#### TRADE LIBERALIZATION AND MACRO ECONOMIC PERFORMANCE IN NIGERIA

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#### **ABSTRACT**

This study examined trade liberalization and macro economic performance in Nigeria. The study made use of ordinary least square (OLS) for analysis using data from pen worth table (PWT) for the period of 1980-2016. The variables used in the analysis are (TOP) trade openness, (UNE) unemployment rate, (GDP) gross domestic product, (XR) exchange rate and (RINT) real interest rate. The result obtained indicates that Trade openness has an inconclusive relationship with the macroeconomic indicators in Nigeria. The implication is that GDP, RINT and UNE were negatively and positively related to Trade openness during the period of review respectively, going against the prior expectation. Hence the study recommends review of the degree of its trade liberalization by keeping trade openness rate below or at ceiling level in order to ensure an improved macro economic performance in Nigeria.

#### Introduction

Trade has acted as an important engine of growth for countries at different stages of development not only by contributing to a more efficient allocation of resources within countries but also by transmitting growth from one part of the world to another. Foreign/international trade plays a vital role in restricting economic and social attributes of countries around the world (Akeem, 2011). According to Azeez, B.A et al (2014), "Foreign trade allows for exchange of goods and services cum foster healthy relations among countries irrespective of their level of economic development". A nation not participating in foreign trade is at risk of a slow pace of economic development due to the cogent fact that a country cannot be fully endowed with all the resources essential to be utilized for sustainable economic development. It enables nation to sell their domestically produce goods to other countries of the world (Adewuyi, 2002).

Trade liberalization is a key economic reform policy and institutional change adopted by Nigeria in 1986 to stimulate its exports (Afaba and Njogo, 2012). These authors are of the view that openness of trade are policy measures that emphasize production and trade along the line dictated by a country's comparative advantage such as export promotion and export diversification, reduction and elimination of imports tariff and the adoption of market-determined exchange rates, some of the aims of the structural adjustment program adopted in 1986 were diversification of the structure of exports, diversification of the structure of production reduction in the over-dependence on imports, and reduction in the over-dependence on petroleum exports.

Macroeconomics is a branch of economics, dealing with the performance, structure, behavior and decision making of an economy as a whole. This includes regional, national and global economies. It deals with the study of aggregated indicators such as GDP, unemployment rate, national income, price indices and interrelations among the different sectors of the economy to better understand how the whole economy functions.

According to new growth theory, openness reduce inflation through its positive influence on output, mainly in increase efficiency, better allocation of resources, improved capacity utilization and increased foreign investment (Jin, 2000). A continuous and persistent increase in the general level of prices (inflation) has in several times been characterized by an upsetting impact on economic growth well-being, since it causes the

cost of living to rise and the value of investments to fall (Greenidge and Dacosta, 2009). Inflation which is an important factor for consideration in policy decision making can negatively affects economic development and also creates insecurity in the economy. The behavior of inflation dynamics is a longstanding issue in economics. Imported inflation arises from international trade where inflation is transmitted from one country to the other, particularly, during periods of rising price all over the world (Ayanwu, 1992).

An important question at the crossroads of macro-development and international economics is whether and how openness to trade affects macroeconomic volatility. A widely held new in academic and policy discussions which can be traced back at least to Newbery and Stiglitz (1984), is that openness to international trade leads to higher GDP volatility. The origins of this view are rooted in a large class of theories of international trade predicting that openness to trade increase specialization. Because specialization (or lack of diversification) in production tends to increase a country's exposure to shocks specific to the sectors (or range of products) in which the country specializes, it is generally inferred that trade increases more volatility. This view seems present in policy circles, where trade openness is often perceived as posing a trade-off between the first and second moment (i.e. trade causes higher productivity at the cost of higher volatility).

Advocates of liberalization believe that policy reforms so far has improved economic growth and performance significantly while critics argue that the total withdrawal of restrictions on several matters have had negative effects on future growth and performances of the economy. They are also of the view that liberalization has worsened inequalities across and within the countries, environmental degradation and vulnerability of the poor nations have increased and that developed countries have established dominance over developing countries culminating in neo-colonization. Thus, it is pertinent to find out if trade liberalization has had positive or negative impact on Nigeria's economic performance.

