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International Business and Nigerian Economic Growth

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Abstract. This study examined the relationship between international business and Nigerian economic growth from 2010 through 2019. The study specified linear model by expressing economic growth measured by GDP as a function of international business measured by the value of export, import, forex allocation for import business and exchange rate. Quarterly data were collected from the various editions of CBN's statistical bulletin and SEC's statistical bulletin. Analysis of the data was done by employing Autoregressive Distributed Lags Model. The result revealed that in the short run, export trade was negatively and insignificantly related to economic growth while import was positive associated with economic growth. Furthermore, foreign exchange allocation to import business also had negative and insignificant relationship with economic growth while exchange rate maintained positive and significant relationship with Nigerian economic growth. Based on the findings, it was concluded that international business has mixture of insignificant positive and negative relationship with Nigerian economic growth and recommended that government should wade into the export development policy and review it objectively to facilitate easy and cheaper entrance into export business reversing the trends of negative relationship between Nigerian economic growth and her international business.

Keywords: International business, Relationship, Export, Import

1. Introduction

It cannot be over overemphasized that international trade is important and beneficial to underdeveloped countries of the world while it plays significant roles in contributing to Gross Domestic Product, generation of employment opportunities development of economy and reduction of poverty is notable (Okenna, 2020). In line with the submission of Yusuf, Nchom, Osuji and Udeorah, (2020) what international trade entails is that, with the advent of globalization, it is an irrefutable fact that with respects to production and consumption of all goods and services, no nation can exist in isolation and independence of the other nations. Hence, there must be exchange of what each country produces with the other's so as to ensure development and sufficiency as countries differ with respect to resources and other constraints (Stephen & Obah, 2017). To this end, international business relationship suggests that in order to generate revenue to cater for goods and services which cannot be locally produced, and hence imported into a country, such country must export goods and services to other countries

When a country is not engaging in international trade will suffer the risk of low rate of economic growth due to strong reason that no country is endowed with all resources required for its sustainable growth and development. International trade, which can be interchangeably called international business, encompasses the import and export of goods and services in a country. Thus, it has been posited by Li, Chen and San (2010) that imports and exports from a country represent a huge share of her Gross Domestic Product (GDP) and as result of this, there exists a correlation between international trade and economic growth. They concluded that in an open economy, growth of Gross domestic Product is greatly impacted by the development of international trade.

Obviously, because of the above position of Chen and San (2010), Mike and Okojie (2012) as cited in Elias et al. (2018) assert that for a long time, factors that are responsible for differences in growth rate as well as the level of wealth achieved by different countries of the world have remained the keen

interest of the Economists. According to them trade is one of those factors; and international business transactions form a significant proportion of the Nigerian aggregate output. By implication, one of the macro-economic variables to measure the success of failure of any economy is balance of trade, which is an offshoot of international business transactions engaged in by that economy. Nigeria as a developing country relies so much on other countries to satisfy some of her local needs by importing goods and services (technology, expertise, transportation, vehicles, etc.) from other countries where they can perhaps be produced cheaper and efficiently than Nigeria. Nigeria, in return also exports some of the locally produced goods and services (cocoa, rubber, banking, transportation, etc.) to other countries that cannot produce them cheaper than Nigeria. If the foregoing is true, Nigerian government, just like every other nations have embraced international trade as one of the bedrock strategies to achieve development and growth due to the implied belief in the potency of trade when it comes to job creation, market expansion, income generation, stimulation of competition and knowledge exchange (Ogbaji & Ebebe, 2013).

To lend credence to the submission of Ogbaji and Ebebe (2013), trade which is categorized under service sector has been the second largest contributor to Nigerian GDP in the last 5 years with crop production under agriculture being the highest contributor. The contribution of trade to economic growth measured by real Gross Domestic Product in the last 5 years has been the N11,697.59bn, N11,669.06bn, N11,546.45bn, N11,473.79bn and N11,430.55bn, constituting about 17%, 17%, 17%, 16% and 16% for 2015, 2016, 2017, 2018 and 2019 respectively (Central Bank of Nigeria, 2019). Similarly, the total export trade for these years stands at N10,011.52bn, N7,752.75bn, N9,264.29bn, N11,184.04bn and N20,121.42bn, constituting 14.5%, 11.4%, 13.5%, 16.02% and 28.19% of Nigerian GDP for the aforementioned years (Central Bank of Nigeria, 2019). The foregoing attests to the existence of a relationship between international trade or business and Nigerian economic growth.

As posited by Arodoye and Iyoha (2014), it has become difficult to arrive at empirical consensus regarding the relationship between international business and economic growth due to divergence in the natural resources, size, and trade policy in different countries of the world. Certainly, a great deal of research has been conducted in an attempt to establish a link between international business and economic growth. However, all the existing studies have concentrated their attentions on the collection of annual time series data and their findings have been based on these annual data. This might have accounted for why there is no consensus concerning the relationship between international trade and Nigerian economic growth among the scholars. Thus, unlike existing studies, this study collects and analyzes quarterly data and therefore, offers different perspective on the relationship between international trade and Nigerian economic growth. Furthermore, existing studies have not accounted for the effect of forex allocated to exporters and importers on economic growth on annual basis; and unless this is done, the complete effect of international business on economic growth cannot be said to have been accounted for and this will aid the problem of lack of consensus to linger on in the literature. Hence, this study thus considers the effect of forex allocated for international business purposes on Nigerian economic growth.

