

Trade liberalization and economic growth in Nigeria

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Abstract

This study examined the impact of trade liberalization on economic growth in Nigeria. The general objective of the study was to find out if there is any effect of trade liberalization on economic growth in Nigeria. The study used ex-post facto research design and moreover, the ADF and Phillips-Perron unit root tests were used for the test of stationarity while the study employed ARDL – Bound test to test for the long run relationship between the variables. The scope of the study covered the period from 1981 – 2019, the variables used for the study were real economic growth as the dependent variable whereas total trade balance, total export trade, total import trade and exchange rate were used as the independent variables. To this point, the study found that a percent rise in total export trade brought about 0.84% increase in economic growth in Nigeria. One percent rise in total import trade brought about 0.59% decline in economic growth in Nigeria; whereas a percent rise in exchange rate brought about 0.31% decline in economic growth in Nigeria. However, the study recommended that government should try as much as possible to restrict importation of those goods and services that are locally produced in the country in order to avoid dumping of foreign goods and services as well as over dependent of imported goods and services in the country. Government should also try as much as possible to put up policies and programs targeted at increasing locally produced export-oriented goods and services in the country in order to increase more export of goods and services which will invariably lead to economic growth in the country.

Introduction

In the literature of growth and development, the nexus between trade liberalization and economic growth has been a subject of extensive debate among academics, policymakers, researchers in the arena of international trade and international development partners particularly in developing countries since the early 1990s. Das (2002) argued that this debate reached new heights due to the success of East Asian countries, third world debt crises and reforms in the East European transition economies. The original claim that trade is a driving force of economic growth is derived from the productivity theory of Adam Smith. The significance of specialization in production and trade was emphasized by the arguments in support of trade as a vehicle of economic growth and the productivity theory (Aditya, 2014). Based on this assertion, it is not surprising that the advantages of liberalization of trade remained contentious and progressively discussed in academic and international policy dialogue.

Trade liberalization implies the reduction or complete removal of trade barriers by a country or countries involved in foreign trade. There are so many forms of trade like; the transfer of

technology, education flow and ideas sharing besides the trade in terms of commodities and countries impose various forms of restrictions or liberalization on these items depending on what such country wants to achieve.

Empirical evidence from the Asian Tigers appeared to suggest that liberal trade policies are also growth-enhancing. For instance, Desai and Potter (2008) argued that growth performance of the so-called gang of four: Hong Kong, Taiwan, Korea and Singapore were traced to high level of trade liberalization.

Nigeria over the years has opened her borders for trading with high imports and exports of goods and services. For instance, non-oil imports trade grew from a mean value of N36.55 billion; representing 96.8 percent of aggregate import into Nigeria during the period 1970-1979, to N118.36 billion; representing 93.4 percent of aggregate import trade over the period 1980-1989, N3.48 trillion for the period 1990-1999; representing 79.9 percent of total import demand and N19.33 trillion; representing 82.0 percent of aggregate imports demand over the period 2000- 2008. Presently, value of Imports for goods and services in Nigeria stood at \$85,354,940,000 as at 2014.

The country's domestic manufacturing is contracting and unable to meet the rising demand of the country's large and expanding population. This contraction is mainly due to the high cost and unreliability of electricity, poor infrastructure, increase in cost of procuring raw materials, increase in cost of capital, multiplied taxation, governments inconsistent policies etc. All these have brought about a greater reliance on imports.

Nigeria imports for 2017 was \$49.51b, a 6.35% increase from 2016, \$69.55b in 2018, a 40.48% increase from 2017, \$88.74b in 2019, a 27.59% increase from 2018 and \$71.63b in 2020, a 19.28% decline from 2019.

Exports in Nigeria between 1981 and 2016 was \$14.13b and \$37.30b respectively, reaching an all-time high of \$143.70b in of 2012 and a record low of \$4.58b in 1994. Nigeria exports mostly primary products (oil and natural gas) and its accounts for over 90 percent of export trade. In 2014, 43% of total sales went to Europe; 29% to Asia; 13% to America and 12% to Africa.

