Impact of International Trade and Foreign Direct Investment on Economic Growth: The Nigerian Perspective

Ibrahim Darazo Rabiu[1]
Department of Accounting & Finance Technology
Abubakar Tafawa Balewa University
Bauchi, Nigeria.
rdibrahim@atbu.edu.ng.

Anthony Olugbenga Adaramola
Department of Finance,
Faculty of Management Sciences.
Ekiti State University,
Ado Ekiti, Nigeria.

ABSTRACT

The issues on the international trade and economic growth are of interest not only to policy makers. But also to academicians. This is because international trade serves as means of getting the revenue for running the activities in the country, opportunity to develop international relation with other countries and Nigeria is not an exception. Therefore, the research on the topic is very important at the moment, which contributed to the body of knowledge and also serves as working tool for the practitioner/Government on to how improve the revenue generation of Nigeria. The objective of the study was to examine the impact of international trade on economic growth of Nigeria at long run and short run. The data was collected using secondary source from Central Bank of Nigeria (CBN) statistical bulletin for various years. Autoregressive Distributive Lag (ARDL) was used as estimation techniques of the study. It was found that export has insignificant impact on economic growth of Nigeria at long run among others. It is recommended that authorities concern shall device a means on improving the level of Nigerian export from all sectors of the economy.

Keywords: Economic growth, Export, FDI, International Trade, Import

1 Introduction

The development of a country depends on its ability to produce goods and services for its consumption and most importantly to export its goods to other countries of the world to generate revenue. International trade has to do with the exchange of goods and services between or among different countries of the world. It is against this background that policy makers gave so much attention to international trade, because it generates foreign exchange earnings. (1) Posit that, international trade has been regarded as an engine of growth, which lead to steady improvement in human endeavor. It is obvious that no country can solemnly depend on it resources alone, but need other resources or goods and services from other countries, because of comparative advantage.

(2) found that in most countries of the world, international trade represent a significant share of Gross Domestic Product (GDP), as such international trade has been considered as an interested area to economist and policy makers, because international trade makes it possible for nations to sell their domestically produced goods to other countries of the world, Nigeria inclusive.

Moreover, there is a need to conduct a research on the impact of international trade on the economic growth of Nigeria, in order to investigate empirically how it can contribute to GDP.

[1] Corresponding Author

Theoretically, different findings have indeed continued to emerge on how international trade can affect economic activities. For example, according to (3) international trade is very important to the countries of world because no country can produce all goods and services needed by its people for consumption. Since, we have different resources and other constraints. Moreover, (4) emphasized that, the need for international trade in developing countries is very essential because of it benefits. This is because, less developed countries Nigeria inclusive, have not taken advantage of the international trade. Also, (5) discovered that, export, import and trade openness have significant impact on economic growth of Nigeria for a period 2000-2012. In addition to that, (3) found that total export have positive and significant impact on economic growth while conducting a research on impact of international trade on economic growth in Nigeria.

On the other hand, (6) found that international trade has not contributed to economic growth. This is because some of the goods imported into Nigeria cause damage to the local industries in the country by making their product seems higher than the local once, which causes neglect and by implication lead to the reduction in the growth rate of output of such industries which will have effect on the general economy. In addition, this study increase the period of the study from 1985-2018. Whereas, (7) used 1980-2012 in their studies.

Therefore, a study like this will provide additional empirical evidence on the international trade and economic growth. Consequently, conflicting results on the issue of international trade and economic growth is another reason that necessitated the study on impact of international trade on economic growth in Nigeria. The main objective of the research was to examine the impact of international trade on economic growth of Nigeria. Where total annual import, total annual export, total foreign direct investment and foreign exchange rate represent international trade and also independent variables. Whereas, Gross Domestic Product (GDP) serves as proxy of economic growth of Nigeria serves as dependent variable.

The result is expected to add to the body of knowledge by reviewing related literatures on the topic and also to provide evidence concerning theory and practice on impact of International trade on economic growth of Nigeria, which will serve as a working tool for policy makers in Nigeria. The research of this type is important as countries of the world especially African countries that want to increase their revenue. Therefore, the research will assist the policy makers/government with the ways to improve the revenue from international trade so as to increase the country's economic growth.

