indicated that a unidirectional causality from non-oil export to economic growth abound in Nigeria for the period of this study. The implication of this finding is that, non-oil export only can lead to economic growth in Nigeria, while economic growth becomes an insignificant factor in the promotion of non-oil export in Nigeria. This finding has also validated the ELG hypothesis in the economy of Nigeria.

4.2 Estimated ARDL Model:

Considering the fact that our variables were integrated of different orders, we introduce ARDL model to cater for the different levels of unit root presence' in our data.

 $LOGRGDP_{t} = \delta_{1} + \delta_{2} LOGRGDP (-1) + \delta_{3} LOGNOEXP_{t} + \delta_{4} LOGNOEXP (-1) + \delta_{5} LOGNOEXP (-2) + \delta_{6} LOGNOEXP (-3) + \delta_{7} LOGNOEXP (-4) + \delta_{8} LFPR_{t} + \delta_{9} INT_{t} + \delta_{10} INT (-1)$ (4.1)

Dependent Variable: LOGRGI)P			
Method: ARDL				
Dynamic regressors (4 lags, au	tomatic): LOGNOE	XP LFPR INT		
Fixed regressors: C				
Number of models evalulated:	125			
Selected Model: ARDL(1, 4, 0	, 1)			
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGRGDP(-1)	0.990317	0.066019	15.00054	0.0000
LOGNOEXP	-0.935560	1.725230	-0.542281	0.5939
LOGNOEXP(-1)	4.559690	2.026960	2.249521	0.0365
LOGNOEXP(-2)	2.027210	2.013630	1.006744	0.3267
LOGNOEXP(-3)	-4.009771	2.103091	-1.906609	0.0718
LOGNOEXP(-4)	-6.713740	1.802517	-3.724647	0.0014
LFPR	80.53090	28.85326	2.791050	0.0116
INT	111.1731	57.00546	1.950218	0.0661
INT(-1)	84.50309	55.64445	1.518626	0.1453
С	-11506.39	3249.326	-3.541162	0.0022
R_squared	0 998727	Mean dependent	var	303// 88
Adjusted P squared	0.998127	S D. dependent vor		18816.40
S E of regression	815 0/05	Akaika info criterion		16 51117
Sum squared resid	12621809	Schwarz criterion		16 98265
Log likelihood	220 4120	Hannan Quinn aritar		16 65994
E statistia	-229.4120	Hannan-Quinn criter.		1641255
Prob(E statistic)	0.000000	Durom-watson si	1.041555	
riou(r-statistic)	0.00000			

Table 1.3. ARDL Short run Results

Source: Authors' Compilation 2020 Using Data from CBN Bulletins.

The results from table 1.3 showed that non-oil export has a negative relationship with economic growth in Nigeria in the short run. This finding is in line with that of Ogunjimi, Aderinto and Ogunro (2015). The results also indicated that one percent increase in the non-oil export would lead to 94% decrease in the economic growth of Nigeria. This implies that the potential benefits from non-oil export may not be derived instantaneously. This may be due to some constraints which diversification to non-oil export may place on the economy, and the timeline for the completion of technical and institutional reforms that will boost non-oil exports. These findings are also in line with the fact that many factors cannot be varied in the short run. Besides, the provision of infrastructural facilities that will drive industrialization in the country is a long term and capital intensive projects. Thus, it may take longer time to provide the enabling environment for non-oil export before it will start yielding positive returns to the economy. This is what is referred to as "development processes" in a growing economy like Nigeria. Consequently, there is need for strong commitments and prioritization of social

over heads to attain diversification status that will drive economic growth in the long run.

Labour which is represented by labour force participation rate has found to be directly related with economic growth. This implies that effective labour force remains a boost to economic growth in Nigeria. Again, the impact of labour force on the economic growth in Nigeria is significant considering the leading role of this invalu able variable in the country. Therefore, availability of human resources should be efficiently utilized to improve the economy of Nigeria. Also, emphasis should be made on capacity building at all levels of human resources to provide necessary skills needed to improve the productivity of labour in the country.

The cost of capital, interest rate is found to be positively related with economic growth in Nigeria. This may not be unconnected with the role of Central Bank in regulating the monetary policy rate (MPR) in Nigeria. This has also helped in stabilizing the interest rate level in the country which has resulted in the creation of positive impact of interest rate on the economy Nigeria. Another critical factor that could lead to this form of relationship between interest rate and economic growth is financial inclusion rate. If more Nigerians are financially excluded, the reactions to changes in interest rate will come from few financially included individuals which may not give a true picture of what the relationship between the two variables would be.