Given these high level of trade (imports and exports) by Nigeria over the years and the slow growth recorded in the five decades of her political history (growth rate in Nigeria averaged

4.3 per cent 1980-2015), it is necessary to examine the extent to which trade liberalization has affected the performance of the economy.

Theoretical Review

(i) Theory of Absolute Cost Advantage

Adam Smith's theory of absolute cost advantage in international trade was evolved as a strong reaction of the restrictive and protectionist mercantilist views on international trade. The free trade according to Smith, promotes international division of labour.

According to Adam Smith, "whether the advantage which one country has over another, be natural or acquired is in this respect of no consequence"

(ii) Theory of Comparative Advantage

David Ricardo in 1821 believed that the international trade is governed by the comparative cost advantage rather than the absolute cost advantage. A country will specialize in that line of production in which it has a greater relative or comparative advantage in costs than other countries and will depend upon imports from other countries of all such commodities in which it has relative cost disadvantage. David Ricardo developed this theory to explain why countries engage in international trade. For this to happen, he assumed that there are only two countries, two commodities, free movement of factors of production, no import barriers, the prevailing cost of technology is constant (Mankiw, 2004).

(iii) Factor Endowment Theory

Eli Heckscher (1919) and Bertil Ohlin (1933), two Swedish Economists developed this theory also known as Heckscher-Ohlin trade theory. This theory is a means of studying the general equilibrium characteristics of open economies. It explains the reasons for differences in relative commodity prices and competitive advantage between two nations. According to this theory, a nation will export the commodity whose production requires intensive use of the Nations relatively abundant and cheap factors and import the commodity whose production requires intensive use of the Nations scarce and expensive factors. Thus, a country with an abundance of cheap labour would export labour – intensive products and import capital – intensive goods and vice-versa. It suggests that the patterns of trade are determined by factor endowment rather than productivity.

(vi) Export Led Growth Hypothesis

This hypothesis establishes a strong relationship between the performance of an economy and its level of export. Expansion of export was postulated to be one of the main predictor of the growth in each economy (Echekoba, Okonkwo and Adigwe, 2015). The export-led hypothesis holds that overall growth of different economies depends, not on the level of capital and labour it has in abundance, but on expansion in export. This hypothesis is premised, among others, on the position of Feder (1983) who stated that export expansion has the ability to generate positive externalities on non-export sectors as these sectors are made to become efficient in their managements of resources and implementation of production technique.

Empirical Review

The link between trade liberalization and economic growth has been investigated by several works of literature with mixed results and submissions. Moreover, there were a lot of efforts deploying diverse methodologies to investigate the relationship between trade liberalization and economic growth in Nigeria which can be found in the works of Ajayi and Araoye, (2019); Echekoba et al., (2012); Elijah and Musa, (2019); Kalu et al., (2016); Nduka, (2013); Nduka et al., (2013); Yakubu and Akanegbu, (2018), etc. The methodologies used by Echekoba et al. (2012); Nduka (2013); Kalu et al. (2016) and Yakubu and Akanegbu (2018) is OLS for examining the nexus between trade openness and economic growth without properly guided by testing the stationarity of the data used in their study may not be the appropriate econometric techniques to used. In our estimations, the tests for the stationarity for the variables used are well considered and are properly guided in line with the econometrics procedures and techniques and also in relation with the economic theory.

In the same vein, economic theory also asserts that fast economic growth motivates trade liberalization. The high GDP growth rate is a positive factor of trade liberalization and trade liberalization could affect economic growth positively. This point of view suggests the likelihood of a bidirectional link between trade liberalization and economic growth. Under this situation, the application of single-equation methodologies like the OLS would result in biased and inconsistent estimates. Still, the presence of endogeneity cannot be accounted for by this form of a model. Hence, the estimates of the studies that utilized OLS would be biased and inconsistent. Again, there was no standard measure for trade openness in the work of Echekoba et al. (2012).

Also, Kalu et al. (2016) employed a wrong measure for trade openness. They measured trade openness as net export defined as an export minus import. However, rigorous works on the association between trade liberalization and economic growth are sparse. This makes it complicated for policymakers to develop legislation based on academic research as a result of the absence of agreement on the association between trade liberalization and economic growth.

