FOREIGN TRADE AND ECONOMIC PERFORMANCE OF NIGERIA

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Article history:		Abstract:
		Motivated by the need to undertake a comparative analysis of the economic effect of trade on multiple measures of economic performance in Nigeria, the study evaluates the influence of trade on economic performance in Nigeria over the period 1986 to 2021. The study employed the secondary data culled from the statistical bulletin of the Central Bank of Nigeria. The analytical techniques employed by the study includes; stationarity, Johansen's co-integration, error correction estimations and Granger causality tests. One-year lag length was determined as most appropriate for the foreign trade elements. The inflation rate model showed imports, exports and exchange rate as statistically valuable in determining Nigeria's economic performance. Further, imports were the only valuable determinant of Nigeria's employment rate which emphasizes the import dependency level of Nigeria which is crippling employment level. Finally, imports and exchange rate constitute valuable determinant of gross domestic product growth rate as an economic performance indicator in Nigeria. The Granger causality test results indicated that exports and exchange rate affects the level of inflation rate in Nigeria. On the other hand, Nigeria's employment rate is significantly supported by imports as well as balance of payment, while economic growth in Nigeria is promoted significantly by imports and exchange rate. In light of these findings, the study recommended that there should be policy consistency to attract foreign direct investment aimed at preventing capital flight by foreign investors

1. INTRODUCTION

There are multiple dimensions or measure through which the performance of an economy can be viewed. One of this is through growth in output i.e. gross domestic product, another is through employment of labour, and thirdly can be through change in consumer price index also known as inflation rate (Bardi & Hfaiedh, 2021). There are other standardized economic measures of performance, but the aforementioned three are critically acclaimed in literature (Álvarez, Bértola, & Bohlin, 2022; Egbetunde & Obamuyi, 2018). Past studies that have attempted to predict economic performance are usually beclouded with the bias of using only one of the measures. But, it has been observed in literature overtime that a more robust model is necessary to sufficiently capture the health of performance of the economy.

A major predictor of an economy is trade. All around the globe sustainable growth has largely been attributed to the prevalence of trade both locally and internationally which has metamorphosed from the classical theorists that have gone through variations overtime towards strengthening the position of trade as a germane and concrete economic activity that fosters the sustainable development of a nation (Sahyanah, 2020). Trade became a delight to economists who made inquisition into causal factors to national growth at various times

as buttressed by studies like Marshall and Madden (1959), Yameogo and Omojolaibi (2021) and Robertson (1936) and it has been described as an "elixir of growth". Trade liberalization in the words of Faini (2004) can simply be explained as the removal or reduction of restrictions or barriers on the free exchange of goods and services between nations. This includes the removal or reduction of tariff obstacles, such as duties, surcharges and non-tariff obstacles like licensing rules, quotas and other requirements. Trade liberalization can also be seen as the opposite side to an economy practicing autarchy which is practically difficult (Yameogo & Omojolaibi, 2021).

In Nigeria, Trade liberalization was born when the need for alternative policies that could turn the economy around became apparent. Trade liberalization policy became inevitable in developing countries like Nigeria as financial assistance from the World Bank, International Monetary Fund and other bilateral and multilateral institutions routinely became conditional on the adoption of liberalisation policies (Egbetunde & Obamuyi, 2018). For these reasons, Nigeria undertook a broad range of economic reforms in line with those prescribed by the World Bank and International Monetary Fund, Rodrik (1999) which was launched on the basis of a liberalised economic policy regime that began with the World Bank and International Monetary Fund sponsored Structural Adjustment Programme (SAP) in 1983. It initially focused on removing distortions in the foreign exchange market, trade restrictions and then correction for structural and macroeconomic imbalances believed to have caused the economic decline (Yusuf et al, 2013; Purnama & Yao, 2019).

The government believed that, because the domestic market is small in general, economic growth must necessarily come from international trade (Chen, Zhang, & Wang, 2022). For this reason, the government has in recent years been committed towards trading partnerships and agreements, international trading rules, as well as participation in negotiations in multilateral trading agreements (Jebran et al., 2018).

Álvarez et al., (2022) explained that despite the consistent conviction of the existence of a significant correlation between economic performance and trading activities which has successively benefitted the economy in becoming 'trade-liberal' as upheld in various academic and policy-making spheres in line with Krueger (1997), there are still disputes on the measurement of trade and the degree to which a nation can modify its level of liberalization. This has given rise to scepticism over the validity and generalization of the various hypotheses that link trade liberalization to economic performance.

Economic theories and postulations provide diverse motives on trade and the direction it spurs national economic performance. Scholars such as Mackay and Winters, (2004), Berg and Krueger, (2003) explained that when a nation allows a freer importation of capital goods, superior allocative efficiency, knowledge and technological transfers with a heightened level of competition, then can trade augment economic output, growth and also promote the accessibility of a wider range of cheaper goods for consumption. A substantial reward is usually inherent in the utilization of globalization, as a liberal foreign trade and investment system aid the achievement of inputs and technologies which reinforces standard economic growth thereby increasing efficiency (Srdelić & Dávila-Fernández, 2022).

