

Original Paper

Impact of International Trade on Economic Growth in Nigeria

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Abstract

Using data from the World Development Indicator (WDI) and the Central Bank of Nigeria (CBN) Statistical Bulletin, this article analyzed the impact of exports, imports, the currency rate, and inflation on Nigeria's economic development between 1981 and 2020. The research employed Autoregressive Distributed Lag (ARDL) bound testing methodology. The variables utilized in the study were evaluated for stationarity using the Augmented Dickey-Fuller and Philip Perron test, and the bound testing process was applied to the equations. The lag of variables test can be performed to determine the relationship between the variables. The outcome demonstrated that variables are stationary at first difference. Economy growth, exports and imports, exchange rate, and Inflation all exhibit long-term cointegration, as determined by a cointegration test. Export positively impacted on growth while inflation and exchange rate were found to be negatively affecting growth in Nigeria. The article indicates that there is a beneficial association between international commerce and economic growth and supports the policy of encouraging exports and expanding Nigeria's presence on global markets.

Keywords

international trade, import, export, inflation, foreign exchange, economic growth

1. Introduction

Global economic prosperity has become increasingly dependent on international trade, particularly in Nigeria. Since 1980, one of the most fundamental changes in the global economy has been the march toward freer commerce between nations. In reality, the vast majority of nations have unilaterally liberalized their trade policies.

In the twenty-first century, the lethal pandemic of the new coronavirus and its devastating economic consequences prompted an increase in trade protectionism and a resurgence of nationalistic politics in

the world's leading industrialized nations. This has led to a significant decline in the volume and value of goods and services movements, resulting in significantly weaker global economic growth, widespread company disruptions, and severe unemployment.

As a result of the results of the protectionist strategy, however, the majority of policymakers are requesting further deregulation to promote international commerce, which has enormous ramifications for global economic growth and development.

International trade refers to economic activities that involve the exchange of commodities and services across international borders. Notably, the international financial payments infrastructure and national trading laws make these transactions possible.

According to Frankel and Romer, external trade has long been seen as a crucial and significant economic growth driver (1999). Exports, which account for a significant portion of Nigeria's gross domestic product, should be viewed as a driving force that is essential to the country's growth objectives. Factors such as job creation, market expansion, increased GDP, and knowledge distribution are multiplier effects (Ogbaji & Ebebe, 2013).

However, while international trade between governments may contribute to the economic progress of a nation, it does not always have the same results and effects on its trading partners. In addition to their natural dispositions and resources, countries can also benefit from comparative and absolute advantage advantages. A number of economic variables, including the foreign exchange rate, impact the extent to which a country profits from a commercial alliance, according to Eravwoke and Oyovwi (2012). In the years since the independence of the majority of developing nations (including Nigeria), foreign trade has considerably altered its contribution to their growth and development, and their revenues have increased dramatically.

It is also important to note that international commerce plays two significant roles: economic development and strategy initiatives, both of which must be carefully assessed and implemented in accordance with the strategic needs of these countries for their development. The original version asserts that the export-led growth strategy, also known as an outward-oriented strategy, is "trade as an expansion engine" (Nurske, 1970). The second is an inward-focused policy known as import substitution, which views "trade as the servant of development" (Kravis, 1970). Several views, however, maintain that trade alone cannot result in economic growth and development, and that other crucial drivers, such as effective governance, the amount to which the rule of law is enforced, population growth rate, and secondary and tertiary enrollment, are as important.

In the last three decades, the Nigerian economy has been on a rollercoaster of boom-bust expansion. Aside from oil, Nigeria largely exports primary goods and depends on a small number of commodities. These exports are characterized by low prices compared to manufactured commodities and extremely volatile markets. Therefore, Nigeria is typically disadvantaged by a trade imbalance that favors wealthier nations. Despite its large population and natural riches, Nigeria is known as the poverty

capital of the world. Consequently, significant research questions must be answered.

This study aims to examine the effect of international trade on Nigeria's economic growth in terms of import and export, exchange rate, and inflation.

Literature Review (Conceptual, Theoretical and Empirical Discussion)

Gross Domestic Product (GDP) refers to a country's total income from all economic activities inside its boundaries, including those conducted by foreigners and natives. In an open economy with three sectors, $GDP = C + I + G + (X - M)$ is the formula. C represents consumption, I represents investment, G represents government spending, X represents export, and M represents import.

