Impact of International Trade on the Growth of the Nigerian Economy

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Abstract: **The paper examined the impact of international trade on economic growth in Nigeria. The objectives of this study were to ascertain the impact of foreign direct investment (FDI) inflow, net-export (NEX) and foreign exchange rate (EXR) on the growth of the Nigerian economy (GDP). Dynamic Ordinary Least Square (DOLS) multiple regression analysis technique was employed to estimate the various data collected via the central bank of Nigeria statistical bulletin covering the period of 1980 to2018. The results showed that all the explanatory variables except exchange rate were positively linked with economic growth. More so, all the explanatory variables were statistically significant with economic growth except net export. The Durbin Watson statistics value of 1.81 suggested that the explanatory variables in the model are not serially correlated. Thus, the model is good for policy implementation. Based on the findings, the paper recommended that; Government should maintain a good market driven exchange rate policy in order to encourage local production that will lead to increase in international competiveness which in turn will result to increase in economic growth. Also, government should implement efficient and specific macroeconomic policy geared toward improving safe business environment that will attract more foreign investment in order to increase the growth of the Nigerian economy.**

Key Words: **International, Trade, Economic Growth, FDI, DOLS**

I. INTRODUCTION

Economists have long been concerned with the factors which cause diverse countries to grow at different rates and accomplish various levels of wealth. One of such factors is trade. However, while trade between nations may engender growth generally, there are no guarantees that its cumulative benefits are distributed evenly among trading partners (Obadan & Okojie, 2012). This has been the experience of Nigeria since the independence even though the composition of trade has changed over the years. Thus, international trade is the existence of absolute independence of countries in terms of goods and service produced and consumed (Gbanador, 2005).

The importance of external trade to economic improvement cannot be over emphasized. This is because both the classical and neoclassical financial analyst were of the opinion that foreign trade serves as the life wire of any developed nation. Over the past three centuries, the world economy have become greatly connected through globalization. It plays a central role in the development of a modern global economy. The impact of external trade on a country's economy is reflected in the structural change in the economy. Trade enhances the efficient production of goods and services through allocation of resources to countries that comparative advantage in their production (frankel & Romer, 1999).

Meanwhile, one of the serious issue that has obstructed the accomplishment of increase in financial development in Nigeria have been credited to external aggregates such as; low FDI inflow, exchange rate instability and negative net export (Obayori, 2016). For instance, fluctuations in Nigeria's currency (Naira) exchange rate, which is a good determinant of external trade, caused economic instability in the country. For instance, CBN (2018) statistics revealed that the official exchange rate moved from a low level of ₦0.54 per US $ 1.00 in 1980 to as high as ₦ 22.05: US $1.00 in 1994. But it is disheartening that between 2016 and 2019 exchange rate has being hovering around US $1.00 to ₦ 365.00. On the other hand, Nigerian export which remained at ₦ I4.2m in 1980 increased to 1945.7million in 2000 ad got to a peak of ₦12011.5m in 2010; fell to ₦ 10067.300m in 2014. According to Ewubare and Obayori (2015), an examination of Nigeria's external trade profile showed that imbalances persisted in the country since the 80's. The continual imbalances in the external trade of the Nigerian economy seemingly suggested that government needed to do more to stimulate economic growth and development. On this note, Obida and Nurudeen (2010) asserted that GDP growth averaged approximately 6.0%in the period 1971-1980. This growth in GDP was due to the millions of dollars that Nigeria made from oil during this period. However, the fall in oil prices which began in 1981, had negative effect on the growth of the economy. Growth of GDP averaged -5.82% in the period 1981-1985. But grew at an average of 4.03% between 1986 and 1998. They equally posited that the growth rate of the output as it averaged 5.71% during the period 1999-2014. However, the average growth rate from the third quarter of 2015 to the first quarter of 2017 had been negative, indicating that the Nigerian economy was in recession.

