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Spring 2017

Contribution of International Trade to Economic Growth in Nigeria

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Abstract

Views differ on the impact of international trade on economic growth in developing countries. Whilst some scholars on the subject uphold the view that international trade leads to economic growth based on empirical evidence, others, albeit, in the minority, express a dissenting opinion

This paper looks at the contribution of international trade to economic growth in Nigeria, a developing country, and establishes a nexus between international trade and economic growth. The variables considered are real GDP, a proxy for economic growth, export volumes, import volumes, trade openness, gross capital formation and exchange rate as independent variables. Augmented Dickey-Fuller (ADF) test was used for the unit root test and the variables were found to be stationary at levels. Granger Causality was also deployed to test the causality between the dependent and independent variables and a uni-directional relationship was established for some of the variables. The results reveal that there is, overall, a positive relationship between economic growth and international trade

1 Introduction

Africa's growth out of poverty will depend on its developing greater linkages with the world economy through trade- Kofi Annan, former UN Secretary General

When nations of the world engage in trade with one another, there are bound to be gains on both sides as each country increases its utility and expands the circle of choices available to its citizens. More so, developing countries tend to benefit from the diffusion of technology that is engendered by this process. This view is upheld by economists who see trade as a positive sum game.

On the other hand, as far as international trade in developing countries is considered, there is another view – trade as a zero-sum game - where there must be a winner and a loser. In the real world, however, empirical evidence has shown that more often than not, countries tend to benefit, although, to different degrees, from international trade. It is pertinent to note that the positive sum game-view remains the preponderant view among experts in international trade.

The argument expounded by opponents of international trade in developing countries rests on the claim that international trade has brought about unfavorable economic and financial situations in developing countries. In the opinion of these scholars, the gains from international trade often accrue to the developed nations. Further, international trade is perceived to distort the industrial setup in developing industries, killing infant industries that cannot compete at world prices. This argument is appealing. In fact, it seems to ring true in many developing nations. For what it is worth, this view deserves to be investigated. And that is the crux of this paper. This paper addresses the fundamental question -*Does international trade contribute to economic growth in Nigeria* - by reviewing empirical literature and analyzing available data to determine the contribution of international trade to economic growth.

Different trade theories advance various reasons for international trade, ranging from proximity to abundance of resources, to comparative advantage and absolute advantage. Since different countries are endowed with different resources, there tends to be variance in their cost structures, and this gives rise to comparative advantage, a concept that is at the heart of trade theories. The existence of comparative advantage or differences in natural endowments of different nations, therefore, makes it imperative for countries of the word to trade.

International trade in Nigeria dates back to the pre-colonial era, where the geographical entity now known as Nigeria comprised kingdoms and empires. These kingdoms and empires traded what they had in abundance with other kingdoms across West Africa, and sometimes, even north of the Sahara. Historians who record this period observe that this trade across frontiers

increased the welfare of the people by providing them with a variety of items that could not be produced within.

With colonization came a new era of trade. Nigeria, being a geographical area endowed with arable land, was poised to be the agricultural hub of West Africa. Between the 1900s and the 1960s, Nigeria traded predominantly in agricultural products. Trade volumes further increased in the years that followed the discovery of crude oil in 1956, as income from the sale of oil bolstered foreign exchange earnings.

However, there are genuine concerns that international trade may not necessarily be the key to Nigeria's economic growth; that it, in fact, weakens the economy as the competition spurned off by foreign trade kills local and infant industries. Usman (2011) posits that international trade has not helped in promoting economic growth of Nigeria because her economy still experiences some element of economic instability and this trade has also turned the country into an import-dependent economy.

Further to the foregoing point, some views assert that some form of protectionism, e.g., infant industry protection is fundamental to developing certain industries or sectors, and that a strategic trade policy in key sectors can be beneficial for economic development. On the contrary, Helpman and Krugman (1985) opine that international trade promotes specialization in the production of export products which in turn boosts the production level and causes the general level of skills to rise in the export sector.