2 Review of Related Literature

The research on international trade has been conducted using different approach and in different countries of the world. In this section, related literature was discussed. (8) carried out a research on Development aid, openness to trade and economic growth in least developed countries: Granger causality analysis, where the main objective of the study is examine the causal relationship among developmental aid, openness to trade and economic growth for a time frame of 1970 to 2010. The real Gross Domestic Product (GDP), openness to trade ratio and net official development assistance were used as the variable of the study. The panel data were collected from 27 countries. The authors found that, there was no significant causality relation among foreign aid and openness to trade and economic growth in the African least developed countries. This could be possible as there least developed countries have many economic problems, but as their level development increase there may be a casual relation among the variables.

Moreover, (9) conducted a research using Generilised Moment Method (GMM) on the title, empirical analysis of effect of trade openness on economic growth; an evidence from South east European countries. Sixteen (16) years panel data were used in the study form 1996 to 2012. Economic growth was used as dependent variable and other variables used include, human capital, gross fix capital formation, Foreign Direct Investment (FDI), labor for force and trade openness. Their findings showed that, there was a positive effect of trade openness on economic growth but conditioned by the initial income per capital. It was also found that, trade openness is more beneficial to countries with higher level of initial income per capital and the trade openness was favorable to countries with higher level of FDI and also higher gross fixed capital formation.

On the issue of international trade and economic growth, (10) concluded that, relationship between trade openness and economic growth is not linear for Sub-Saharan Africa (SSA), while conducting a research on trade and economic growth in developing countries; evidence from SSA. Data collected comprises 42 countries and a period of 1980 to 2012. Pooled mean group estimation technique was used.

In addition, (4) examined the impact of international trade and economic growth in Nigeria. Economic growth was proxied by GDP, while the independent variables were exchange rate, government expenditure, interest rate, FDI, export and import. Ordinary Least Square (OLS) was used to analysed the secondary data collected for the period 1981 to 2014. The result of their studies found that, government expenditure, interest rate, import and export are positively significant with GDP. Whereas, exchange rate and FDI are negatively insignificant to GDP. The authors recommended that, Nigerian's trade should not only be primary on oil export but the government shall provide non- primary export and non- oil export such as manufactured goods.

Also, (3) discovered that, total export was positive and significant to GDP, whereas net import, balance of payment were insignificant after concluded a study on impact of international trade on economic growth in Nigeria and time series data was used for the period 1988 to 2012. The authors found that, import has a negative impact on GDP. It was recommended that, reliance on import good both at domestic and industrial product level should be discourage with the aim of embarking on impact substitution approach to economic development in Nigeria. This is very essential for countries that intend to develop especially Nigeria.

More so, (11) carried out a study on contribution of international trade to economic growth in Nigeria. The variables used in the study include; GDP, export, import volume, trade openness, and exchange rate were used. It was found that, there is a positive relationship between international trade and economic growth. Their findings showed that, trade contributes to positive growth of GDP in the case of Nigeria for the period 1981 to 2014, secondary data was used in the research. The finding of (4) is also in support of some trade economist.

Moreover, according to (12) insurgency is considered as a threat to Nigerian economic development. This was the author's conclusion after conducting a research on impact of insurgency on FDI in Nigeria. The paper conceptual in nature and concluded that, no meaningful development can be achieve in an environment of insurgency, violence and terrors, as this will not attract FDI. It was recommended that, government should ensure that, it find out the real people that are in support of all insurgency in the country and bring them to justice without attaching religious, ethics and party sentiment. If the recommendations of studies like this can be implemented, especially in the north east, it can attract FDI.

(5) discovered that, import, export and trade openness have significant effect on the economic growth of Nigeria for a period 2000 to 2012. This was their conclusion after conducting a study on effect of international trade on Nigerian economic growth: 21th century experience, where variables such as GDP, import, export and trade openness was used. This is another empirical evidence that international trade has positive effect on economic growth.

