INTERNATIONAL TRADE AND ECONOMIC GROWTH IN NIGERIA (1980-2014)

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Abstract: *The study examines international trade and economic growth in Nigeria from 1980 to 2014. The broad objective of the study is to examine the impact of international trade on economic growth in Nigeria. To achieve this objective, time series data on gross domestic product (GDP), export (EPT) exchange rate (EXR) and Trade openness (TOP) were sourced from CBN statistical bulletin. The econometric methods of unit root test, Johansen co-integration test and Error Correction Mechanism (ECM) were employed as the analytical tools. The result of the parsimonious ECM shows that the overall model is satisfactory given the coefficient of determination of 82 percent and f-statistics of 8.958. Furthermore, it also reveals that there is a significant relationship between international trade and economic growth in Nigeria during the period of study. That is, international trade (proxied by exchange rate, trade openness and export) has impacted on economic growth (proxied by GDP) during the period of study. In addition, the long run dynamic result reveals that there exists a long-run relationship or equilibrium among the variables. This is because the coefficient of ECM is negatively signed and statistically significant, meaning that, the short run dynamics adjust to long run equilibrium relationship. It was therefore concluded that there is need to maintain suitable or appropriate trade policy regimes regarding export, trade openness and the rate of exchange in order to foster economic growth in Nigeria.*

Keywords: Gross Domestic Product (GDP), Export (EPT), Exchange rate (EXR) and Trade Openness (TOP).

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INTRODUCTION

In a real-world situation, no country exists in autarky because every country buys goods and services from other countries and also sells its goods and services to other countries. Put differently, there is no country in the world today that is self-sufficient or is able to produce everything its people want. The basis for international trade rests on the fact that nations of the world do vary in their resource endowment, preferences, technology, scale of production, etc. Trade enables them to consume what other countries produce. Hence, Nations, like individuals, find it economically beneficial to engage in exchange transactions (trade) amongst themselves. In this light, so many countries (the developed ones) in the world have recorded sustainable growth and development through an effective participation in international trade (export-led strategy). Nigeria's participation in international trade was expected to also assist Nigeria get sustainable growth at the rate needed to make a visible impact in the reduction of poverty, unemployment, etc. but this has not been the case because the share of Nigeria's contribution to world trade is still very low and her exports are predominantly primary products which do not contribute much to Gross Domestic Product (GDP) when compared to trade on manufactured or finished goods of the developed countries.

In this regards, Usman, (2011) argued that external trade has not helped in promoting economic growth in Nigeria. The reason is because the Nigerian economy still records economic instability. Moreover, external trade has also turned the country into an import dependent economy. In addition, experience has shown that less developed countries (like Nigeria) have not benefitted from trade as much as developed countries. The reason is because the less developed countries (including Nigeria) still experience inadequate economic growth, housing, healthcare facilities, increase in unemployment rate, increase in poverty, etc. despite several years of participation in trade. This does not mean

that international trade should be written off as a growth stimulating factor as far as developing countries are concerned. On the contrary, Okowa (2005) submits that if we are to catch up with the developed nations, ''we have no choice but to welcome the imperialist and his capital''. In other words, there is need for relaxation of trade restriction.

Commenting further, he argued that Nigeria being underdeveloped depends on foreign inputs of skill, capital and technology for her development. In a similar vein, Gbosi (2011) supporting this, pointed out that through international trade, resources are transferred from the rich nations to the poor ones. However, it is international trade that enhances efficiency in production of goods and services through allocation of resources in line with comparative advantage. This activates the observation of Gbosi (2011) which pointed out also that if countries specialized according to comparative cost advantages, the least amount of resources will be utilized in the most efficient manner. Hence, total world output will be greater.

Nevertheless, previous researchers like, Omoju and Adesanya (2012), Edoumiekumo and Opukri (2013) have demonstrated through their studies that international trade has a significant positive impact on economic growth in Nigeria. While Usman (2011), and Oviemuno (2007), established in their studies that international trade is negatively related to real output (i.e., economic growth) of Nigeria. From the above, it can be seen that while some studies state the positive effect of international trade on economic growth, others state the negative effect of international trade on economic growth. The divergence in view and experiential results on the impact of international trade on economic growth is a controversial issue and of a serious concern, especially in developing countries like Nigeria; and this necessitates further researches. Moreover, as much as the above studies are commendable, the basic question remains as: Does international trade stimulates economic growth in Nigeria? This question pleads for an answers and this study therefore seeks to appeal to empirical evidence to resolve these questions. The main purpose of the research

is to look at the impact of international trade on economic growth in Nigeria from 1980 to 2014.

Theoretical framework

International trade is very important because of its ability to promote economic growth and higher standard of living. This is why the classical and neo-classical economists look upon it as an engine of growth. In addition, the classical economists have left us with a rich and useful legacy. Specifically, their preoccupation with the economic problems of their time had produced many analytical tools and concepts that are now the foundation of modern economic analysis especially in the area of international trade. In fact, they provided the framework that shaped subsequent explanation and analysis of international trade.