There are other studies that refute the infant industries argument on the basis that protectionism tends to become a permanent feature as protected industries continue to be considered as infant. In a definitive article, *Stifling Trade Policy; Case of Nigeria and the Infant Industry Argument: A Review,* Kishore G. Kulkarni and Camden Bowman made the point that infant industries can mature under protectionism, but there must be some motivation for them to do so. In a free-market system, that motivation is competition with foreign firms.

To corroborate the preceding points, Umoh and Effiong (2001) go to the heart of the matter, explaining why trade should be liberalised rather than advancing the infant industry argument: With the available market in Nigeria, opening to trade will allow manufacturing firms in the sector to enjoy economies of scale with significant expansion in their scale of production to achieve growth. In addition, with the focus of the government's industrial policy on encouraging private sector involvement in the sector, openness to trade will encourage new entrants into the sector with significant technology transfer from abroad. The embedded technologies and technical know-how remain invaluable toward resuscitating and spurring the export

performance of the manufacturing sector, and as viable options from tapping into the global market and learning from other countries via open trade policy.

The rest of this paper looks at relative literature on the topic, descriptive statistics, and concludes as to the contribution of international trade to economic growth in Nigeria.

II Literature Review

There has been a long-standing debate on the contribution of international trade to economic growth in developing countries. However, from the '90s onward, opinions seemed to have converged amongst economists considerably. Krueger (1997) opines that there is, more now than ever, a consensus among economists on the positive impact of outer-oriented trade regime on economic growth in developing countries.

Many empirical papers have explored the links between international trade and growth. The seminal empirical studies of Sachs and Warner (1995) and Frankel and Romer (1999) provide support for the growth-enhancing effect of international trade. Sachs and Warner examine the impact of international trade on the growth of 122 countries; they found that open countries exhibit higher growth rates than protectionist countries. In the same way, Frankel and Romer show that trade openness generated higher income levels in a cross section of 63 countries in 1985.

In the same vein, Kavoussi (1984) also studied 73 middle- and low-income developing countries to determine the contribution of trade to economic growth. He found that the high rate of economic growth experienced in these countries was strongly correlated with a high rate of export growth for both middle- and low-income countries. However, the effects tend to diminish according to the level of economic development of the country. But his findings corroborate the work of Chenery and Strout (1994), which shows that for a long time in many developing countries, there was hardly any country which exhibited a sustained growth rate higher than its growth of exports. They also found that growth rates of individual developing countries since

1950 correlate better with their export performance than with any other single economic indicator.

Another insightful finding was Massel et al (1992). They investigated the pattern of economic growth of some select developing countries using regression methods. They observed a high degree of association between exports and economic growth. They suggested that countries should aim at 2.5% expansion in export activities to obtain a 1% increase in economic performance. In particular to the Nigerian economy, Ogbokor (2001) analyzed the macroeconomic impact of oil exports on the economy of Nigeria. With the use of OLS technique, he observed that economic growth reacted in an expected way to changes in the variables used in the study. He found that a 10% increase in the volume of oil exports would lead to a 2.2% increase in economic growth.

Similarly Egwaikhide (1991) established the qualitative effects of export (non-oil) expansion on Nigeria's economic growth over the period 1960 – 1983. Based on a simulation experiment, he observed that a 75% rise in non-oil exports led to a 1.4% increase in real GDP. In concluding, he posits that there is a need to promote exports in order to enhance GDP growth in Nigeria.

Obadan (2008), drawing on the work of Mwaba (1999), re–emphasized the view that trade exhibits great potential in influencing economic growth and poverty reduction amongst nations. In the same vein, Awoluse (2008) argues that an increase in foreign demand for domestic exportable products can cause an overall growth in output via an increase in employment and income in the exportable sectors.

