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Cross-Country Trade and Economic Growth: An Impact Analysis of Nigeria's Economic Growth

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This research studied cross country trade and economic growth with the analysis of its impact on Nigeria's economic growth. It covered time series data from 1992 to 2020 with gross domestic product, exports, imports, foreign direct investment and openness of trade as variables included in the model. The ARDL model was used for data analysis and the outcome showed positive and significant relationships between exports, imports and openness of trade and economic growth while the relationship between foreign direct investment and economic growth was negative but, significant. The gap created in this study lies in the year of coverage and the variables of the model which actively are involved in international trade compared to variables of reviewed studies. The study concluded that variables with positive relationships with economic growth are the ones that contribute or cause economic growth to increase as they increase while foreign direct investment that has negative relationship with economic growth only reduces economic growth as it increases in value. It recommended that priority should be given to local production of export goods and the reduction of import goods with the exception of technology imports.

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1. INTRODUCTION

Economic development is a concept that encompasses growth and has been the driving force for all nations of the world. Internal investment and industrialization are limited by the level of technology, financial flow and quality of manpower. Countries have their endowments as determined by natural course and by the quality of governance dispensed to the people. The highly industrialized and developed nations with their outputs will be at ebb if there are no deficit sides that posit for the sophisticated products. Nations being conscious of the fact that they cannot achieve progress in isolation, come under certain agreement and rules that ensure safe dealings in a process called international trade.

International trade is an age-long concept which existed in the 17th century. The mercantilists in their quest for gold advocated its accumulation through entering into transactions with the outside world. They made a huge success and subsequent school of thoughts in economics continued in that line with more improved theories. For instance, the classical and neoclassical see international trade as engine of growth.

According to Babatunde et al [1], trade across border and globalization has intimated nation to a close proximity and has fomented their relationship as well. According to him external trade has contributed to the economy of nations and on a wider scope, the global economy. He further emphasized that quantities and figures should not be only the basis for assessment of the impact of foreign trade but also its role in foreign capital flow and inducing structural change in the economy. Globalization and advancement in technology has reduced the world to a sizeable distance that business transactions are done with less doubt and fear of failure. Nations come together to know their strength and how they can exploit trade gains from one another. Involvement in international trade means flow of investments across national boundaries, transfer of technology and expertise. They believed that through external trade, nations can exchange goods and services which promotes economic sustainability and as avenue for converting natural resource into economic wealth which would be used by government to provide infrastructures and public utilities. International trade involves a global market where all nations showcase their products which are exchanged with foreign currencies that serves as revenue to the receiving countries. The more a country produces for export, the more the revenue accruing to it and the favorable its balance of payment. There will be self-sustainability and better welfare due to expansion of market which allow for the growth of local industries. This will increase outputs, turnover and generation of new employment. It also creates healthy competition among competing nations that avail many opportunities to the buyers in terms of choice of varied products and prices.

External trade is the life wire of any developed nation (according to the classical and neoclassical economists) and responsible for internal growth, global connectivity and integration of nations into the global economy. Yusuf et al. [2]. The world is advancing with modernization and sophistication in technology, skills and production methods. Cross-trading is an avenue for developing nations to integrate into a new world of globalization where they can borrow new ideas in production methods, factor inputs, type of technology, packaging, distribution, marketing/advertisement and bilateral relationship.

1.1 Problem Statement

Right from when economic ideology and practice have become popular, the major reason to extend economic activities and commerce across boarders was to maintain both internal and external balance in terms of creating employment and favourable balance of payment and to give government the ability to give good welfare to the people through ideal and proper allocation of resources. Trade across county's boarder was presumed to have many multiplying effects. It was expected that matching exports and imports or exports exceeding imports would create enough reserve to use in times of economic crises and resulting to a highly valued currency; attracting capital inflow and more investors coming in, tourism sector booming, education and health sector of the home country patronized by foreigners, infrastructures and all round development springing up.