From the above, it would appear that the performance of the international trade variables did not translate into increase in economic growth. The country is still under developed, as evidenced by the negative growth rate experienced from first quarter of 2016 to first quarter of 2017. Thus, the much awaited benefits from the external trade seemed yet to be felt, meaning that the performance of external trade in terms of foreign exchange rate, FDI and net export had not impacted on the growth of the Nigerian economy. It is based on the above state of affairs, that the study determine the relationship

between international trade and economic growth in Nigeria. While the specific objectives are: to ascertain the impact of foreign direct investment on the Nigerian economic growth; to determine the impact of net export on the Nigerian economic growth; and to evaluate impact of foreign exchange transaction on the Nigerian economic growth

II. CONCEPT OF INTERNATIONAL TRADE AND ECONOMIC GROWTH

Trade is a repeated sequence of exchanges of goods through market transactions (Ezirim, 2005). It is referred to as international trade if it involves transactions beyond the boundaries of a sovereign political authority. Accordingly, Samuelsson (2002), international trade is the system by which, nations export and import goods, services, and capital. They identified three differences between domestic and international trade as: expanded trading opportunities, sovereign nations and exchange rates adding that these have important practical and economic consequences. The powers that lie behind external trade are that trade advances specialization; and specialization upsurges productivity. Jhingan (2012) opined that foreign trade has been and is today an economic force that has spurred commerce, advanced innovation and development, spread social patterns, invigorate investigation and colonization, and persistently blew the fires of war.

Meanwhile, economic growth is the increase in the volume of commodities and services manufactured by an economy over a specified time frame. It is usually measured as the percent rate of increase in real gross domestic product. Growth is usually calculated in real terms, that is, inflation adjusted terms, in order to net out the effect of inflation on the price of goods and service produced. For a country to attain sustained economic growth, there must be interplay of both domestic and external factors such as; FDI inflow, stable rate of exchange, favourable net export and BOPs. Thus, factors such as FDI inflows have grown in importance relative to other firms of international capital flows and the resulting production has increased as a share of world output. The United States began its role as foreign direct investors in the late 19th century. It became the dominant supplier of direct investment to the rest of the world, accounting for about half of the world's stock in 1966.

III. EMPIRICAL EVIDENCE ON INTERNATIONAL TRADE AND ECONOMIC GROWTH

Elias, Agu and Eze, (2018) evaluated the impact of international trade on the Nigeria economic growth from 1980-2012 with multiple regression analysis technique. The results showed that there is a significant impact of export trade on the Nigerian economic growth. But the reverse was the case with the impact of import trade on the Nigerian economic growth. Also, Abiodun (2017) looks at the contribution of international trade to economic growth in Nigeria. The Granger Causality result showed a uni-directional relationship between the dependent and

independent variables. The results reveal that there is, overall, a positive relationship between economic growth and international trade. Babatunde, Jonathan and Muhyidee (2017) used OLS to examine the impact of foreign trade on economic growth in Nigeria for a period between 1981 and 2014. They concluded that government sending, interest rate, import and export were positively significant with economic growth. But the reverse was the case for both exchange rate and foreign direct investment.

Lawal and Ezeuchenne (2017) used Vector Error Correction Model to examine the effect of external trade on economic growth in Nigeria from 1985 to 2015. The results showed that both export and balance of trade are significant in explaining growth of the Nigerian economy. While the reverse is the case for import and trade openness. Alimi and Muse (2013) uses VAR and causality test to determine the importance of export in Nigerian economic growth from 1970-2009. The scholars founds long run relationship as well as uni-directional causality between economic growth and export. Edoumiekumo and Opukri (2013) used both OLS and causality test to determine the influence of external trade to economic growth in Nigeria. The results showed a direct relationship between the variables, GDP, export and import. The causality test showed that real GDP granger causes export and import. Atoyebi, Akinde, Adekunjo and Femi (2012) in their empirical study survey the effect of external trade on economic growth in Nigeria. They established that increase involvement in worldwide trade helps Nigeria to earn fixed and vibrant benefit in term of international trade volume and trade structure towards high technology export. Omoju and Adesanya (2012) determines the impact of trade on economic growth in Nigeria. The paper found that foreign trade exerts a significant positive effect on economic growth in Nigeria. FDI, government expenditure and exchange rate also positively impact on economic growth.