The studies formulate questions in order to guide the study such as; (i) What is the relationship between export business and Nigerian economic growth? (ii) What is the relationship between import business and Nigerian economic growth? (iii) What is the relationship between international trade-bound forex and Nigerian economic growth? (iv)What is the relationship between exchange rate and Nigerian economic growth?

The overall objective of this study is to examine the relationship between international business and Nigerian economic growth. Other specific objectives are to examine the relationship between export business and Nigerian economic growth**, e**valuate the relationship between import business and Nigerian economic growth**,** Investigate the relationship between international trade-bound forex and Nigerian economic growth**,** Find out the relationship between exchange rate and Nigerian economic growth.

The hypotheses of this study are presented in a null form (i) Export business has no significant relationship with Nigerian economic growth (ii) Import business has no significant relationship with Nigerian economic growth (iii) International trade-bound forex has no significant relationship with Nigerian economic growth (iv) Exchange rate has no significant relationship with Nigerian economic growth.

2. Literature Review

2.1 International Trade

Abebefe (1995) views Trade as a series of exchange of goods and services via transactions that take place

in the market; should the trading activities involves two or more countries, it is called international trade or business. Consequently, an arrangement by which countries exchange (i.e import and export) goods, services and capital among themselves is called international trade (Samuelson & Nordhaus, 2002) according to them, expansion in opportunities to trade, involvement of different countries and exchange rate are three factors that distinguish domestic trade from international trade with. According to Ingram and Dunn (1993), the motivation for involvement in international business is that it it brings about specialization, which in turn raises productivity.

Babatunde, Jonathan and Muhyideen (2017) posit that International trade influences economic growth of nations by attracting foreign direct investment. Lall (2000) and Te Velde (2001) as cited in Babatunde et al. (2017) assert that international trade is the conduit through which countries have access to foreign direct investment for promotion of economic growth.

2.2 Export

Elias, Agu and Eze (2018) see export as the gross amount of goods and services produced within the geographical boundary of a country and which are sold to other countries. To them, export which constitutes inflows into an economy has the potency to boost competition, allow manifestation and harvest of the benefits of comparative advantage and aids achievement of favourable balance of payment by an economy. Furthermore, according to Arthar et al. (2012) and Konya (2004), the consensus in the literature is that export affect economic growth through economies of scales which enhance efficient allocation of resources and improve productive capability of the economy. There has been no consensus in the literature as to the nature of relationship of export with Nigerian economic growth as existing findings have mixture of negative and positive relationship derived from collection and analysis of annual data. Hence, this study aims to establish the relationship between export and Nigerian economic growth.

2.3 Import

The summation of the value of goods and services that are consumed and used by the residents of a country and which are produced and supplied by other countries is referred to as import. It constitutes a withdrawal from an economy and hence, import is always expected to impact negatively on the economy (Elias, Agu & Eze, 2018). They concluded that a country that hopes to grow her economy and enjoy favourable balance of payment needs to prune down the quantity of her imports in comparison with export quantity. To confirm the forgoing conclusion, this study aims to measure the relationship of import with Nigerian economic growth.

2.4 Benefits of International Business

The comparative cost theory has posited that greater advantage would be obtained by countries if they specialized on the production of those goods and services they can produce at cheaper cost than other countries. Hence, there are many benefits accompanying international business which helps the economic development of a country. Along this line, Stephen and Obah (2017) highlight some benefits associated with international business as follows:

- Increase in total world aggregate output of commodities and service, and this brings about increase in the various goods and services available to consumers and positively affects their standard of living.
- Stimulation of competition by opening up economy for such determination of prices is done by market forces.
- International business allows transfer of technology and ideas globally.
- Nigeria has benefited from international business via importation of machineries, equipment, vehicles which has helped to increased productive capacity and by extension economic growth.

2.5 Economic Growth

Yusuf, Nchom, Osuji and Udeorah (2020) 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. Saibu, et al. (2011) point that real gross domestic product is calculated by dividing the gross domestic output by the consumer price index.

2.6 Heckscher-Ohlin Theory

Theoretically, whereas Hechscher-Ohlin posits that if nations should produce and export goods in which they have factor endowment advantage and take the reserve on import. This theory was developed by two Swedish economists namely: Eli Heckscher and Bertil Ohlin in the early 1900s. Later

and up till today, this theory is known as Heckscher–Ohlin model. The crux of this theory is that the pattern of foreign trade is a function of the differences in the factor endowments of the countries in the world. It thus advocates that countries should export those goods and services the factors of which are locally and cheaply available why goods that make intensive use of factors that are scarce locally should be imported. They predict that if the foregoing is achieved, international trade will promote economic growth based on the following main assumptions:

- Labor and capital moves freely between sectors and across sectors within a country.
- Different countries have different amount of labor and capital
- The level of technology is the same across the countries
- There is no differences in the tastes among the countries

Since the focus of this study is on the relationship between international business and economic growth, this theory is insightful in the understanding of such relationship and hence, it is employed as the theoretical foundation of this study.