Mercantilist Trade Theory

Mercantilism was the economic system of the major trading nations based on the premise that a country can be wealthy and powerful by increasing exports and collecting precious metals in return. It remains the oldest theory of international trade. Supporting the use of this theory in this study, Usman (2011) states that Mercantilist theory provides the earlier idea on international trade. The concern of this period was to make a nation-state powerful (Strong). Their problem was how to find means of increasing the power of the nation-state. According to the theory as stated by Usman (2011), the most important way for a nation to be influential and rich is to reduce imports and increase exports. In their words "export more, import less and collect the balance in the form of gold and silver", and this was the essence of this theory. Furthermore, the theory states that ''the earth contains a fixed quantity of riches and that to increase a country's wealth or riches; one country had to take some wealth from another through having a higher export''. To put it in another way, the theory states that ''holding a country's treasure primarily in the form of gold constitute its wealth''.

Moreover, mercantilists were practical men – namely merchants – who generated some ideas which later formed part of economic thought. Their ideas,

which came to be known as mercantilism, prevailed mainly between the 15th and the 18th centuries. The ideas were mainly about the relationship between a nation's international trade policy and its wealth and therefore power. Furthermore, Mercantilism emerged from the circumstances of the time. The major forces in the circumstances included the collapse of the feudal community with all its characteristics, the growth and increasing importance of cities, the growth and importance of trade (merchant capitalism) enhanced by the growth of cities and economic specialization, the discovery of gold in the Western Hemisphere and the expansion in the use of money, a growing importance of merchant capitalists in the world of business as a result of conditions mentioned above, the rise of nation states and the economic rivalries between them. These circumstances induced 'a body of doctrine… to supersede feudal concepts, to promote nationalism, to give new dignity and importance to the merchant, and to justify a policy of economic and military expansion'. (Akpakpan, 1999).

The major figures in the mercantilist economic thought included Jean Bodin (1530–1596), Sir Thomas Mun (1571-1641), Gerald Malynes (1586-1641), Edward Misselden (1608-1654), and Antonio Serra who was 'the first to analyze and fully use the concept of the balance of trade'. These English merchants i.e., Edward Misselden and Gerard Malynes had a dispute over free trade and the desire of government to regulate the activities of businesses, for Malynes foreign exchangeis beneath the control of bankers, and Misselden arguing that international exchange of money and variation in the rate of exchange depend upon international trade. Sir James Steuart (1713–1780), Charles Davenant (1656–1714) and Philipp von Hörnigkalso made statements about mercantilist philosophy. Because the mercantilists were practical men – namely merchants – who were 'not given to subtle economic analysis', their economic ideas were based on inferences from the practical circumstances of the time. They looked at the facts of their situation and drew conclusions as to what they considered best to do. The other feature of their approach was their concentration on the aspect of the economic life of the society that was of immediate practical importance to them– international economic relations.

The Mercantilist economic policies are: strict prohibition of the outflow of precious metals abroad, compulsion to export to pay for imports, limit the imports of completed products from overseas, support of the establishment of factories, support the exportation of finished goods, establishment of commercial monopolies, ban on the export of some raw materials and semi-products and promotion of their imports, regulation of wages, support for population growth and immigration as well as laws of trade and navigation. In this light, the mercantilist did not support free trade. Specifically, every exporter was considered to be a close friend of the state and every importer as an enemy. Mercantilist economic ideas, though they were mainly concerned with the self-interest of the merchants, did make some contributions to the development of economic science. They:

- Drew attention to the role of increased amount of money in reducing the rate of interest to stimulating business activities;
- Showed the positive effect that a purposeful government directive or control of some portion of the economy may possibly have on the society, and inspired such actions, especially regulation of wages; and
- Brought about a more favourable attitude to business and businessmen which promoted the growth of business enterprises and their role in the development of society.

For the countries of Europe in general, mercantilist economic ideas were particularly useful. They promoted the aggressive nationalism which characterized the approaches of most European countries to the management of their economies and societies, a feature which accounted for their success. However, the philosophy of mercantilism was criticized on the ground that accumulation of precious metals will unavoidably result in an increase in wages and prices–thus increased inflation. Adam Smith – was also a strong critic of mercantilism. Nevertheless, it is clear from the preceding theoretical insight, that mercantilist trade theory developed a sort of macroeconomic approach to the problems of the society.