IV. METHODOLOGY

The variables for this study such as GDP, FDI, net export and foreign exchange rate were extracted from CBN statistical bulletin for period of 1980 to 2018 and were used in their logarithm form. The paper used the Dynamic Ordinary least Squares (DOLS) proposed by Stock and Watson (1993) to analyze the collected data. The essence of using the DOLS is because it has the ability to eliminate endogeneity problem and it is robust to autocorrelation problem. Also, the Augmented Dickey Fuller unit root test preceded the DOLS test in order to ascertain stationarity of the variables.

Model Specification

The specified model adapted the regression model proposed by Edoumiekumo and Opukri (2013) by extending the time frame and uses three independent variables that are related and have direct impact on economic growth. Thus, the paper specified the DOLS model as follows:

GDP=f(FDI, NEX, EXR)

$$(1)$$

$$LnGDP = \lambda_0 + \lambda_1 LnFDIt + \lambda_2 LnNEXt + \lambda_3 LnEXRt$$
$$+ \sum_{i=1}^{n} \Delta\lambda_1 LnFDIt - 1 + \sum_{i=1}^{n} \Delta\lambda_2 LnNEXt$$
$$- 1 + \sum_{i=1}^{n} \Delta\lambda_2 LnEXRt - 1 + \mu t \quad (2)$$

Where; GDP = Gross Domestic Product, FDI = Foreign Direct Investment, NEX = Net Export, EXR = Exchange Rate, λo = Intercept or Constant Term, λ1- λ3 = Coefficient of Explanatory Variables, U = Error Term, Ln = logarithm and ∑ is summation.

V. RESULTS AND DISCUSSION

5.1. Unit Root Test

The Augmented Dickey Fuller (ADF) test was used to investigate stationarity and the order of integration of the variables.

Table 1 Augmented Dickey Fuller Unit Root Test

Variable	ADF Test @ Level	Critical value @5%	ADF Test @ Level	Critical value @ 5%	Order of Integration
GDP	-0.3128	-2.9151	-6.3716	-2.9484	1(1)
FDI	-1.438041	-2.9844	-5.249011	-2.9484	1(1)
NEX	-2.364828	-2.9844	-4.628902	-2.9484	1(1)
EXR	1.134309	-2.9548	-5.394011	-2.9484	1(1)

Source: Researcher's Computation from (E- view 10)

The stationarity of each of the series is presented in Tables 1 using the ADF tests depicted that all the variables (GDP, FDI, nest export and foreign exchange rate) were not stationary at level. Therefore, they were differenced once and they became stationary at first difference prior to subsequent estimations to forestall spurious regressions. This therefore means that the best regression results were obtained when the above variables were used in model estimation.

5.2 Co-integration Test

The Johansen co-integration test was used to examine the long run relationship among the variable at 5% level

Table 2 Johansen Co-integration Test Result for the Model

Eigen value K=1, r=3	Trace Statistics	5% critical value	Prob. **	Hypothesis of CE(s)
0.653803	76.33552	47.85613	0.0000	None *
0.488984	39.20935	29.79707	0.0031	At most 1 *
0.269135	15.71194	15.49471	0.0464	At most 2 *
0.216621	3.738494	3.841466	0.0295	At most 3

Note: r= number of cointegrating vectors and k = number of lags in model. * rejection of the H0

Source: Researcher's Computation from (E- view 10)

The results of the Trace statistics of the model revealed the existence of three co-integrating vectors respectively in the model. This is because the computed values of the Trace test statistics are greater than their corresponding critical values at 5% level. Thus, the null hypothesis (H0) of no co-integration among the variables was rejected. Thereby confirming the existence of the long run behaviour of the variables.