2.7 Empirical Review

Stephen and Obah (2017) examined the effect of international trade on the economic growth of Nigeria from 1981 to 2015. The model specified in this study expressed economic growth measured by gross domestic product as dependent as a function of international trade proxied by non-oil imports, oil imports, Non-oil exports, and oil exports as the independent variables. The study sourced Secondary data from CBN statistical bulletin and employed multiple linear regression estimation techniques for data analysis. Findings for this study revealed existence of significant positive impact of international trade on economic growth in Nigeria; specifically, while non-import and non-export had significant positive effect on economic growth, oil export had significant negative effect and oil import had insignificant positive effect. Based on this finding, it was recommended that over-dependence on oil exports by government should be reduced while increase and diversification of export base should be encouraged to shore up revenue.

Adeleye, Adeteye and Adewuyi (2015) assessed the impact of international trade on economic Nigerian economic growth in Nigeria between 1988 and 2012. Net export and Balance of Payment were used as proxies for international trade which is the explanatory variable while Gross Domestic Product represented economic growth as the dependent variable. The study collected annual time series data from secondary sources and employed co-integration and Error Correction Modeling techniques to establish the long-run relationship between economic growth and international trade. It was revealed that only total export maintained positive and significant relationship with economic growth while others maintained negative and insignificant relationship with economic growth. Based on this finding, it was recommended that government should therefore pursue aggressive by diversifying the economy by setting up policies and incentives that will boost non-oil export, the manufacturing sector and overall promote the growth of industry in Nigeria.

Azeez, Dada and Aluko (2014) empirically examined the effect of international trade on the economic growth of Nigeria in the 21st century covering a period from 2000 to 2012. In this study, the dependent variable was the economic growth which was measured by GDP while international trade as the independent variable was proxied by imports, exports, and trade openness. Annual time series data were collected Central Bank of Nigeria Statistical Bulletin while estimation of the specified model was done by Ordinary Least Square technique. Findings from this study revealed that international trade had a significant positive impact on economic growth. In effect, while Imports and Exports had significant positive effect on the Nigerian economy, Trade Openness maintained significant negative effect on Nigerian economic growth. The study subsequently recommended that government should endeavour to reduce excess dependence on oil exports, increase and diversify the level export base so as to increase revenue base of the country.

Elias, Agu and Eze (2018) carried out a study to evaluate the impact of import trade on the growth of Nigerian economy. GDP was used to proxy Nigerian economic growth as dependent variable while the value of import and export were used to proxy international trade as independent variables. Annual data for this study were obtained from the CBN statistical bulletin. Analysis of the data was carried out with multiple regression analysis technique. The finding of this study revealed that export had significant positive impact on the Nigerian economic growth while import had an insignificant negative effect on the Nigerian economic growth. Based on these findings, they recommended that efforts should be made by Nigerian government. Moreover, this study recommended export diversification and oil sector export minimization which also aligns with the

recommendation made by Azeez, Dada and Aluko (2014).

Awujola (2013) evaluated the impact of external trade on Nigeria economy from 1970 – 2010. The sum of import and export as total trade was used as the dependent variable while gross domestic product, inflation rate, capacity utilization, exchange rate, government expenditure, interest rate, import and export were the independent variables. Time series secondary data were extracted from the Central Bank of Nigeria, International Financial Statistics as well as the World Bank. Data were analyzed by employing ordinary least square regression technique and the result revealed that GDP, inflation rate, capacity utilization exchange rate and export were all positively and significantly related international trade while government expenditure, interest rate and import had negative relationship with international trade. Consequent to this finding, it was recommended that essential actions that will stimulate productivity and competitiveness of Nigerian enterprises in the export part should be taken by the government while necessary infrastructures such as technology, human capital development and other resources that could stimulate international trade should be looked into.

Ijirshar (2019) investigated the impact of trade openness on economic growth among ECOWAS countries by collecting annual time series secondary data from 1975 to 2017. GDP was the dependent variable to measure economic growth while foreign direct investment, gross fixed capital formation, trade openness, labour force, government expenditure and exchange rate were the explanatory variables. The data collected in this study were analyzed by non-stationary heterogeneous dynamic panel models through the application of Pooled Mean Group and Mean Group estimators since time dimension was more than cross-sections. Results from this study showed that trade openness had positive effects on economic growth in ECOWAS countries in the long-run but the effect was a mixture of both negative and positive in the short-run. The study thus recommended that ECOWAS member countries should foster cooperation among economic actors by making use of export consortia in order to help SMEs in the region in accessing cross border markets and to achieve a dual technique of trade and competitiveness.