The impact of the policy shocks of 1986 and the rise of 2007-2008 have had significant effects on the trend in this variable. The government's efforts to tackle this macroeconomic problem are yet to achieve desirable result as unemployment and inflation rises with the hope that openness of trade can lead to an improvement in the performance of the variables.

### RESEARCH QUESTIONS

# This study will find answers to the following questions

- ♣ What is the impact of GDP on trade openness on Nigerian's?
- ♣ What is the impact of real interest rate on Nigeria's trade openness?
- ♣ To what extent does unemployment rate have an effect on Nigeria's trade openness?
- ♣ What effect does exchange rate have on trade openness in Nigeria?

## RESEARCH HYPOTHESIS

#### This study attempts to test the following hypothesis;

- Ho: GDP has no significant impact on Nigeria's trade liberalization.
- H1: GDP has a significant impact on Nigeria's trade liberalization.
- Ho: Real interest rate has no significant impact on trade openness in Nigeria.
- H1: Real interest rate has a significant impact on trade openness in Nigeria.
- Ho: Unemployment rate has no significant effect on trade openness in Nigeria.
- H1: unemployment rate has a significant effect on trade openness in Nigeria.
- Ho: Exchange rate has no significant effect on trade openness in Nigeria.
- H1: Exchange rate has a significant effect on trade openness in Nigeria.

Imports of intermediate inputs represent a factor of economic growth but they can also de-stabilize domestic economies through price changes and/or competitive pressures on domestic producers of competing products. In general, imports compare with domestic production an influence the way domestic resources are used in stimulating efficiency gain. In brief, trade is another channel of transmission of domestic and external shocks leading to real price effects.

How much of import price changes are neglected in higher domestic costs depend on the share of imported input in total production costs, the way important inputs are priced, and the tightness of the link between import prices and exchange rates. The tighter the link between import prices and exchange Rtes. The tighter the link between import prices and exchange rates, the greater the dependence of exchange rate volatility on the movements of import prices. The later is particularly important for countries which depend on commodity trade.

### TRADE LIBERALIZATION AND ECONOMIC GROWTH

Economies of the world have become so international that it has become apparently difficult if not impossible for any economy to function in isolation (Kalu, E.U et al 2016). Trade liberalization according to the protagonists is economic integration for global output expansion, in that, with market liberalization, investment funds can move unimplemented form industrialized countries to developing countries where they are most needed (Anowor, O.F. et al, 2013). Macro economic conditions and performance are affected by trade in different ways. Exports are a component of aggregate demand and are therefore a factor in economic growth. For example, Prassad and Gable (1997) show that the exports of Deco countries serve as a catalyst Of aggregate demand and are therefore, a factor in economic growth. For example, prasseid and Gable (1997) show that the exports of DECO countries served as a catalyst in all economic recoveries, and this positive effect was further correlated with the degree of the economy's openness to international trade. While antagonist argue that trade liberalization is a conscious effort by the western world to deliberately force some of their economic policies that may not be favorable to the receiving economy with the aim perpetually contributing to the under development of the less developed countries. It is seen as another form of postcolonialism strategy which does not promote self reliance, self-determination and indigenization (Ojo, 2005). In addition, further reasons for the changing perception of liberalization are thus, the lack of tangible benefits to meet developing countries from opening their economies, despite the well published claims of export and income gains which antagonists argue that it is even lesser than economic losses and social disorder rapid trade liberalization has caused many developing countries; they also argue that trade liberalization has led to growing inequalities of wealth, technology, decreasing opportunities both in home and the international community, and the perception that environmental, social and cultural problems have been worsened by the workings of free trade economy (Aja, 1998).

Trade liberalization also brings about expansion in the number of foreign invested firms as their number increases, their labour intensity is likely to increase. This reflect their ability to attract additional labour, relative to additional foreign direct investment (FDI) capital. Labour tends to be fairly mobile within and between sectors and foreign invested firms account for a relatively small proportion of total employment in most economies. Foreign- invested firms should have little from able attracting labour away from domestic firms in their own sector and from other sectors in the local economy. Although the spill-over effects of liberalizing FDI may result in firms that compete directly with the foreign-invested firms, especially domestic firms in the same sector to suffer from lower priced competition, the sectors that use the services of foreign-invested firms as inputs benefit from lower-priced inputs. So long as the liberalization is reasonably widespread across economies, the positive spill —over dominate with within and between economies (DECD, 2011). The importance of trade liberalization in driving dynamic productivity gains and in turn economic growth should not be under appreciated. It is generally accepted that countries can achieve allocative efficiency gains through trade liberalization (Akims, 2014). Allocative gains arising through the (re) allocation of resources to the efficient sectors of the economy represent the traditional theory on the

benefits from trade liberalization. In brief, macro economic conditions together with open trade policies and other factors are found by most economists to be the critical in explaining faster economic growth.