In view of (13) introduction of new machine translation system has significantly increased international trade on digital platform and also increase exports. The authors discovered that, artificial intelligence has already began to improve economic efficiency in at least one domain. The title of their paper is, Does machine translation affect international trade? Evidence from a large digital platform. The finding of the authors is an additional reason why some scholars believed that, there are many variables that affect international trade, especially in our digital age. In China, (14) conducted a study on international trade and its effect on econo0mic growth in China. The objective of their study was to evaluate the effect of international trade on China's economic growth. Panel data of 31 provinces of China for a period of 2002 to 2007 was used. The study found that, increasing participation in the global trade helps Chinas economy. Variables of the study include; real import, rail export and net exportation.

(6) examined the import of international trade on economic growth of Nigeria for a period of 1985-2015. Measurement of the international trade include; import, export, balance of trade and trade openness, while real GDP represent economic growth. It was discovered that, there was long run relationship between international trade and economic growth. Also, import and trade openness are insignificant in the short run but significant at long run. It was found that, export and balance of trade are significant in both short and long run.

FDI is another aspect of international trade that has been examine by some authors, but still having conflicting results. According to (15) oil sector GDP has significant positive correlation with aggregate FDI but insignificant impact on GDP for a period 1981 to 2017. While FDI in manufacturing sector has significant impact on GDP while mining sector has insignificant impact on GDP. Moreover, FDI telecommunication sector has impact on GDP in Nigeria. Their findings were discovered after conducting a research on FDI and economic growth in Nigeria: A sector level analysis, were secondary data was used for the study. (16) Carried out a research on FDI and economic growth in Nigeria for a period 1990-2012 using secondary data. Export, FDI, GDP, import were used as the variable of the study, their findings showed that, import and FDI have a negative relationship with GDP. While, export and inflation has a positive relationship with GDP. Exchange rate has a positive relationship with GDP. The authors further found that, FDI has significant impact on economic growth in Nigeria for the period under study, which is 1990-2012.

In the view of (17) FDI has played a vital role on economic growth of Nigeria. This was their conclusion after conducting a research on FDI as an engine of economic growth in Nigeria with the aim of identifying the role of FDI as an engine for economic growth. The authors recommended that, government should simplify and improve the screening process of FDI, which will significantly contribute to national income. In addition, (18) examine the determinants of FDI in Nigeria; an empirical analysis. The authors identified that, market size of the host country, deregulation, political instability and exchange rate depreciation are main determinants of FDI. As such, they recommended among others things that, gradual depreciation of the exchange rate and strengthening of the political institution to maintain the ongoing democratic process.

In countries like Bangladesh, (19) found that, international trade represented by import and exports have significant impact on economic growth proxy by GDP. It was also discovered that import and export is strongly and positively correlated with economic growth of Bangladesh. The main objective of their study was to examine the impact of international trade and economic growth of Bagladesh. This is an indication that, the issue of international trade and economic growth is not only examined in Nigeria, but in other countries of the world.

Also, (20) carried out a research on impact of international trade on economic growth with the objective of examine the role foreign trade in China, USA, Russia and Germany for the period 2015-2016. The authors found that, international trade has significant impact on economic growth of the countries. Their findings further showed that, Germany was the first among the four countries which depends on international trade and its economy is mainly directed to export. As such it was concluded that, Germany is a country where the economy is most dependent on the foreign trade.

(21) Carried out a research on impact of international trade on economic growth in Nigeria. The main objective of the study is to examine the impact of international trade on economic growth for the period 1981-2012. The variables of the study include; real GDP, Degree of Openness (DOO), foreign exchange rate and interest rate. Their findings showed that, there is a relationship between international trade and economic growth. It was further found that, DOP, foreign rate have significant impact on economic growth, while interest rate has

insignificant impact on the economic growth of Nigeria. It was recommended that, on the issue of DOP, Nigeria should adopt more policies on the trade liberalization such as reduce tariff. This is another indication that, there are conflicting results on the subject matter international trade and economic growth. (7) Evaluate the impact of international trade on economic growth of Nigeria with objective of determining the impact of import and export on the economic growth of Nigeria. Data of the study was collected from CBN and cover the period of 1980-2012. The result showed that, there was a significant impact of export trade on economic growth of Nigeria using regression analysis.