While examining the contribution of international trade to economic growth in Nigeria, Abiodun (2017) specified a linear model which expressed a link between international trade and economic growth. In the model, real gross domestic product was a proxy for economic growth as dependent variable while export volumes, import volumes, trade openness, gross capital formation and exchange rate were the proxies for independent variables. Augmented Dickey-Fuller (ADF), co-integration, vector error correction model and Granger Causality were deployed to analyze the data. Result of the analysis showed that in the short run, export volumes and gross capital formation had positive and significant effect on Nigerian economic growth; also, while import volume had positive and insignificant effect on economic growth, trade openness had negative and insignificant effect on economic growth in the short run. Furthermore, the causality test revealed a uni-directional relationship between the international trade and economic growth. It was consequently concluded that generally, and international trade had a positive relationship on economic growth.

Lawal and Ezeuchenne (2017) conducted a study to find out the impact of international trade on Nigerian economic growth from 1985 to 2015. Economic growth proxied by GDP was expressed as a function of international trade which was measured by imports, exports, balance of trade and trade openness. In the analysis of data, Unit Root Test, Johansen Co-integration Test and Vector Error Correction Model were employed for data analysis. The result showed that there was a long run relationship between international trade and economic growth; thus, import, balance of trade and trade openness were all significant and positively associated with economic growth in the long run while export was positive and significant. However, in the short run, while export and balance of trade were positive and significantly associated with economic growth, trade openness was negative and insignificant, and import was positive and insignificant. The granger causality test revealed that economic growth was independent of imports, exports and balance of trade but maintained unidirectional with trade openness. Consequently, it was recommended that government take advantage of finished goods exploration and prune down import with respect to finished goods so as to promote economic growth.

Arodoye and Iyoha (2014) in their study examined the connection between foreign trade and Nigerian economic growth using quarterly time-series data from1981Q1 through 2010Q4. This study specified a VAR model in which real gross domestic product, exports, foreign direct investment and the exchange rate interacted simultaneously. The data series used were collected from various editions of the Central Bank of Nigeria's Statistical Bulletin. Vector

autoregressive model was employed in the analysis of the data set. The results obtained showed that there was a stable and long- run relationship between foreign trade and economic growth. The results of variance decomposition revealed that the predominant cause of variation in Nigerian economic growth was to due to its own shocks and shocks from trade innovations. Therefore, the study recommended adoption of expansion in trade policies as a solution to speeding up Nigerian economic growth.

Obisike, Onwuka, Okoli and Udeze (2020) empirically examined the impact of international trade on Nigerian economic growth from 2000 to 2018. The study obtained secondary time series data and analyzed data by Phillrips Peron Unit root test, Engle-Granger co-integration test, Vector Error Correction Model, and Granger Causality test. Finding from their study revealed that the oil trade and non-oil trade maintained positive impact on Nigerian economic growth in the short run; this finding confirms that of Arodoye and Iyoha (2014) that in the short run, international trade is positively associated with Nigerian economic growth. Also, in line with Arodoye and Iyoha (2014), Obisike, Onwuka, Okoli and Udeze (2020) study revealed that international trade and GDP are independent of each other. Based on the foregoing, it was concluded that that international trade in term of oil and non-oil were vital propeller of economic Nigerian growth and recommended that government should encourage not only the oil sector but also the non oil sector.

Okenna (2020) evaluated the importance of international trade to the economies of developing countries in Africa from 2000 – 2019. GDP was the dependent variable to measure economic growth while exchange rate, import and export were the independent variables that measured international trade. Data for the study were collected from World Bank and the United Nations Conference on Trade and Development and analyzed using ordinary least square regression technique. Finding form the study revealed that both import and export trades had positive and significant effects on the Nigerian economic growth; exchange rate however maintained negative and significant effect on economic growth. Based on these findings, the study concluded that international trade is essential in driving any economy that must be encouraged in African developing countries as it has the potential to achieve the required developmental goal and recommended that tight macroeconomic policies should be put in place to facilitate increased multiple effect on of international trade on African developing countries.

2.8 Identification of Gap

A critical look at the above studies reveals that the nature of the relationship between international trade and economic growth has remained unsettled as some scholars on one hand have empirically found international trade to have positive effect on Nigerian economic growth (Okenna, 2020; Obisike et al. (2020); Arodoye & Iyoha, 2014, Abiodun, 2017 and Lawal & Ezeuchenne, 2017). On the other hand, other scholars have found out that only export part of international business positively facilitating economic growth while the import part is negatively associated with economic growth (Awujale, 2013; Elias, Agu & Eze, 2018). Hence, if this controversy is not resolved, literature would remain ambiguous about the nature of relationship between international business and economic growth. This study strives to reduce this ambiguity by consolidating on the existing studies to examine the relationship between international business and economic growth.

Furthermore, all the existing studies have concentrated attentions on the collection and analysis of annual time series data and their findings have been based on these annual data (Azeez, Dada & Aluko, 2014; Ijirshar, 2019; Adeleye, Adeteye & Adewuyi, 2015). This might have accounted for why there is no consensus concerning the relationship between international trade and Nigerian economic growth among the scholars. Thus, unlike existing studies, this study collects and analyzes quarterly data and therefore, offers different perspective on the relationship between international trade and Nigerian economic growth. In addition, existing studies have not accounted for the effect of forex allocated to exporters and importers on economic growth on annual basis; and unless this is done, the complete effect of international business on economic growth cannot be said to have been accounted for and this will further worsen the existing problem of lack of consensus to linger on in the literature. Hence, this study thus considers the effect of forex allocated for international business purposes on Nigerian economic growth.