Despite all these studies with mixed outcomes, the argument, among economists, on the relationships between trade liberalization and economic growth is still open. Besides, some scholars, Rodriguez and Rodrik (2001) for instance contended that the deliberation on the trade openness-growth causality is still open because most of the supporting works on this empirical proof suffer from a minimum of two serious criticisms that often question their results. The first flaw has to do with the measurement of trade liberalization. The second one stems from retained assessment techniques. Manwa (2015). In recognition of the gaps created in earlier studies through lack of agreement in terms of results, sparse nature of studies, weaknesses of some of the approaches employed and contradictions in the estimation, this study intends to fill these gaps by investigating the impact of trade Liberalization on economic growth in Nigeria from 1981 to 2019. The time frame was based on the premise that the Nigerian economy assumed a diverse outlook beginning in 1986, which marked the kick-off of trade liberalization. Hence, this study departs from most of the earlier studies in terms of scope and methodology.

Gaps in Literature

Arising from the literature review are some literature and methodological gaps that are to be filled by this study. There is a knowledge gap on the impact of trade liberalization on economic growth in Nigeria. Moreover, prior studies on the impact of trade liberalization on economic growth used trade openness while some used both trade openness and at the same time include export and import trade variables thereby making some of the variables to be suffering from serial correlation and in order to avoid serial correlation in the study, the researcher exclude trade openness since export trade and import trade made up of trade openness in the study.

Methodology

For the purpose of this study, the researcher employed ex-post facto research design. Ex-post facto research design is methodical and practical investigation in which the researcher does not have direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulated. The variables used in this study are real gross

domestic product as dependent variable while total balance of trade, total export trade, total import trade and interest rate are adopted as explanatory variables. In broad terms, co integration technique and error correction mechanism will be employed for model evaluation with the use of Eview 9.0 analytical tool

Model Specification

In capturing the study, therefore this study adopted export-led growth hypothesis which postulates that export is one of the main determinants of growth.

The export-led growth hypothesis is part of consensus among economists about the gains of economic openness that took-hold in the 1970s, which rests on a fusion of three lines of argument; the first, based on Hecksher–Ohlin–Samuelson comparative advantage theory, is about the benefits from trade between countries with different capital–labor ratios, second concerns the benefits of openness for controlling rent seeking and the third which was developed later, concerns the benefits of openness for growth. The claim is trade encourages technology diffusion and knowledge spillovers that contribute to faster productivity growth (Palley, 2011).

Therefore, the rational for adopting export-led growth is that the researcher is of the views that exports will generate positive externalities on the economy i.e., increase in export earnings will lead to increase in economic growth in Nigeria. To this point the study adopt the model used by Santos, (2012) which is stated as thus

$$GDP_t = \lambda + \eta EXPORT_t + \varepsilon_t \tag{1}$$

Where

- GDP = Economic growth
- λ = Constant
- EXPORT = Export
- ε_t = Error term

The above model in equation one is modified by adding other variable to export such as total export trade, total import trade, total trade balance and exchange rate. To this point, equation one is modified as thus

$$LRGDP_t = b_0 + b_1 LTBT_t + b_2 LTET_t + b_3 LTIT_t + b_4 LEXDR_t + \varepsilon_t \tag{2}$$

Whereas the ARDL model used in the study is derived from equation (2) as thus

$$\begin{aligned} \Delta LR GDP_t = & a_0 + \sum_{i=1}^k b_1 \Delta LR GDP_{t-1} + \sum_{i=1}^k b_2 \Delta LTBT_{t-i} + \sum_{i=1}^k b_3 \Delta LTET_{t-i} + \sum_{i=1}^k b_4 \Delta LTIT_{t-i} + \sum_{i=1}^k b_5 \Delta LEXDR_{t-i} \\ & + \delta_1 LR GDP_{t-1} + \delta_2 LTBT_{t-1} + \delta_3 LTET_{t-1} + \delta_4 LTIT_{t-1} + \delta_5 LEXDR_{t-1} + e_{1t} \end{aligned} \quad (3)$$

Where:

LRGDP	=	Natural log of Real Gross Domestic Product
LTBT	=	Natural log of Total Balance of Trade
LTET	=	Natural log of Total Export Trade
LTIT	=	Natural log of Total Import Trade
LEXDR	=	Natural log of Exchange Rate
b_{is}	=	Parameters estimates; whereas other variables are as defined above.