3 Economic growth

Economic growth is usually considered as a macroeconomic variable. The economic growth is the increase in a total value of good and service produced in a country over a period of time usually one year. According to (22) economic growth is the continues improvement in the capacity to satisfy the demand for goods and services, resulting from increased production scale and also improved productivity that is innovation in product and process. According CBN, 2019, the GDP was N47,600,000,000 in 1981, N267,500,000,000 in 1990. In 2000, it was N4,582,100,000,000 and in 2010 the GDP was N34, 363,818,159,818,248. In 2018 the GDP rose to N134,950,000,000,000.

4 Foreign Direct Investment

Foreign Direct Investment is considered as one of the ways capital comes into the country which would improve the economy. FDI is the total annual inflows of capital and investment into a country from all sections (18). FDI is an investment made by a firm or individual in one country into a business interest located in another country. The FDI in Nigeria in 1981 was N584,900,000, in 1990 it has increased to N10,450,200,000. Also in 2000, FDI was N16,453,000,000 and in 2015 it was N283,227,087,537. In 2018 it has increased to N530,600,000,000.

4.1 Export

The Export is the annual total monetary value of the export of all sectors in the country over a period of time usually one year (6). The Nigerian export was N11,023,300,000 in 1981. In 1990 it has improved to N109,886,100,000 and in 2000 it was N1,945,723,300,000. Also in 2010, it was N12,011,475,871,801 and in 2018 it has increased to N19,280,039,789,945.

5 Methodology

5.1 Theoretical Framework

There are different theories that are related to the international trade, FDI and economic growth. But, for the purpose of this study, Classical theory of trade was chosen to be under fining theory of the study. This is because, the classical theory stated that, countries are better capable to gaining and sustaining development if it commits resources to the generation of goods and services in which economic advantage is being enjoyed by them (23, 24).

The study is quantitative research design which uses secondary data. The time series data was used for the study. The data was obtained from Central Bank of Nigeria statistical bulletin for the period 1981-2018. The choice of the period was related to availability of the data and also up to date data for the study. This is because most of the previous studies used data up to 2014 or 2015. Like, (4) covered a period 1980-2014. (3) Covered a period 1988 to 2012. Therefore, this study increased the period. Moreover, According to, (25) ARDL is more robust, reliable and consistent estimation technique. As such it is better than Error Correction Model (ECM) and LOS as used by (26). Another merit of ARDL is that, it's allow data to be used both stationary at level and first difference. Therefore, the study contributed in terms of methodological contribution. It is expected to produce a novel results.

Moreover, for ARDL to be used, there is a need to first ascertain the stationary of the data. This is to make sure that, none of the variable is stationary at 2nd difference. The second step is to determination of lag length criteria. Where lag length will be selected. The next step is the Bond test which is used to determine the long-run relationship between the variables. When the relationship is established. Then, ARDL will be used for the study. The data were annual data which is referred to time series data for the years. The study used Autoregressive Distributive Lag (ARDL). The annual data has been transformed into natural logarithm as recommended by Gujirati (2004). The Eviews 9 package was used to analysed the data obtained.

5.2 Model specification

The econometric model was used in the study were stated below;
GDP = f (IMP, EXP, FDI, EXCR + ei) ....(1)
GDP = f (IMP+ EXP + FDI + EXCR + ei) ....(2)
This can be econometrically modeled thus;
GDP = Real Gross Domestic Product
IMP = Import.
EXP = Export.
FDI = Foreign Direct Investment
EXCR = Exchange Rate.
ei = Error term.