3. Methodology

3.1 Research design

The subject of investigation in this study has occurred in the past; hence, this study adopts ex post facto research design in the investigation of the relationship between international business and Nigerian economic growth. Furthermore, the dependent variable is the Nigerian economic growth

while international business id the independent variable.

3.2 Model Specification

In this study, the model specified by Okenna (2020) is adopted and adapted to suit the purpose of this study. Hence the adapted model for this study is specified thus:

Economic growth = f (International business)……Eqn(1)

Since economic growth can be measured by gross domestic product and International trade by volume of export and import, hence, Eqn(1) can remodeled as:

RGDP = β0 + β1EXPT + β2IMPT + β3FRXIB + β4EXCR +μt……Eqn(2)

Where:

RGDP = real gross domestic product which is the aggregate output of goods and services produced in Nigeria

EXPT = value of exported goods and services from Nigeria

IMPT = value of imported goods and services into Nigeria

FRXIB = total amount of forex allocated for international business purpose

EXCR = Average official exchange rate of naira to dollar

β0= Intercept of the regression

β1 – β4 = parameters to be estimated

Co integration Bound test equation for long run model is specified thus:

$\Delta lGDP_t=\beta_0+\beta_1 lGDP_{t-1}+\beta_2 loglEXPT_{t-1}+\beta_3 lIMPT_{t-}$
$+\beta 4 lFRXIBt_{-1}+\beta 4 lEXCRt_{-1}+\sum_{t=i}^{P}\pi_i\Delta lGDP_{t-1}+$
$\sum_{i=1}^{q}\theta_i\Delta lEXPT_{t-1}+\sum_{i=1}^{q}\gamma_i\Delta lIMPT_{t-1}+\sum_{i=1}^{q}\mu$
$_i\Delta lFRXIB_{t-1}+\sum_{i=1}^{q}\psi_i\Delta lEXCR_{t-1}+\epsilon t$……Eqn(3)

The variables FDI, FPI, EXCR and INTR are as earlier defined in equation (2). $\beta_1, \beta_2, \beta_3$ and β_4, refer to the long run co-integration coefficients or multipliers while π_i, θ_i, γ_i, , μ_i, andλ_i are the short run coefficients. Since Bound test result revealed no co-integration relationship among the variables, the Autoregressive Distributed Lags Model for estimating short run coefficients is specified thus:

$\Delta lGDP_t=\beta_0+\sum_{t=i}^{P}\pi_i\Delta lGDP_{t-1}+\sum_{i=1}^{q}\theta_i\Delta lEXPT_{t-}$
$_1+\sum_{i=1}^{q}\gamma_i\Delta lIMPT_{t-1}+\sum_{i=1}^{q}\mu_i\Delta lFRXIB_{t-1}+$
$\sum_{i=1}^{q}\psi_i\Delta lEXCR_{t-1}+\epsilon t$……Eqn(4)

A priori Expectation

The following relationships are expected between the dependent variable and the independent variables:

β1>0, β2<0, β3<0, β4>0

Sources of Data

In order to estimate the specified model in Eqn(2), quarterly data were collected from the Securities and Exchange Commission for eleven (11) years from 2010 – 2020.

Estimation Technique

This estimation of the model specified in this study was done with the aid of Autoregressive Distributed Lags (ARDL) estimator in line with the suggestion of the result of the stationary test conducted with Augmented-Dickney-Fuller approach.

4. Results

4.1 Descriptive Statistics

It is important to have a feel of the data sample of the research variables so as to know if they are normally distributed and outliers exist in them. Hence, the descriptive statistics for the research variables are depicted on Table 1:

Table 1: Summary of Descriptive Statistics

	LGDP	LEXPT	LIMPT	LFRXIB	LEXCR
Mean	16.92725	15.00348	14.56842	13.94559	5.312506
Median	16.93103	15.08941	14.53711	13.96478	5.154715
Maximum	17.49377	15.78013	15.49254	14.10670	5.724965
Minimum	16.34790	13.06023	13.98191	13.69150	4.999305
Std. Dev.	0.305601	0.505130	0.373542	0.103835	0.311977
Skewness	-0.050386	-1.700465	0.564267	-1.100608	0.367282
Kurtosis	2.128966	7.128736	2.609183	4.419580	1.319103
Jarque-Bera	1.281425	47.68798	2.377215	11.43427	5.608332
Probability	0.526917	0.000000	0.304645	0.003289	0.060557
Sum	677.0901	600.1393	582.7369	557.8237	212.5003
Sum Sq. Dev.	3.642292	9.951079	5.441823	0.420483	3.795855
Observations	40	40	40	40	40

Source: Author's Computation (2021)