The mercantilist emphasized the need for maximizing export not only with the idea of accumulating gold and silver, but with the hope that prosperous export sector would provide more employment, reduce poverty, etc. They were aware of the dynamic functions of money. An increase in the supply of money will cause interest rate to fall and a fall in interest rate will serve as an inducement to invest and hence stimulate economic growth. However, the philosophy of mercantilism was criticized. The argument is that nations in course of trade could gain at the expense of other nations. The Physiocrats and Adam Smith – were also strong critics of mercantilism. Based on the criticisms, Adam Smith Postulated the absolute advantage theory of international trade published in the book "The wealth of nations" in 1776.

In spite of the criticism faced by the philosophy of mercantilism, Usman (2011) argued that mercantilism is still alive today and new mercantilism now emphasized employment creation. They support increase in exports because according to them it will generate jobs domestically and imports are considered bad as jobs will be taken away and transferred to the foreign workers.

Absolute Advantage Trade Theory

Adam Smith condemned the philosophy of mercantilism (mercantile system). According to Smith as noted by Gbosi (2011) the mercantile system prohibited economic growth by misallocating resources. However, Smith argued that the mercantile system favoured the control of exports and imports through imports prohibition and embargo on exports. The policy conclusion which was based upon the theory of value would determine the pattern of trade if there were no mercantile restrictions. Therefore, trade should be based on absolute advantage.

Moreover, Adam Smith postulated that with free trade each nation could specialize in the production/manufacture of those goods and services in which it has a total or complete advantage and import those commodities in which it has an absolute disadvantage. In this light, Robinson (2003) submits that with specialization, Adam Smith believed two things will happen:

1) The world output will increase; this according to him could be shared by trading nations.
2) That all nations involved in international trade could gain simultaneously.

Nevertheless, Adam Smith trade theory was built on assumptions including: 2 x 2 x 1 model (i.e., two countries, two goods and one factor of production i.e., labour),all the same or uniform goods, labour is homogeneous inside a country but varied crossways countries, complete mobility of labour in the country and complete immobility of labour across the country, no transportation costs, full employment, the market for labour and that of goods are assumed to be perfectly or completely competitive in the two countries, firms are assumed to maximize profit as customers (consumers) are assumed to make the most of utility.

However, basic idea of this theory is that the main rewards of external division or separation of labour occur, when nations concentrate in producing the goods that they can manufacture with the least overall costs and bring in goods that other countries manufacture at complete least costs.

To illustrate, we look at the example in which Nigeria and Ivory Coast are both producing palm oil and cocoa. Each country can produce the following units of cocoa and palm oil with the same amount of labour as shown below in table 2.1

Table 2.1 Absolute Advantage of Trade (cost of producing a given output).

Country	Labour input	Palm oil output	Cocoa output
Nigeria	200	300	100
Ivory Coast	200	100	200

SOURCE: Author's computation

From the above table, we can see that using the same amount of labour, Nigeria can produce more quantity of palm oil than Ivory Coast. In the

production of palm oil, Nigeria has an absolute advantage over Ivory Coast. Moreover, Nigeria uses fewer resources to produce more quantity of palm oil. Similarly, Ivory Coast has an absolute advantage over Nigeria in the production of cocoa because it takes fewer units of labour to produce more unites of cocoa. Hence, if these two countries trade with each other, Nigeria will benefit by specializing in palm oil production. She will then export the surplus palm oil to finance cocoa imports from Ivory Coast. Ivory Coast will benefit by specializing in the production of cocoa and exporting the excess cocoa to finance palm oil imports from Nigeria.

As demonstrated above, it is clear that as a result of international division of labour, a country can consume a commodity that she cannot produce. In this regards, (Gbosi 2011) observes that as countries specialize in commodities in which they have absolute advantage, a wide range of goods will be available in the world market. Hence, the result will be an increase in the standard of living. From the above analysis, it is also clear that a country can import a commodity she can also produce. This is because; she cannot use its available resources to produce a larger amount of that good. Since there is free trade, Gbosi said ''she has to import that good from other countries''.

Furthermore, as stated by Robinson (2003), the absolute advantage theory has been criticized on the grounds of:

- Where one country has an absolute advantage in the production of both commodities the theory of absolute advantage collapses.
- In contrast to the assumption of the theory, labour is empirically mobile in international transactions.
- The theory does not explain how the benefits of external trade filter to the citizens in the society.

COMPARATIVE ADVANTAGE TRADE THEORY

The theory of comparative advantage was propounded by an English philosopher David Ricardo around 1815. It is one of the oldest, still unchallenged theories of economics. In this, David Ricardo was reacting to an earlier theory, the absolute advantage theory propounded by Adam Smith. The theory of

comparative advantage does not undermine the Smith's absolute advantage analysis, but tries to remove some of the defects inherent in the theory.

