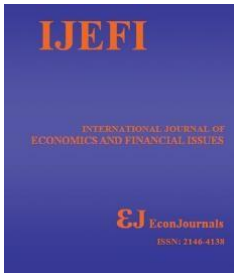

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The Export-Led Growth Nexus in an Oil-Dominant Economy: Aggregated and Disaggregated Analysis

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ABSTRACT

The Keynesian theory of national income asserts that an increase in exports will enhance output performance significantly. Standing on this premise, this study seeks to validate the reality of export-led growth hypothesis in Nigeria by disaggregating export into oil and non-oil exports. Using Auto regressive distributed lag (ARDL) method to estimate time series data from 1981 to 2019. Empirical finding reveals evidence of export-led growth nexus for both the aggregated and disaggregated exports. Further results prove the existence of FDI-led growth nexus as well as saving-induced growth hypothesis. In contrast, import demonstrates a harmful relationship with economic growth. Thus, this study recommends an expansion of the export base of the country, particularly the non-oil sector, to enable her generate more foreign earnings. Domestic saving should be encouraged to improve the availability of investment funds for business expansion. A critical suggestion is made for the government to curtail importation especially for goods with domestic substitutes.

Keywords: Economic Growth, Export, Import, Foreign Direct Investment, Domestic Savings, Nigeria.
JEL Classifications: F43, F41, F36, O16

1. INTRODUCTION

One of the tenets of the Keynesian theory of national income asserts that export trade is one of the key factors that determine economic growth. In support of the theory, it is pertinent to note that most of the economies in the world both the developed and emerging ones are transforming continually into a market-based or open economy where cross border trade serves as an engine of growth. An export-based economy is bound to generate greater economic growth relative to her import-based counterpart. The argument is that an export-based economy is a productive-based economy, while and import-based economy is a consuming economy without productive capacity required to generate rapid economic growth. Although Nigeria is more of consuming economy which is the dominant characteristic of most of the emerging economies, it also produces and exports some products. The nation's export-base sector is majorly divided into oil and non-oil exports Fapetu and Owoeye (2017). Before the discovery of oil in Nigeria dated back to 1970s, the main stream of the economy was the non-oil sector majorly the agriculture sector Central Bank of Nigeria statistical bulletin (Central Bank of Nigeria, 2019). This equally turns out to form the main export-based of the economy. For instance, in