A priori Expectation

It is expected that the signs of the parameter estimates should be positively related to economic growth apart from that of the exchange rate which is expected to be negatively related to economic growth. Therefore, a prior is stated mathematically as thus $TBT > 0$, $TET > 0$, $TIT > 0$ and $EXDR < 0$.

Data Definition

Real Gross Domestic Product: This is the total performance of the economy. It is the level at which economic activities are increasing or decrease. It is the real growth rate of productive activities in an economy and is the best measure of economic growth.

Total Balance of Trade: This represents the difference between export trade and import trade. When export is in excess of import, we have surplus balance of trade; otherwise it is a deficit balance of trade. A surplus balance of trade promotes economic growth, whereas a deficit balance of trade deters growth.

Total Export Trade: This involves total sales of goods and services to other countries. Exports increase nation's foreign reserves and leads to surplus balance of trade, the higher the export, the higher the growth of any economy.

(d) Total Import Trade: This involves the total goods and services bought from abroad. Imports reduce nation's foreign reserves and may cause the value of its currency to fall, the higher the level of import, the lower the growth of an economy, *ceteris paribus*.

Exchange Rate

Exchange rate is the rate at which Nigeria's currency is exchanged for another national's currency in export of oil and non-oil related trade. Exchange rate is also one of the factors to considered in this study because without official price of other currencies to naira, exports and imports of goods and services could have not be possible and economic growth could have be hindered.

Sources of Data

The data used for this study is secondary data. The data was sourced from CBN Statistical Bulletin covering the period of 1981 – 2019.

Estimation Procedure

The estimation procedures employed for this study are as follow below:

Unit root test

The Augmented-Dickey-Fuller (ADF) is used to test the stationarity of the variables used in this study. The Augmented Dickey fuller (ADF) test statistics shall be compared with the critical values at 5% level of significance. A situation whereby the ADF test statistics is greater than the critical values with consideration of the absolute values, the data at the tested order will be said to be stationary.

Phillip-Peron test

In statistics, the Phillips–Perron test (1988) named after Peter C. B. Phillips and Pierre Perron is a unit root test. That is, it is used in time series analysis to test the null hypothesis that a time series is integrated of order 1. It builds on the Dickey–Fuller test of the null hypothesis $p = 1$ in $\Delta y_t = (p-1)y_{t-1} + u_{1t}$, where Δ is the first difference operator.

The tests are conducted with and without a deterministic trend (t) for each of the series. The general form of Augmented Dickey Fuller ADF test is estimated by the following regression.

$$\Delta y_t = a_0 + a_1 y_{t-1} + \sum a \Delta y_t + e_{1t} \tag{4}$$

$$\Delta y_t = a_0 + a_1 y_{t-1} + \sum a \Delta y_t + \delta_t + e_{1t} \tag{5}$$

Where Δy_t is a time series, t is a linear time trend, Δ is the first difference operator, such that $\Delta y_{t-1} = y_t - y_{t-1}$, a_0 is a constant, n is the optimum number of lags in the dependent variable and e_{1t} is the random error term. The null hypothesis is that $a_0 = 0$. If the null hypothesis $a_0 = 1$, then

we conclude that the series under consideration (y_t) has a unit root and is therefore non-stationary.

ARDL-Bounds tests for cointegration

Cointegration means that despite being individually non-stationary, a linear combination of the two or more-time series can be stationary. Engel and Granger (1987) pointed out that a linear combination of two or more non-stationary variables may be stationary. If such a stationary combination exists, then the non-stationary time series are said to be co-integrated. It is therefore used to test for the long run relationship between the variables. In order to empirically analyze the long-run relationships and short run dynamic interactions among the variables of interest, this study employs the Auto Regressive Distributed Lag (ARDL) Bounds testing methodology developed by Pesaran and Shin (1999) and Pesaran et al (2001) to test for the short run relationship among the variables and the long run relationship among those integrated of same order. The major reason for the use of ARDL/ Bound test is informed by the numerous advantages which it possesses among which are: First of all, it can be used irrespective of the order of integration of the variables in question. In order words, it can be used when the variables are fractionally integrated i.e. I (0) and I (1).