Given these mixed results, this study is thus predicated on the evaluation of the true nature and consequences of trade on economic performance in Nigeria utilizing further oblivious variables as upheld by theoretical postulations. Although there still exists inconsistencies in scholarly evidence on the influence of trade on economic performance in Nigeria. The controversies surrounding trade liberalization and growth nexus based on works by some classical scholars like Rodrik and Rodríguez (2001) and Krugman (1994) envisage a retarded influx of trade on economic growth, development and performance, while other researchers such as (Levine and Zervos (1998), Bekaert et al., (2004), Edwards (2001), and Rajan and Zingales (2003), Romer (1993), Barro and Sala-i-Martin (1995), and Grossman and Helpman (1991) see a more optimistic influence of trade liberalization on economic performance and sustainable growth. Also, there is the need to evaluate the influence of trade on multiple measures of economic performance hence the adoption of the inflation rate, employment rate, and gross domestic product growth rate.

Aim and Objectives of the Study

The aim of the study is to examine the nexus between foreign trade and economic performance in Nigeria. The specific objectives are to:

i. determine the nature of influence of trade (imports, exports, balance of trade, balance of payment, and exchange rate) on inflation rate in Nigeria.

ii. appraise the influence of trade (imports, exports, balance of trade, balance of payment, and exchange rate) on employment rate in Nigeria.

iii. evaluate the nature of influence of trade (imports, exports, balance of trade, balance of payment, and exchange rate) on the economic growth in Nigeria.

Research Questions

In the light of the above objectives, the following research questions are stated;

i. What is the nature of relationship between trade (imports, exports, balance of trade, balance of payment, and exchange rate) and inflation rate in Nigeria?

ii. To what extent does trade (imports, exports, balance of trade, balance of payment, and exchange rate) relate to employment rate in Nigeria?

iii. What is the extent and nature of the relationship between trade (imports, exports, balance of trade, balance of payment, and exchange rate) and economic growth in Nigeria?

Research Hypotheses

In the light of the study's specific objectives and research questions raised above, the following hypotheses are stated in their null form (H_0) as follows;

H_{01}: trade (imports, exports, balance of trade, balance of payment, and exchange rate) does not significantly influence inflation rate in Nigeria.

H_{02}: There is no statistically valuable relationship that prevail between trade (imports, exports, balance of trade, balance of payment, and exchange rate) and employment rate in Nigeria.

H_{03}: trade (imports, exports, balance of trade, balance of payment, and exchange rate) does not significantly influence economic growth in Nigeria.

The study covers the period 1986 to 2021 which is informed by the advent of the Structural Adjustment Programme. This study is essential to policymakers as it will enlighten them more about the performance and activities of trade and capital movement into and out of the nation. Second, the study will serve as reference material to scholars for future studies in related areas of human end.

This study is structured into five sections. Section one introduces the study. The literature review is taken in section two, while section three examines the research methodology. Section four takes care of data presentation and discussion of results while summary, conclusion, and recommendations are taken care of in section five.

2. LITERATURE REVIEW

This section reviews related literature. The literature review is arranged under the following subheadings viz: conceptual literature, theoretical literature, empirical literature and summary of literature reviewed.

2.1 Theoretical Literature

This study employs major theoretical categorization of trade as presented below as follows;

2.1.1 The Classical Trade theories

This involves multiple theories such as Adam Smith'S theory of Absolute Advantage (1776), David Ricardo's theory of comparative advantage (1817) and the Mercantilist theory by William Petty (1899), Thomas Mun and Antoine de Montchrestien which emanated around the 16th to 18th centuries. Adam Smith's theory starts with the idea that export is profitable if you can import goods that could better satisfy the necessities of consumers instead of producing them locally. The essence of Adam Smith's theory is that the rule that leads the exchanges from any market, internal or external, is to determine the value of goods by measuring the amount of labour incorporated in them (Srdelić & Dávila-Fernández, 2022). David Ricardo's theory demonstrates that countries can gain from trade even if one of them is less productive than another in all goods that it produces and the Mercantilism was the economic system of the major trading nations during the 16th, 17th, and 18th centuries, based on the premise that national wealth and power were best served by increasing exports and collecting precious metals in return. It superseded the medieval feudal organization in Western Europe, especially in Holland, France, United Kingdom, Belgium, Portugal and Spain. The monarch controlled everything. Their policy was to export in the countries that they controlled and not to import (to have a positive Balance of Trade) as seen by Ji et al., (2022).