In Nigeria, foreign trade helps in no small measures to accelerate economic growth. It has helped in the importation of machineries such as tractors, ploughs, industrial plants and equipments. Ozumba and Chigbu (2013), points that the interest to promote non-oil exports was borne out of not just its huge potential for foreign exchange earnings but also for its employment generation and poverty reduction capability through the extensive backward linkages it offers as well as the desire to diversify the country's production base. Export and import trades are known as international trade. Thus, the rationale for international trade includes:

- ❖ Increase in Output: The emergence of international trade has contributed to increased productivity world-wide.
- \* Exchange of Technology: International trade creates the opportunity for transfers of technical knowhow and cross fertilization of ideas among nations.
- Promotes World Peace: With international trade, tribalism, religious and societal inhibitions are fast admonishing; giving way to more peaceful interaction and adaptation between all class of people in different parts of the universe.
- ❖ Efficient Allocation of Resources: World resources are more effectively channeled to more productive ventures by participating countries. It encourages each country to specialize in the production of those goods and services for which its resources are mostly suited.
- ❖ Leads to Market Expansion: Through expanded marks, international trade enables the benefits of large scale production to be enjoyed by participating countries. This economy of large scale production lowers cost of production as well as the general price level.
- ❖ Improve Standard of Living: Different types of products are provided through foreign trade. Products that cannot be produced in a particular country can be traded, thereby increasing the variety of goods and services that are available for human use.
- ❖ To Earn Foreign Exchange: This is the most important reason why countries engage in foreign trade, in order to earn foreign exchange from the sales of their goods and services, increasing their foreign reserve thereby creating a favorable local currency appreciation as well as put the demand for its goods and services on a high rate thus outing the country at a favorable balance of payment position (Orji, 2007).

The empirical literature for Nigeria has not differed significantly from mainstream debate. However, Ogunkola eta al (2006) is an exception. The paper evaluates the effects of trade and investment policy reform on macro economic performance in Nigeria using ordinary least square and full information maximum likelihood estimator. The results reveal that trade and investment policy reforms do not have a significant impact on aggregate output growth. Also, average import tariff was found to be a significant determinant of export growth. In other words, the sign of the growth elasticity of average import tariff was negative, suggesting that higher duties lower export growth.

Focusing on trade liberalization as it affects Pakistan, Ali and Abdullah (2015) in their study examined he relationship and impact of openness of trade on the economic growth of Pakistan. The VECM and Johanson multivariate approach where adopted to find out the short and long run estimates. The results of the study showed a short-term positive relationship between trade openness and GDP growth of the country. The long-run result state a negative impact of trade liberalization on the economic growth of Pakistan. Export oriented trade policies and quality conflict management institution were the policy recommendations made by the study.

In another dimension, Muhammed and Jian (2016) studied the association between openness and growth of selected Muslim countries using random and fixed effect model (PG & FE). The findings from Pedron: Cointegartion test indicated a long-run relationship among variables which was absent in Kao cointegration test. The result of RG and FE model shows that openness has significant and positive effect on growth, in

addition, foreign direct investment, inflation and human capital and also affecting growth in Muslim countries.

#### MODEL SPECIFICATION

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The model employed in the study is a linear regression model which is in form of
TOP = (Xi) ----- (I)
Where; TOP = Trade openness
X = Set of chosen explanatory variables
The chosen variables are reflected in the model
Y = bo + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \mu
TOP = F (UNE, GDP, XR, RINT) ----- (II)
Where; TOP = Trade openness (trade liberalization)
UNE = Unemployment Rate
GDP = Gross Domestic Product
XR = Exchange Rate
RINT = Real Interest Rate
Rewriting the above model in linear form;
TOP = Bo + b_1 UNE + b_2 GDP + B_3 XR + B4RINT + \mu ------ (III)
TOP = Trade openness
b_o = Constant or Intercept
b_1 + b_2 + B_3 + B_4 = Coefficient or parameter
\mu = Stochastic error term
UNE = Unemployment Rate
GDP = Gross Domestic Product
XR = Exchange Rate
RINT = Real Interest Rate
Y = bo + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + \mu -----(iv)
Where
Y = Trade Openness
X_i = Unemployment rate
X_2 = Gross domestic product
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#### TRADE OPENNESS