The Nigerian nation has participated in trade among other countries of the world for many decades and it was known for exportation of agricultural products like hides and skin cotton, cocoa, groundnut, rubber and many others before the discovery of oil. With the discovery of oil in Oloibiri, Bayelsa state in 1960, the system changed from agricultural dependence to that of oil. Economic performance of the Nigerian economy between 1960 and 2000 has been described as unimpressive due to the slow rate of GDP growth which stood at an average of less than 4 percent per annum. The diversion of attention to oil created a land mark change in the early 1960s up to the 1980s with oil constituting major source of the nation's revenue and major export and source of foreign exchange earnings. According to Muhammad and Benedict [3], international trade has contributed to economic growth in Nigeria due to openness of the economy which caused GDP to rise from 3 percent to 11 percent between 1991 and 2008. Although this increase was expected to be more but due unrest in the oil producing region there was problem with oil production that led to fall in oil output [4].

Records have shown that Nigeria generated $228 billion from oil between 1981 and 1991 and yet there is a large number of Nigerian living in abject poverty. The numbers of people living on less than $1 per day grow geometrically between 1970 and 2000. Obisike et al [5], presented the linearity in the growth of GDP of Nigeria. This showed the GDP rising slowly between 1980 and 1990 nearly linear within the interval of five years. From 1990 to 2010 it continue to be on the rise but not linear and rose higher between 2010 and 2020 in nearly linear pattern. It is obvious that from 1960 to date we could say that GDP of the country has been majorly on the rise. Despite this increase in GDP, majority of the people are poorly fed and are uneducated, poorly clothed, they are poorly accessed medically and no infrastructures to show for the growth. If the increase in economic growth does not reflect in the welfare of the people, then Development has not taken place.

1.2 Objectives of the Study

The major objective of the study is to examine cross country trade and economic growth in Nigeria from 1992 to 2020 and to specifically study the relationship between exports, imports, foreign direct investment (FDI), trade openness and economic growth.

2. LITERATURE REVIEW

2.1 Cross Country Trade

Cross country trade otherwise known as international trade is the form of trade carried out across international boundaries. It is a trade that involves one country and the rest of the world. According to Owolabi et al [6] international trade is a tool which links the nations of the world through exchange of goods and services and factors movement. From this definition, it could be said that trade across the border involves two or more countries with different resource base meeting at the international market platform to transact business not only in goods but also services and in capital goods such as industrial machines and equipment and also the movement of factors like labour and flow of capital.

To Lawal and Ezeuchenne [7], foreign trade arises as a result of the difference in resource base of countries in the world. The countries cannot have everything but are endowed with some resources putting them at an advantage to produce some goods for export and import those goods they are naturally disadvantaged from producing. Here comparative advantage comes in where one country may have the advantage of producing one commodity at the least cost and the other best produced by the other country. In this situation, the two can go into trade whereby one country sells what it has and buys what it could not produce.

Agbo et al [8] international trade in its simple form is the exchange of goods and services beyond national border and in order to be abreast of activities on the world market platform, the governments track transactions between their countries and the rest of the world. These records are kept in the balance of payment accounts. To them international trade and balance of payment are two aspects important relationship between nations. This unveils some contents of foreign trade like foreign exchange, balance of trade and opportunity beyond the local shores. Since cross country trade involves two or more countries with different currencies, one country must pay in the currency of the country it is trading with and vise vasa. At the end of business, the difference in trade must be taken to ascertain the progress made and also the expanded opportunity of exchange of expertise and technology cannot be overemphasized.

International trade in its earliest form operated with trade by batter with the exchange of one good for the other. In the ancient days, products and raw materials were exchanged among nations of the world [9]. According to Ikechukwu international trade during was necessary not because of difference in resource base but also for the reason of cultural blending among nations and so permits cultural transmission in terms of lifestyles and customs. Involvement in trade across border helps in understanding culture and lifestyles of different countries that participate in the world market. Understanding culture of different countries allows for proper and smooth business relationship. It limits the rate of violation of international laws that could lead to victimization and imprisonment. Sometimes in trade we import dressing and eating culture of people from the other world like what is happening today.