2.1.2 Modern Trade Theories

These include the Heckscher-ohlin theory of resource and trade, Paul Samuelson and Ronald Jones model and Paul krugman and Maurice Obsfeld standard model of trade theory:

The Heckscher-Ohlin theory explains why countries trade goods and services with each other, the emphasis being on the difference in resources between two countries. This model shows that the comparative advantage is actually influenced by the interaction between the resources countries have (relative abundance of production factors) and production technology (which influences the relative intensity by which the different production factors are being utilized during the production cycle (Chen et al., 2022). Paul Samuelson and Ronald Jones, two American

economists, elaborated a trade model based on specific factors and there are at least two reasons why trade has an important influence upon the income distribution: (a) resources can't be transferred immediately and without costs from one industry to another. (b) Industries use different factors and a change in the production mix a country offers will reduce the demand for some of the production factors, whereas for others, it will increase it. The standard model of trade implies the existence of the relative global supply curve resulting from the production possibilities and the relative global demand curve resulting from the different preferences for certain goods.

2.1.3. Theory of Purchasing Power Parity (PPP):
The Theory of Purchasing Power Parity (PPP) measures the purchasing power of one currency against another after taking into account their exchange rate. Exchange rate simply means that you measure the strength on naira to the dollar. This theory was developed by Gustav Cassel (a Swedish economist – 1918). The theory states that in ideally efficient markets, identical goods should have one price. The concept is founded on the law of one price. The idea is that in the absence of transaction costs, identical goods will have the same price in different markets. If it doesn't happen, then we say that purchase parity does not exist between the two currencies. This theory tells us that price differentials between countries are not sustainable in the long-run as market forces will equalise prices between countries and change exchange rates in doing so. Because of arbitrage opportunities, market forces come in to play and bring about an equilibrium in prices. Purchasing Power Parity theory is often used to forecast future exchange rates, for purposes ranging from deciding on the currency denomination of long-term debt issues to determining in which countries to build plants (Okoro et al., 2020).

2.1.4   Harrod-Domar Growth Model:
This model revolves around the economic mechanism by which increased investment leads to increased growth. It is alternatively known as the AK model as it is based on the linear production function where output given by the capital stock K times a constant, often labelled A. In order to grow, new investments representing net additions to the capital stock are necessary. In this theory, investment is considered fundamental in the process of economic growth. Investment, according to the theory creates income as well as augments the productive capacity of the economy by increasing the capital stock. In as much as there is net investment real income and output will continue to expand (Sahyanah, 2020). For full employment equilibrium level of income and output to be maintained, both real income and output should expand at the same rate with the productive capacity of the capital stock. Based on this theory, for the economy to maintain a full employment, in the long-run, net investment must increase continuously as well as growth in the real income at a rate sufficient enough to ensure full capacity use of a growing stock of capital. It follows that any net addition to the capital stock in the form of new investment will bring about corresponding increase in the flow of national output (Benita, 2019).

2.2   Empirical Literature
The empirical literature is presented according to the objectives of the study as follows;

Chen et al., (2022) provide a normative interpretation of the impact of trade openness and economic growth on China's energy intensity using a dynamic panel model. Over the period of 2005 to 2018. The study observed that economic growth and trade openness reduce energy intensity when control variables are included; however, the effect of economic growth on energy intensity is more obvious. Foreign trade affects energy intensity mainly through the export route, while the effect of the import route is not significant. The regional variability of the effect of trade openness and economic growth on energy intensity is insignificant between the east and west of China. Accordingly, to reduce energy intensity and coordinate their development, the government should play an active role in opening trade and economic growth. Additionally, a synergistic mechanism of energy control between provinces and regions is necessary.

Álvarez et al., (2022) explored the relationship between economic growth and foreign trade in three regions in the period 1870–1970: the Nordic countries, the Rio de la Plata region and Australasia (Australia and New Zealand). Starting out from strikingly different levels of income , the poorest region in 1870, the Nordic countries, had caught up with the richest, Australasia, by 1970, while the Rio de la Plata region had fallen behind drastically. In all these countries foreign trade had a comparably high share of GDP in the late nineteenth century. In the Nordic region this trade share was maintained or even raised in the post-war period, while it declined in the other regions. The growth rate differences between countries are explored using the theoretical framework of Thirlwall's Law, according to which the growth rate of a country is constrained by its balance of payments and approximately determined by the ratio of the income elasticities of demand for exports and imports times the growth rate of its trading partners. It is shown that Thirlwall's Law accounts for the bulk of the differences in growth rates between the countries in our regions, but wild swings in the

commodity terms of trade also played a role in the less stellar growth performance of Australasia and the Rio de la Plata region.

Srdelić and Dávila-Fernández (2022) argues that Croatia's economic performance over the past two decades is deeply related to the dynamics of international trade. Under the premise that what is bought and sold in international markets reflects the economy's fundamentals, we show that the rate of growth compatible with equilibrium in the balance-of-payments, i.e. the dynamic Harrod trade multiplier, is a good predictor of the country's actual long-run growth rate. For this purpose, we apply a state-space model and the Kalman smoother to obtain time-varying parameter estimates of the exports and imports functions. We proceed by using these estimates to investigate the determinants of international nonprice competitiveness. Bayesian Model Averaging (BMA) and Weighted Average Least Squares (WALS) techniques are combined to tackle model selection uncertainty. It is shown that R&D investments and human capital accumulation are the most important explanatory variables. We conclude by highlighting the policy relevance of our findings to the evaluation of Croatia's catching-up performance as part of the European Union.