5.3 The Dynamic Ordinary Least Square Results

In exploring the dynamic long run impact of international trade on the growth of the Nigerian economy, the dynamic ordinary least square (DOLS) technique was applied

Table 3: Dynamic Ordinary Least Square Results

Dependent Variable: Ln (GDP)

Variables	Coefficient	T-Statistics	T-Table	Probability
C	20097.30	3.240879	1.6924	0.0275
DLn(EXR)	-1.651820	-2.204802	1.6924	0.0537
DLn(FDI)	0.007895	2.212042	1.6924	0.0448
DLn(NEX)	4.131081	1.682093	1.6924	0.0744
R^2=0.6030 DW-Stat= 1.8198 F-Stat.=6.79645 Prob(F-statistic) = 0.000086				

Source: *Researcher's Computation from (E- view 10)*

The results of DOLS model presented in Table 3 showed that the value of foreign exchange rate (EXR) has a negative but significant impact on economic growth. Thus, a percentage increase in exchange rate causes a decrease in economic growth by about 2%. This means that the weak value of the Nigeria naira in term of US dollar will negatively affect the growth of the Nigerian economy. Also, t-stat; 2.2048 > t-tab, 1.6924. Thus, the alternative hypothesis which states that there is a significant relationship between foreign exchange rate and economic growth was accepted. The finding negates the empirical work of Udeh, Ugwu and Onwunka (2016) who affirms that, exchange rate has positive relationship with economic growth in Nigeria. But conform to the work of Babatunde, Jonathan and Muhyidee (2017).

Meanwhile, the value of foreign direct investment (FDI) has a positive and significant impact on economic growth (GDP). Thus, a percentage increase in FDI inflow will increase economic growth by 0.0088%. Meaning that international trade in term of inflow of FDI, helps to boost the growth of the economy. The finding is in line with the empirical work of Omoju and Adesanya (2012). Also, the t-stat; 2.212 > t-tab, 1.6924. Thus, the alternative hypothesis which states that there is a significant relationship between FDI and economic growth was accepted. Similarly, the value of net export (NEX) has a positive and significant impact on GDP. Thus, a percentage increase in net export will increase economic growth by 4.1%. Also, the t-stat; 1.682 <t-tab, 1.6924. Thus, the null hypothesis which states that there is no significant relationship between net export and economic growth was accepted. The finding alludes to the empirical work of Elias,

Agu and Eze, (2018) as well as Usman, Ashfaq and Mushtaq (2012) who averred that export trade has a direct impact on economic growth. The R^2 of 60% showed that the model is a good fit. Thus, 60 percent variation in economic growth was explained by the systematic changes in the independent variables (foreign exchange rate, FDI and net export) The Durbin Watson statistics value of 1.81 suggested that the model is free from problem of serial correlation. Thus, the explanatory variables in the model are not serially dependent.

VI. CONCLUDING REMARKS

One undisputed fact is that no country exists in absolute independence from other countries in terms of goods and service produced and consumed. Every country therefore buys and sells what it produces to other countries. This is what international trade is all about. Thus, the study focuses on international trade and economic growth in Nigeria during the period of 1980-2018. The objectives of the study were: to ascertain the impact of foreign direct investment on the Nigeria economic growth; to determine the impact of net export on Nigeria economic growth; and to evaluate impact of foreign exchange rate on economic growth in Nigeria. Dynamic Ordinary Least square of multiple regression analysis technique was employed in estimating the various data collected via the central bank of Nigeria statistical bulletin. The empirical results showed that all the explanatory variables except exchange rate have positive link with economic growth. More so, all the explanatory variables were statistically significant with GDP except next export. Based on the findings, the paper recommended that; Government should maintain a good market driven exchange rate policy in order to encourage local production that will lead to increase in international competiveness which in turn will result to increase in economic growth. Also, government should implement efficient and specific macroeconomic policy geared toward improving safe business environment that will attract more foreign investment in order to increase the growth of the Nigerian economy.

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