According to Kehinde [10] countries that are involved in international trade benefit by increasing their utility with extended opportunity open to them that could be beneficial to their citizens and the benefit of technological diffusion that could arise from it to mostly the underdeveloped nations. It is expected that countries derive satisfaction from involvement in international trade and are prone to gain a wide range of opportunity relating to technology transfer, skilled personnel and flow of finance.

2.2 Concept of Economic Growth

Balami [11] defined economic growth as a steady increase in output level of goods and services in the economy. It is a routing process by every country to take account of the total output of goods and services produced in the economy. Comparing this output with the past year will provide information on the trend of the nation's output. The target is a steady and continuous increase in the output of goods and services.

Onyekwere (2016) made a separation between economic growth and development. According to him, economic growth is increment that covers jobs, income and expansion of economic activity in the economy while economic development entails sustainable increase in jobs, income, productivity, businesses and resources to better the welfare of the people. So, economic development involves creating a change through increase in output via business expansion that leads to employment, income earnings, infrastructural development and other things that could make life easy, less expensive and affordable for the citizens for a for a reasonable length of time.

Lipsey and Crystal [12] defined economic growth as the capacity of a country to meet up with it output of goods and services with the elapse of some times when it needs expansion as indicated by its production possibility frontier's movement outward. When there is need for expansion in production of goods and services and with commitment of more of the available resources, the capacity of the country to produce the goods and services after the passage of time during which the production possibility curve shift outward is growth because it constitute an increase in output.

Todaro [13] viewed economic growth as the capacity of an economy to produce output of goods and services over a stipulated period of time for the sole intention of improving the welfare of the people in an increasing number of diversity. This implies that growth should be to target increased output of goods and services over that period of time that will ensure improvement of welfare of the people in all ramifications. Economic growth is the real increase income per capita of a nation for a fairly long period of time. According to him factors that are responsible for economic growth are; population, technological know-how, accumulation of capital and savings.

Todaro and Smith [14] defined economic growth as increase in output caused by investment in human and material resources which could be improved upon invention, innovation and passing through developmental and technological progress and processes. Sustainable growth cannot be attained by continuous use of same resources year in year out. Investment adds to stock and resources pass through reformation and developmental stages and processes through invention and innovation with technological progress to improve quality of resources that guarantees increased output.

2.3 Cross Country Trade and Economic Growth

From the perspective of the understanding of mercantilism, involvement in international trade by emphasizing on more exports over imports allows for building of surplus which in the modern day serves as reserve for the country. Building reserve is a sign of economic independence or economic bailout for the country in times of balance of payment problem and a source for financing deficit or internal financial crisis. The country could also deplete such reserve for productive venture that could boost output.

Muhammad and Akanegbu [3] said trade across open the economy of the countries involved to other economy. By openness means free trade with almost same trade policies such as tariff and duties for goods and services to flow freely. They opined that openness that brings about import and export generates competition to the domestic market and enlargement of the domestic market respectively. It also exposes domestic firms to best practices of foreign firms and resulting to greater efficiency. Access to improved capital assets such as machines and sophisticated industrial equipment and tools that increase output is made possible through foreign trade.

Owolabi et al (2015) opined that trade across borders is an avenue for countries to exchange goods and services with the aim of achieve sustainable growth by transforming the country's resources into economic wealth. By partaking in cross country trade, large scale production for export and with division of labor the country produces at low cost. This generates a great deal of national income for the country.

2.4 Research Reviews

Babatunde et al [1] did research into international trade and economic growth in Nigeria from 1981 to 2014. The variables they used include gross domestic product (GDP), exchange rate, government expenditure, interest rate, foreign direct investment, imports and exports. They analyzed the time series data using ordinary least square method and found out that government expenditure, interest rate, imports and exports positively and significantly contributed to GDP, while foreign exchange and FDI had negative and insignificant relationships with GDP. They recommended diversification of the economy by giving priority to agriculture especially the production of export goods and raw materials that will encourage economic growth.