 $X_3$  = Exchange rate  $X_4$  = Real interest rate

Trade liberalization is the removal or reduction of restrictions or barriers on the free exchange of goods between nations. This includes the removal or reduction of tariff obstacles, such as duties and surcharges, and nontariff obstacles, such as licensing rules, quotas and other requirements. Economists often view the easing or eradication of these restrictions as promoting free trade.

#### **REAL INTEREST RATE**

The **real interest rate** is the rate of interest an investor, saver or lender receives (or expects to receive) after allowing for inflation. A real interest rate is an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor. The real interest rate of an investment is calculated as the amount by which nominal interest rate is higher than the inflation rate:

The purchasing power of two currencies relative to one another. While two currencies may have a certain exchange rate on the foreign exchange market, this does not mean that goods and services purchased with one currency cost the equivalent amounts in another currency. This is due to different inflation rate with different currencies.

#### **UNEMPLOYMENT RATE**

The unemployment rate is a measure of the prevalence of unemployment and it is calculated as a percentage by dividing the number of unemployed individuals by all individuals currently in the labor force.

### GROSS DOMESTIC PRODUCT

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. Though GDP is usually calculated on an annual basis, it can be calculated on a quarterly basis as well (in the United States, for example, the government releases an annualized GDP estimate for each quarter and also for an entire year).

### ECONOMIC A PRIORI EXPECTATION

Unemployment rate is expected to have a negative relationship with TOP. GDP is expected to have a positive relationship with TOP. Exchange rate is also expected to have a positive relationship with TOP. Real interest rate is as well expected to have a negative relationship with TOP.

#### DIAGNOSTIC TEST

Diagnostic test of model carried out as follows:

### **EXPLANATORY POWER OF THE MODELS**

The explanatory power of the model was tested using the coefficient of determination (R<sup>2</sup>). It measures the goodness of fit of a regression line.

#### OVERALL SIGNIFICANCE OF THE REGRESSION

The F-test was used to measure the overall significance of the variables used in the model. Decision rule: We reject the null hypothesis when F- prob value is less than 0.05 and accept the null hypothesis when f-prob is greater than 0.05.

# HETEROSKEDASTICITY

The white heteroskedasticity was carried out to ascertain whether the error term  $(\mu t)$  in the regression model has common or constant variance overtime. The stochastic equation for this test is stated as follows:

 $Ut = bo + b_1x_1 \ (GDP) + \ b_2 \ (INF) + \ b_3 \ (UNR) + \ b_4 \ (GDP)^2 + \ b_5 \ (INF)^2 + \ b_6 \ (UNR)^2 + Vt$ 

Decision Rule: If the probability of F-statistic heteroskedasticity is greater than 0.05, error term is constant and so there is heteroskedasticity. If it is less than 0.05, error variance is not constant and there is hemoskedasticity.

### STATIONARITY TEST

The Philip-Perron test was used to check the stationarity of the time series data. Decision Rule: If the Philip-Perron test statistic is greater than the critical value, we reject the null hypothesis which shows it is stationary otherwise accept the null hypothesis.

#### **Test for Multicollinearity**

This is one of the assumptions that must hold before applying OLS estimation method. The multicollinearity test was calculated to ascertain the degree of relationship between variables. Decision rule:

The decision rule that guides the test using correlation matrix is state of as follows; if the correlation matrix shows a variable that have 0.8, then there is multicollinearity in the model.

#### NORMALITY TEST

The normality test is conducted to ascertain the normality distribution of the error term of the variable under consideration. Here the Jargue-Bera test was used. Decision rule: If the probability of Jargue-Bera is less than 0.05, you conclude that the variables are not normally distributes or otherwise.

#### TEST FOR AUTO CORRELATION

Test for autocorrelation in our model, we make use of the Breusch-Godfrey serial correlation LM test for autocorrelation. The most popular and routinely used is the Durbin-Watson test.