For instance, Absolute advantage theory fails to analyze a situation whereby a country has absolute advantage in the production of two goods and show if trade will still be necessary or beneficial to such a country. The purpose of comparative advantage theory was to show that mutually advantageous trade could still take place between two nations even if a nation had an absolute advantage in the production of every commodity traded on with respect to the other nations. The less efficient nation could specialize in the production and export of the commodity in which its absolute disadvantage is less. This in order words is the commodity in which the nation has a comparative advantage. As a result, the country should be prepared to import the commodity in which its absolute disadvantage is greater. Robinson (2003) observes that in essence, if countries should specialize in the production of the commodities which they can efficiently produce and in the end the countries involved in international trade will be better-off. Agiobenebo (1975) in Robinson (2003) observes that the classical theory of international trade suggests that international division of labour and specialization determined by comparative advantage move trading economies to efficient production points on their production possibility to new frontiers and also shift these frontiers out wards. The outcome or result is an expanded consumption possibility frontier and improved social welfare. Ricardo had developed this theory on certain important assumptions as identified by Kumar (2008) as follows:

a) "Two Countries, two commodities and one factor of production (Labour) 2 x 2 x 1. It is assumed that there are only two countries they enter into international trade and they produce only two goods with a factor of production (Labour).
b) Homogeneous Units of Labour: All units of labour are similar as well as identical.
c) Constant Costs: Goods are produced under the law of Constant Costs and therefore Cost-ratios also remain constant in both countries.
d) Prefect Mobility of Factors of Production within a country and their perfect immobility between the countries.

e) Absence of Transport Costs: There are no transports cost on goods traded between the two countries.
f) Full employment of all Factors: Not only labor but all other factors are also assumed to be fully employed.
g) Two Countries are of equal economic strength and the two commodities of equal economic value.
h) Free Trade: It is assumed that free trade exists and countries do not impose any restrictions.
i) Barter Economy: There is a barter economy in which goods are exchanged against goods, and money is not used.''

In illustrating the meaning of comparative advantage, Ricardo used a simple example of two countries, a single factor of production (labour) and 2 commodities, 2 x 2 x 1 model as shown below:

Table 2.2 Illustrating Comparative Advantage of Trade

Country	Cocoa (Tonnes/Man hr)	Crude Oil (Barrels/Man hr)
Nigeria	85	75
Ghana	100	120

SOURCE: Author's computation

From the above table (table 2.2) Nigeria has an absolute advantage over Ghana in the production of both goods. However, she has a comparative advantage in the production of crude oil than Ghana. That is Nigeria produces one barrel of crude oil with only 63% (per cent) of her resources. That is, 75/120 x 100/1(%) = 63%. However, in the production of cocoa it will take Nigeria 85 per cent of her resources. That is, 85/100 x 100/1(%) = 85% to produce 1 tonne of cocoa. Hence, Nigeria has a comparative disadvantage in the production of cocoa. From the above table, it is also clear that Ghana is in disadvantage position in the production of the two goods. Nevertheless, she has 'a comparative advantage in the production of cocoa'. That is, Ghana produces 1 tonne of cocoa with only 117 per cent of her resources. That is, 100/85x 100/1(%) =

117%. But Ghana has a comparative disadvantage in the production of crude oil. That is, Ghana produces 1 barrel of crude oil with 160 per cent of her resources. That is, 120/75 x 100/1(%) = 160%. Ricardo believes that under such an arrangement, mutually advantageous trade can take place between Nigeria and Ghana. In this context, Gbosi (2011) summits that if all countries specialize according to such comparative cost advantages the least amount of resources will be used in the well-organized manner. In addition, if theories, like girls, could win beauty contests, comparative advantage would certainly rate high because it was elegantly-logically structured and was considered to be most appropriate in the explanation of international trade. Specifically, in spite of its popularity, the theory has faced counter attacks by some critics on the ground that labour is not the only factor of production, and it is not the differences in labour productivity alone that account for the differences in production cost between nations, among others.

It was on this ground that modern economists had to search for better explanations of the basis of international trade. According to Akpakpan (1999), the only explanation that has remained popular till today is the Heckscher - Ohlin - Samuelson - theory. That is, factor proportions theory of international trade. Nevertheless, despite the criticism faced by this theory, the theory i.e., comparative advantage trade theory enables us to have the idea that economic cooperation between countries will help to create more mutual benefits between or among countries which in turn will cause the world's resources to be efficiently exploited. Hence, international trade will lead to an increase in output (i.e., economic growth).

EMPIRICAL LITERATURE

Edoumiekumo and Opukri (2013) did well to examine the contributions of international trade to economic growth in Nigeria. Time series data were used for the study. Their unit root test showed that the variables were stationary at levels I (0) using Augmented Dickey-Fuller (ADF). They also established long run relationships between the variables using Johansen's co-integration test. The short run regression results show that there is a positive association between RGDP, export and import. in addition, they also carry out granger causality test

between the variables and the result shows a uni-directional relationship. Real GDP Granger cause export and import Granger cause RGDP and export. The study therefore, concluded that, increase or diversify export goods will help Nigeria to enjoy more of the benefits of external trade. Chima (2013) in an attempt to find out how external trade impact has impacted on economic growth of Nigeria from 1980 to 2009, used Ordinary Least Squares (OLS) method of econometrics to analyze the data obtained on variables such as volume of export, net export, trade openness and volume of import. The short run regression result shows that Volume of import and Net Export have a positive relationship with GDP while Trade openness and volume of export have a negative relationship with GDP.