Iwuoha et al [15], investigated the impact of international trade on Nigeria's economic growth from 1981 to 2017. The variables included in the econometric model are gross domestic product, net exports, trade openness, real exchange rate, interest rate and foreign direct investment. Co-integration and vector error correction model were used for data analysis and their results showed a long run relationship among the variables. Net exports had a positive and insignificant relationship with economic growth, while exchange rate, trade openness, interest rate and foreign direct investment are negative and insignificant in their contribution to economic growth. They recommended that export should be encouraged by adding values to export goods before taking to the international markets, trade openness should be carefully regulated to protect local industries and to avoid making the country a dumping ground for foreign goods and domain for massive importation, building confidence in investors to allow forv the flow of capital and investment, the stoppage of interest rate regulation and reduction of interest rate to ensure a market determined exchange rate and to encourage investors to obtain funds for businesses that could increase economic growth.

Research on the impact of international trade on Nigerian economy, a revelation from oil terms of trade was carried out by Obisike et al [5], incorporating the oil commodity terms of trade, non-oil commodity term of trade and gross domestic product covering 2000 to 2018 with the use of the ordinary least square for analysis. They found out that the oil commodity terms of trade and the non-oil commodity terms of trade had positive impact on economic growth in Nigeria. However, the causality test showed independent relationship among the three variables and the concluded that trade in both oil and non-oil commodity are critical to the economic growth of Nigeria with recommendation that government should prioritize both sector simultaneously.

Yusuf et al [2] worked on the impact of international trade on the growth of the Nigerian economy from 1980 to 2018. Their modeling variables are foreign direct investment (FDI), net exports, foreign exchange rate and gross domestic product (GDP). Their model for analysis was the dynamic ordinary least square (DOLS) regression and results showed that all the independent variables except exchange rate contributed positively to the growth of GDP. All the relationships are significant except that between net exports and economic growth. They recommended a market driven exchange rate that could encourage local production that enables the country to compete at the international trade platform and creating the enabling environment that attracts foreign investment that will induce growth in the economy.

In 2020, Matias and Heshmati conducted a research on Trade and Economic Growth: Theories and Evidence from the Southern African Development Community from 2005 to 2017. Their variables are capital output, labour input, energy, technology, exports, FDI, debt service, exchange rate index, trade openness and term of trade. They employed a multivariate regression analysis and found export expansion to be positively and significantly related to economic growth while trade openness was not. They also found out that the formation of SADC had not brought any significant impact on economic growth in the region.

Daniel [16] investigated the relationship between international trade and economic growth accounting for model uncertainty and reverse causality, using panel data covering the period of 1975 to 2015. The variables included were GDP per capita, lag of GDP per capita, current share of government consumption, imports and exports, population and human capital index. They employed the Moral Benito Framework combined with the Bayesian Model Averaging (BMA) method. The results revealed that GDP per capita contribute positively and greatly to economic growth, human capital index was statistically significant, government consumption was not only statistically significant but also a strong variable that explained economic growth, and merchandise imports and exports also contribute positively to economic growth. They recommended that the government of less developed countries should cut down VAT and join traders union with other countries to gain the desired benefits in international trade.

Study of the effect of international trade on economic growth of Nigeria by Ikechukwu [9] involving the variables policy change (dummy), exchange rate, trade openness and gross domestic product between 1981 and 2018 and the use of ordinary least square method for analysis. Co-integration test showed no long run relationship among the variables, while the regression results showed a negative and insignificant relationship with economic growth, policy change was found to contribute negatively to economic growth and they recommended policies that encourage local production and discourage importation in order to encourage home industry that are vital in terms of economic growth.

Ajayi and Oguntomi [17] carried out a research on the impact of international trade on economic growth of Nigeria: evidence on trade cost from 1960 to 2021. This study concentrated on Gross Domestic Product, Consumer Price Index (CPI) and inflation Consumer Price (ICP) using Ordinary Least Square (OLS) regression technique. They found out that both CPI and ICP had negative and significant impact on economic growth in Nigeria in the long run while in the short run only ICP had negative impact on GDP, but not significant. They recommended monetary policies that will ensure price stability in the country.