#### **COINTEGRATION TEST**

Johanson cointegrasion test will be conducted to check whether there is evidence of cointegration between the explanatory variables and not having the same order of stationarity with the dependent variables. This is to ascertain if there is a long-run relationship among the variables.

#### THE ERROR CORRECTION MODEL

The ECM directly estimates the speed at which a dependent variable returns to equilibrium after a change in other variables. This model belong to the multi time series models most commonly used for data where the underlying variables have a long-run stochastic trend.

#### **TEST OF HYPOTHESIS**

The hypothesis was tested using t-statistic. The decision rule is to reject the null hypothesis if the probability (t-stat) is less than 0.05, otherwise accept the null hypothesis when probability (t-test) is greater than 0.05.

## DIAGNOSTIC TEST

Diagnostic test of the model were carried out using the coefficient of multi determination analysis of variance and Durbin Watson statistics. The results are stated in table 4.1. below:

Table .1: DIAGNOSTIC TEST RESULT FOR HYPOTHESIS ONE

Test Statistic	Value
$\mathbb{R}^2$	0.984451
Adjusted R <sup>2</sup>	0.982508
F-Statistics	506.5141
Prob (F-statistics)	0.0000000
D.W	1.533477

**Source: Regression Result (see Appendix)** 

## 1. EXPLANATORY POWER OF THE MODEL

R<sup>2</sup>, the coefficient of multiple determinations was used to test the explanatory power of the model and goodness of fit. From the result adjusted for degree of freedom is 0.984451 (table 4.1). This indicates that 98% of systematic variations in the dependent variable are explained by change in the independent variable in the model.

#### 2. OVERALL SIGNIFICANCE OF THE MODEL

To test the overall significance of the regression, analysis of variance (ANOVA) is 506.5141 and prob (F-Statistics) is 0.000000. Testing the null hypothesis that the coefficients are equal to zero at 5% level of significance, we reject the null hypothesis since the prob (F-Stat) is less than 0.05 in each case. We therefore conclude that the independent variables have significance impact on the dependent variable in the model.

#### 3. AUTO CORRELATION

Durbin Watson statistic was used to test for the presence of autocorrelation.

Decision Rule: If a computed value of Durbin Watson (d) is less than the lower limit (dl), therefore evidence of positive first order serial correlation, if it is greater than the upper limit (du) there is no evidence of positive first order serial correlation but if it lies between the lower and upper limits, it is inconclusive. In table 4.1, the Durbin Watson (d) statistics is 1.533477, therefore, since the d value lies between the dl and du (ie) 1.193 and 1.730 respectively, it shows that the first order serial correlation is inconclusive.

#### 4. MULTICOLINEARITY TEST

This is one of the assumptions that must hold before applying OLS estimation. The multicolinearity test is calculated to ascertain the degree of relationship that exists between the degree of relationship that exists between the dependent and independent variables. The decision rule that guides the test is stated as follows: If the correlation matrix shows a variable that has above 0.8 then there is multicolinearity in the model. However, from the result in the appendix, it was discovered that there is evidence of multicolinearity in the model though not a severe problem.

### 5. NORMALITY TEST

The normality test procedure is conducted to ascertain the normality distribution of the error term of the variables under consideration. The decision rule that guides the test is stated as follows: If the probability of Jargue-Bera is less than 0.05, you conclude that the variables are not normally distributed or otherwise. However, from the result in the appendix, it was discovered that the variables are normally distributed because the probability of Jargu-Bera is greater than .0.05 in the model, i.e. 0.512211.

### 6. HETEROSCEDASTICITY TEST

There is one of the assumptions of random variable (ut). It is used to test if the error term is constant overtime. The decision rule that guides the test is stated as follows: if the probability of F-Statistics is less than 0.05, we conclude that there is Heteroscedasticity in the model inclining that the error term is not constant. If the prob of F- stats is greater than 0.05 we conclude that there is homoscedasticity inclining that the error term is constant. However, from the result in the appendix, it was discovered that there is evidence of Heteroscedasticity inclining that the error term is not constant in the model i.e. 0.000225.