Ji et al., (2022) uses the Gregory–Hansen cointegration method and the vector error correction model in the vector autoregression system to reveal how international trade contributes to economic sustainability. The Gregory–Hansen test for cointegration method reveals a permanent equilibrium relation among sustainably economic growth, exports, and imports and shows that exports facilitate GDP growth and accelerate improvements in the capability of imports in the long-run. The causality between GDP and exports is unidirectional, indicating that exports area determinant of sustainable economic growth. The bidirectional causality from imports to GDP also sheds light on the important influence of imports on economic sustainability; however, GDP growth also drives import growth. The interaction between imports and exports corresponds to their bidirectional causal relationship, which is indicative of imports contributing to export production and of export growth expanding the capacity for imports. This finding indicates that imports are both exogenous and endogenous factors for exports.

Abendin and Duan (2021) examines the role the digital economy plays in international trade impacts on Africa's economic growth based on 53 countries' sample from 2000–2018. We further divided the sample into five sub-regions, and the results are estimated by POLS, random and fixed effects, and the GMM models. The findings showed that (1) trade only has positive effects on economic growth when interacted with the digital economy in the POLS estimations, (2) Trade has a significantly positive impact on economic prosperity without and with the interactive term in the RE, FE, and the sys-GMM estimations, (3) the output elasticities of capital and labor have positive and negative impacts on economic growth, respectively, (4) the regressions for the sub-sample yielded statistically significant differences in the output elasticities for the indicators. The study recommends that concentrated efforts be directed towards developing the digital economy to ensure international trade's full economic effect in Africa.

Yameogo and Omojolaibi (2021) evaluated in a local study the relationship among trade openness, economic growth and poverty level in 40 sub-Saharan Africa countries from 1990 to 2017. Panel Autoregressive Distributed Lag (ARDL) model, Panel Vector Auto-regression (VAR) and the System of Generalised Method of Moments (SYS-GMM) were employed. A robustness test was also applied. The sensitivity analysis was done through the Panel ARDL model. The results revealed that trade openness, foreign direct investment and institutional quality significantly increase economic growth in the long term, while institutional quality reduces economic growth in the short run. Furthermore, trade liberalisation, institutional quality and population growth rate lead to poverty reduction in the long run, while trade openness has adverse effects in the short run. Moreover, poverty does not have a significant response to trade and growth shocks. Poverty presented a positive change but the level was not significant. The Pairwise Dumitrescu Hurlin Panel Causality results highlight feedback effects among trade, economic growth and poverty level in the region. Based on these findings, the study recommends that governments in Africa should reviewed their poverty reduction programmes in order to move towards achieving the sustainable development goals.

Bardi and Hfaiedh (2021) investigated the impact of trade openness on the economic growth of the countries bordering the Mediterranean using a panel of eight countries from 1975 to 2016. We apply ARDL panel which is a technique recently developed. We study the effects of openness to international trade on economic growth while incorporating economic policy variables. The results show that the variables of commercial and financial openness favor economic growth. The free trade agreements that the European Union has signed with certain countries in the Mediterranean basin are designed above all to encourage greater regional economic integration and an

increase in their potential growth. Therefore, our findings show that the financial sector is slow to affect economic growth in these countries. This study reveals that human capital and the investment rate support the economic growth of our sample. In addition, we conclude that a process of economic convergence has begun in these countries. A causal analysis was carried out we found a unidirectional causality ranging from economic growth to trade openness.

Okoro et al., (2020) examines the impact of regional and non-regional trade on economic growth using annual data from Economic Community of West African States (ECOWAS) member countries for the period 2007 to 2017. Trade data were decomposed into regional (trade among ECOWAS Member States) and non-regional (trade between ECOWAS Member States and the rest of the world). We used the dynamic system GMM to estimate the models and introduced exchange rate, unemployment rate, population growth and gross capital formation as controlled variables. The results revealed that the estimated coefficient of ECOWAS regional trade is statistically significant and positive in predicting growth, while the non-regional trade coefficient is negative and not statistically significant in predicting growth. Other predictors of growth introduced into the model as controlled variables, such as exchange rate, unemployment rate, population growth and gross capital formation, displayed mixed results. More importantly, population growth, unemployment and exchange rate depreciation hurt economic growth, while gross capital formation promotes economic growth.