$GDP_t = (\beta_0 + \beta_1 IMP_t + \beta_2 EXP_t + \beta_3 FDI_t + \beta_4 EXCR_t + ei)$ .... (3)

$LogGDP_t = (\beta_0 + \beta_1 LogIMP_t + \beta_2 LogEXP_t + \beta_3 LogFDI_t + \beta_4 LogEXCR_t + ei)$ .... (4)

5.3 Measurement of the variables

Variable	Measurement	Previous
Economic growth	Economic growth is proxied by GDP at current market price, which is the total value of goods and services produce in the country.	Yakubu and Akanegbu (2015)
Import	Total annual monetary value of the import of all sectors in the country.	Ahamad (2018)
Export	Total annual monetary value of the export of all the sectors in the country	Lawal and Ezeuchenne (2017)
FDI	The total annual inflow of capital and investment into a country for all sectors.	Wafure and Nurudeen (2010)
Foreign exchange rate	This is the Naira official cross exchange rate selling per US Dollar or real exchange rate.	Afolabi, Danladi and Azeez (2015)

6 Result and Discussions

6.1 Summary of Unit Root Test

It is one of the standard practices in most empirical work that has to do with time series data to test for unit root. The reasons for this, is that many economic and financial time series data such as asset price, exchange rate and level of macroeconomic aggregates likes real GDP exhibit trending behavior or non-stationary in the mean.

The unit root test of the variables indicates that all the five (5) variables were stationary at first difference, that is LGDP, LIMP, LEXP, LFDI and LEXCR, became stationary at 1st difference (See table 1). It is important to test the unit root of the variables; this is to ensure that the regression is not spurious regression. Since, the stationary was attained at 1st difference, the right tool of analysis is Autoregressive Distributed Lag (ARDL)

Table 1: Summary of ADF unit root test for LGDP, LIMP, LEXP, LFDI, LEXCR,

Variables	At level	1st Difference	P value	Order of integrations	Remark
LGDP	Not stationary	Stationary	0.0000	1(1)	Stationary
LIMP	Not stationary	Stationary	0.0416	1(1)	Stationary
LEXP	Not stationary	Stationary	0.0000	1(1)	Stationary
LFDI	Not stationary	Stationary	0.0000	1(1)	Stationary
LEXCR	Not stationary	Stationary	0.0005	1(1)	Stationary

Source; Extracted from Eviews 9 output, 2021.

6.2 Test of Normality

The test of normality can be done using different method depending on the software the researcher is using, but in this study, skewness and kurtosis test of descriptive statistics using Eviews 9 was used to determine the normality of the data set. On Table 2 (see appendix), the skewness for the LGDP is -0.1798, LEXP is -0.4812, LIMP is -0.597, LFDI is 0.485 and LEXCR is -0.7056 which indicates that, the data set were normally distributed, because skewness was not more than ±1.96. While LGDP, LEXP, LIMP and LEXCR have negatively skewed and LFDI have positively skewed. On the other hand, kurtosis for all the variables as shown in appendix I are not greater than ±1.96 and it is also an indication of normally distributed data set (27). It can be concluded that, using skewness and kurtosis, the data set this study were normally distributed.

Table 2: Normality

	LGDP	LIMPORT	LEXPORT	LFDI	LEXCR
Mean	28.62512	26.90156	27.34778	23.36075	3.329496
Median	28.79230	27.48312	27.90070	23.02625	3.984448
Maximum	32.53593	30.22964	30.59009	27.07214	5.723912
Minimum	24.58610	20.20970	22.73850	20.18695	-0.494296
Std. Dev.	2.612178	2.738789	2.689304	1.780415	1.953020
Skewness	-0.179762	-0.596760	-0.481198	0.485287	-0.705649
Kurtosis	1.716853	2.239847	1.809755	2.617837	2.257454
Jarque-Bera	2.737572	3.086914	3.611956	1.677428	3.920673
Probability	0.254416	0.213641	0.164314	0.432266	0.140811
Sum	1059.129	995.3577	1011.868	864.3479	123.1914
Sum Sq. Dev.	245.6451	270.0348	260.3648	114.1157	137.3144
Observations	37	37	37	37	37

6.3 Correlation test

The correlation can be detected from the correlation matrix Table 3 (see appendix). It can be seen that the correlation between LGDP and LFDI is 0.767 as recommended by (27). This because it is not less than 0.30 and not more than 0.85. Also, in the case of LGDP and LEXP is