1960 the total contribution of the agriculture to GDP stood at 65%. This could not be sustained as a result of oil discovery in 1970s which shifted government focus mainly to the oil sector. With the advent of oil especially in commercial quantity in the late 70s, the main driver of the economy switch from the traditional non-oil sector to the oil sector which automatically assumes the position of the main export-based of the country. In the period under investigation, the gap between the contribution of oil sector and non-oil sector to the aggregate export based keep widening due to the continuous negligent suffered by the non-oil sector. This causes serious setback to the non-oil sector thereby affecting its contribution to the export based of the country. For example, in 1981 the contribution of the oil sector to the export based of the country stood at ₦10.68 billion while that of the non-oil sector amount to ₦0.34 billion Central bank of Nigeria statistical bulletin (Central Bank of Nigeria, 2019). The report from (Central Bank of Nigeria, 2019) further reveals that in 1990, the oil sector account for ₦106.63 billion of the aggregate export based, while non-oil export maintained ₦3.26 billion of the total export based with a hug gab of ₦103.37 billion. The trends continuous as the oil sector contribution to national export based increased to ₦1920.90 billion while that of non-oil sector slightly improved to ₦24.82 billion in 2000. By 2010, the oil export component of the aggregate export has improved significantly to ₦11300.52 billion, while that of non-oil export stood at ₦710.95 billion. Most recently particularly in 2019, oil export surpassed the non-oil export by about ₦13, 513.71 billion. In clear terms, oil sector contributes ₦16720.73 billion to the export based of Nigeria as against ₦3207.02 billion from the non-oil sector. The impact of these export-based sectors on economic growth of Nigeria cannot be over emphasized given their significance role in driving economic activities. On the empirical assertion, argument abounds as to whether or not the export-led growth nexus is a reality. For examples, Omoruyi and Uwbamwen (2018) found an evidence of export-led growth hypothesis as well as a co-integration relationship between the series in Nigeria. One of the recent studies, Adebayo (2020) examines the export and economic growth nexus in Nigeria from 1981 to 2018. The result reveals a strong positive impact of export on economic fortune of Nigeria. This is similar to the work of Chow and Sek (2021). Chow and Sek (2021) carried out a panel study where the countries considered were classified into open economies and the less open economies for comparative analysis. Finding reveals that export-led growth hypothesis is evidence in both groups of countries. Barrie et al. (2021) investigate similar case for a single country in Sierra Leone by adopting the dynamic ARDL method for analysis. Finding shows that exports enhances economic growth in Sierra Leone. In contrast, the work of Alimi and Muse (2012) invalidate the export-led nexus in Nigeria. Rather, the study found a growth-led export hypothesis. This suggests that economic growth is a driver of export and not the other way round. The panel study of Odhiambo (2021) could not establish the reality of export-led growth hypothesis in the sub-Saharan African economies. In essence, export does not enhanced economic growth in the economies of sub-Saharan African for which Nigeria is a part. This corroborate the work of Mahadevan (2007) for the Malaysian economy. The study concludes that export and economic growth nexus is not applicable to Malaysia. The conflicting evidences from the previous studies are proofs that the impact of export on economic growth is relative and has not been concluded. Besides, most of the previous studies centered on the adoption of the granger causality test for analysis particularly in the case of Nigeria (Omoruyi and Uwbamwen 2018; Adebayo 2020; Alimi and Muse 2012). This is insufficient to make logical conclusion. Evidences from different methods and different time frame would better inform a logical conclusion. Following the above, one of the contribution of this study is the adoption of the dynamic ARDL model in addition to the granger causality test to investigate the export-led growth nexus in Nigeria. Another contribution of this study is the intention to analysis the impact of disaggregate export and aggregated export comparatively to ascertain which one contribute most in enhancing economic growth in Nigeria. Most studies either examine only aggregated export-led growth nexus or disaggregated-export-led growth nexus. In essence, the contribution of this study is in twofold: First a comparative analysis between methods of analysis, and secondly a comparative analysis between the aggregated and disaggregated impact of export on economic growth in Nigeria. Analyzing the aggregated and aggregated impact of export simultaneously will give more insight, reliable and dependable outcome that is fit for policy implication not only to Nigeria but to other export driven economy in the region.

Thus, the outcome of this study is intended to serve as a blue print to Nigeria and its counterpart particularly in the West African sub-region and globally as a whole.

2. REVIEW OF RELATED EMPIRICAL LITERATURE

The reality of export-led growth hypothesis is yet to achieve logical conclusion in the research world. While some studies lent support to the export and economic growth nexus, others contend with the reality of this empirical claim. This has given a wider room for continuous research in an attempt to establish an empirical generality in future.

2.1. Evidence for Export-led Nexus

Several studies subscribs to the export-led growth hypothesis among which are Narayan et al. (2007), Bilas et al. (2015). Similarly, Chow and Sek (2021) examine the export and economic growth hypothesis for countries that are highly open and those that are less open to international trade. The finding reveals the evidence of export-led-growth hypothesis for both category of countries. Barrie et al. (2021) examine both the export-led and import-led nexus in Sierra Leone using the dynamic ARDL method. The finding confirms the existence of the two empirical hypothesis in the country with a given priority to export-led nexus. Omoruyi and Uwbamwen (2018) explore the relationship between export and economic performance in Nigeria and found the existence of positive and significant link between the series. Further result reveals the presence of co-integration. Similarly, Adebayo (2020) examines the connection between export performance and economic expansion of Nigeria spanning between 1981 and 2018. The finding from the study indicates that export growth drives the national economic fortune significantly. Kalaitzi and