Looking at the mean of the samples distribution of the variables, the highest mean value (16.92) goes to LGDP, this is followed by LEXP, LIMPT, LFRCIB and LEXCR with mean values of 15.00, 14.57, 13.95 and 5.31 respectively. All the mean values of these variables lie between the minimum and the maximum mean values. Furthermore, the standard deviations of these variables are all low and less than 1, signifying that the all the variables cluster around their mean values. In respect of kurtosis, kurtosis value of 3 implies normal distribution; LEXP and LFRXIB have positive kurtosis values of 7.12 and 4.42 respectively which are higher than 3, hence they are leptokurtic and peaked curve. LGDP and LEXCR have lower than 3 kurtosis values of 2.12 and 1.32 respectively; hence, they are platykurtic and flatted curve. LIMPT is however mesokurtic since its kurtosis value is approximately 3 and this suggests normal distribution curve. In case of skewness, normal skewness should have a 0 skew; to this end, LIMPT and LEXCR mirror normal skewness with 0.56 and 0.36 values respectively. LGDP, LEXPT and LFRXIB have skewness values that are less than 0 with and this implies negative skeweness with long left tail and more lower values than the sample mean. The Null hypothesis in Jarque-Bera statistic test is that the series are normally distributed. Thus, looking at the p-values of the Jarque-Bera statistics for each of the variables, LGDP, LIMPT and LEXCR mirror normal distribution since their Jarque-Bera statistics are statistically insignificant with higher p-values than 0.005 critical value, signifying the acceptance of null hypothesis. With respect to LEXPT, and LFRXIB, the null hypotheses of normal distribution cannot be accepted since their Jarque-Bera statistics are statistically significant with lower p-values than the 0.05 critical value; hence, they are not normal distribution series.

4.2 Unit Root Test

In order to remove the trends components in the time series data collected in this study, stationary test was conducted by employing Augmented Dickney-Fuller approach. The results of the test for both logarithm and first level differences are displayed in Table 2.

Table 2: Augmented Dickney-Fuller Unit Root Test Results at logarithmic levels
H0: b = 0; Ha: b > 0

Variables	**Critical value @5%**	**ADF test statistics**	**Remarks**	**Order of Integration**
GDP	-2.948404	-0.296920	Non-stationary	N/S
EXPT	-2.938987	-3.105023	Stationary	I(1)
IMPT	-2.941145	-1.069160	Non-stationary	N/S
FRXIB	-2.938987	-3.022641	Stationary	I(1)
EXCR	-2.948404	-1.1255401	Non-stationary	N/S
	Unit root test at first differences			
Variables	**Critical value @5%**	**ADF test statistics**	**Remarks**	**Order of Integration**
GDP	-2.948404	-3.676978	Stationary	I(1)
EXPT	-2.941145	-8.944105	Stationary	-
IMPT	-2.941145	-7.939396	Stationary	I(1)
FRXIB	-2.941145	-6.068704	Stationary	-
EXCR	-2.948404	-1.387104	Stationary	I(I)

Source: Author's Computation (2021)

Notes:*Denotes significance at the 5% level and the rejection of the null hypothesis of non-stationary.

Since the above Table 1 shows that the variables are integrated of difference orders i.e I(0) and I(1); Consequently, it suggests the estimation of model specified in equation (…) with Autoregressive Distributed Lag Model in line with Pesaran, Shin and Smith (2001).

4.3 ARDL Model Dynamic Stability Test

The stability of the dynamism of ARDL model was tested with estimation of the inverse root of AR characteristic polynomial. The result which is depicted on Figure 4.1 reveals that all the roots are inside the circle unit and this implies that the model of this study is dynamically stable.

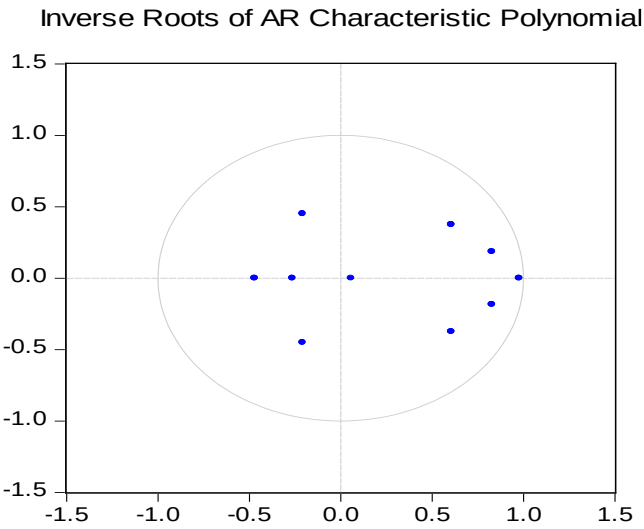

Figure 1: Model Dynamic Stability Result

4.3 Co-integration Bound Test

In order to know if there is co-integration among the variables, there is need to perform co-integration bound test if ARDL estimation approach is to be used. The Hypotheses for performing this test is stated thus:

H0: There is no co-integration relationship among the variables
H1: H0 is not true
The result of this test is as depicted by Table 3:

Table 3: Co-integration Bound Test

ARDL Bounds Test
Date: 07/28/21 Time: 17:32
Sample: 2010Q2 2019Q4
Included observations: 39
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	1.053373	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Author's Computation (2021)

Since the calculated value of F-statistic is lower than the critical value for lower bound I(0), we cannot reject the null hypothesis of no co-integration relationship. Hence, it is concluded that there is no co-integration and hence, no long run relationship. By the foregoing result, short run model specified in equation (4) was estimated and the results are depicted by Table 4.