Furthermore, Omoju and Adesanya (2012), looked at the impact of trade on economic growth using Nigeria. In this study, ordinary least square techniques were used to empirically analyze data collected from 1980 to 2010. However, the regression result shows that trade, exchange rate, foreign direct investment and expenditure of the government have a significant impact on economic growth in Nigeria. The study therefore concluded that policies should be initiated improving expenditure and ensuring exchange rate steadiness. Afaha and Oluwatobi (2012) carried out a research on the impact of trade on Nigeria's economic growth. In carrying out the research, they collected data on export, exchange rate, economic openness, import and per capital income from CBN statistical bulletin.

The regression results show that exchange rate, per capital income and exports are positively related while import and economic openness are negatively related to output i.e. GDP of Nigeria. The study therefore concluded that, government should ensure that business environment is conducive to encourage international trade. This can be achieved if government fine-tunes the various macroeconomic variables. Also, encourage export trade and discourage import trade which has a negative effect on the economy. Usman (2011) also did well to investigate the workings of international trade on Nigeria economic growth for the period, 1970 to 2005. The researcher

collected time series data from CBN statistical bulletin and used the econometric method of OLSto analyze the data. The result reveals that import, exchanged rate and export are all negatively related to real GDP. The study concluded that, there is need to reexamine the Nigeria's trade policies and competitive produces (commodities) should be produced by domestic industries. According to Usman (2011), Egwaikhide (1999) carried out an investigation on the quantitative effects of export (non-oil) expansion on Nigeria's economic growth from 1960 to 1983 based on experiment of simulation; the researcher discovered that a 75 per cent rise in non oil export led to 1.4 per cent increase in real GDP. Therefore, concluded that there is need to promote export in order to enhance GDP growth in Nigeria. Oviemuno (2007), investigates international trade and economic growth in developing countries (1960-2003). Specifically, a case study of Nigeria. The study made use of data on export, import, exchange rate and inflation sourced from CBN statistical bulletin. Furthermore, in order to achieve the overall objective of the study, OLS econometric technique was used to analyze the data. The result shows that Nigeria's import value, export value and inflation ratedo not act as engine of growth in Nigeria.

SUMMARY OF LITERATURE REVIEWED

The systematic examination of the previous work done that are related to this present research show that, there are differences in opinions and empirical findings on the impact of International Trade on Economic Growth. The theories reviewed show a positive effect of international trade on economic growth. For instance, Mercantilist trade theory believed in and supported more export and less import. Hence, the result will be an increase in the standard of living. The absolute advantage theory holds that if countries concentrate in commodities in which they have complete or total advantage, a wide range of goods will be available in the world market. Comparative trade theory holds that countries should go into the production of goods in which they have comparative advantage. Also, the Heckscher - Ohlin - Samuelson – theory of trade predicts that each nation resolve to export the commodity in the manufacture/production of which a great deal of relatively abundant and cheap factor is used.

The above theoretical postulations stated the positive effect of international trade on economic growth. However, empirical evidences are inconclusive. For instance, the regression result of Chima (2013) shows that Net Export and Volume of import have a positive relationship with GDP but negative association between Trade openness, volume of import and GDP. From the above, it can be seen that while some studies stated the positive effect of international trade on economic growth, others stated the negative effect of international trade on economic growth. The difference in opinion and empirical findings on the impact of international trade on economic growth is a controversial issue and of a serious concern, especially in developing countries like Nigeria; and this necessitates further researches. Thus, this provides justification of the study which examines how international trade has impacted on economic growth in Nigeria from 1980 to 2014. Moreover, as much as the above studies are commendable, the basic questions remain as: Does international trade stimulates economic growth in Nigeria? Or what is the relationship between international trade and economic growth in Nigeria? These questions plead for answers and this study therefore seeks to appeal to empirical evidence to resolve these issues.

METHOD OF STUDY (METHODOLOGY)

This study employed secondary data relating to the dependent and independent variables. This is necessitated by the nature of this research work. The study is analytical in nature because of the time series data used. Specifically, the methods employed in this study are: unit root test, Johansen co-integration test and ECM test based on Engle-Granger (1987) co-integration theorem. While the unit root test helps to ascertain stationarity of the variables, the co-integration measures the long run relationship among the variables and the ECM approach corrects abnormalities that may affect regression result and provide long-run relationship between the variables. It is important to note that time series data are prone to error because of unsteadiness in business activities from which most of our data are derived. Hence, the choice of these econometric techniques will help us not only to determine how the variables

that were considered in this study have influenced the international trade of Nigeria. They will also help us to correct pitfalls that may affect time series data used in econometric analysis as well as assist us to establish association amongst the variables in the investigation.