## 7. COINTEGRATION TEST

Johanson Co-integration Test

TABLE .2

Eigen Value	Likelihood	5% Critical	10% Critical	Hypothesized
		Value	Value	
0.638917	82.47211	68.52	76.07	None
0.524074	46.811945	47.21	54.46	At most 1
0.26668979	2083211	29.68	33.65	At most 2
0.207611	9.8666277	15.41	20.04	At most 3
0.048000	1.721664	3.76	6.65	At most 4

<sup>\* (\*\*)</sup> denotes rejection of the hypothesis at 5% (1%)

Significance level L.R test indicates 1 co integrating equation (s) at 5% significance level.

Looking at the likelihood ratios as compared to the critical value at 0.05, the hypothesis of co integrating or the existence of the most one co integrating vector was rejected. The result shows that there are one co- integrating equations (vectors) in the set of normalized co- integrated vectors. This means that there is long run relationships between the variables.

### .8 (ECM) ERROR CORRELATION MODEL

This is an estimation which is used to obtain the short-term estimate of the variables. The error correction mechanism (ECM), was used to obtain the short-term estimate.

#### TABLE .3: SHORT RUN ESTIMATES RESULT

Variables	Coefficient	t-probability
-----------	-------------	---------------

ECM (-1)	-0.0496695	0.0419

From the result in table 4.3 above, since the coefficient of ECM (-1) which is 0.000049695 is negative, we say that there is convergence and also the probability 0.049695 is significant at 0.05 level of significance.

## 9. UNIT ROOT TEST/STATIONARITY TEST

The unit of Stationarity of the variables under consideration, it is concluded based on the following decision rule. If the absolute value of the Philip Perron test is greater than the critical value, either at the 1%, 5% or 10% level of significance at the order zero, one or two, we conclude that the variables under consideration are stationary, otherwise they are not. For the variable under consideration the following values were obtained.

TABLE .3: PHILIP PERRON (PP) UNIT ROOT TEST RESULTS

Variables	Level	1st difference	2 <sup>nd</sup> difference	Order of intg.
TOP	-1.356736	-6.645756*	-14.52090*	1(1)
UNE	-0.795011	-4.996608*	-9.194369*	1(1)
GDP	1.518161	-5.088969*	-11.56994*	
XR	-1.638502	-5.315099*	-11.22548*	1(1)
RINT	-1.255551080	-5.795097*	-12.07543*	
				1(1)
				1(1)
Critical Value				
1%	-4.2324	-4.2412	-4.2505	
5%	-3.5386	-3.5426	-3.5468	
10%	-3.2009	-3.2032	-3.2056	

<sup>\* (\*\*) (\*\*\*)</sup> signify significance at 1%, 5% & 10% respectively.

#### Source: Authors Analysis, 2018

The result in table 4.3 shows that all the variable where stationary at first difference, since the absolute value of the Philip Perron (PP) unit root test was greater than 5% chosen critical value.

### .2 ANSWERING OF RESEARCH QUESTIONS

The research questions were answered using the coefficient of the independent variables. The regression results are displayed in table 4.4

REGRESSION RESULT

Variables	Coefficient	Std. Error	t- statistic	Prob
UNE	0.404530	0.916954	0.441167	0.6621
GDP	-5.00E-07	1.84E-06	-0.271144	0.7880
XR	0.273961	0.129114	2.121854	0.417
RINT	0.913471	0.036637	24.93303	0.0000
С	0.490638	24.69042	0.0119822	0.9843

#### Source: Author's Analysis

The result of the regression can be summarized in equation form as follows;

TOP = 0.490638 + 0.404530UNE - 5.00-07GDP + 0.273961XR + 0.913471RINT

S.E = (24.69042) (0.916954) (1.84E-06) (0.129114) (0.036637)

t = (0.019872) (0.441167) (-0271144) (2.121851) (2.493303)

### .1 RESEARCH QUESTIONS

i. What is the impact of GDP on trade openness in Nigeria?

From the regression result stated above (table 4.4) the macro economic variables GDP has a negative impact which is shown by the negative coefficient. This means that when there is increase in openness of trade reduction in tariff or import duties, GDP tends to reduce (i.e.) -5.00E-07.

ii. What is the impact of real interest rate on Nigerian's trade openness?

Based on the regression output stated above, (table 4.8) the RINT has a positive impact on TOP (i.e.) 0.913471.

iii. To what extent does unemployment rate have an effect on Nigerian's trade openness?