Chamberlain (2021) investigate the export and economic growth nexus in GCC countries. The result supports the existence of the said hypothesis in the study area. Also, a feedback causal effect was discovered for the same study area which supports the works of Dixit and Parveen (2020) for India. Asafo (2020) examines the link between export and economic expansion in Ghana by using the threshold vector autoregressive (TVAR) model. The finding supports the initial nexus of export-led growth as submitted by other past studies such as Kalaitzi and Cleeve (2018) in the case of the united Arab Emirate (UAE), Mahroowal et al. (2014) in Afghanistan and Faisal et al. (2017) in Saudi Arabia. In the case of Malaysia, the study of Ismail et al. (2014) discovers a positive and strong impact of export on economic advancement. Using the dynamic TY granger causality test as a method of analysis, Fapetu and Owoeye (2017) submit that the export-led and import-led hypothesis are valid for national economy of Nigeria. Awokuse (2003) found a unidirectional link running from export to the real GDP which suggests the evidence of export-led growth nexus in Canada. Shirazi and Manap (2005) examine the subject matter using causality test for five Asian countries and found the evidence of export-led growth hypothesis with the exception of Sri Lanka which validating the study of Tang (2013) for the Malaysia. Ee (2016) carry out a panel study on the subject matter for selected economies in the sub-Saharan region by adopting the OLS-the fully modified and the dynamic OLS. Finding proved a strong positive impact of export on economic advancement of the region. According to the study of Sannassee et al. (2014), economies with less development benefit less from the export and vice versa. Paul (2014) adopted the ARDL method to examine the export growth nexus in Bangladesh. The finding indicates strong evidence of the export and economic expansion hypothesis which cement the work of Narayan et al. (2007), Bilas et al. (2015) and Furuoka (2019). Yaya (2017) examines the nexus under consideration for Cote d'Ivoire and found evidence of export-led growth nexus.

2.2. Evidence against Export-led Nexus

In contrast, studies also abound in contention against the export-led growth nexus. For instance, a panel study carried out by Odhiambo (2021) for the sub-Saharan economies could not ascertain the export-led growth hypothesis for the region which implies that export is not a driver of economic advancement of the region. Awokuse (2006) found a bidirectional causal effect between export and GDP in the economy of Japan. Mahadevan (2007) examines the export-led growth nexus in the case of Malaysia and found that the said hypothesis is invalid. Tang et al. (2015) found a non-stable export-led growth nexus which suggests that export is not a driver of growth in the four economies of Asia which includes South Korea, Hong Kong, Singapore and Taiwan. In the study of Balcilar and Ozdemir (2013), empirical evidence was found of a bidirectional relationship between export and economic growth nexus in Japan which suggests that the two variables influence each other and not the other way round. Using granger causality test, the study of Alimi and Muse (2012) rather found the growth-led export hypothesis in Nigeria as against the export-led growth nexus. A panel study conducted by Mishra et al(2019) for a panel of Pacific island countries reveals an evidence of a feedback causal effect between export and economic growth. Similarly, Awokuse (2005) in an attempt to add to the ongoing argument, adopted the VECM Toda-Yamamoto Granger causality test for the economy of Korea. The finding indicates the case of a feedback causal link between export and economic growth of the study area. Similarly, Awokuse (2006) found a bidirectional causal link between export and output for the economy of Japan.

3. METHODOLOGY AND DATA

3.1. Empirical Method

The method of analysis adopted by this study begins with the preliminary test-stationarity test which help in determining the method of analysis. This is followed by the ARDL approach and granger causality test. An ARDL approach is adopted to estimate both the short run and long run relationship between the variables, while granger causality was used determine the causal effect between two series.