The model for the study and the apriori expectations is specified below as:

$GDP = \partial_0 + \partial_1 EPT + \partial_2 TOP + \partial_3 EXR + U$

Where: GDP = Gross Domestic Product (Proxied for Economic Growth), EPT = Export; TOP= Trade openness and EXR= Exchange Rate; ∂_0 =Intercept Parameter, U= Error Term, ∂_1 and ∂_2=Slope Parameters. On the apriori; $\partial_1 > 0$, $\partial_2 > 0$ and $\partial_3 > 0$

The unit root test through the ADF test comes first before the Co-integration and error correction model test. The unit root model is presented thus:

$$\Delta Y_1 = \alpha Y_{t-1} + \sum_{i=1}^{m} \beta \Delta Y_{t-1} + \delta + Y_1 + \varepsilon_1 \quad (1.2) \quad \text{for levels}$$

$$\Delta\Delta Y_1 = \alpha \Delta Y_{t-1} + \sum_{i=1}^{m} \beta \Delta\Delta Y_{t-1} + \delta + Y_1 + \varepsilon_1 \quad (1.3) \quad \text{for first difference}$$

ΔY is the first difference of the series, m =number of lags and t =is the time.

Therefore, assuming we have order I(1) integration and cointegration between the levels of Economic Growth (GDPt), Export (EPT_t), Trade openness (TOP_t) and Exchange Rate (EXR).We formulate our ECM as follows:

$$\Delta Yt = \delta o + \Sigma \delta_1 \Delta EPTt + \Sigma \delta_2 \Delta TOPt + \Sigma \delta_3 \Delta EXRt + ECMt_{-1} \quad (1.4)$$

From equation 1.1, Δ = difference operator, Y = dependent variable, t = time, δo = intercept and ECMt-1 = error correction mechanism. While δ_1, δ_2 and δ_3 are the coefficients of explanatory variables.

Since most short run analyses may be characterized by spurious result, a stationarity test becomes necessary to stabilize the data. This will be followed by the Johansen co integration test and the error correction mechanism to determine whether a long run equilibrium relationship exists between the variables.

UNIT ROOT TEST FOR STATIONARITY (AUGMENTED DICKEY FULLER)

Variables	**ADF Test**	**Critical Value**			**Order of integration**
		1% critical value	**5% Critical value**	**10% critical value**	
D(GDP)	4.311446	-3.646342	-2.954021	-2.615817	(0)=At Level
D(EPT)	9.693011	-3.711457	-2.981038	-2.629906	(0)= At Level
D(EXR)	-5.899126	-3.646342	-2.954021	-2.615817	(1) =1St Diff.
D(TOP)	-6.133879	-3.653730	-2.957110	-2.617434	(1) =1St Diff.

SOURCE: computed Result from (E-view 3.1)

The stationarity test presented in table 4.3 above shows that at various levels of significance (1%, 5% and 10%), the variables were stationary. From the result GDP and export were integrated of order zero (at level), while the other variables (exchange rate and trade openness) were integrated of order one (first difference), hence, the entire variables in this study are stationary.

JOHANSEN TEST FOR CO-INTEGRATION

Co-integration is conducted based on the test proposed by Johansen. According to Iyoha and Ekanem, (2002) co-integration deals with the methodology of modeling non-stationary time series variables. For detail result of the Johansen co-integration, see the table 4.4 below.

Test for co-integration

Eigen value	**Max-Eigen Statistic**	**5% critical value**	Prob.**	Hypothesized No. of CE(s)
0.802802	50.33003	27.58434	0.0000	None *
0.684475	35.75907	21.13162	0.0003	At most 1 *
0.237597	8.409684	14.26460	0.2220	At most 2
0.075162	2.422240	3.841466	0.1196	At most 3

SOURCE: Computed Result Using (E-Views 3.1)

From the table above, it shows that there are two co- integrating equations at 5% level of significance. This is strong evidence from the unit root test conducted, where we observed that two variables were stationary at first difference while the other two variables were stationary at level. Therefore, there exists a long-run relationship or equilibrium among the variables. Given that there are two co-integrating equations, the requirement for fitting in an error correction model is satisfied.