Adedotun et al (2023) studied effect of shipping trade on economic growth in Nigeria from 1970 to 2020. The variables they included in the Vector Error Correction Model (VECM) are Gross Domestic Product (GDP), seaport import and export volumes and exchange rates. Their results showed a short and long run causality running from import, export and exchange rates to GDP. The findings also revealed that Nigeria’s economic growth is import dependent and import and exchange rates affect GDP in the long run. The recommended that proactive and good initiative for maintaining economic development while emphasizing on promoting export through local production [18-19].

2.5 Theoretical Framework

Solow growth model relates output to factor inputs such as capital, labour and technology. The model is given as;

$$Y(t) = F[K(t), A(t), L(t)] \text{ -----------------} \quad (1)$$

Y = output
K = capital
L = labour
A = technology

According to Solow, the variable t does not enter the function directly but comes in through the inputs. It means that output changes over time when the inputs change.

3. MODEL SPECIFICATION

Data for this research were sourced from Federal Bureau of Statistics (FBS), microtrends and World Bank. By adopting the Solow growth model, we introduce the exports, imports, FDI, and openness of trade into the equation above, ignoring time since it comes in through the inputs and for the fact that output or economic growth changes when factors affecting it change. The new model is;

$$GDP = F(EXP, IMP, FDI, OPT) \quad (2)$$

The model with the parameters of estimation is;

$$GDP = \alpha_0 + \alpha_1 EXP + \alpha_3 IMP + \alpha_3 FDI + \alpha_3 OPT + \mu \quad (3)$$

The ARDL model with the lags of the dependent and the lags of the explanatory variables is;

$$GDP = \alpha_0 + \alpha_1 EXP + \alpha_3 IMP + \alpha_3 FDI + \alpha_3 OPT + \sum \Delta GDP_{t-1} + \sum \Delta EXP_{t-1} + \sum \Delta IMP_{t-1} + \sum \Delta FDI_{t-1} + \sum \Delta OPT_{t-1} + \mu \quad (4)$$

Where;

GDP = Gross Domestic Product
EXP= Exports
IMP = Imports
FDI = Foreign Direct Investment
OPT = Openness of Trade
μ = Error Term

The Solow growth model is one that included variable such as capital, labour and technological advancement. The capital could be in form of fixed or circulating and could flow from anywhere either from within or outside the shore of the country. Also, the labour aspect could flow from anywhere just like the capital as we are aware of mobility of labour. The technology is available in the highly developed western world. The model for the study is associated to the Solow groth model since the variables such as foreign direct investment is flow of capital from other countries to Nigeria, Current account in international trade covers a lot of items like wages paid to Nigerians, benefits to Nigerians for their scientific skills and so on.

4. PRESENTATION AND ANALYSIS OF RESULTS

Table 1 shows the result of Augmented Dickey Fuller (ADF) unit root test at level and at first difference with trend and intercept. The null hypothesis is that the variables have unit roots meaning they are not stationery. The alternative is that they do not contain unit roots. The rule is if the ADF t-statistic in absolute term is greater than the test critical value at 5%, we reject the null hypothesis and accept the alternative.

Table 1. Unit root test result with Trend and Intercept

Variable	ADF t-statistic	Test critical value @5%	Order of integration
GDP	-3.5098	-3.5742	I(1)
EXP	-5.8095	-3.5742	I(1)
IMP	-4.0839	-3.5742	I(1)
FDI	-4.5253	-3.6122	I(0)
OPT	-4.1416	-3.5742	I(0)

Source: Author's computation, 2024

Table 2 is the ARDL long run form and bound test. EXPT is seen to have a positive and significant relationship with GDP. The coefficient of IMP is having a positive and significant relationship with GDP while FDI is negative in its relationship with GDP, but significant. The last variable, OPT is positively and significantly related to GDP. The R-squared value is 0.9993 and the F-statistic value is 65.0927, while the upper bound value at 5% is given as 4.57. Comparing the F-statistic and the upper bound value, it was discovered that 65.0927 is greater than 4.57. This means that there is a long term equilibrium relationship running from EXPT, IMP, FDI and OPT to GDP.