Import (M) is the act of acquiring and transporting products and services from a foreign nation.

Export (X) is the opposite of import (I), as it involves selling items to a foreign nation.

Economic Growth

Economic growth is the increase in goods and services generated by a nation and its people over the course of a fiscal year. It is often associated with an increase in a nation's gross domestic product.

Economic Development

It includes both economic growth and broader economic reforms, such as poverty reduction, increased living standards, higher per capita income etc. All macroeconomic policies and objectives, especially those established by emerging nations, are geared toward economic development.

This section of the study provides a summary of pertinent international trade theories and potential trade-growth correlations.

1) Adam Smith (1723-1790) According to Adam Smith, international trade contributes significantly to economic growth by enlarging markets and allowing each nation to profit from increasing returns to scale based on labor division and specialization.

2) David Ricardo (1772-1823): David Ricardo focuses on the differences in production technologies that cause a country to specialize in the production of commodities over which it has a comparative advantage. While increasing returns to scale are not required, constant returns to scale may be required in every production process.

3) Smith and Ricardo agree on one issue, however: trade helps countries to specialize in the manufacture of a commodity that they can produce more cheaply than other countries, enabling each nation to consume more with a given amount of resources than it could without trade. In other words, the quantity of any commodity produced by a nation is contingent upon its factor endowment and production method. As long as these ratios differ, each country has a comparative advantage in manufacturing one of the goods.

4) Heckscher-Ohlin The Factor Endowment Model (The Heckscher-Ohlin Theory) It was devised by Eli Heckscher and his student Bertil Ohlin, two Swedish economists. It asserts that a country's exports are determined by its resource endowment, regardless of whether it is capital- or labor-rich. When there

is an abundance of capital, one nation can produce and export capital-intensive goods at a lower price than the other. A labor-rich nation will produce and export labor-intensive commodities at a lower price than a labor-scarce nation. The Ricardian and Heckscher-Ohlin models differ in that the Ricardian model assumes that production technologies are uniform across nations, while the Heckscher-Ohlin model does not.

In addition, the Heckscher-Ohlin model implies that global tastes are uniform across nations. The sole distinction is that each nation's resources are distinct.

In an autarky, the difference is sufficient to cause the production possibility borders of the two countries to diverge, resulting in distinct equilibrium price ratios. Typically, six assumptions are employed while analyzing the Heckscher-Ohlin trade theory: 6) perfect competition in both commodity and factor markets.

5) New Economic Theory based on Ezeala-Harrison (1999, p. 22) The New Trade Theory (NTT) is derived from the New Growth Theory (NGT), which emerged in the early 1990s in the literature on international trade, economic growth, and development. The NGT emphasizes technical development (and its drivers) and the externalities that the invention and application of new knowledge impose as explicit variables that affect economic growth. Due to inequalities in scientific advances, relative levels and quality of research institutions, and relative levels and quality of educational systems, it is asserted that certain nations innovate more than others.

The most important feature of this theory is the dissemination of knowledge across businesses, as information is a crucial component of production. In order to be productive or maintain productivity, businesses must invest more in knowledge and other capital resources, according to the NGT's main conclusion. The NGT and the NTT are linked by the proportional flow of trade gains to trading nations and their technical size and information dissemination. These ideas are characterized as "new" because they are derived from conventional neoclassical trade theories based on comparative advantage principles that emphasize state resource endowments (1999, Ezeala-Harrison). The NTT was designed to demonstrate why there is so much intra-industry and global commerce between similar countries (Dicken, 1998; Poon, 1997). Even when countries have identical factor endowments, increasing returns to scale and imperfect competition are sufficient to justify specialization and trade (Krugman, 1979; Helpman & Krugman, 1985).

Based on conventional chevalier economic theories, the relevance of commerce (exports) as a growth engine for economic development in developing nations has been the subject of discussion for the past four decades. Krugman (1987) states, "I understand the Principle of Comparative Advantage, and I support Free Trade." Since the publication of Ricardo's Principles of Political Economy in 1817, the case for free trade has never been in greater doubt than it is today, and this is owing to recent changes in international trade theory. Traditional models of international business based on constant returns and perfect competition have been supplemented and to some extent supplanted by a new breed of models

that emphasize rising returns and imperfect competition. The extent to which trade can be described by comparative advantage has been questioned and challenged by these new economic schools.