ERROR CORRECTION MODEL (ECM)

Error correction model (ECM) is a means of integrating the short-run behavior of an economic variable with its long-run behavior (Gujarati and Sangeetha, 2008). The table below shows an inference error correction test conducted:

OVER PERAMETARIZED ERROR CORRECTION MODEL

Dependent Variable: DLOG(GDP)
Method: Least Squares
Date: 11/12/16 Time: 17:38
Sample (adjusted): 1981 2011
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.298722	0.109683	2.723495	0.0165
DLOG(GDP(1))	0.669461	0.802192	0.834540	0.4180
DLOG(GDP(2))	-0.753101	0.998520	-0.754217	0.4632
DLOG(GDP(3))	-2.566103	1.275212	-2.012296	0.0638
DLOG(EPT)	-0.467246	0.153965	-3.034765	0.0089
DLOG(EPT(1))	-0.547536	0.190076	-2.880615	0.0121
DLOG(EPT(2))	-0.301447	0.198282	-1.520298	0.1507
DLOG(EPT(3))	-0.029221	0.119793	-0.243929	0.8108
DLOG(EXR)	0.270681	0.145589	1.859213	0.0841
DLOG(EXR(1))	-0.012530	0.095321	-0.131445	0.8973
DLOG(EXR(2))	-0.154486	0.094311	-1.638042	0.1237
DLOG(EXR(3))	-0.167095	0.113706	-1.469538	0.1638
DLOG(TOP)	0.505374	0.140624	3.593803	0.0029
DLOG(TOP(1))	0.541372	0.185456	2.919136	0.0112
DLOG(TOP(2))	0.328516	0.210290	1.562206	0.1406
DLOG(TOP(3))	-0.023657	0.150235	-0.157465	0.8771
ECM(-1)	-3.47E-06	6.40E-07	-5.425764	0.0001

R-squared	0.906739	Mean dependent var	0.105644
Adjusted R-squared	0.800156	S.D. dependent var	0.331792

S.E. of regression	0.148324	Akaike info criterion	-0.676990
Sum squared resid	0.308000	Schwarz criterion	0.109390
Log likelihood	27.49334	Hannan-Quinn criter.	-0.420650
F-statistic	8.507301	Durbin-Watson stat	1.467257
Prob(F-statistic)	0.000116		

SOURCE: Computed Result (E-view 7.1)

Table above shows the results of the over-parameterized error correction model GDP model. The reason for the over-parameterized specification is to show the main dynamic processes in the model and as well sets the lag length such that the dynamic processes would not be constrained by too long a lag length. The over-parameterized is transformed in order to achieve the parsimonious ECM to make it more interpretable for policy implementation. The parsimonious error correction result is presented in table below.

PARSIMONIOUS ERROR CORRECTION MODEL

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.336986	0.082517	4.083859	0.0006
DLOG(GDP(1))	0.120838	0.883609	0.136755	0.8926
DLOG(GDP(2))	-1.650210	0.913329	-1.806809	0.0859
DLOG(GDP(3))	-3.372775	1.207656	-2.792829	0.0112
DLOG(EPT)	-0.242155	0.127281	-1.902512	0.0716
DLOG(EPT(3))	0.082065	0.102495	0.800677	0.4327
DLOG(EXR)	0.300474	0.137157	2.190736	0.0405
DLOG(EXR(3))	-0.207332	0.115514	-1.794861	0.0878
DLOG(TOP)	0.329125	0.114476	2.875057	0.0094
DLOG(TOP(3))	-0.226016	0.120115	-1.881654	0.0745
ECM(-1)	-3.58E-06	6.86E-07	-5.216074	0.0000

R-squared	0.817487	Mean dependent var	0.105644
Adjusted R-squared	0.726231	S.D. dependent var	0.331792
S.E. of regression	0.173603	Akaike info criterion	-0.392665
Sum squared resid	0.602763	Schwarz criterion	0.116169
Log likelihood	17.08630	Hannan-Quinn criter.	-0.226797
F-statistic	8.958130	Durbin-Watson stat	1.927917
Prob(F-statistic)	0.000020		

SOURCE: Computed Result (E-views)

The table above shows that the coefficient of ECM appeared with the right sign (i.e., negative) and statistically significant at 5% level of significant. Therefore, it corrects any deviation from long-run equilibrium. The policy implication is that the problems or difficulties in the international trade will be reconciled in the long run by right or suitable policy formulation and implementation. Also, Durbin Watson value of 1.9 suggests a lesser level of autocorrelation. The overall fit is satisfactory with an R-squared of 0.817487.Thus, 82 percent of the systematic variation in economic growth is explained by the ECM. The F-statistic of 8.958130 is significant at the 5% level. Moreover, the current forms of the independent variables (trade openness and exchange rate) are positively signed and statistically significant at five percent level. All these conform to apriori expectations. Also, export appear with the right sign (i.e., positive) but statistically significant at ten percent level. What this suggests is that international trade (proxied by exchange rate, trade openness and export) has impacted on economic growth (proxied by GDP) during the period of study.
The entire regression model is significant given the f-value of 8.958130 with the probability (F-stat=0.000020). Therefore, we accept the alternative hypothesis which says "there is a significant relationship between international trade and economic growth in Nigeria".