Table 3 shows the ARDL error correction. The coefficient of the error correction term is given as -2.5389 and the probability is given as 0.0304 which is below 0.5%. The rule is that the error correction term must be negative and significant. The sign of the coefficient of the error term and its probability have satisfied the rule. The implication of the result is that if there is any disequilibrium in the system, it will take the system to adjust and revert back to its normal stability at a speed of about 254%, which is very fast.

Table 4 is the results of serial correlation test. The observed R-squared value is given as 3.7232 with probability of 0.1554. The F-statistic is 1.0311 with probability given as 0.3822. The essence of serial correlation test is to ensure that the error term or residual are not serially correlated. The rule is that if the probability of the observed R-squared is less than 0.5, we accept the null hypothesis that there is serial correlation among the residuals. Since the value of the probability of the observed R-squared is 0.1554 and it is greater than 5%, we accept the alternative hypotheses that there is no serial correlation among the residuals.

Table 2. ARDL long run form and bound test

Variable	Coefficient	Standard error	t-statistic	Prob.
EXPT	1.9761	0.2761	7.1583	0.0000
IMP	17.8812	2.1579	8.2864	0.0000
FDI	-2.7876	0.5089	-5.4771	0.0001
OPT	9.4943	0.6418	14.7924	0.0000

R-squared = 0.9993, F-statistic = 65.0927, Upper bound value at 5% = 4.57
source: Author's computation, 2024

Table 3. Error correction for ARDL

Variable	Coefficient	Std Error	T-statistic	Prob.
C	9.3885	5.0173	1.8712	0.0797
D(GDP(-1))	0.3176	0.3101	1.0242	0.3210
D(GDP(-2))	0.8310	0.4339	1.9148	0.0736
D(EXPT(-1))	0.1022	0.5426	0.1883	0.8530
D(EXPT(-2))	1.4319	0.4607	3.1086	0.0068
D(IMP(-1))	0.1991	0.7422	0.2664	0.7918
D(IMP(-2))	-2.7291	0.7501	-3.6385	0.0022
D(FDI(-1))	-.72231	4.6806	-1.5432	.01423
D(FDI(-2))	5.6659	4.2432	1.3353	0.2005
D(OPT(-1))	2.3318	2.1646	1.0772	0.2973
D(OPT(-2))	-10.8351	3.3875	-3.1985	0.0056
ECT(-1)	-2.5389	1.0691	-2.3748	0.0304

source: Author's extraction from E-views output, 2024

Table 4. Breusch-godfrey serial correlation LM test

F-statistic	**1.0311**	**Prob. (F2,14)**	**0.3822**
Obs*R-squared	3.7232	Prob. Chi-square(2)	0.1554

Source: Author's extraction from E-views output, 2024

Table 5. Breusch-pegan-godfrey heteroskedasticity test

F-statistic	**0.3838**	**Prob. (F12,16)**	**0.9504**
Obs*R-squared	6.4816	Prob. Chi-square(12)	0.8899
Scaled explained SS	2.0683	Prob. Chi-square(12)	0.9993

Source: Author's extraction from E-views output, 2024

Table 6. Multicolinearity test

Variable	Correlation Coefficient	Conclusion
EXPT and IMP	0.0138	No multicolinearity
EXPT and FDI	0.3028	No multicolinearity
EXPT and OPT	-0.1897	No multicolinearity
IMP and FDI	-0.0339	No multicolinearity
IMP and OPT	0.4095	No multicolinearity
OPT and FDI	0.5058	No multicolinearity

Source: Author's extract from e-views output, 2024

Table 7. Normality test

Jaque-Bera	**1.2860**
Prob.	0.5257

Source: Author's extraction from E-views output, 2024

The result shown in Table 5 is the heteroskedasticity test. The same way we analyzed the serial correlation using the probability of the observed r-squared value is also applicable here. Looking at this value of 0.8899 we could observe that it is greater than 5%. So, we can say there is no heteroskedasticity among the variables.

Table 6 is the result of multicolinearity test. By the rule of thumb, if the correlation coefficient is greater than 0.8, there is multicolinearity otherwise not. So, looking through the paired variables and the correlation coefficients, we observed that there is no multicolinearity among the variables.