In some instances, government engagement in trade, such as import bans and export subsidies, may be in the national interest, according to Krugman's (1987) strategic economy strategy. Nigeria can boost its gross domestic product at the expense of other stakeholders if it can assure that the firm that achieves above-average returns is a Nigerian one and not an international one. Krugman's (1987) strategic trade policy argument demonstrates that, at least in some circumstances, a government can increase national welfare at the expense of another nation by assisting its enterprises in international competition. This objective was illustrated by a subsidy in the preceding example, but other policies may also fulfill this function. When there is a substantial local market for a good, safeguarding that market increases domestic profits while decreasing international profits; similar to an export subsidy, this might discourage foreign participation while allowing the domestic firm to retain the surplus returns. As conventionally asserted by corporations and consistently refuted by economists, a protected domestic market can stimulate rather than impede exports and may increase national GDP. Several studies have been conducted to examine the relationship between international trade and economic growth and development in various nations. This research demonstrated that the export and import activities of these nations had a substantial positive effect on their GDP.

In a study examining the long-run effects of foreign direct investment and trade on Ghana's economic growth from 1970 to 2002, Frimpong and Oteng-Abayie (2006) discovered a long-term relationship between the drivers of economic growth and the growth itself. Their studies demonstrated a negative relationship between economic growth and its determinant, whereas a positive relationship exists between economic growth and Foreign Direct Investment (FDI)

Li, Chen, and San (2010) examined the relationship between international trade and East China's GDP growth rate between 1981 and 2008 in a new context. Using co-integration analysis and an error correction model, they determined that international commerce is the driving force behind their country's long- and short-term GDP growth.

Kehinde et al. (2012) conducted a rank correlation analysis to investigate the impact of international commerce on economic growth in industrialized nations. This study discovered a positive correlation between international commerce and the GDP of these nations.

Awe (2013) demonstrated that economic growth happens when the actual per-capita income of a nation gradually increases over time. Until this occurs, FDI cannot be considered a primary driver of the observed growth.

According to Thirlwa (2000), there are at least 60 developing nations in the world, more than half of which are African nations with populations of less than 15 million. Without exports in these markets, commodity production would be unsuccessful since the majority of generated commodities and services would be lost owing to a lack of storage and processing facilities in these regions.

Raghuramapatruni and Reddy (2020) use the Autoregressive Distributive Lag Model (ARDL) to analyze the impact of foreign trade on India's economic growth. The Trade Openness Index is also used to analyze India's growing integration with the rest of the world.

The Romer (1993) hypothesis, which states that there is an inverse link between inflation and openness in Pakistan, is validated by the cointegration approach of Afzal et al. (2013). There is a larger adverse association between inflation and openness in the short run than in the long run. There is also a correlation both ways between inflation and openness. It has been established that there is a positive relationship between real GDP and inflation, which appears to be consistent with the Phillips curve and Okun's law. In order to contain inflation and increase economic growth, the research recommends that Pakistan's economic managers pursue policies that encourage openness.

Adeleye, Adeteye, and Adewuyi (2015) assess the impact of international commerce on Nigerian economic growth, utilizing net export (i.e., total export minus total import) and the Balance of Payment as surrogates for international trade and GDP as a measure of economic growth. Only Total Export (TEX) is positive and important, while the others are minor, indicating that Nigeria has a monocultural economy where oil is the only source of revenue and other sectors such as manufacturing and agriculture provide little concrete assistance.

The authors propose that the government should aggressively seek economic diversification by enacting policies and incentives that will strengthen non-oil exports and the manufacturing sector, as well as boost Nigeria's total industrial growth. The study utilized regression analysis with co-integration and error correction modeling methodologies to determine the long-term link between economic performance and foreign trade. Only Total Export (TEX) is positive and significant, while the rest are insignificant, indicating that Nigeria has a monocultural economy in which oil is the only source of money and other sectors such as manufacturing and agriculture provide little concrete assistance.