More recently, Greenway, Morgan and Write (2005) also carried out an empirical study on the impact of international trade on 70 developing countries, using a dynamic panel framework and three different indicators of liberalization and international trade; they found a significant positive relationship between trade and economic growth.

As has been argued earlier, there is certainly a nexus between international trade and economic growth; however, the effect on trade on growth may not be instant. This view is validated by Dollar and Kraay (2001). Having studied the relationship between international trade and growth

extensively, they posit that economists generally agree that openness to international trade accelerate economic growth. They added, however, that more rapid growth may be a transition effect rather than a shift to a different steady state of growth rate. This transition will take a couple of decades or more, so that it is reasonable to speak of trade openness accelerating growth rather than merely leading to a sudden one-time adjustment in real income.

China presents a good example of a developing country that successfully harnessed the benefits of international trade. In fact, Fu (2004), who investigates the role that exports have played in China's development process, outlines that dynamic gains arising from trade orientation generally take place in the form of productivity gains. For instance, openness to trade could improve a country or firm's productivity through a "competition" effect.

Lin and Li (2002) examined the contribution of foreign trade to China's economic growth and found that the previous reviews on foreign trade underestimated the contribution of exports to GDP growth by overlooking the indirect impacts of exports on domestic consumption, investment, government expenditures and imports. They proposed a new estimation method and found that a 10% increase in exports resulted in a 1% increase in GDP in the 1990 China, when both direct and indirect contributions were considered.

It is interesting to note that way back in the 1970s Nigeria's GDP was roughly the same as that of China and other emerging Asian countries such as Thailand, Malaysia and India. In 1970, for instance, Nigeria had a GDP per capital of US$233.35 and was ranked 88th in the world, when China was ranked 114th with a GDP per capita of US$111.82 (Sanusi 2010).

Unfortunately, wealth generated through trade has not been efficiently harnessed for economic growth in Nigeria. This explains why the economy has not advanced significantly in spite of enormous advantage from trade. Arodoye and Iyoha (2014) contend that in Nigeria, proceeds from exports were not effectively channeled to economic growth as a result of corruption, rent seeking and a pervasive lack of accountability, particularly under the military dictatorships between 1966 and 1999.

In making reference to China, the idea is to point out how much more contribution international trade would have made to economic growth were the proceeds from trade effectively utilized.

This study attempts to investigate the nexus between international trade and economic growth in Nigeria. This model derives from earlier studies by scholars such as Barro, (1999) Balasubramanayan (1996) However, some modifications have been made here. The variables examined in this study are expressed mathematically thus:

$$GRGDP_t = \gamma_0 + \gamma_1 TROP_t + \gamma_2 EXPT_t + \gamma_3 IMPT_t + \gamma_4 EXCR_t + \gamma_5 GRCF_t + \varepsilon_t \quad \text{(i)}$$

Where Real Gross Domestic Product is (GRGDP), Trade Openness is (TROP), Export Values is (EXPT), Import Values is given as (IMPT) Real Exchange Rate is (EXCHR), Gross Fixed Capital Formation is (GRFC) and Constant and Stochastic Error Term is ε_t .

All the incorporated variables in the modified model specified above are expected to have positive effects on economic growth. It is worth nothing that due to the position of Nigeria as the 13th largest oil-exporting country in the world, it earns a significant amount in foreign exchange, which stabilizes her exchange rate, and by extension drives import, (Kohpaiboon, 2002.)

Secondary data collected from various statistical books of Bureau of Statistics and the Central Bank of Nigeria (CBN), Volume 22, 2014 and World Development Index, 2014 have been used in this study.