3.1.1. Model specification

Export-growth Nexus is an ongoing contention in the research world without general conclusion due to different submissions by previous studies. In order to contribute to this argument, this study seeks to establish two empirical models- first, the impact of disaggregated export (oil and non-oil exports) on economic growth similar to the work of Fapetu and Owoeye (2017) in Nigeria. Secondly the influence of aggregated export on economic growth in line with the study of Omoruyi and Uwbamwen (2018) in Nigeria. The findings from the two models will be subjected to comparative analysis for empirical assertion. More generally, the model of this work is built on the existing Keynesian theory of national output or income as demonstrated in equation 3.1.

$$Y = C + I + G + (X\text{-}M) \tag{3.1}$$

According to the Keynesians' theory of income, an increase in export will exert strong positive impact on economic growth of the exporting country. In the equation above, Y stands for the economic growth (GDP) while X represents the export component, while I represents gross domestic saving plus foreign direct investment (FDI inflow) which are key factors that drive economic growth. Note that investment is equal to saving as submitted by Keynes general theory of 1936. Thus, the two functional models is stated as:

$$GDP = f(OEX, NOEX, GMPT, GDS, FDI) \tag{3.2}$$

$$GDP = f(GEXPT, GMPT, GDS, FDI) \tag{3.3}$$

Where:

GDP represents Gross Domestic Product, OEX stands for Oil Export, NOEX represents Non-Oil Export, GMPT stands for Gross Import, GEXPT represents Gross Export, GDS stands for Gross Domestic Saving and FDI represent Foreign Direct Investment.

3.1.2. Source of data

This study seeks to examine the impact of export on economic growth in Nigeria where the export will be disaggregated into oil and non-oil export. To this end, the data that will be used in this study for most of the variables is obtained from domestic

source - Central Bank of Nigeria statistical bulletin 2019. However, data on the gross domestic product was sourced from the World Bank data indicator (WDI, 2020). The data was sourced and adopted for the purpose of empirical estimation and data analysis.

3.1.3. Stationarity tests

Most at times the econometric procedure for estimating an empirical model starts with the stationarity test (Gujarati et al., 2007). This is so because the order of integration determines the method to be employed. Secondly, unit root test help to avoid one fundamental econometric error - spurious regression which is able to produce a misleading result (Gujarati et al., 2007). Applying the outcome from a spurious regression can cause serious impediment to the operation of an economy. To achieve the above stated objective, the common Augmented Dickey and Fuller (1981) and the Phillips and Peron (1988) method of stationarity tests are adopted. The generalized equation is expressed as follows:

$$\Delta Y_t = \beta_1 + \beta_2 + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-i} + \varepsilon_t \quad (3.4)$$

Where, the white noise refers to as Gaussian that is assumed to have a mean figure of zero is represented by ε_t, follow by possible autocorrelation standing for series to be regressed on the time t.

3.1.4. ARDL cointegration

The ARDL technique developed by Pesaran et al. (2001) is known as an econometric procedures by which a co-integration can be achieve for a given model. Secondly, the method is able to determine both the short run and the long run relationship between the regressors and the targeted variable. The adoption of the method is not limited to the order of integration because of its dynamic nature Sarkodie and Adams (2018). This is one of the superior advantage of ARDL method over others. In essence, the method is applicable to any of the following situation: Either I (1)/I (0) or I (1)/I (1) or I (0)/I (0).

Thus, the generalized equation is stated as follows:

$$\Delta Z = \varepsilon_0 + \varepsilon_1 t + \lambda_1 \delta_{t-1} + \sum_{t-1}^{k} \phi_1 \nu_{it-1} + \sum_{j-1}^{n} \varphi_j \Delta Z_{t-j} + \sum_{i-1}^{k} \sum_{j-1}^{n} \omega_{ij} \Delta V_{it-j} + \Upsilon D_t + \mu_t \quad (3.5)$$

$$H_0 : \varphi_1 = \varphi_2 = \ldots. = \varphi_{n+2} = 0$$
$$H_1 : \varphi_1 \neq \varphi_2 \neq \ldots. \neq \varphi_{n+2} \neq 0$$

Where the failure to accept the H_0 indicates an evidence that the series will converge in future to resolve immediate disequilibrium caused in the economy.