Oladipupo and Onotaniyoluwo (2011) investigated the influence of the exchange rate on Nigeria's balance of payment (pp. 73-88). Using data from 1970 to 2008, he employs the Ordinary Least Square (OLS) technique to evaluate the influence of the exchange rate on Nigeria's external sector (balance of payments situation). The author discovered that the exchange rate has a significant effect on the balance of payments position and that, provided budgetary discipline is implemented, exchange rate depreciation can lead to an improvement in the balance of payments position.

In addition, he demonstrated that inadequate domestic credit allocation and misuse, fiscal irresponsibility, and a lack of suitable spending control measures as a result of government centralization are contributors to Nigeria's recurrent balance of payments deficits. He advises that appropriate monitoring mechanisms be implemented to guarantee that credit and available foreign money are handled prudently, and that exchange rate policies be used with fiscal and monetary instruments to produce meaningful effects.

This indicates that Nigeria's balance of payments issues can be handled from two viewpoints simultaneously: supply expansion and demand management. It is impossible to emphasize the significance of export diversification and promotion, import substitution, and the elimination of superfluous import restrictions.

The objective of Tijani's (2014) study is to elucidate the application of the monetary technique as an adjustment mechanism for correcting the imbalance in the balance of payments. It reviews empirical investigations of the theory in Nigeria and explains the observed pattern of the balance of payments. It also aimed to confirm or disprove monetary theory in Nigeria's balance of payments adjustment processes, given that no theory can be established and generally accepted without empirical testing, regardless of how well it is stated or how logically sound it is. The project was piloted using 1970-2010 data, and then linear regression analysis was employed. The estimated result indicates that the dependent variable (Balance of Payments) and the independent variables (Domestic Credit, Exchange Rate, and Balance of Trade) have a strong association, however the other variables (Rate Of inflation and Gross Domestic Product) do not. It implies that monetary measures contribute considerably to BOP position, cause disruptions, and also serve as an adjustment mechanism to bring BOP into equilibrium, depending on the application and policy combination of the monetary authority. However, it is recommended that the government, via the Central Bank of Nigeria (CBN), employ money supply and domestic credit to promote a favorable BOT, which inevitably helps to stabilize BOP.

Okyere and Liu (2020) define international trade as the cross-border exchange of goods and services. It is the most prevalent kind of international commerce activity and has had a considerable impact on the course of world history. The primary objective of the study is to identify and quantify the effects of exports and imports on Ghana's economic growth from 1998 to 2018. Utilized are the unit root and cointegration tests, along with the first-order difference cointegration variable stability and long-term equilibrium connection. There is no clear correlation between foreign trade imports and the growth of Ghana's GDP. Exports of cocoa, for instance, have a strong causal relationship with Ghana's GDP growth. Inflation and currency rate are not, in fact, Granger causal factors of GDP. In contrast, the Gross Domestic Product is the Granger causal source of the exchange rate and inflation rate.

2. Method

2.1 Subhead

This study used time series data for all variables for the period 1981-2020. The data of Gross Domestic Product (GDP) in annual growth rate, Exports, Imports, Inflation, and exchange rate. GDP, export, import, and the inflation rate were collected from the World Development Indicator, published by the World Bank while the official exchange rate is collected from the Central Bank of Nigeria (CBN) bulletin. According to the study, including control variables in a model is critical for identifying the independent variable's impact on the dependent variable. As a result, GDPG is used as a dependent

variable, with exports and imports as independent variables and inflation and exchange rate as control factors in this study. All estimations and diagnostic tests are performed using the Econometric Views (E-views) statistical program, version 10.0.

2.1.1 Subhead

Estimation Technique

The econometric model used to link the variables is as follows:

$$GDPG = f(\text{exports}, \text{imports}, \text{exchangerate}, \text{inflation}) \quad (1)$$

$$GDPG = \alpha_0 + \alpha_1 \text{exports}_t + \alpha_2 \text{imports}_t + \alpha_3 \text{exch_rate}_t + \alpha_4 \text{infla}_t + e_t \quad (2)$$

α_0 – constant term: $\alpha_1, \alpha_2, \alpha_3, \alpha_4$ are the coefficients, GDPG—gross domestic product growth rate, export—exports of goods and services (% of GDP), import—of goods and services (% of GDP), infla—Inflation, consumer prices (annual %), exch_rate—Official exchange rate (LCU per US\$, period average).