ENGLE GRANGER ERROR CORRECTION MECHANISM

The first step in the estimation of the model for adoption using the Engle Granger Error Correction Mechanism is to pretest the individual time series in order to confirm that they are non-stationary at level. This can be done by standard unit root tests such as Augmented Dickey–Fuller test and Phillip Perron. Considering two different series Y and Z, if both are stationary I (0), standard regression analysis will be valid. If they are integrated of a different order, e.g. one being I (1) and the other being I (0), one has to transform the model. If they are both integrated

to the same order, an Error Correction Model will be appropriate. If both variables are integrated and the ECM exists, they are cointegrated by the Engle–Granger representation theorem. The second step is to then estimate the model using ordinary least squares: If the regression is not spurious as determined by test criteria described above, ordinary least squares will not only be valid, but in fact super consistent (Stock, 1987). Then the lag of the predicted residuals $\boldsymbol{\varepsilon}$ from this regression are saved and used in a regression of differenced variables.

Therefore, this study primarily employs the conventional unit root test i.e. the Augmented Dickey Fuller test (supported by Phillip Perron) by Dickey and Fuller (1979, 1981) to confirm the validity of stationarity level (either difference stationary or trend stationary) in the data sets. Given a variable Z, the test equations are expressed as:

$$\Delta Z_t = \eta_0 + \eta_1 Z_{t-1} + \sum_{i=1}^{n} \pi_i \Delta Z_{t-i} + \nu_t \qquad \text{(ii)}$$

$$\Delta Z_t = \eta_0 + \eta_1 Z_{t-1} + \eta_1 t + \sum_{i=1}^{n} \pi_i \Delta Z_{t-i} + \nu_t \qquad \text{(iii)}$$

$$H_0: \quad \eta_1 = 0 \qquad H_1: \quad \eta_1 < 0$$

The time series variable is represented by Z_t and ν_t as time and residual respectively. Equation (ii) and (iii) are the test model with intercept only and linear trend respectively, which are tested in the study.

Cointegration and Error Correction Representation

After examining the unit root of the time series, the stationarity of the error correction term, derived from the long-run estimates, is tested to confirm the linear combination of both stationary and non-stationary level of variables, i.e., the cointegrating test. Following the argument made by Engle and Granger (1987) that a linear combination of non-stationarity series can be stationary and if this exists, the time series of such variables are considered to be cointegrated. Thus, it indicates that the series have the same order of integration. The relation between cointegration and error correction models stems from the Granger representation theorem. According to this theorem, two or more integrated time series that are cointegrated

have an error correction representation, and two or more time series that are error correcting are cointegrated (Engle and Granger 1987).

Cointegration implies that the two integrated series never drift far apart from each other, i.e., they maintain an equilibrium. The classic example of a cointegrating relationship is that of short and long-term interest rates (Engle and Granger 1987). The error correction model is the preferred method for estimation when two or more integrated time series are statistically related or cointegrated, since the error correction model can be formally derived from the properties of integrated time series. The error correction model, however, is particularly powerful since it allows a researcher to estimate both short-term and long-run effects of explanatory time series variables. The single-equation error correction model:

$$\Delta Y_t = a_0 + a_1\left(\mathrm{Y}_{t-1} - \beta_{0i}\ \sum_{i=1}^{n}\left(\Delta X_{i,t}\right)\right) + \beta_{1i}\Delta X_{i,t-1} + \ \varepsilon_t \qquad \text{(iv)}$$

Where Y is Dependent Variable and $X_{i,t}$ *i= 1, 2, 3, ... n* are independent Variables

In equation (iv) current changes in Y is a function of current changes in number of regresors (X_i) and the degree to which the series are outside of their equilibrium in the previous time period. Specifically, β_{0i} captures any immediate effects that X_i have on Y, described as a contemporaneous effects or short-term effect. The coefficient, β_{1i} reflects the equilibrium effect of X_i on Y. It is the causal effects that occur over future time periods, often referred to as the long-term effects, which X_i have on Y. Finally, the long-term effects occur at a rate dictated by the value of α_1.