4. RESULT DISCUSSION AND ANALYSIS

Two models are estimated for this study and their outcome are presented in this section starting with the finding of the stationarity tests. The significance of the stationarity test is measure by its role in determining the choice of method of analysis. To ascertain the level of stationarity of the series, the Augmented Dickey and Fuller (1981) and the Phillips and Peron (1988) tests were employed and the result is presented in Table 1. Finding from the Augmented Dickey-Fuller (ADF) shows that gross domestic product (GDP), total export, oil export, non-oil export and gross domestic saving achieves I (1) level of integration. In essence, these variables turn out to be stationary only after the first difference, while FDI inflow passes the unit root test at level (I [0]). The outcome from the ADF test is confirmed by the Phillip-Peron (PP) test suggesting the adoption of the ARDL method of estimation.

Table 1: Unit root outcome

Variables	ADF	PP	O (I)
	Level/1st df O (I)	Level/1st df.	
LnGDP	−2.0998** I (1) (0.0361)	−3.1015** (0.0359)	I (1)
LnEXPT	−6.3950*** I (1) (0.0000)	−6.4373*** (0.0000)	I (1)
LnGMPT	−6.9331*** I (1) (0.0000)	−6.9031*** (0.0000)	I (1)
LnOEX	−6.3755*** I (1) (0.0000)	6.4163*** (0.0000)	I (1)
LnNOEX	−7.0954*** I (1) (0.0000)	−8.3805*** (0.0000)	I (1)
LnGDS	−4.4906*** I (1) (0.0010)	4.4906*** (0.0010)	I (1)
LnFDI	−3.0362*** I (0) (0.0034)	−3.0362*** (0.0034)	I (0)

Source: Author's computation

Table 2: ARDL short run and long run forms

Model 1				
Variable	**Coefficient**	**Standard error**	**t-Statistic**	**Probability**
Short run				
LnOEX	0.065650	0.021679	3.028303	0.0069
LnNOEX	0.033721	0.012126	2.780943	0.0119
LnGMPT	−0.098167	0.025884	−3.792593	0.0012
LnGDS	−0.063875	0.045741	−1.396457	0.1787
LnFDI	−0.013033	0.009516	−1.369518	0.1868
CointEq (−1)	−0.276033	0.036848	−7.491135	0.0000
Long run				
LnOEX	0.237833	0.099883	2.381113	0.0279
LnNOEX	0.122164	0.051200	2.386004	0.0276
LnGMPT	−0.355634	0.105114	−3.383312	0.0031
LnGDS	0.193537	0.060916	3.177095	0.0050
LnFDI	0.103343	0.052500	1.968430	0.0638
Model 2				
Short run				
LnGEXPT	0.083717	0.022142	3.780952	0.0011
LnGMPT	−0.109850	0.032837	−3.345261	0.0031
LnGDS	−0.058059	0.047037	−1.234329	0.2307
LnFDI	−0.008963	0.009706	−0.923511	0.3662
CointEq (−1)	−0.380913	0.045914	−8.296181	0.0000
Long run				
LnGEXPT	0.219778	0.076191	2.884578	0.0089
LnGMPT	−0.336779	0.075257	−4.475071	0.0002
LnGDS	0.326992	0.025059	13.04907	0.0000
LnFDI	0.082325	0.032112	2.563670	0.0181