To examine the long-run association between exports and imports and economic growth, this study used the Autoregressive Distributive Lag (ARDL) bound testing co-integration methods developed by Pesaran et al. (2001). The bounds test results for co-integration are used since it is better, thus providing more robust results for finite sample sizes than other cointegration analyses. Furthermore, with this test, less emphasis is laid upon equivalent order of integration (i.e., I (1) or integrated of order one) among different variables. Thus, when the order of integration of variables is not known with certainty where the series is I (0) or I (1) or combined, ARDL bound testing co-integration is an effective method to investigate the long run association among various variables. The ARDL bound test method compares alternative cointegration methods using varying numbers of lags on distinct variables in a model. As a result, this strategy aids in identifying the precise cointegrating links between economic growth, imports, and exports. Unrestricted Error Correction (UEC) is defined as follows for bound testing methods:

$$\Delta GDPG_t = \alpha_{11} + \sum_{i=1}^k \alpha_{12} \Delta GDPG_{t-i} + \sum_{i=1}^k \alpha_{13} \Delta \text{exp_orts}_{t-i} + \sum_{i=1}^k \alpha_{14} \Delta \text{imports}_{t-i} + \sum_{i=1}^k \alpha_{15} \Delta \text{exch_rate}_{t-i} + \sum_{i=1}^k \alpha_{16} \Delta \text{infla}_{t-i} + \alpha_{17} ECT_{t-1} + e_t$$

In the above models α 's captures the short-run effects of the explanatory variables on the dependent variable, ECT_{t-1} captures the rate at which the dependent variable (GDPG) adjusts to the equilibrium state after structural or institutional shocks that occur in the short run.

By applying the bound testing procedure in equations, we can identify the association among the variables through the test of the lag of variables. Pesaran et al. (2001) provide asymptotic critical values, of upper I(1) and lower bound I(0) values, covering all conventional significant classifications.

The conclusion is reached by comparing the calculated F-statistics value to the upper bound's critical value. The alternative hypothesis of cointegration is accepted if the estimated F-statistics is greater than the upper bound of critical values, and vice versa. If the estimated F-statistics value is between the lower and higher bounds of critical value, it is undetermined.

3. Result

Empirical Results

Descriptive Statistics

To reveal the nature of the variables used in this study, the descriptive statistics are displayed in Table 1. The mean and median values for all variables are much close to each other depicting minor symmetry. The maximum, minimum and standard deviation rows explain the dispersion of the data; here the data are not widely scattered.

Table 1. Summary Statistics

	EXCH_RATE	EXPORTS	IMPORTS	GDPG	INFLA
Mean	96.72323	19.39477	13.27755	0.035783	19.10261
Median	107.0243	20.61429	13.02469	0.042130	12.38637
Maximum	306.9206	36.02327	22.81126	0.153292	72.83550
Minimum	0.672867	5.249090	3.029761	-0.109241	5.388008
Observations	38	38	38	38	38

Source: Eview, 2022

Table 2 represents the correlation matrix which depicts a significant positive relationship between economic growth and all other variables (exports, imports and exchange rate) except for inflation which reveals a negative relationship. Hence there is no multicollinearity in this model.

Table 2. Correlation Matrix

	EXCH_RATE	EXPORTS	IMPORTS	GDPG	INFLA
EXCH_RATE	1				
EXPORTS	0.0903	1			
IMPORTS	0.4192	0.6581	1		
GDPG	0.19788	0.4842	0.3616	1	-
INFLA	-0.3537	-9.7275	-0.1231	-0.2406	1

Source: Eview, 2022

Unit Root Tests

To check the stationary test, the Augmented Dickey-Fuller unit root test is employed. This will help to identify the order of integration in time series data. The individual unit root result of each variable is shown in Table 3. Except for the dependent variable gross domestic product annual growth rate that is stationary at the level and therefore integrated of order zero I(0), all other variables are first differenced stationary and their order of integration is one I(1).