From Table 6 we could see that the probability of Jaque-Bera statistic is 0.5257 and more than 5%. Therefore, we can say that the residual or the data is normally distributed.

4.1 Analysis and Discussion of Results

From Table 1, it could be seen that the absolute values of all ADF t-statistic are greater than the test critical values at 5%. We therefore reject the null hypotheses that the variables have unit roots and accept the alternatives that they have no unit roots.

From Table 2, R-squared value is 0.9993, meaning approximately 100% of the change in the dependent variable is explained by the combined contribution of the exogenous variables. This means that about 100% of the economic growth in Nigeria from the period of the study was as a result of the change in the imports, exports, foreign direct investment and improvement in the Nigeria's policy of trade openness. The long-run form of ARDL indicated that exports, imports and openness of trade have positive and significant relationship with economic growth except for foreign direct investment that has a negative and significant relationship with economic growth. This result is consistent with the findings of Babatunde et al [1] with the exception of foreign direct investment being insignificant. The implication is that Nigeria's economic growth during the study period was positively and significantly contributed to by imports, exports and openness of trade and only foreign direct investment contributed negatively in significant amount.

The long-run equilibrium among the variables established in this study is in tandem with the results of the study of Iwuoha et al [15]. Their findings showed a positive and insignificant relationship between the combined effect of imports and exports as reflected in the net export while trade openness and foreign direct investment had negative and insignificant relationship with economic growth. The difference between this study and that Iwuoha et al [15] may be due to the difference in some of the variables used and the year of study. While Iwuoha *et al* included such variables as interest rate, exchange rate and net export, this research did not include the first two variables and analyzed the individual impact of imports and exports instead. This research also used more recent data from1992 to 2020 while Iwuoha et al [15] used data of 1981 to 2017.

The result of this research is also in agreement with the work of Obisike et al [5]. Their findings also showed positive and significant relationship with oil and non-oil imports and exports. The only difference is the oil and non-oil term of trade in their study while this study combined all import and export commodities. The year of coverage for their study was 2000 to 2018. The study of Yusuf et al (2020) is in line with the findings of this study only that net export was negative and not significant in its relationship to economic growth.

4.2 Research Gap

From the literatures reviewed in this study, it is clear that the years of coverage is different from other researches compared in this survey. This research decided to use variables that are peculiar to international trade without considering internal variables that may also contribute to economic growth. The study concentrated on the contributions of the foreign variables to study their impacts on economic growth in Nigeria.

5. CONCLUSION

Exports, foreign direct investment and openness of trade have positive and significant relationships with economic growth in Nigeria while foreign direct investment had a negative but significant relationship with economic growth. The results in Table 2 showed that a unit increase in exports, imports and openness of trade will lead to about 200%, 2000% 950% increase respectively in growth of Nigeria's economy. The results indicated that a unit rise in foreign direct investment will lead to approximately 280% decrease in the growth of

Nigerian economy. Therefore the major positive contributors to economic growth are exports, foreign direct investment and openness of trade. The only negative contributor to economic growth is foreign direct investment.

6. RECOMMENDATIONS

The government should direct its policies to domestic production of export goods. This is important as well as necessary to revive the agricultural sector with the various institutes like the cocoa institute, cotton production, groundnuts production hides and skin factories, the textiles with multitudes of products for export.

Making trade more open has a dual effect. Trade across Nigeria's borders should be more liberal and opened for foreigner to patronize our goods. Tariff and interest rates should be moderate to attract foreign investors to participate in Nigeria's markets this will allow for the flow of foreign direct investment at the same time.

Import showing a negative and significant relationship with economic growth is an affirmation of the views of the mercantilism that a country should export more and import less. Therefore, there is need to encourage exports and discourage imports. The only way to do this is to produce export goods locally and if possible import only machines and equipment of modern technology.

6.1 Suggestions for Future Research

This research focused on time series from 1992 to 2020 and variables that affect international trade such as exports, imports foreign direct investment and openness of trade. The study therefore, suggest future study to cover years that include current years up to 2024. Subsequent studies should include variables like money supply, interest rates, exchange rates, inflation and security.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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