SUMMARY AND RECOMMENDATIONS

This study on international trade and economic growth is very important to the Nigerian economy because it examines the extent to which international trade influenced economic growth in Nigeria from 1980 to 2014. With the utilization of data on Gross Domestic Product, Export, Exchange Rate and Trade Openness from CBN Statistical Bulletin and the use of Co-Integration and Error Correction methods of econometrics to analyze the data so as to know the relationship that exist among the variables. The results show that there is a significant relationship between international trade and economic growth in Nigeria. That is, international trade (proxied by exchange rate, trade openness and export) has impacted on economic growth (proxied by GDP) during the period of study.It was therefore concluded that there is need to maintain

suitable or appropriate trade policy regimes regarding export, trade openness and the rate of exchange in order to foster economic growth in Nigeria.

RECOMMENDATIONS FOR POLICY

Based on the findings of this research work, it is necessary to provide a set of policy recommendations that would be applicable to the Nigerian economy.

(i) Government should revamp all ailing industries, encourage locally industries, locally made goods and encourage exportation of manufactured or finished goods. To achieve this, the manufacturing industries should be supported to improve on their production so that their output would be competitive in the global market.

(ii) Government should review her Export promotion and import substitution strategies so that export and import will change their dimensions.

(iii) Government should encourage export diversification. Non-oil sector exports should be encouraged and concentration on oil sector export should be minimal.

(iv) Government should promote activities in the agricultural sector to enhance external trade and reduce the rate of dependence on foreign goods. Put differently, government should increase capital investment in the agricultural and manufacturing sectors to improve their output for external trade.

(v) In addition, government should deliberately improve the functional relationship between the agricultural sector, industrial sector, research centres and schools, so that whatever is discovered in the research centres and schools can be put to practice in the agricultural and industrial sectors to increase efficiency and output.

REFERENCES

Afaha, J.S. &Oluwatobi A.O. (2012). Foreign Trade and Economic Growth: Evidence from Nigeria. *Arabian Journal of Business and Management Review (OMAN Chapter) Vol. 2, No.1; 35-37*.

Ageobenebo, T. J. (1995). *Trade Theory and Development*: A New Theory in Old Religion. Selected Paper for the 1995 Annual Conference of the Nigeria Economic Society. In Robinson, M.O. (2003). *International Economics*. Port Harcourt: Harey Publications Company.

Akpakpan, B. E. (1999). *The Economy towards a New Type of Economics*. Port Harcourt: New Generation Publishers.

Chima, M. (2013). The Impact of International Trade on Nigeria's Economic Growth, 1970-2009. *American Economics Review*. 56(7): 679-733.

Edoumiekumo, *S. G.&*Opukri (2013).Economic Growth Factor in Nigeria: the Role of Global Trade. *American Journal of Humanities and Social Sciences. 1(2): 51-55*.

Egwaikhide, B. P. (1991). Economic Growth through Export Expansion: Evidence from Nigeria. *NISERR Monograph Series No. 10, NISER, Ibadan*.

Gbosi, A. N. (2011). *International Trade in Theory and Practice*. Port Harcourt: Amethyst & Colleagues Publishers.

Granger C.(1986). Developments in the Study of Co-integrated Economic Variables. *Oxford Bulletin of Economic and Statistics 48.(3) :355-369*.

Gujarati D. N.& Sangeetha (2008). *Basic Econometric*. Tata McGraw-Hill Publishing Company Ltd. Delhi.

Iyoha, M. A. &Ekanem O.T.(2002). *Introductory Econometrics*. Benin City: Mareh Publishers.

Kumar, R. (2008). *International Economics*. New Delhi: Excel Printers, C-205, Phase 1.

Michael, F. &Ruhwedel, R. (2005), "Export Variety and Economic Growth in East European Transition Economies", *Economics of Transition, Vol. 13 No. 1, pp. 25-50.*

Okowa, W. J. (2005). *How the tropics underdeveloped the negro*. A questioning theory of development. Port Harcourt: Paragraphics an imprint of Jeson Services.

Omoju, O. and Adesanya, O. (2012). "Does Trade Promote Growth in Developing Countries? Empirical Evidence from Nigeria", *International Journal of Development and Sustainability, Vol. 1 No. 3, pp. 743-753.*

Oviemuno, . (2007). '*International Trade as an Engine of Growth on Developing Countries: A Case Study of Nigeria; (1980 - 2003).*

Oyejide, . (1975). 'Export and Economic Growth in Africa Countries," *Economic International 2:177-185.*

Robinson, M. O. (2003). *International Economics.* Port Harcourt: Harey Publications Company.

Usman, O. A. (2011). Performance Evaluation of Foreign Trade and Economic Growth in Nigeria; *Research Journal of Finance and Account. 2* (2):47-63.