Table 3. Unit Root Test

Variables	Augmented Dickey Fuller Test			Remarks
	At level	First difference	Order of integration	
GDPG	-3.807711** (-2.938987)		I(0)	Stationary at level
EXPORTS	-2.624699 (-2.938987)	-8.213396*** (-2.941145)	I(1)	Stationary at first difference
IMPORTS	-2.451033 (-2.938987)	-7.775838 (-2.941145)	I(1)	Stationary at first difference
EXCH_RATE	-2.915636 (-2.941145)	5.672638*** (-2.943427)	I(1)	Stationary at first difference
INFLA	-0.449524 (-3.529758)	-4.719425 (-3.533083)	I(1)	Stationary at first difference

Note: *** and ** indicate significance at 1% and 5% levels, respectively using the probability values.

The ADF statistics are shown in parentheses.

Source: Eview, 2022

Short Run and ARDL Bound Test

The ARDL model allows for series regardless of whether they are $I(0)$ or $I(1)$. The method is applicable irrespective of whether the underlying regressors are purely $I(0)$, or purely $I(1)$ to empirically analyze short run dynamic interactions and the long-run relationships among the variables. Table 4 displays both the ARDL Model estimates and ARDL bound test results.

Table 4. ARDL Short Dynamics and Long Run-Bound Test Result

Short Run Dynamics Coefficient (Panel 1)			LONG RUN F-Bounds Test Result (Panel 2)				
Variable	Coefficient	P-value	F-Bounds Test	Null Hypothesis: No levels relationship			
				Value	Signif.	I(0)	I(1)
GDPG(-1)	0.193209	0.3024					
IMPORTS	0.004042**	0.0276	Test Statistic	4.767957	10%	2.2	3.09
IMPORTS(-1)	-0.00305***	0.0985	k	4	5%	2.56	3.49
IMPORTS(-2)	0.003770**	0.0451					
EXPORTS	0.001866*	0.0566					
EXPORTS(-1)	-0.000650	0.5439					
EXPORTS(-2)	0.000868	0.3889					
EXPORTS(-3)	-0.003198**	0.0047					
EXPORTS(-4)	0.001771*	0.0613					
EXCH_RATE	0.000242	0.4755					
EXCH_RATE(-1)	-0.000592*	0.0988					
INFLA	-0.000743*	0.0997					
INFLA(-1)	0.000891	0.1068					

INFLA(-2)	-0.00202***	0.0026
INFLA(-3)	0.000938*	0.0988
INFLA(-4)	-0.0017***	0.0014
C	0.038229	0.1169

*** - 1%, ** - 5% * - 10%

Source: Eview, 2022

To establish the relationship between international trade and economic growth, both the short run dynamics and the long run estimates were considered. The ARDL model contains GDP growth rate as a dependent variable while import to GDP ratio, export to GDP ratio, exchange rate and inflation as the independent variables.

Panel (A) in Table 4 shows the short run dynamic estimates of the coefficients, the current import value and the lag are significant at 5%, 10% and 5% respectively. The coefficient signs are positive and negative revealing the economic significance of the relationship. The current import and the 2nd lag reveal that there is a positive relationship between imports and economic growth in the short run. The negative sign of the first lag of import means that there is a decrease in the growth of the GDP as a result of the change in imports as a ratio to GDP.

While the coefficient of current export and its lag (lag 3 and 4) are statistically significant are 10% (current), 5% and 10% (lags) respectively. The signs of the coefficient (basically of the significant coefficient) are also mixed. The current export and its lag 4 with negative signs mean that per cent change in export brings a decrease in the growth of GDP in the short run. The third lag value of the export reveals a positive sign meaning that there is an increase in growth of the GDP as a result of the change in export. The long run relationship illustrate/indicated by the ARDL bound test reveals there is a long run relationship.

From the estimated ARDL bound test result in Panel 2 of Table 4, the computed F-statistics value is greater than the lower $\{I(0)\}$ and the upper $\{I(1)\}$ bound of the critical values bound at a 5% level of significance for both countries. The null hypothesis of no relationship in long run is rejected and therefore concludes that there is a long run relationship between international trade and economic growth in Nigeria.

Diagnostic Tests

The diagnostic tests conducted on the ARDL model their result reveal that in all models there is no presence of serial correlation and heteroscedasticity issue and the diagnostics tests also exert the normality of each equation at a 5% level of significance. The result of the stability test Cumulative Sum (CUSUM) of Recursive Residuals and Cumulative Sum (CUSUM) of Squares of Recursive Residuals

confirm that the ARDL model used in this study is stable at a 5% level of significance.