0.985. Between LGDP and LIMP 0.973 which is recommended. The LEXCR and LGDP have 0.962 and also recommended. The correlation between LIMP and LEXP is 0.984. Also, the correlation between LFDI and LEXP is 0.710 which is recommended. LFDI and LIMP is 0.697 which is recommended also. LEXCR and LGDP have 0.962, LEXCR and LEXP have 0.974, LEXCR and LIMP have 0.950 and LEXCR and LFDI have 0.732. Therefore, the result shows that, the variables were correlated, because the correlation among the variables are not above recommendation by to (28).

Table 3: Correlation

	LGDP	LIMPORT	LEXPORT	LFDI	LEXCR
LGDP	1	0.9734610567642161	0.9846049985847755	0.7671260424421606	0.96220068433425
LIMPORT	0.9734610567642161	1	0.9841202592812375	0.6971108575971533	0.9505473899646428
LEXPORT	0.9846049985847755	0.9841202592812375	1	0.7101527241322556	0.9740594388057463
LFDI	0.7671260424421606	0.6971108575971533	0.7101527241322556	1	0.7320641752249015
LEXCR	0.96220068433425	0.9505473899646428	0.9740594388057463	0.7320641752249015	1

6.4 Determination of lag Length criteria

The unit root of all the variables was attained at 1st difference. The ARDL was used to determine the long-run and short run relationship between variables. As such, it is important to further select the lag length. Therefore, all the variable were subjected to VAR lag length order selection and all the criteria (Likelihood Ratio test (LR), Final Prediction Error criteria (FPE), Akaike Information Criteria (AIC), Schwarz Information Criteria (SC) and Hanna-Quinn Information Criterion HQ) were used. The result on table 4 indicated that, all the criteria suggested lag 1 as the optimum lag length which was considered for ARDL

Table 4: VAR Lag Order Selection Criteria

VAR Lag Order Selection Criteria
Endogenous variables: LGDP LIMPORT LEXPORT LFDI LEXCR
Exogenous variables: C
Date: 05/05/21 Time: 22:55
Sample: 1981 2018
Included observations: 33

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-177.4435	NA	0.043626	11.05718	11.28393	11.13348
1	-46.48106	214.3022*	7.24e-05*	4.635216*	5.995677*	5.092970*
2	-32.39492	18.78152	0.000157	5.296662	7.790841	6.135877

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

6.5 ARDL Bond test

It can be seen from table 5 that, the value of f-statistics for all the variables is 5.985320 is greater than the critical value at both higher and lower bonds of 10%, 5%, 2.5% and 1% level of significance. In order to achieve bond test, a null hypothesis states that, there is no existence of long run relationship between the variables of the study. Therefore, the null hypothesis was rejected and the alternate hypothesis was accepted, which state there is long run relationship between the variables. This will lead to the use of ARDL cointergration and long run test of the variables.

Table 5: Bound Test

ARDL Bounds Test
Date: 05/06/21 Time: 23:27
Sample: 1985 2014
Included observations: 30
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	5.985320	4

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.2	3.09
5%	2.56	3.49
2.5%	2.88	3.87
1%	3.29	4.37

Test Equation:
Dependent Variable: D(LGDP)
Method: Least Squares
Date: 05/06/21 Time: 23:27
Sample: 1985 2014
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-1.270474	0.324281	-3.917818	0.0044
D(LGDP(-2))	-0.900111	0.219104	-4.108155	0.0034
D(LGDP(-3))	-0.333319	0.225142	-1.480481	0.1770
D(LIMPORT)	0.126189	0.052122	2.421023	0.0418
D(LIMPORT(-1))	-0.437416	0.093720	-4.667266	0.0016
D(LIMPORT(-2))	-0.152615	0.070782	-2.156143	0.0632
D(LIMPORT(-3))	-0.169535	0.049267	-3.441148	0.0088
D(LEXPORT)	0.198992	0.115821	1.718089	0.1241
D(LEXPORT(-1))	1.483507	0.320278	4.631940	0.0017
D(LEXPORT(-2))	0.873929	0.208753	4.186434	0.0031
D(LEXPORT(-	0.607737	0.143932	4.222393	0.0029