Secondly, the procedure is fairly simple as it involves just a single equation set up which makes implementation and interpretation very simple. Finally, as various variables enter the model, they can be assigned different lag lengths. However, the ARDL procedure usually make sure that any variable that is integrated of order two (I (2)) does not enter the model as such will invalidate the methodology.

The ARDL model used in the study is specified in a log form as thus

$$\begin{aligned} \Delta LR GDP_t = & a_0 + \sum_{i=1}^k b_1 \Delta LR GDP_{t-1} + \sum_{i=1}^K b_2 \Delta LTBT_{t-i} + \sum_{i=1}^k b_3 \Delta LTET_{t-i} + \sum_{i=1}^k b_4 \Delta LTIT_{t-1} + \sum_{i=1}^k b_5 \Delta LEXDR_{t-i} \\ & + \delta_1 LR GDP_{t-1} + \delta_2 LTBT_{t-1} + \delta_3 LTET_{t-i} + \delta_4 LTIT_{t-i} + \delta_5 LEXDR_{t-1} + e_{1t} \end{aligned} \quad (6)$$

Where all the variables are defined above.

Hypothesis test procedures

The evaluation criteria help in decision making so as to know whether the estimates of parameter are theoretically meaningful and stochastically satisfactory. For the purpose of this study the following criteria are used.

- i. **P-value:** This is a test used to ascertain whether the estimated coefficient of a parameter is statistically significant or not. In this study, 5 percent level of significance (0.05) was

employed such that if the p-value of the estimated coefficient is less than 0.05, we reject the null hypothesis of no significance. On the other hand, if the p-value is greater than 0.05, we accept the null hypothesis.

ii. **F – Test:** It is used to test for the joint influence of the explanatory variable on the dependent variable

iii. **Decision Rule**

If the P-value of the estimated and the F-statistics is less than the chosen 5% level of significance, we reject the null hypothesis of not significance and the study concludes that the estimated parameter is significant.

Presentation of Results and Discussion

Descriptive Statistics

Table 1: Descriptive statistics

	LRGDP	LTBT	LTET	LTIT	LEXR
Mean	10.29219	6.380936	6.770866	6.413788	3.480754
Median	10.07274	6.915377	7.464038	6.892664	4.626004
Maximum	11.17588	10.57934	9.898965	9.925685	5.726589
Minimum	9.530920	0.646946	2.015236	1.789022	-0.494255
Std. Dev.	0.572482	2.626750	2.695633	2.646862	1.981023
Skewness	0.298237	-0.600128	-0.550667	-0.467838	-0.783041
Kurtosis	1.575399	2.314462	1.874596	1.811260	2.319139
Jarque-Bera	3.876065	3.104689	4.029142	3.718965	4.738797
Probability	0.143987	0.211751	0.133378	0.155753	0.093537
Sum	401.3954	248.8565	264.0638	250.1377	135.7494
Sum Sq. Dev.	12.45395	262.1930	276.1246	266.2233	149.1291
Observations	39	39	39	39	39

Source: Researcher’s Estimate from Eview 9.0 (2021)

The descriptive statistics shows that exchange rate has the lowest average score of 3.48%, followed by total trade balance, total import trade and total export trade with the average scores of 6.38%, 6.41% and 6.77% respectively whereas real economic growth has the highest average score with the value of 10.3%. The descriptive statistics also shows that all the variables used in the study were positively skewed whereas the Jarque-Bera statistic shows that all variables used in this study were normally distributed because the probabilities of the Jarque-Bera statistic of the variables used in the study were more than 5% level of significant of which the

Jarque-Bera statistic required that a series should be statistically insignificant for such series to be normally distributed.

Unit Root Test Result

The Augmented Dickey Fuller (ADF) unit root test with trend and intercept is employed in order to test for the stationarity of the time series data used are presented on table 2 below.