Sahyanah (2020) examined the effect of trade on economic growth in Indonesia. The method used in this study was a quantitative method, and the overall data used in this study was secondary data obtained from the results of systematic recording in the form of time series data from years obtained from the Central Statistics Agency (BPS) of Lampung province. The data were analyzed using multiple linear regression. (F-statistic) of -0.825468 is smaller than the significance level of 0, 05 so that it can be concluded that the estimated regression model is feasible to explain the effect of net exports, investment, labor and exchange rates on the dependent variable, namely economic growth. Based on the results of the calculation of the determination test, the value of R Square is 0.3549, this shows that the percentage of the contribution given from the independent variables, namely net exports, investment, labor and exchange rates to the dependent variable of economic growth is 35.49% while the remaining 64.51% is influenced by by other variables not explained in the study. Based on the results of the

data analysis, the conclusion in this study is that net exports, investment, labor and the exchange rate have a very important influence in increasing Indonesia's economic growth.

Raghutla (2020) investigated the impact of trade openness on economic growth in a panel of five emerging market economies, covering the data period from 1993 to 2016. Based on the panel estimation methods, the empirical results confirm the long-run relationship among trade openness, economic growth, financial development, inflation, labour force, and technology, whereas the findings of long-run elasticities show that trade openness has a positive considerable impact on economic growth. Furthermore, the heterogeneous panel non-causality tests indicate the presence of a bidirectional causality between economic growth and inflation and a unidirectional causality that runs from economic growth to trade openness and economic growth to financial development in the short run. Finally, the findings suggested that trade openness plays a substantial role in promoting economic growth while also promoting economic development in these five emerging market economies.

Benita (2019) examined the relationship between bilateral trade openness and gross domestic product for 15 Latin American countries during the financial crisis of 2008. It is employed an augmented gravity model of trade for the pre-crisis, during-crisis and post-crisis periods (2004–2006, 2007–2009 and 2010–2012, respectively). Geographical characteristics and democracy rates of countries are used to instrument for average bilateral trade volumes. Different measures of trade openness are tested, and mixed results are identified. First, a slightly positive relationship between trade openness and growth is found when considering only Latin American countries. Second, after removing outliers and considering all importer countries, a negative relationship between the variables is found.

Purnama and Yao (2019) investigated the relationship between international trade and economic growth in ASEAN countries. Three independent variables used to measure the economic growth include international trade, the exchange rate, and foreign direct investment. This study employs a pedroni panel cointegration test to examine the data from 2004 to 2015. The results show that there is a long term cointegrated relationship between international trade and economic growth in the ASEAN countries. International trade and foreign direct investment also have a long term, positive impact on economic growth. Meanwhile, the exchange rate also has a long term, negative influence on the economic growth. In addition, there is an indirect relationship and bidirectional causalities between the GDP and

international trade, as well as between the GDP and the exchange rate. On the other hand, there is a direct relationship and a bidirectional causality between international trade and the exchange rate. The FDI leads GDP, international trade, and exchange rates. Our results suggest that international trade must be supported by government policies that aim to enhance the financing of new investment for economic growth.

Egbetunde and Obamuyi (2018) investigated the relationship between international tourism, trade, and economic growth in India over the period from April 1991 to July 2012. To account for potential asymmetries in the relationship, we make use of new asymmetric Granger-causality tests and frequency analysis. We show that there is bidirectional Granger-causality between trade and tourism in positive components, whereas unidirectional Granger-causality runs from tourism to trade for negative components. Moreover, we find evidence of bidirectional Granger-causality between economic growth and tourism in positive components, but unidirectional Granger-causality running from economic growth to tourism for negative components. On the other hand, the results from frequency analysis provide evidence of Granger-causality between trade and tourism, and also between economic growth and tourism, at different frequency bands.

Jebran et al., (2018) analyzed the effect of terms of trade on economic growth of Pakistan considering annual time series data from 1980 to 2013. This study opted autoregressive distributed lag model for purpose of analyzing short- and long-run relationship. The results reveal significant negative long-run and short-run effects of terms of trade on economic growth. The analyses also indicate significant positive long-run and short-run effects of labour on economic growth. Further, capital stock is influencing positively the economic growth in long run only. We suggest that economic policies may be implemented to deteriorate terms of trade which will further enhance the economic growth of Pakistan.

From the reviewed literature, it is observed that most studies revealed positive and significant influence of trade in light of Exports, Imports, balance of payment and balance of trade to Economic growth;

To the researcher's knowledge, most studies do not disaggregate the real sectors and there is a need for an updated review of the subject matter.

3.　　METHODOLOGY

The study utilizes the correlational research design. This design entails using past/historical data and evaluating the relationship between two or more variables. In general, this work would utilize secondary data, which cover variables such as; imports, exports, balance of trade, balance of payment, and exchange rate, inflation rate, employment rate, growth rate of real gross domestic product. The data were gotten from the Central Bank of Nigeria statistical bulletin and National Bureau of Statistics (NBS).