Source: Author's computation

Table 2 presents the findings from the two operational models of this study. In the first model, the outcome reveals an evidence of strong positive relationship between oil export and economic growth, between non-oil export and economic growth, between FDI inflow and economic growth as well as between gross domestic saving and economic growth. In contrast, a significant negative interaction between import and economic growth is established. In clear terms, a 1% increase in oil export drives economic growth significantly by 6.5% in the short run and causes significant improvement in economic growth by about 23% in the long run. Similarly, a 1% increase in non-oil export induces economic growth by 3.3% with immediate effect and generates 12% advancement in economic growth in future term. The implication is that export-led growth nexus is valid in Nigeria confirming the Keynesian theory of national income which indicates that export is a key driver of economic growth as further buttress by the empirical evidences (Omoruyi and Uwbamwen, 2018) in Nigeria. This call for the need for full expansion of the export based of the economy through deliberate policy actions such as economic diversification as well as increase in oil exploration in the prospective areas. Similarly, the finding indicates that a 1% increase in FDI inflow causes weak harm to economic growth by 1.3% in the short run and induces economic growth significantly by 10% in the long run. This validates the FDI-led growth hypothesis which aligns with MacDougall-Kemp Hypothesis of capital entry as propounds by MacDougall (1958) and Kemp (1964). According to this theory, foreign direct investment benefits both the recipient economy in form of spillover effect and the investing country in form of profit transfer. Empirically, the outcome is supported by the work of Güngör and Ringim (2017) in Nigeria. Gross domestic saving proves to be a strong driver of economic growth aligning with the Harrod-Domar growth model and empirically backed by Adebayo (2020) in Nigeria. In essence, a 1% increase in gross domestic saving retards economic growth by 6.3% in the short run and generates a significant 19% increase in economic growth in the long run. Import exhibit strong negative impact on economic expansion in both terms. A 1% advancement in import will degenerates into 9.8% and 35% reduction in economic growth which buttress the work of Omoruyi and Uwbamwen (2018). Result from the second model also validates the export-led growth nexus in accordance with the outcome from the first model. A 1% increase in export generates 8.3% and 21% significant increase in economic advancement in both terms. Further result confirms FDI-led growth hypothesis which corroborates MacDougall-Kemp Hypothesis of capital inflows (1958 and 1964). A 1% increase in FDI inflow reverses growth process by 0.8% in the short run and enhances economic growth by about 8.3% in the long run. Similarly, a 1% increase in gross domestic saving slightly reverses economic growth by 5.8% in the short run and promotes economic growth significantly by 32% in the long run. On the contrary, import appears detrimental to economic growth. A 1% increase in import reverses economic growth significantly by 10% and 33% in both terms. The overall result indicates that the Nigeria economy is driven by export trade, FDI inflow as well as domestic saving, while import is not. In conclusion, co-integration test of the two models reveals the long run connection among the series through the rejection of the null hypothesis (Table 3). The speed of adjustment in an economy is normally determine by the ECT. The result presented in Table 2 indicates an evidence of convergence in the economy in the long run for both models. The implication is that the deviation from GDP in the short run will naturally adjust in the long run through the speed of 27% for model 1 and 38% for model 2.

For a model to be deployed for policy direction in the study area, it is expected to pass a diagnostic test satisfactorily. This is because the test determines how accurate, fit and reliable the model in question is. They consist of the normality test, heteroscedasticity, serial correlation and the Ramsey reset tests (Table 4). The estimated normality test indicates that the variables are normally distributed for the two models. Finding from the serial correlation test reveals no case of serial correlation. Further finding from the diagnostic test indicates that the models are homoscedastic and are well specified to be adopted for policy guide in the economy been under studied. Conclusively, the CUSUM and CUSUM square graph were plotted to determine the stability of the models (Figures 1 and 2). Since the blue line fall inside the critical area at 5% degree of freedom for the two models, we reject the null hypothesis and conclude that the models are stable and fit for policy guide for the Nigeria economy.