Table 2: ADF Unit Root Test of Stationarity of Time Series Data

ADF tests at Level				ADF tests at 1 st Difference			
Series	ADF Statistic	5% Critical Level	p-Values	ADF Statistic	5% Critical Level	p-Values	Order of Integration
LRGDP	-4.347809	-3.574244	0.0092	-	-	-	I(0)
LTET	-1.192169	-3.533083	0.8979	-3.929409	-3.548490	0.0215	I(1)
LTIT	-1.122545	-3.536601	0.9114	-6.910108	-3.536601	0.0000	I(1)
LTBT	-2.336985	-3.548490	0.4040	-5.658454	-3.557759	0.0003	I(1)
LEXR	-1.277673	-3.533083	0.8784	-5.607568	-3.536601	0.0003	I(1)

*NB: I(0) stands for stationary at level while I(1) stands for stationary at first difference.

Source: Researcher's Estimate from Eview 9.0 (2021)

Table 3: Phillips-Perron Unit Root Test of Stationarity of Time Series Data

PP tests at Level				PP tests at 1 st Difference			
Series	PP Statistic	5% Critical Level	p-Values	PP Statistic	5% Critical Level	p-Values	Order of Integration
LRGDP	-4.527254	-3.533083	0.0045	-	-	-	I(0)
LTET	-0.530077	-3.533083	0.9776	23.69461	-3.536601	0.0000	I(1)
LTIT	-1.719095	-3.533083	0.7231	-7.832595	-3.536601	0.0000	I(1)
LTBT	-1.904187	-3.548490	0.6304	-6.653397	-3.552973	0.0000	I(1)
LEXR	-1.187510	-3.533083	0.8989	-19.74884	-3.536601	0.0000	I(0)

*NB: I(0) stands for stationary at level while I(1) stands for stationary at first difference.

Source: Researcher's Estimate from Eview 9.0 (2021)

The Augmented Dickey Fuller (ADF) unit root test presented in table 2 indicates that the log of real economic growth was stationary at level whereas the Phillips-Perron Test result presented in table 3 also indicated the same, thereby authenticating the previous ADF unit root result for the stationarity of real economic growth moreover, the ADF results presented at table 2 also revealed that log of total export trade, log of total import trade, log of total balance of trade and that of exchange rate respectively were stationary at first difference whereas the Phillip-Perron test result presented in table 3 also revealed that log of total export trade, log of

total import trade, log of total balance of trade and that of exchange rate respectively were also stationary at first difference, thereby agreeing with that of the ADF unit root test results.

ARDL Bounds Test

Table 4: ARDL Bounds test result.

Test Statistic	Value	K
F-statistic	5.168530	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	3.03	4.06
5%	3.47	4.57
2.50%	3.89	5.07
1%	4.4	5.72

Source: Researcher’s Estimate from Eview 9.0 (2021)

The ARDL Bound test result presented in table 4 indicates that there is a presence of long run relationship at 5% level of significant existing between trade liberalization and economic growth in Nigeria under the periods of the study. On the other hand, it means that trade liberalization and economic growth in Nigeria are co-integrated at the long run. The long run relationship existing between trade liberalization and economic growth is as a result of the fact that the value of F-statistic in table 4 which is 5.168530 is greater than the value of upper bound boundary of 4.57 at 5% level of significance. Therefore, the no long-run relationship existing between trade liberalization and economic growth is rejected at 5% level of significance.

ARDL Short Run Coefficients and the coefficient of ECM

Table 5: ARDL Short Run Confidences

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LRGDP(-1))	0.337079	0.181405	1.858154	0.0901
D(LRGDP(-2))	0.387781	0.188813	2.053783	0.0646
D(LRGDP(-3))	0.172222	0.153924	1.118881	0.2870
D(LTBT)	0.010055	0.011038	0.910898	0.3819
D(LTBT(-1))	0.010298	0.009742	1.057069	0.3131
D(LTBT(-2))	0.005065	0.020142	0.251477	0.8061
D(LTBT(-3))	0.047947	0.023156	2.070604	0.0627
D(LTET)	0.075886	0.047600	1.594267	0.1392
D(LTET(-1))	0.057703	0.038798	1.487252	0.1650