Model Specification

The methodological framework employed in this study is the regression model. Based on this, the models for this study is adapted from the model of Chen et al., (2022), which states that;

$$RGDP = f(IMPT, EXPT, EXC) \quad (1)$$

Where; Real Gross Domestic Product (RGDP) is a function of Imports (IMPT), Exports (EXPT), and Exchange rate (EXC). Unlike Chen et al., (2022) model, the study limits its search to only four out of the five proposed variables ignoring the effect of foreign Debt flows (DBL).

From the foregoing, the models to be estimated can be stated as follows:

Functional Form:

$$INF = f(IMPT, EXPT, BOT, BOP, EXC). \quad (2)$$

$$EMP = f(IMPT, EXPT, BOT, BOP, EXC) \quad (3)$$

$$GDPGR = f(IMPT, EXPT, BOT, BOP, EXC) \quad (4)$$

Where:

INF	=	Inflation rate
EMP	=	Employment rate
GDPGR	=	Economic growth

IMPT = Import to trade ratio
EXPT = Exports to trade ratio
BOT = Balance of trade
BOP = Balance of payment
EXC = Exchange rate

In econometrics, equation 2 - 4 is not sufficiently specified due to the absence of the Constant Parameters ($\propto_0$) and error terms (μ_i). Therefore, we introduce the Constant Parameter and error terms as follows;

Estimable Form:

$$INF_t = a_0 + a_1 IMPT_t + a_2 EXPT_t + a_3 BOT_t + a_4 BOP_t + a_5 EXC_t + \mu_t \quad (5)$$

$$EMP_t = \beta_0 + \beta_1 IMPT_t + \beta_2 EXPT_t + \beta_3 BOT_t + \beta_4 BOP_t + \beta_5 EXC_t + \pi_t \quad (6)$$

$$GDPGR = \varphi_0 + \varphi_1 IMPT_t + \varphi_2 EXPT_t + BOT_t + \varphi_4 BOP_t + \varphi_5 EXC_t + \psi_t \quad (7)$$

Apriori expectation: $a_1/\beta_1/\varphi_1 - a_5/\beta_5/\varphi_5 > 0$

All employed independent variables are theoretically expected to exhibit a positive relationship with the

dependent variable (Gross Domestic Product growth rate).

Method of Data Analysis

The core objective of this study is to ascertain empirically, the nexus between trade and economic growth in Nigeria. For clarity, this subpart is further detailed as follows;

- **Stationarity Tests:**

The stationarity attributes of the time series data need to be verified by the employment of unit root tests in order to validate their employment and avoid spurious estimates. In this exercise, according to Brooks (2009), the Augmented Dickey-Fuller (ADF) test is relevant. The decision rule is to reject the implied null hypothesis if the ADF test statistic in absolute terms, is greater than all associated Mackinnon's Critical Values at 1%, 5%, and 10% levels respectively.

- **Johansen's Cointegration Test:**

Johansen's Co-integration test aims at ascertaining the long run equilibrium relationship that prevails among a chosen set of study variables (Brooks, 2009). The decision rule implied is that the magnitude of the Max-Eigen statistics must be more than the associated critical value at 0.05 level.

- **Error Correction Estimates.**

Brooks (2009) shows that Error Correction Estimates tend to assess the long-term sensitivities of the explained variable to each of the independent variables. Further, it shows the speed at which the explained

variable adjusts back to equilibrium following short-run distortions in the explanatory variables.

- **Granger Causality Test:**

In accordance with Brooks (2009), the Pairwise-Granger Causality test attempts to evaluate the extent to which variations in a given set of explanatory variables tend to support or promote changes in the dependent variable. Further, it shows the extent to which the addition of lagged values of the variables can improve the explanation and vice versa in accordance with equations (6) and (7) below;

$$\gamma t = \beta 0 + \sum_{i=k}^{n} \beta i \gamma t - i + \sum_{i=k}^{n} \beta \mu X t - i + \mu t \quad (6)$$

$$X t = \alpha 0 + \sum_{i=k}^{n} \alpha i \gamma t - i + \sum_{i=k}^{n} \alpha i \gamma t - i + V t \quad (7)$$

4. DATA PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

This section proceeds to the presentation of data, analysis, as well as interpretation of results in the light of the statistical method which has been adopted for the investigation. The proposed econometrics techniques in the place of stationarity test, cointegration test and Granger causality test are presented in this section. The test of relevant research hypotheses is also carried out in the third section of this section trying to give answers to the research questions.

Data presentation

The study proceeds to present the annualized values of employed data in Table 4.1;

Table 1: Inflation rate (INF), Employment rate (EMP), Economic growth (GDPGR), ImportS (IMPTC), Exports to trade ratio (EXPT), Balance of trade (BOT), Balance of payment (BOPC) and Exchange rate (EXC) in Nigeria 1986 to 2021.