3))				
D(LFDI)	0.057966	0.023423	2.474742	0.0384
D(LFDI(-1))	-0.265484	0.070747	-3.752566	0.0056
D(LFDI(-2))	-0.168135	0.057254	-2.936649	0.0188
D(LFDI(-3))	-0.134416	0.033685	-3.990311	0.0040
D(LEXCR)	0.047668	0.112662	0.423104	0.6834
C	-6.571387	1.949812	-3.370268	0.0098
LIMPORT(-1)	0.782555	0.155297	5.039088	0.0010
LEXPORT(-1)	-1.688625	0.393268	-4.293830	0.0026
LFDI(-1)	0.435078	0.100575	4.325899	0.0025
LEXCR(-1)	0.159413	0.068384	2.331162	0.0481
LGDP(-1)	0.752324	0.256515	2.932864	0.0189

R-squared	0.953621	Mean dependent var	0.244816
Adjusted R-squared	0.831875	S.D. dependent var	0.211189
S.E. of regression	0.086594	Akaike info criterion	-1.910262
Sum squared resid	0.059988	Schwarz criterion	-0.882718
Log likelihood	50.65394	Hannan-Quinn criter.	-1.581542
F-statistic	7.832879	Durbin-Watson stat	2.193092
Prob(F-statistic)	0.002750		

6.6 ARDL Co-intergration Test

The estimation techniques of the study was ARDL Co intergration technique which is usually applied to determine the long run and shot run relationship between the variables of the study (25). It is part of the requirement for the application of ARDL to select the lag length and bond test. The lag length for the study was lag 1 as the optimum lag based on the result. The bond test revealed that, there is long run relationship between the variables of the study. From table 6, it can be seen that, LIMPORT has insignificant impact on economic growth. This is because, the prob value is above 0.05 (ie 0.058) at the long run. Based on the coefficient, for every 1% increase in LIMPORT, it could positively affect LGDP by 0.126189% at the long run. In the case of LEXPORT, it has significant impact of LGDP at the long run. This is because, the calculated prob value is below 0.05 (0.0120). The coefficient for LEXPORT showed that, for every 1% increase in LEXPORT, it could positively increase LGDP by 0.198992%. LDFI has significant impact on the LGDP. This was revealed by the prob value of 0.0039 which is below 0.05. For every 1% increase in LFDI, it could positively increase LGDP by 0.015635 in the long run.

Moreover, in the short run, LIMPORT also, has significant impact on LGDP. Because, the prob value is less than 0.05 (ie 0.0065). The coefficient for LIMPORT is -1.040182, which indicated that, for every 1% increase in LIMPORT, it would negatively impacted on LGDP. LEXPORT also has significant impact on LGDP. Since, the calculated prob value is 0.0002, which is below 0.05. For every 1% increase in LEXPORT there could be 2.24454% increase in LGDP at the short run. With regard to LFDI, for every 1% increase in LFDI, it could negatively affect LGDP by -0.578312. LFDI has a prob value of 0.0076 which is less than 0.05 and its indicating a significant impact of LFDI on LGDP at the short run.

Table 6: ARDL Co-integration and long run form

ARDL Co-integrating And Long Run Form
Dependent Variable: LGDP
Selected Model: ARDL(4, 4, 4, 4, 1)
Date: 05/10/21 Time: 09:46
Sample: 1981 2018
Included observations: 30