The causality techniques (granger) is adopted in this study to determine the causal effect among the variables of the models

Figure 1: CUSUM and CUSUM square tests – model 1

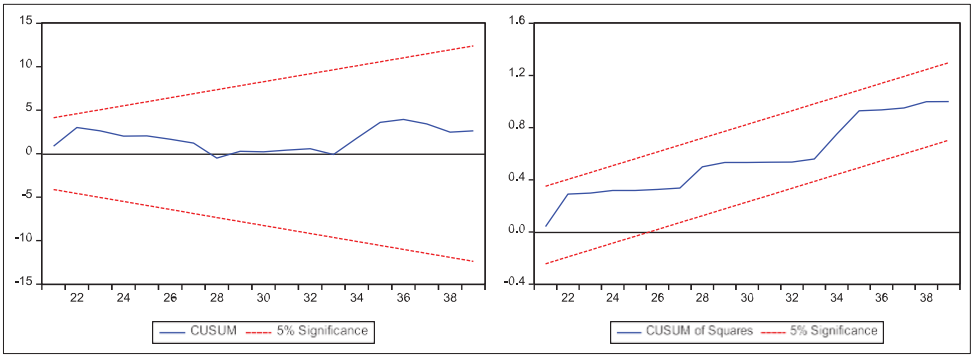

Figure 2: CUSUM and CUSUM square tests - model 2

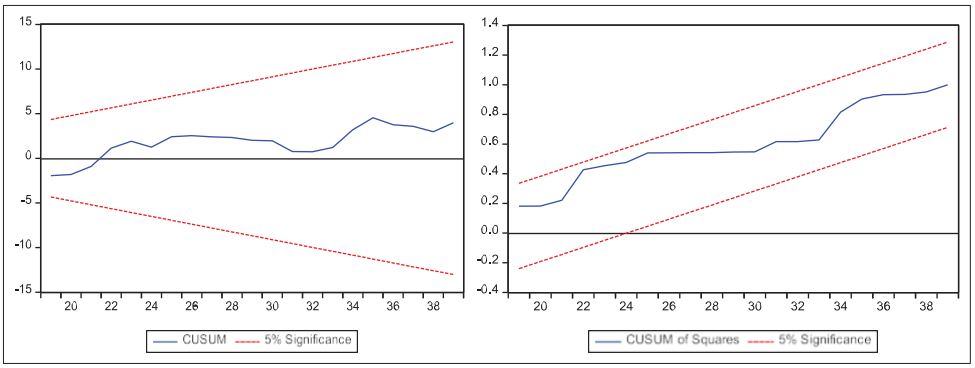

Table 3: Bound test (ARDL)

Model 1				
Test statistic	**Value**	**Signif. (%)**	**I (0)**	**I (1)**
F-statistic	6.092714	10	2.331	3.417
K	5	5	2.804	4.013
		1	3.9	5.419
Model 2				
F-statistic	9.265123	10	2.46	3.46
K	4	5	2.947	4.088
		1	4.093	5.532

Source: Author's computation

Table 4: Diagnostic outcome

Model 1	F-statistic	P-value
Normality	0.6421	0.7254
Serial	0.2996	0.7449
White	0.5553	0.8506
Ramsey	0.0767	0.7849
Model 2		
Normality	2.6873	0.2608
Serial	0.3557	0.7052
White	0.6834	0.7489
Ramsey	0.5662	0.4605

Source: Author computation

(Table 5). First model result shows several causal relationships. For instance, the finding reveals a striking outcome indicating evidence of unidirectional causal effect running only from oil export to GDP and from non-oil export to GDP as well. This validates the export-led growth hypothesis cementing the work of Fapetu and Owoeye (2017) for Nigeria. Finding further proves the existence of causal relationships running only from gross domestic saving to GDP, from oil export to gross domestic saving, and from gross domestic saving to FDI inflow respectively. A feedback causal effect exist between GDP and FDI inflow suggesting that the variables drives each other. Similarly, the second model finding reveals some outcome in accordance with our appriori expectation. First, a one way causal effect running only from gross export to GDP validating the export and economic growth nexus. Again, only gross domestic saving proves to granger causes GDP. Other one way causal effects include from gross export to gross domestic savings, and from FDI inflow to gross import respectively. A one way causal effect exist running only from GDP to FDI entry. In conclusion, the result from the granger causality test confirmed the evidence of export-induced growth hypothesis as buttress by Fapetu and Owoeye (2017) in Nigeria.