D(LTET(-2))	-0.116323	0.031498	-3.692997	0.0035
D(LTIT)	-0.096403	0.033470	-2.880283	0.0150
D(LTIT(-1))	-0.066028	0.037824	-1.745679	0.1087
D(LTIT(-2))	0.069536	0.027326	2.544643	0.0273
D(LEXR)	-0.051952	0.032929	-1.577705	0.1429
D(LEXR(-1))	-0.058838	0.030736	-1.914318	0.0819
D(LEXR(-2))	-0.034454	0.025728	-1.339131	0.2075
D(LEXR(-3))	0.103541	0.026285	3.939178	0.0023
D(@TREND())	0.024844	0.011676	2.127749	0.0568
CointEq(-1)	-0.333483	0.133171	-2.504170	0.0293

Source: Researcher's Estimate from Eview 9.0 (2021)

The short run coefficients and the Error Correction Mechanism (ECM) results presented in table 5, show that the past values of real economic growth, total trade balance were statistically insignificant on the economic growth in the short run and poor performances of economic growth and total balance of trade recorded in the previous years may be one of the factors that are responsible for the insignificance of lags of economic growth and that of total trade balance on the current short run economic growth in Nigeria, whereas total export trade lag two, total import trade lag two and that of the exchange rate lag three respectively indicated statistically significance on economic growth in the short run.

Therefore, the estimated short run coefficients of trade liberalization variables generally disclosed as thus:

- (a) One percent increase in previous value of total export trade (lag two) leads to 0.12% decrease in the values of economic growth in Nigeria. The implication of this result shows that total export trade in lag two is not in agreement with the a prior expectation of the relationship existing between total export trade and economic growth in the short run and one of the reason that may be responsible for the negative relationship between total export trade and economic growth may be as a result of poor performances in export trade recorded in the past years, likewise also total import trade in Nigeria.
- (b) One percent increase in total import trade leads to approximately 0.07% increase in economic growth in Nigeria.

Moreover, the result further shows that the sign of the value of co-integration coefficient also known as Error Correction Mechanism (ECM) was negative and also statistically significant. On the other hand, the value of ECM being negative and statistically significant is an indication that trade liberalization and economic growth are cointegrated at the long run. The result of the

error correction transmission indicates that it will take the value of 33% for the model to adjust back to the long run equilibrium after a shock in the short run.

ARDL Long Run Coefficients

Table 6: Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LTBT	-0.143835	0.085818	-1.676044	0.1219
LTET	0.844113	0.307014	2.749434	0.0189
LTIT	-0.587526	0.202094	-2.907194	0.0143
LEXR	-0.312270	0.128592	-2.428383	0.0335
C	8.751507	0.358738	24.395293	0.0000
@TREND	0.074499	0.007496	9.938830	0.0000

Source: Researcher's Estimate from Eview 9.0 (2021)

The long run coefficients of the variables of the study presented in table 6 generally revealed that the coefficient of total export trade, total import trade and exchange rate respectively were statistically significant on economic growth in Nigeria whereas the coefficient of total trade balance was statistically insignificant on economic growth in Nigeria under the periods of the study.

Therefore, the result further disclosed as thus:

- a) One percent increase in total export trade will leads to 0.84% increase in economic growth in Nigeria under the periods of the study.
- b) One percent increase in total import trade will leads to approximately 0.59% decline in economic growth in Nigeria under the periods of the study.
- c) Whereas, one percent increase in exchange rate will leads to 0.31% decrease in economic growth in Nigeria at the time of the study.

This section dealt with the discussion of findings. Thus, the findings are discussed in line with the objectives of the study. However, the short run result presented in table 5 of section 4.1.4 generally indicates that total export trade lag two was statistically significant but negatively contributed to economic growth in the short run, which implies that poor performances in previous total export trades in the country is one of the factors that is responsible for the

decrease or poor performance in the present day economic growth in Nigeria whereas total import trade lag two was statistically significant and impacted positively on the economic growth in Nigeria at the short run.