From the regression result stated in (table 4.4) above, the unemployment has a positive relationship with trade openness. This can be seen in the positive coefficient which is 0.404530.

iv. What effect does exchange rate have on trade openness?

Exchange rate has a positive effect on trade openness. This can be seen in table 4.4 where the coefficient of exchange rate is seen to be 0.2773961.

### .3. TEST OF HYPOTHESIS

The hypothesis was tested using the t-probability.

Decision Rule: If the t-probability is greater than the 5% critical value we accept the null hypothesis otherwise, we reject the null hypothesis when significant Prob is less than 0.05.

Ho: GDP has no significant impact on Nigerian's trade openness.

From the table 4.4, since the t-probability (0.7880) is greater than critical value of 5%, we accept the null hypothesis. This follows that GDP has no significant impact on TOP In Nigeria.

Ho: RINT has no significant impact on trade openness in Nigeria.

From table 4.4, since the t-probability (0.0000) is less than 0.05 critical value, we reject the null hypothesis and conclude that RINT has a significant impact on trade openness in Nigeria.

Ho: Unemployment has no significant effect on trade openness in Nigeria.

From table 4.4 since the t-probability (0.6621) is greater than the 5% critical value. We therefore accept the null hypothesis and conclude that UNE has no significant effect on TOP in Nigeria.

Ho: Exchange rate has no significant effect on openness in Nigeria.

From the table 4.4 above, the t-probability which 0.0417 is less than 0.05 critical value, we reject the null hypothesis and conclude that exchange rate has a significant effect on TOP in Nigeria.

## The findings of the study may be summarized as follows;

- ❖ Trade openness has a negative relationship with GDP.
- ❖ Trade openness has a positive relationship with UNE.
- ❖ Trade openness has a positive relationship with RINT.
- ❖ Trade openness has an insignificant relationship with RINT.
- ❖ Trade openness has a positive relationship with XR.

## LIMITATIONS OF THE FINDING

The researcher was faced with poor network problem which denied him full access to the internet in search of relevant information. The researcher was also faced with strike from the university library in which he was supposed to get journals, periodicals, textbooks etc.

Despite the above limitations encountered by the researcher, he tried everything humanly possible to utilize the available materials within his reach.

## **CONCLUSION**

The importance of trading at the international market has necessitated the adoption of trade liberalization by most of the economies around the globe which is aimed at easing flow of goods and services between trading countries. The degree of trade liberalization have been argued to determine the level of exchange activities that is export and import which has a long way to determine the balance of trade of the countries involved. Nigeria not left out has also adopted trade liberalization and trade liberalization since 1986 with the aim of seeing its exportation rise. This work was prompted by the need to understand the response of some macro economic variables to trade tariff liberalization policy in Nigeria. This is particularly

important in view of the government revenue, diversification and the need to meet its multilateral trade obligations. A quantitative finding suggests that the impact differs based on the particular macro economic variables used. Macro-economic variables such as GDP is negatively related to TOP which means that or suggest that import duties cuts dampen productivity and this may be due to the constrained domestic production due to the influx of similar imported products, while other variables such as UNE, RINT and XR are positively related to TOP. These variables such as UNE, GDP and RINT in this work do not conform with what Oruta (2015) POINTS "To increase the level of employment, some scholars have argued that the flow of goods and services (Trade flows) covered propel employment generation, especially in developing countries. Painta and Virareli (2006) cited in Oruta (2015) stated further that growth in employment has a feedback on economic growth, such that an increase in income would expand domestic demand, which in turn will lead to sustainable GDP growth and reducing markets.

Hence, with the study and that of others (empirical investigations), it is discovered that it is inconclusive on whether trade liberalization is or has a positive relationship with the macro economic variables such as UNE, GDP and RINT

#### Recommendations

## The following recommendations have made for the study;

- ❖ Government must review the degree of its trade liberalization by keeping trade openness rate below or at certain level in order to ensure an improved macro economic performance.
- ❖ Government should checkmate the reduction of import duties in order to get conclusive answer whether or not trade liberalization has a positive impact or effect on economic growth and stability.
- ❖ Government should check the inflation dynamics so as to avoid imported inflation which are often transmitted from one country to the other, particularly during periods of rising price all over the world.
- ❖ Government should also checkmate the infant industries or domestically produced goods in order to ensure unconstrained domestic production of goods which will reduce unemployment rate and in turn increase the GDP,

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