DATA ANALYSIS AND INTERPRETATION4

4.1 Descriptive Statistics of Choice Variables

The summary of the descriptive statistics of data used in modeling the relationship between economic growth and international trade in Nigeria between periods of 1981 to 2014 are represented in the table 4.1 below. The average growth rates are: Gross Domestic Product (7.61%), Trade Openness (6.26%) , Import (6.03%), Export (6.42%), Exchange Rate (3.18%) and Gross Fixed Capital formation (5.41%). The Jarque-Bera statistics indicates that none of the variables show a departure from normality, thus, the variables are considered to have a normal distribution. The returned values (range between -0.5 and 0.5) for skewness also indicate the distributions are appropriately symmetric.

Table 4.1 Summary Statistics

	GRGDP	TROP	IMPT	EXPT	EXCR	GRCF
Mean	7.614542	6.259063	6.035027	6.424781	3.184076	5.411581
Median	7.958982	6.833422	6.711057	6.913875	3.091042	5.467637
Maximum	11.40909	9.730232	9.523370	10.03559	5.133914	9.517519
Minimum	3.946072	2.027275	1.626098	2.131279	-0.494255	2.174693
Std. Dev.	2.418998	2.630419	2.641483	2.634113	1.941263	2.199536
Skewness	-0.153354	-0.332990	-0.327246	-0.338919	-0.685555	0.131423
Kurtosis	1.683129	1.724361	1.684509	1.768954	2.115842	1.871211
Jarque-Bera	2.589979	2.933612	3.058408	2.797828	3.770708	1.902941
Probability	0.273901	0.230661	0.216708	0.246865	0.151775	0.386173
Sum	258.8944	212.8081	205.1909	218.4426	108.2586	183.9938
Sum Sq. Dev.	193.1012	228.3305	230.2552	228.9722	124.3605	159.6526
Observations	34	34	34	34	34	34

Source: Author's computation (2017)

The variability in the distributions is captured by the standard deviation in the table 4.1. The results are as follows: Economic Growth (2.42%), Trade Openness (2.63%), Import Value (2.64%),

Export Value (2.63%), Exchange Rate (1.94%) and Gross Fixed Capital Formation (2.20%). These values are considerably dispersed around the centers and below the mean values, which indicate there are no wide variations among the data over the years in each distribution.

4.2 Unit Root Test Analysis

The recent development in time series modeling has been to establish the order of integration of the variables used in the model with diverse unit root test. A series is said to be integrated of order indicated by I (d), if the series becomes stationary after being differenced d times. This study adopts the two most common but effective tests (Augmented Dickey Fuller and Phillip-Perron) of stationarity of time-series data. The table 4.2 examines the stationarity tests among the six variables (Economic Growth, Trade Openness, Import Value, Export Value, Exchange Rate and Gross Fixed Capital Formation) under consideration both at *level* and at *first difference.*

Table 4.2: Unit Root Test Results (Augmented Dickey Fuller and Phillip-Perron Test)

Variables	Augmented Dickey Fuller (ADF) and Phillip-Perron (PP)				Augmented Dickey Fuller (ADF) and Phillip-Perron(PP)			
	Order		Constant	Constant and Trend	Order		Constant	Constant and Trend
GRGDP	I(0)	ADF	-0.024439	-2.001282	I(1)	ADF	-5.532675**	-5.417385**
		PP	-0.020921	-2.216399		PP	-5.532313**	- 5.415001**
TROP	I(0)	ADF	-0.689256	-1.580588	I(1)	ADF	-6.115457**	-4.028821*
		PP	-0.687551	[1.758665		PP	-6.124098**	-6.268917**
IMPT	I(0)	ADF	-0.465986	-1.692123	I(1)	ADF	-5.019961**	-4.959153**
		PP	-0.482210	-2.021680		PP	-4.997933**	-4.937769**
EXPT	I(0)	ADF	-2.322756	-1.949321	I(1)	ADF	-7.298800**	--4.245334*
		PP	-0.946675	-1.949321		PP	-7.576164	-8.964079
EXCHR	I(0)	ADF	-1.970323	-0.981806	I(1)	ADF	-4.887920**	-5.325595**
		PP	-2.026479	-0.995298		PP	-4.887920**	-5.919301**