Moreover, the coefficient of error correction mechanism was statistically significant and also negative indicating the sign of returning to long run after a shock in short run, it also implies that there is a long run relationship existing between trade liberalization and economic growth in Nigeria during the period of this study.

Furthermore, the long run result presented in table 6 of section 4.1.5 above, however indicated that the estimated coefficients of the regression equation used in the study are stated as thus:

$$RGDP = 8.751507 - 0.143835 (TBT) + 0.844113 (TET) - 0.587526 (TIT) - 0.312270 (EXR)$$

The estimated coefficients generally state as follow

- a) That due balance of payment was statistically insignificant but it is indicating that the value of balance of trade is going negative in relation to economic growth.
- b) The study also revealed that total export trade was statistically significant and also impacted positively on economic growth in Nigeria. This means that total export trade is directly related to economic growth which implies that one percent increase in total export trade will leads to 0.84% increase in economic growth in the country.
- c) Finally, the study finds that the coefficient of exchange rate with the value of -0.31% was statistically significant and also negatively related to economic growth in Nigeria at the time of the study. This implies that exchange rate is inversely related to economic growth in Nigeria which also meets the prior expectation of the relationship existing between exchange rate and economic growth in the country. On the other hand, it means that one percent rise in exchange rate will bring about 0.31% fall in economic growth in Nigeria and vice versa. The implication this result means that, it is good for the government to maintain a stable exchange rate in relation with the price of other countries' currencies and any increase in the price of naira in relation of other currencies will bring about decline in economic growth of the country.

Findings and Recommendation

The study investigated the impact of trade liberalization on economic growth in Nigeria for the period of 1981 to 2019. Having estimated and analyzed the empirical result in chapter four of

this study using Autoregressive Distributed lag (ARDL) Model after testing for unit root test using Augmentative Dickey – Fuller (ADF), Phillip-Peron (PP) tests and the bound test. The unit root tests conducted revealed that the time series variables used were stationary at level and also at first difference but none of the variable was stationary at second difference while the bound test result revealed that there was presence of long- run relationship existing between trade liberalization and economic growth in Nigeria, moreover the coefficient of error correction mechanism was statistically significant and also negatively signed.

Conclusion

This research study examined the impacts of trade liberalization on economic growth in Nigerian. The contributions of trade liberalization to economic growth cannot be overemphasized, despite receiving lots of attention in related literature, its relevance as a burning socio-economic issue within and outside the country is not in doubt, moreover there have be no consensus on the impact of trade liberalization on economic growth, and it is for this reason the researcher is motivated in carrying out this study on the impacts of trade liberalization on economic growth in Nigeria.

The empirical evidence from the ARDL – Bound test analysis shows that there is a long-run equilibrium relationship existing between trade liberalization and economic growth in Nigeria under the periods of the study.

Recommendations

The recommendations of this study are made based on the above findings of the study and they are stated as thus:

- a) Since total balance of trade is statistically insignificant in relation to the growth of economy in Nigeria during the period of the study, the study recommends that government should put up policies and programs targeted at increasing locally produced export oriented goods and services in the country.
- b) Since total imports trades are negatively related to economic growth in Nigeria, they should be restricted. However, restriction of import trade will help the country not to be over-depend on the international sectors because over dependent on the international trade may result to international exploitation and dumping of international goods and services which may endanger the growth and development of domestic industries. As the country is placing restriction on some imported good, governments and private individuals should put in place production of substitute goods and services in order to make those restricted ones available at affordable prices.

- c) Since total export trade is statistically significant and positively related to economic growth in Nigeria, the study recommends that government should encourage more production of export oriented goods and services in the country and restrict importations of those goods and services that are locally produced in the country, by so doing, it will invariably correct negative balance of trade, as well bring about increase in economic growth in the country.
- d) Finally, since exchange rate is statistically significantly negatively related to economic growth in Nigeria to this point the study recommends that, the government should try to maintain a stable exchange rate in relation with the prices of other countries' currencies because any attempt to increase the price of naira in relation to the prices of other currencies will bring about decline in economic growth of the country.

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