Table 5: Granger analysis test (model 1)

Model 1			
Null hypothesis	**Obs**	**F-Statistic**	**Probability**
LNOEX does not granger cause LNGDP	34	3.59384	0.0403
LNGDP does not granger cause LNOEX		0.23482	0.7922
LNNOEX does not granger cause LNGDP	34	3.21703	0.0547
LNGDP does not granger cause LNNOEX		0.95942	0.3949
LNFDI does not granger cause LNGDP	34	2.68385	0.0852
LNGDP does not granger cause LNFDI		4.11057	0.0268
LNGDS does not granger cause LNOEX	37	0.68763	0.5100
LNOEX does not granger cause LNGDS		4.48421	0.0192
LNFDI does not granger cause LNGDS	37	0.22716	0.7981
LNGDS does not granger cause LNFDI		2.56798	0.0924
Model 2			
LNGEXPT does not granger cause LNGDP	34	3.68156	0.0376
LNGDP does not granger cause LNGEXPT		0.20762	0.8137
LNGDS does not granger cause LNGDP	34	5.58634	0.0089
LNGDP does not granger cause LNGDS		0.05179	0.9496
LNFDI does not granger cause LNGDP	34	2.68385	0.0852
LNGDP does not granger cause LNFDI		4.11057	0.0268
LNGDS does not granger cause LNGEXPT	37	0.66003	0.5237
LNGEXPT does not granger cause LNGDS		4.42052	0.0202
LNFDI does not granger cause LNGMPT	37	5.73271	0.0074
LNGMPT does not granger cause LNFDI		0.43537	0.6508

Source: Author computation

5. CONCLUSION AND RECOMMENDATION FOR POLICY IMPLICATION

The main objective of this study is to validate the export-led growth hypothesis with a new perspective by disaggregating export into

oil export and non-oil export thereby comparing the outcome with that of the aggregated export. Findings validate the oil-export-led growth nexus, non-oil-export-induced growth hypothesis as well as aggregate-export-driven growth nexus. Thus, the overall outcome reveals the existence of export-led growth nexus with the magnitude (coefficient) of the oil export (23%) been larger than that of the non-oil export (12%). Further results reveal evidence of FDI-enhanced growth hypothesis and saving-induced growth nexus. In contrast, empirical evidence indicates that import is detrimental to economic growth. In general, the economy of Nigeria is driven by export trade, FDI inflow and domestic saving, while import- induced growth nexus proves to be a fallacy in the case of Nigeria.

In line with the above findings, recommendation is made of the need for the government of Nigeria to expand the export base in other to generate more foreign earnings. Effort should be geared towards adopting workable policy to revive the non-oil sector, particularly the agricultural sector which has been neglected over the years as a result of oil discovery. This will help improve the contribution of the non-oil sector to the export base of the country. In essence, the diversification policy of government should be restructure afresh and set on motion to expand the sectorial export base of the economy. This will help reduce the over dependency on the oil sector as the main stream of export. Additionally, the fallen aggregate demand caused by the recent global economic recession needs to be stir up through increased meaningful government spending such as infrastructure development, human capita development. This will assist in reducing the effect of the recession, ravaging the economy which has forced many foreign firms to withdraw their investment from the economy. A sound macroeconomic environment management is required for the economy to be restored back to its initial position and/or improve to a better level. This will further boost the confidence of the existing investors and attract influx of new foreign investors to stimulate economic growth. More importantly, the authority concern should limit the rate of importation generally and to discourage to a greater extent the importation of those products with domestic substitutes. This will help boost patronage of locally produced goods and by implication expand the productive capacity of the economy thereby leading to self-sustenance.

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