Year	INF	EMP	GDP	GDPGR	IMPT	EXPT	BOT	BOP	EXR
1986	13.7	91.34	17007.77	1.90	5,983.60	8,920.60	2,937.00	14,904.20	-4,900.00
1987	9.7	91.76	17552.1	0.17	17,861.70	30,360.60	12,498.90	48,222.30	-17,038.60
1988	61.2	92.18	18839.55	6.23	21,445.70	31,192.80	9,747.10	52,638.50	-19,413.00
1989	44.7	92.6	19201.16	6.66	30,860.20	57,971.20	27,111.00	88,831.40	-19,537.80
1990	3.6	92.8	21,680.20	11.63	45,717.90	109,886.10	64,168.20	155,604.00	-4,514.00
1991	23	93.9	21,757.90	0.36	89,488.20	121,535.40	32,047.20	211,023.60	-14,827.50
1992	48.8	93.6	22,765.55	4.63	143,151.20	205,611.70	62,460.50	348,762.90	-99,332.80
1993	61.3	94.3	22,302.24	-2.04	165,629.40	218,770.10	53,140.70	384,399.50	-39,229.60
1994	76.8	95	21,897.47	-1.81	162,788.80	206,059.20	43,270.40	368,848.00	-42,623.30
1995	51.6	95.2	21,881.56	-0.07	755,127.70	950,661.40	195,533.70	1,705,789.10	-195,216.30
1996	14.3	93.8	22,799.69	4.2	562,626.60	1,309,543.40	746,916.80	1,872,170.00	-53,152.00
1997	10.2	93.8	23,469.34	2.94	845,716.60	1,241,662.70	395,946.10	2,087,379.30	1,076.20
1998	11.9	93.8	24,075.15	2.58	837,418.70	751,856.70	-85,562.00	1,589,275.40	-220,671.32
1999	0.2	94	24,215.78	0.58	862,515.70	1,188,969.80	326,454.10	2,051,485.50	-326,634.28

Year									
2000	14.5	83.9	25,430.42	5.02	985,022.40	1,945,723.29	960,700.91	2,930,745.69	314,139.15
2001	16.5	83.4	26,935.32	5.92	1,358,180.30	1,867,953.88	509,773.52	3,226,134.18	24,729.90
2002	12.2	84.4	31,064.27	15.33	1,512,695.33	1,744,177.68	231,482.35	3,256,873.01	-563,483.90
2003	23.8	82.2	33,346.62	7.35	2,080,235.27	3,087,886.39	1,007,651.12	5,168,121.66	-162,298.24
2004	10	83.6	36,431.37	9.25	1,987,045.27	4,602,781.54	2,615,736.27	6,589,826.81	1,124,157.23
2005	11.6	85.1	38,777.01	6.44	2,800,856.33	7,246,534.80	4,445,678.47	10,047,391.13	-2,313,148.30
2006	8.5	84.7	41,126.68	6.06	3,108,519.32	7,324,680.63	4,216,161.31	10,433,199.95	-2,206,500.50
2007	6.6	84.3	43,837.39	6.59	3,911,952.63	8,309,758.32	4,397,805.69	12,221,710.95	-1,811,849.38
2008	15.1	82.1	46,802.76	6.76	5,189,802.62	10,791,071.45	4,794,513.17	15,980,874.07	-2,463,370.01
2009	12	77.3	50,564.26	8.04	5,102,534.38	8,984,441.46	3,125,663.59	14,086,975.84	-3,927,487.97
2010	11.8	81.9	55,469.35	9.7	7,614,656.23	12,560,794.21	3,847,501.30	20,175,450.44	-2,276,153.44
2011	10.3	81	58,180.35	4.89	10,229,425.71	16,003,103.90	4,240,802.36	26,232,529.61	-810,056.82
2012	12	86.4	60,670.05	4.28	9,426,139.81	15,479,743.06	5,372,769.40	24,905,882.87	-787,251.40
2013	8	87	63,942.85	5.39	8,905,255.10	15,796,183.22	5,822,588.90	24,701,438.32	-4,205,696.75
2014	8	89.2	67,977.46	6.31	9,012,426.04	14,488,515.31	2,423,112.33	23,500,941.35	-2,074,824.11
2015	9.6	88	69,780.69	2.65	9,119,596.98	10,801,630.17	-2,230,909.53	19,921,227.15	4,081,660.37
2016	18.6	83.6	68,652.43	-1.62	9,480,366.87	8,835,611.90	-644,754.96	18,315,978.77	-1,420,589.24
2017	15.4	79.5	69,205.69	0.81	10,804,845.85	13,988,143.19	3,183,297.35	24,792,989.04	-1,954,262.99
2018	11.4	77.4	70,536.35	1.92	13,445,112.75	18,707,327.42	5,262,214.68	32,152,440.17	2,818,565.61
2019	11.98	76.9	72,094.09	2.21	20,449,968.39	19,910,533.80	-539,434.58	40,360,502.19	-6,161,126.46
2020	15.8	72.3	70,800.54	-1.79	20,519,192.15	12,613,592.70	-7,905,599.45	33,132,784.85	-6,808,344.22
2021	15.63	68.88	73,382.77	3.65	22,394,498.09	19,204,170.87	-3,190,327.22	41,598,668.96	11,901,439.74

Source: Central Bank of Nigeria Statistical Bulletin (2021), Knoemia.com (2021), World Bank (2021).