Tuble IIII	THE BOILD HOUSE	I offit and Dou	nas rest	
Dependent Variable: D(LOGRGD	P)			
Selected Model: ARDL(1, 4, 0, 1)				
Case 3: Unrestricted Constant and	No Trend			
С	onditional Error Corre	ction Regression		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-11506.39	3249.326	-3.541162	0.0022
LOGRGDP(-1)*	-0.009683	0.066019	-0.146668	0.8849
LOGNOEXP(-1)	-5.072172	2.025570	-2.504071	0.0216
LFPR**	80.53090	28.85326	2.791050	0.0116
INT(-1)	195.6762	79.42399	2.463691	0.0235
D(LOGNOEXP)	-0.935560	1.725230	-0.542281	0.5939
D(LOGNOEXP(-1))	8.696301	1.766774	4.922136	0.0001
D(LOGNOEXP(-2))	10.72351	1.660299	6.458785	0.0000
D(LOGNOEXP(-3))	6.713740	1.802517	3.724647	0.0014
D(INT)	111.1731	57.00546	1.950218	0.0661
* p-value incompatible with t-Bo	ounds distribution.			
** Variable interpreted as $Z = Z(-$	1) + D(Z).			

Table 1.4.	ARDL Long	Run Forn	and Bounds	Test
		,		1000

Source: Authors' Compilation 2020 Using Data from CBN Bulletins.

To further establish the relationship between the non-oil export and economic growth in Nigeria, a long run test was conducted in this study. The results from table 1.4 show that, after differencing the lags of the log of non-oil export; that a long run positive relationship exists between non-oil export and economic growth in Nigeria. This justifies the potentials of non-oil export in improving the economy of developing countries such as Nigeria in the long run. This also synchronizes with the policy recommendations of most researchers that promotion of non-oil export will drive the economy of Nigeria into sustainable growth. Our findings here synchronize with that of Nwachukwu (2014) and Kromit *et al* (2017).

V. Conclusion

This study investigated the relationship between non-oil export and economic growth in Nigeria using time series data spanning from 1986 to 2018. After appraising the Export Led Growth Hypothesis, various empirical studies related to the topic were also reviewed. The Cobb Douglas Production framework was adopted for specifying the model of this study. Having adopted the dependent and explanatory variables for the analysis, unit root test and granger causality tests were carried out. The non-uniformity of the order of integration among the variables led to the introduction of Autoregressive distributed lag (ARDL) model approach for data analysis. The study found that a unidirectional causality from non-oil export to economic growth abound in Nigeria. Also, the findings showed that while non-oil export is negatively related with economic growth in the short run, there is a positive long run relationship between the two variables in Nigeria.

5.1 Policy Recommendations

Based on the findings of the study, the following recommendations were made;

The government should intensify capital investment in the provision of infrastructural facilities for attraction of manufacturing industries that would facilitate production of non-oil export commodities in Nigeria. This is a key

strategy that will boost non-oil export particularly in the short run to accelerate the growth of the economy without necessarily depending on the long run period.

Considering the positive role of labour force in the economy, Nigeria should increase the labour force participation rate though job creation, capacity building and making of the available jobs more attractive to boost productivity and encourage growth in the economy. Moreover, harnessing of the available human resources in Nigeria will boost the economy's output and accelerate economic growth.

To sustain the positive relationship between interest rate and economic growth, a single digit interest rate policy should be adopted monetary policy authorities in Nigeria. This will help in improving the ease of doing business in Nigeria as well improving access to capital for the investors.

There is also need to improve the financial inclusion rate in Nigeria so as to increase access to capital for businesses to the small and medium scale enterprises (SMSEs).

Finally, there is need for adoption and effective implementation of non-oil export's promotion policies in Nigeria to improve the quantity and quality of non-oil export products' which is expected to encourage sustainable growth in our domestic economy.