Table 4: Summary of ARDL Result

Dependent Variable: LGDP
Method: ARDL
Date: 07/28/21 Time: 17:54
Sample (adjusted): 2010Q2 2019Q4
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (1 lag, automatic): LEXPT LIMPT LFRXIB LEXCR
Fixed regressors: C
Number of models evalulated: 16
Selected Model: ARDL(1, 1, 0, 1, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.910129	0.079259	11.48298	0.0000
LEXPT	-0.003581	0.019897	-0.179962	0.8584
LEXPT(-1)	-0.028647	0.022138	-1.294009	0.2055
LIMPT	0.008474	0.033774	0.250916	0.8036
LFRXIB	-0.138639	0.144402	-0.960096	0.3447
LFRXIB(-1)	0.216656	0.136915	1.582417	0.1240
LEXCR	-0.880870	0.165609	-5.318985	0.0000
LEXCR(-1)	0.939267	0.149222	6.294415	0.0000
C	0.528894	1.232958	0.428963	0.6710

R-squared	0.977215	Mean dependent var	16.94211
Adjusted R-squared	0.971139	S.D. dependent var	0.294602
S.E. of regression	0.050049	Akaike info criterion	-2.952466
Sum squared resid	0.075146	Schwarz criterion	-2.568568
Log likelihood	66.57309	Hannan-Quinn criter.	-2.814727
F-statistic	160.8309	Durbin-Watson stat	2.557353
Prob(F-statistic)	0.000000		

Source: Author's Computation (2021)

From the above Table 4, the lag 1 of Gross Domestic Product (GDP) is positively and significantly related to its current value, hence, increase in 1% increase in the value of GDP_{-1} in the previous year could produce as much as 91% increase in the value of GDP in the current year and vice versa. In respect of export value (EXPT), its current value is negatively but insignificantly associated with GDP, such that 1% increase in EXPT is responsible for about 0.4% decrease in GDP and vice versa. This negative association is further replicated by the first lag of $EXPT_{-1}$ which is equally negatively related to GDP in such a manner that its increase by 1% could result to about 3% decrease in GDP. Looking at import value (IMPT), its current value is positively but insignificantly related to Nigerian GDP; in this case, an increase or decrease in IMPT by 1% is able to produce corresponding increase or decrease of 0.8% in GDP. The current value of forex allocation for import business (FRXIB) is negatively associated with GDP in an insignificant manner; hence, 1% increase in mount of forex allocation to importers would cause about 13% decrease in the average value of GDP, and the reverse of this is true with decrease in forex allocation for import business. However, the first lag of the amount of forex allocation for import business ($FRXIB_{-1}$) maintains positive but insignificant relationship with GDP as it is responsible for about 21%increase in GDP for every 1% increase in $FRXIB_{-1}$ and vice versa. Exchange rate in its current value is strongly and positively associated with economy growth as measured by GDP. Hence, 1% increase in exchange rate is associated with about 88% decrease in GDP while a decrease in current value of exchange rate by 1% is responsible for about 88% increase in the mean value of GDP. The first lag of exchange rate ($EXCR_{-1}$) however, is positively and significantly related to GDP such that 1% increase change in its lag 1 value would cause about 93% direct change in mean value of GDP and vice versa.

The R^2 which is the coefficient of determination is between international business, the dependent variable, and the explanatory variable is 0.98. This portrays a strong positive linear relationship between the dependent and the independent variables since it is close to 1. By implication, the explanatory

variables in this study are able to predict GDP to the tune of 98% while the remaining 2% is accounted for by other factors not captured in the model. Hence, the regression line of best fit is good and impressive. The foregoing is attested to by the adjusted R_2 value of 0.97 which is very close to R^2 value and connotes that the model is stable and not affected by the degree of freedom. The Durbin Watson statistic is 2.56; this implies absence of negative autocorrelation among the explanatory variables in the estimated. F-statistic value is 160.00 which is higher than the critical value at 0.05 significant level and this signifies that the explanatory variables are true predictors Nigerian economic growth and the proportion of variation in the dependent variable accounted for by the independent variables is not due to chance.

4.4 Test of Hypotheses and Discussion of Findings

The four research hypotheses stated in the beginning of this study are tested as follows:

$H0_1$: Export business has no significant relationship with Nigerian economic growth
$H1_1$: Export business has significant relationship with Nigerian economic growth

The decision rule for testing hypothesis is that null hypotheses should be rejected and alternate hypothesis accepted if p-value is less than or equal to 0.05 critical value.