GRCF	I(0)	ADF	0.961178	-4.554128	I(1)	ADF	-4.479604**	-3.627436*
		PP	1.202722	-3.727064		PP	-5.414390**	-5.730061**

Note:. ** (*) denotes the rejection of the null hypothesis at 1% (5%) significance level.
Source: Author's Computation (2017)

Having considered the test of stationarity of all the variables, it is observed that all the variables are non-mean reverting at level. However, upon differencing, they become stationary. This shows that the variables (Economic Growth, Trade Openness, Import Value, Export Value, Exchange Rate and Gross Fixed Capital Formation) would have a constant mean and variance at integrated order *1*. This development further necessitates a co-integration test.

4.4 Tests for Cointegration (Adopting Engle-Granger Test)

The study adopted the Augmented Dickey Fuller (Engle-Granger) test of the residual for unit root test to establish the cointegration among the variables. Using the Engle-Granger test of cointegration, it was found that the equation represented in the table 4.4 shows that the variables under consideration are cointegrated in the long-run at 5% level of significance, suggesting the need to undertake further estimation to determine the short-run dynamics and the speed of adjustment of the variables in question toward the long-run.

Table 4.3 Augmented Dickey Fuller Test for Cointegration (Engle Granger)

Variable	t-Statistics	Critical Value		
	@ None	1%	5%	10%
Residual($GRGDP_t$/ $TROP_t$)	-2.291167**	-2.636901	-1.951332	-1.610747
Residual($GRGDP_t$/$IMPT_t$)	-2.549475**	-2.636901	-1.951332	-1.610747
Residual($GRGDP_t$/ $EXPT_t$)	-2.777360*	-2.636901	-1.951332	-1.610747
Residual($GRGDP_t$/ $EXCR_t$)	-1.166221	-2.636901	-1.951332	-1.610747
Residual($GRGDP_t$/ $GRCF_t$,)	-2.716253*	-2.636901	-1.951332	-

				1.610747

***,** and * denotes the rejection of the null hypothesis at 1 %, 5% and 10% significance level.
Source: Author's Computation (2017)

As evident from Table 4.3, the Augmented Dickey Fuller reveals that the unit root test of the residuals of the variables are rejected at *level,* indicating some level of cointegration among the variables (Economic Growth and other exogenous variables used in the study) in the long-run, except exchange rate. Following this result, it is theoretically essential to proceed to the Error Correction Model, to examine both the short-run dynamics and speed of adjustment toward the long-run relationship while exchange rate is excluded from the model.

4.5 Single Equation Error Correction Model

In econometrics research, a cointegrated set of time series variables, to be robust, should be followed by an error-correction representation, which shows the short-run correction mechanism. The focal point of this subdivision is to study the pressure of the estimated long-run equilibrium on the short-run dynamics. The error-correction parameter in the equation is expected to be statistically significant, negatively signed, and range between zero and one. Having fulfilled these criteria, the coefficient of the error-correction term would suggest the period the variable would converge to long-run equilibrium.

Table 4.4 Single Equation Error Correction for Short-Run Model

	ECM (-1)	ΔTROP	ΔIMPT	ΔEXPT	ΔGRCF	Constant
Statistics	-0.323422*	-2.045037	0.736662	1.543240*	0.406808**	0.088281**
Critical Value	-2.548872	-1.840373	1.615025	2.261539	4.982158	3.273775
P-Value	0.0168	0.0767	0.1179	0.0320	0.0000	0.0029
R-Square= 0.680908		Adj.R-Square= 0.621817				
F-Statistics= 11.52303		P-Value= 0.000005				

** (*) denotes the rejection of the null hypothesis at 1 % (5%) significance level

Source: Author's computation (2017)