Finding/Recommendation & Conclusion

The analysis of the Augmented Dickey Fuller (ADF) test for unit root shows that the series was of a different order, I(1) and I(0), hence the Autoregressive Distributive Lag Model (ARDL) co-integration technique was employed by the study. The long run relationship of the underlying variables is detected through the F-statistic (Wald test) which shows that the series are co-integrated. Long-run relationship estimates present a positive and significant relationship between exports and domestic investment with GDP. The analysis presents that the relationship between the variables imports and exchange rate with GDP was found to be negative, but statistically insignificant and the speed of adjustment term (Error Correction Term) was also found to be significant. Short run causality result reveals the presence of short run causality between exports, domestic investment and exchange rate to GDP.

Practical Implications

The paper concludes that international trade and economic growth are significantly positive, and it supports the import substitution ideology of encouraging exports through trade promotion and expanded participation of Nigeria in global markets. By implication, international trade has a positive impact on Nigeria's economic growth, and long-run relationship estimations show that exports and imports have a positive significant relationship with GDP.

References

- Abata, M. A., Kehinde, J. S., & Bolarinwa, S. A. (2012). Fiscal/monetary policy and economic growth in Nigeria: A theoretical exploration. *International Journal of Academic Research in Economics and Management Sciences*, 1(5), 75.
- Albertoni, N., & Carol, W. (2021). International trade norms in the age of Covid-19 nationalism on the rise? *Fudan Journal of the Humanities and Social Sciences*, 14(1), 41-66.
- Awe, A. A. (2013). The Impact of Foreign Direct Investment on Economic Growth in Nigeria. *Journal of Economics and Sustainable Development*, 4(2), 122. Retrieved from www.iiste.org ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online)
- Dicken, P. (1998). *Global Shift, Transforming the world economy* (3rd ed.). London, Paul Chapman.
- Eravwoke, K. E., & Oyovwi, D. O. (2012). Growth Perspective via Trade in Nigeria: A Co-integration, Approach. *An International Multidisciplinary Journal, Ethiopia*, 6(1), Serial No. 24, January, 18-26. ISSN 1994-9057 (Print) ISSN 2070--0083 (Online). DOI: <http://dx.doi.org/10.4314/afrev.v6i1.2>
- Ezeala-Harrison, F. (1999). Restructuring in the Era of Globalization: Implications for Labour and Employment in Sub-Saharan Africa. *Canadian Journal of Development Studies/Revue canadienne d'études du développement*, 20(4), 779-798. DOI: 10.1080/02255189.1999.9669870

- Frankel, J. A., & David, H. R. (1999). Does Trade Cause Growth? *American Economic Review*, 89(3), 379-399. DOI: 10.1257/aer.89.3.379
- Frimpong, J. M., & Oteng-Abayie, E. F. (2006). *Bivariate causality analysis between FDI inflows and economic growth in Ghana*.
- Helpman, E. (1987). Imperfect competition and international trade: Evidence from fourteen industrial countries. *Journal of the Japanese and international economies*, 1(1), 62-81.
- Kravis, I. B. (1970). Trade as a handmaiden of growth: Similarities between the nineteenth and twentieth centuries. *The Economic Journal*, 80(320), 850-872.
- Narayan, P. K., Sharma, S., Poon, W. C., & Westerlund, J. (2014). Do oil prices predict economic growth? New global evidence. *Energy economics*, 41, 137-146.
- Nwabueze P. O., & Babatunde, M. A. (2013). International Trade and the Economies of Developing Countries. *American International Journal of Multidisciplinary Scientific Research*, 6(2), ISSN 2638-1249 E-ISSN 2638-1273, Published by CRIBFB, USA.
- Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, 16(3), 289-326.
- Raghuramapatruni, R., & Surya Chaitanya, R. V. (2020). *An appraisal of the impact of international trade on economic growth of India-through the ARDL approach*.
- Thirlwall, A. P. (2000). *Trade, trade liberalisation and economic growth: Theory and evidence* (Vol. 63). Côte d'Ivoire: African Development Bank.