Co-integrating Form

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LGDP(-1))	-1.270474	0.208509	-6.093144	0.0003
D(LGDP(-2))	-0.900111	0.170157	-5.289889	0.0007
D(LGDP(-3))	-0.333319	0.135480	-2.460283	0.0393
D(LIMPORT)	**0.126189**	0.033888	3.723730	**0.0580**
0D(LIMPORT(-1))	-0.437416	0.065940	-6.633508	0.0002
D(LIMPORT(-2))	-0.152615	0.046505	-3.281667	0.0112
D(LIMPORT(-3))	-0.169535	0.035370	-4.793209	0.0014
D(LEXPORT)	0.198992	0.061496	3.235840	0.0120
D(LEXPORT(-1))	1.483507	0.192912	7.690055	0.0001
D(LEXPORT(-2))	0.873929	0.151552	5.766545	0.0004
D(LEXPORT(-3))	0.607737	0.104637	5.808036	0.0004
D(LFDI)	0.057966	0.014443	4.013299	0.0039
D(LFDI(-1))	-0.265484	0.041346	-6.421041	0.0002
D(LFDI(-2))	-0.168135	0.032857	-5.117111	0.0009
D(LFDI(-3))	-0.134416	0.019746	-6.807249	0.0001
D(LEXCR)	0.047668	0.053403	0.892604	0.3981
CointEq(-1)	0.752324	0.098483	7.639167	0.0001

Cointeq = LGDP - (-1.0402*LIMPORT + 2.2445*LEXPORT - 0.5783*LFDI
-0.2119*LEXCR + 8.7348)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LIMPORT	-1.040182	0.285092	-3.648584	0.0065
LEXPORT	2.244544	0.334590	6.708333	0.0002
LFDI	-0.578312	0.163101	-3.545722	0.0076
LEXCR	-0.211894	0.075162	-2.819154	0.0225
C	8.734778	2.421717	3.606854	0.0069

7 Conclusion and Recommendations

The study is on the impact of international trade and FDI on economic growth of Nigeria for a period 1981-2018. The findings of the study showed that, import has positive relationship with economic growth. Also, import has insignificant impact on economic growth of Nigeria, both at long. As such, it is concluded that, import has insignificant on Nigerian economic growth. This conclusion is agreement with that of (19) who concluded that import has insignificant impact on economic growth of Bangladesh. On the other hand, this conclusion is

not in line with the conclusion of (4). The authors concluded that import has significant impact on economic growth of Nigeria. The findings on export indicated that, export has a positive relationship with economic growth of Nigeria and also has a significant impact on economic growth at long run. This is in line with (7). Were the authors concluded that, export has significant impact on economic growth of Nigeria. In addition, this conclusion is also in line with conclusion of (20). The authors concluded that, export has significant impact on economic growth of four countries (China, USA, Russsia and Germany).
With regard to FDI, it was found that, FDI has a positive relationship with economic growth of Nigeria and also has significant impact on economic growth. Therefore, it can be concluded that, FDI has significant impact on economic growth for Nigeria for period. The conclusion of (16) is in agreement with the conclusion of their study. Because, the authors found that, FDI has significant impact on Nigerian economic growth for a period 1990-2012. (17) Also concluded that, FDI played a very important role on economic growth of Nigeria. This study concluded that, foreign exchange rate has a negative relationship with economic growth and also, has insignificant impact on economic growth of Nigeria.
The issue relating to international trade is very important to all nations. This study therefor, recommended the following from the findings and conclusion of the study;
1. the government shall take measures to manage the import or total value of import into the country by encouraging local production in the country. This is because, it was found that, import has insignificant impact on economic growth for the period 1981-2018.
2. it is recommended that authorities concern shall device a means on improving the level of Nigerian export from all sectors of the economy. This is because, it was concluded that, export has significant on economic growth of Nigeria. Also, export has a positive relationship with economic growth of Nigeria for the period under study.
3. It is recommended that, government shall provide conducive environment that will attract more investors into the country, which will in turn increase the FDI. Because, it was concluded that, FDI has a significant impact on economic growth of Nigeria. FDI also has positive relationship with economic growth. As such, if FDI can be increase, it will lead to increase in the Nigerian economic growth.

8 Suggestion for future studies

One of limitation of the study is that, only one country was involved in the study that is Nigeria. Further studies can include many countries in their studies. Future studies may introduce moderating/mediating variable because of the conflicting result on impact of international trade on economic growth by different authors.

9 Declarations

9.1 Competing Interest

There is no conflicting interest in this publication.

9.2 Funding Source

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