In table 4.4 above, The Error Correction Model is carried out to reveal the speed of convergence of the research variables to equilibrium. The residual of the cointegrating result were lagged and regressed along with the differenced variables on each of the exogenous variables. The symbol of the error-correction parameter in the equation is as expectedly and statistically significant. The coefficient of error-correction term for the short-run model is correctly signed and statistically significant. The Error Correction Term signifies that the error term is significant at $\alpha = 0.05$ and approximately 32% of disequilibrium is adjusted within a lag of one year. Hence, the value of the coefficient of error correction term suggests that the Economic Growth Rate will converge toward its long-run equilibrium level after a period of shock in international-traded aggregates. The table, (4.4), also shows the short-run behavior of the exogenous variables in contributing to the changes in the economic growth. In short-run, Export Values and Gross Fixed Capital Formation would immediately affect composition of change in economic growth. These variables are significant at 5% and 1% respectively. It depicts that, independently, a 1% permanent increase/decrease in Export Values and Gross Fixed Capital Formation in the immediate past year would result in a positive/negative economic growth approximately 1.54% and 0.41% respectively in Nigeria. Trade openness is significant at 10% and would have an immediate negative effect on economic growth in Nigeria, while import values has no effect on economic growth in Nigeria. The Coefficient of Determination given by *R-Square*= 0.680908, *Adj.R-Square* = 0.621817. This shows that approximately 61% of the variability in Economic Growth are explained by the model. The F-Statistics figure (11.52303, p value= 0.000005*) also*

indicate that the exogenous (international trade aggregates) collectively affect the observed changes in economic growth in Nigeria from 1981-2014.

4.5 Granger Causality – *Lag 2*

Null Hypothesis:	Obs	F-Statistic	Prob.
EXCR does not Granger Cause GRGDP	32	2.81928	0.0773
EXCR does not Granger Cause GRCF	32	2.45359	0.1049
IMPT does not Granger Cause EXCR	32	0.18227	0.8344
EXCR does not Granger Cause IMPT	32	7.13350	0.0033
GRCF does not Granger Cause EXPT	32	0.21156	0.8106
EXPT does not Granger Cause GRCF	32	3.24506	0.0546
IMPT does not Granger Cause GRCF	32	0.47397	0.6276
GRCF does not Granger Cause IMPT	32	0.80847	0.4560
TROP does not Granger Cause GRCF	32	1.89537	0.1697
GRCF does not Granger Cause TROP	32	0.76900	0.4734

Source: Author's computation (2017)

Table 4.5 shows the results of the Granger Causality tests of non-cointegrating variables. A thorough examination on these results shows that a uni-directional causality exists from Exchange Rate to Import Values and from Export Values to Gross Fixed Capital Formation at a 10% level of significance.

5.0 Conclusion

This study set out to examine the relationship between international trade and economic growth in Nigeria between 1981 and 2014. Varied views were examined on whether trade contributes to growth or not. The suspicion from the onset of this research is that international trade contributes to economic growth in Nigeria. In order to authenticate this position, I deployed Engle-Granger Cointegration Test and Single Equation Error Correction Mechanism to examine the long-run relationship among the variables.

I found cointegration in the long-run among the variables and speed of adjustment toward the equilibrium.

After a long-run cointegration was established with Engle-Granger, it was discovered from the Single Equation Error Correction Model that approximately 32% of disequilibrium is adjusted within a lag of one year. In the short-run, the coefficient of export values and gross fixed capital formation were significant and this implies, therefore, that these variables demonstrate some sort of influence on economic growth in the short-run.

The earlier assertion by trade economists that trade contributes to positive growth of GDP was confirmed in the case of Nigeria from the performance of the export values. The test for causalities among the variables using Granger Causality clearly indicates that there are only unidirectional relations from Exchange Rate to Import Values and slightly Export Values to Gross Fixed Capital Formation.

This study, therefore, lends further credence to the plethora of evidence that international trade contributes to economic growth. This is particularly so in the case of Nigeria.

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