From Table 4, the p-value of EXPT is 0.8584 which is clearly more than the critical value at 0.05 significance level; hence, null hypothesis cannot be rejected for lack of sufficient evidence. Therefore, export business has no significant negative relationship with Nigerian economic growth. Since it was found that in the course of this investigation that export trade value had negative and insignificant relationship with economic growth. This result betrays the Hechscher-Ohlin' theory which advocates that international trade enhances economic growth if countries of the world should produce and export goods in which they have sufficient factor endowment advantage while other goods, the resources of which they are less endowed should be imported from other countries endowed to produce them. This finding equally does not agree with Adeleye, Adeteye and Adewuyi (2015), Azeez, Dada and Aluko (2014) and Elias, Agu and Eze (2018) who found that total export maintained positive and significant relationship with economic growth. The reason for the negative relationship might not be unconnected with the low quantity of Nigerian export volume arising from low industrial productivity which failed to generate sufficient foreign exchange earnings for the country.

$H0_2$: Import business has no significant relationship with Nigerian economic growth
$H1_2$: Import business has significant relationship with Nigerian economic growth

Looking at Table 4, the p-value of IMPT is 0.8036 which is also more than 0.05 critical values, hence, there is no sufficient evidence to support the rejection of null hypothesis; consequently alternate hypothesis was rejected in favour of null hypothesis, and this implies that import business has no significant positive relationship with Nigerian economic growth. This contradicts the theoretical expectation that import business should be negatively related to economic growth and one of the plausible explanations for this is that imported items during the period covered by this study might have been predominantly components parts and, technology and raw materials which facilitated increase in production capacity of the industries. This result thus concurs with Azeez, Dada and Aluko (2014) and Abiodun (2017) import volume had positive and insignificant effect on economic growth, and contradicts Elias, Agu and Eze (2018) who revealed that import had an insignificant negative effect on the Nigerian economic growth.

$H0_3$: International trade-bound forex has no significant relationship with Nigerian economic growth
$H1_3$: International trade-bound forex has significant relationship with Nigerian economic growth

From Table 4, the p-value of FRXIB is 0.3447. This is more than the critical value of 0.05, signifying the rejection of the alternate hypothesis in favour of null hypotheses and the conclusion that international trade-bound forex has no significant relationship with Nigerian economic growth is upheld. This result agrees with a priori expectation that excess importation of goods is detrimental to national productivity growth and this align with the submission of Elias, Agu and Eze, (2018) that a country that hopes to grow her economy and enjoy favourable balance of payment needs to prune down the quantity of her imports in comparison with export quantity. This result further implies that forex allocation for import business during the scope of this study was predominantly used to import household consumables rather than industrial inputs.
$H0_4$: Exchange rate has no significant relationship with Nigerian economic growth

$H1_4$: Exchange rate has significant relationship with Nigerian economic growth

Unlike the other explanatory variables, EXCR has p-value of 0.000 which is less than the 0.05 critical levels; hence, null hypotheses cannot be accepted; null hypothesis is rejected while alternate hypothesis is accepted. This translates that exchange rate has significant negative relationship with Nigerian economic growth. This result thus, aligns with theoretical expectation that exchange rate of the naira falls; imported goods become more expensive, thereby leading to reduction in the volume of Nigerian imports. This implies that export would be boosted as other countries pay less exported Nigerian products; this further connotes increase in foreign exchange earnings while maintaining the export competitiveness Nigerian industries in the international markets. On the contrary, a higher exchange rate of Naira will pose difficulty in selling Nigerian export overseas because other countries exports would be relatively than that of Nigeria. the implication of this is a fall in exports, and eventually, a reduction in real economic output and reduction unemployment level. This finding aligns with the study of Okenna (2020) who found that exchange rate maintained negative and significant effect on economic growth; and disagrees with Awujola (2013) that exchange rate is positively and significantly related international trade

5. Conclusion

This study has investigated the relationship between international business and Nigerian economic growth from 2010 to 2019. Four research objectives were stated from the research questions raised for this study. The objectives were translated to four statements of testable hypotheses and tested at 0.05 significance level. The study deviated from the norms in the literature and collected quarterly data which were analyzed to reveal the nature of the relationship among the research variables. The study found no long run relationship among the variables and the distribution series were normally distributed as revealed by the descriptive statistics. The results of this study have revealed that there is a significant inverse linear association between economic growth and three of the proxies used in this study, namely, export value, forex allocation to import business and exchange rate while a significant positive association was revealed between economic growth and import trade. Based on these results, it was concluded that international business has mixture of insignificant positive and negative relationship with Nigerian economic growth.

6. Recommendations

Based on the findings and the conclusion in this study, recommendation was made as follows:

- Government should wade into the export development policy and review it objectively to facilitate easy and cheaper entrance into export business so as to reverse the trends of negative relationship between Nigerian economic growth and her international business
- Import if found to be positively related to economic growth in this study, hence, imported composition of imported goods should be reviewed to ensure it is not made up of household consumables but industrial inputs so as to encouraged productivity of the Nigerian industrial landscape.
- Forex allocation to import business should henceforth should give highest priority industrial inputs, technology and other inputs capable of improving the Nigerian industrial capacity
- Exchange rate should be sustained to maintain negative relationship with economic growth so as to boost Nigerian export sales and earn more foreign exchange earnings.

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