References

- [1]. Adenuga, 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.
- [2]. Al-Yousif, Y.K. (1999). On the Role of Exports in the Economic Growth of Malaysia: A Multivariate Analysis. International Economic Journal 13(3): 67-75.
- [3]. Arnade, C., Vasavada, U. (1995). Causality between productivity and exports in Agriculture: Evidence from Asia and Latin America. Journal of Agricultural economics.
- [4]. Azam, M. (2011). Export and economic growth in Pakistan: An empirical analysis. Journal of Managerial Sciences. Vol. V, No. 1, pp 1-18.
- [5]. Bbaale, E., Mutenyo, J. (2011). Export composition and economic growth in Sub-Saharan Africa: A panel analysis. The Journal of Sustainable Development, Vol. 6, PP 1-19.
- [6]. Chukwu, G. C. (2014). Impact of export trading on growth of the Nigerian economy. (Master's Thesis, University of Nigeria Nsukka). <u>www.unn.edu.ng.</u>
- [7]. Esfahani, H. S. (1991). Exports, Imports, and Economic Growth in Semi-Industrialized Countries. Journal of Development Economics, 35(1):93-116.
- [8]. Fosu, A. K. (1990). Exports and Economic Growth: The African Case.
- [9]. Fouad, A. (2005). Are Exports the engine of economic growth? An application of cointegration And causality analysis for Egypt. Economic Research Working Paper.
- [10]. Giles. M & Williams, A. D. (2000). Export and Economic Growth. An Empirical Investigation. J. Dev. Econ., (3-4): 419-453.
- [11]. Henriques, S. & Sadorsky, P. (1996). Export-led growth or growth-driven exports? The Canadian case. Canadian Journal of Economics, 29(3):540-555.
- [12]. Herzer, D., Lehmann, F. N. & Siliverstovs, B. (2004). Export-Led Growth in Chile: assessing the role of export composition in productivity growth. Ibero-America Institute for Economic Research Discussion Papers.
- [13]. Igwe, A.; Edeh, C. E. & Ukpere, W. I. (2015). Impact of non-oil sector on economic growth: a managerial economic perspective. Problems and Perspectives in Management, 13(1)
- [14]. Kawai, V. (2017). An analysis of the impact of non-oil exports and economic growth in Nigeria. International Journal of Innovative Research in Social Sciences & Strategic Management Techniques.
- [15]. Kemal, A. M. & Qadir, U. (2005). Real exchange rate, exports and imports movements: A trivariate analysis. The Pakistan Development Review, 44: 2, pp.177-195.
- [16]. Kromtit, M. J.; Kanadi, C.; Ndangra, D. P. & Lado, S. (2017). Contribution of non-oil exports to economic growth in Nigeria. International Journal of Economics and Finance; Vol., 9, No. 4.
- [17]. Krugman, P. (1979). Increasing returns, monopolistic competition, and international trade. Journal of International Economics, Vol. 9(4), pp.291-321.
- [18]. Lancaster, K. (1980). Intra-industry trade under perfect monopolistic competition. Journal of International Economics, Vol.10 (2),pp.151-75.
- [19]. Mehrara, M. (2013). The relationship between non-oil trade and GDP in petroleum exporting countries. www.scipress.com/ilshs.12.63
- [20]. National Bureau of Statistics (2017). Quarterly publications. http://nigerianstat.gov.ng/download/678
- [21]. Nigerian Economic Recovery and Growth Plan (2017).
- [22]. Nwachukwu, P.O. (2014). The impact of non-oil export strategies on economic growth in Nigeria. Journal of Economics and Sustainable Development, Vol. no. 24.
- [23]. Ogunjimi, O.; Aderinto, E. & Ugunto, T. (2015). An empirical analysis on the relationship
- [24]. Between non-oil exports and economic growth in Nigeria. International Journal of Academic research in Business and Social Sciences.
- [25]. Olabanji. O. E & Henry, O. (2013). Econometric analysis of export and economic growth in Nigeria. Journal of Business Management and Applied Economics.
- [26]. Onodugo, V. A.; Ikpe, M. & Anowor, O. F. (2013). Non-oil exports and economic growth in Nigeria: A time series econometric model. International Journal of Business Management and Research, 3, 115-124.
- [27]. Ozughalu, M, U. (2009). Exports and economic growth in Nigeria: An empirical analysis.Nigerian Economic Society (NES).
- [28]. Rahmadi, R. & Ichihashi, M. (2011). Exports and economic growth in Indonesia: A causality approach based on multivariate error correction model. Journal of International Development and Cooperation.
- [29]. Rana, P. B. & Dowling, J. M. (1990). Foreign capital and Asian economic growth. Asian Development Review, 8(2):77-102.
- [30]. Sharma, A & Panagiotidis, T. (2003). An Analysis of Exports and Growth in India: Some Empirical Evidence (1971-2001). Sheffield Economic Research Paper Series.

- [31]. Tan, Bao Hong (2008). Cobb-Douglas Production function.
- [32]. Thornton, J. (1996). Cointegration, causality and export-led growth in Mexico. Economics letters, 50, 413-416. https://doi.org/10.1016/0165-1765.
- [33]. Velnampy, T. & Achchuthan, S. (2013). Export, import and economic growth: Evidence from Sri Lanka. Journal of Economics and Sustainable Development, Vol. 4, No. 9.
- [34]. Zuniga, H. C. (2000). Export-Led Growth in Honduras and the Central American Region. (Master's Thesis, Louisiana State University).http://etd.lsu.edu/docs/available/etd-

Agu Anthony Ogbonna, et al. "The Nexus of Non-oil Export and Economic Growth: a case of Nigeria." *IOSR Journal of Economics and Finance (IOSR-JEF)*, 11(1), 2020, pp. 36-44.