- **DATA ANALYSIS**

Unit Root Test (Augmented Dickey Fuller)

Due to the underlying shocks inherent in time series variables, and also shocks that could be found in the error terms (other variables not captured by the model), we therefore intend to capture the stationarity of the employed variables, since a stationary variable is useful in forecasting and predicting and has a great possibility of the effect of shock to die out gradually, while non-stationary data are not suitable for long run test.

Table 2: Results of Stationarity (Unit Root) test:

Variable	ADF T-statistics		Mackinnon's test critical values @			Probability Level	Order of Integration	
	At Level	1st difference	1%	5%	10%			Decision
INF	-2.323661	-4.899645***	-3.632900	-2.948404	-2.612874	0.9399	I(1)	Not stationary
EMP	-0.725277	-8.407534***	-3.632900	-2.948404	-2.612874	0.8273	I(1)	Not stationary
GDPGR	-2.416214	-6.789215***	-3.626784	-2.945842	-2.611531	0.1445	I(1)	Not stationary

IMPT	-1.372329	-5.737456***	-3.699871	-2.976263	-2.627420	0.6986	I(1)	Not stationary
EXPT	-1.530918	-4.553106***	-3.699871	-2.976263	-2.627420	0.7392	I(1)	Not stationary
BOT	-2.034835	-8.767163***	-3.626784	-2.945842	-2.611531	0.1102	I(1)	Not stationary
BOPC	-2.308877	-8.802553***	-3.626784	-2.945842	-2.611531	0.2115	I(1)	Not stationary
EXC	-0.146279	-4.990043***	-3.752946	-2.998064	-2.638752	0.9327	I(1)	Not stationary

Source: Extracted from Eviews-12.

Going by the respective test critical values of level, it can be identified that all variables are stationary only at the first difference I(1) showing a great level of integration amongst variables. Table 2 also goes to show that employed data possess trends capable of being used for analysis as their values rotate around their respective mean. Since the prerequisite of co-integration is the integration of all variables at same level, this parameter therefore leads to the co-integration of employed variables.

Co-integration Test

The researcher proceeds to test the long run relationship between trade dimensions and real gross domestic product.

Table 3: Co-integration Test (Johansen Co-integration) For model 1 to 3

	Model 1	Model 2	Model 3
Series	D(INF) D(IMPTC) D(EXPT) D(BOT) D(BOPC) D(EXC)	D(EMP) D(IMPTC) D(EXPT) D(BOT) D(BOPC) D(EXC)	D(GDPGR) D(IMPTC) D(EXPT) D(BOT) D(BOPC) D(EXC)
Unrestricted Cointegration Rank Test (Trace)	At Most 4 Eigenvalue = 0.418378 Trace Stat = 19.18617 Critical Vl = 15.49471 Prob. ** = 0.0132	At Most 4 Eigenvalue = 0.370824 Trace Stat = 25.26586 Critical Vl = 15.48471 Prob. ** = 0.0013	At Most 4 Eigenvalue = 0.393154 Trace Stat = 26.21231 Critical Vl = 15.49471 Prob. ** = 0.0009
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)	At Most 4 Eigenvalue = 0.418378 Trace Stat = 18.42577 Critical Vl = 14.26460 Prob. ** = 0.0104	At Most 4 Eigenvalue = 0.370824 Trace Stat = 15.75370 Critical Vl = 14.26460 Prob. ** = 0.0089	At Most 4 Eigenvalue = 0. 393154 Trace Stat = 16.98235 Critical Vl = 14.26460 Prob. ** = 0.0081

Source: Eviews-12 output.

The co-integration test in Table 3 seeks to empirically define the Long-run association/relationship between a given set of variables i.e. identifying the stochastic drift between trade dimensions and economic performance as seen from the 3 models (to know if the variables move together). Carried out using the Johansen cointegration test. Assuming all study variables as endogenous using the trace and Eigenvalue test. From the trace and Eigenvalue test output in Table 3, it can be seen that there exists four (4) co-integrating equation, which were all signed respectively across the three employed models. Judging by the signed rank, there exist a long run association and movement amongst employed variables. It can therefore be established that there exist evidence of long run relationship amongst employed variables, the study therefore proceeds to the error correction model.

Determination of Lag Lengths Selection Criteria for Employment of Error Correction Model:

Establishment of lag lengths is essential for error correction estimations. Principally because of the fact that past investments of revenues may begin to have effects on economic performance in a later period. To ascertain the most suitable lag for the time series, the study proceeds to evaluate the lag length selection criteria. Before undertaking the error correction model, the study proceeds to evaluate the lag length selection criteria. Basically, suitable lag length determination enables the study determine the appropriate lag to infuse into the error correction model as shown in table 4 below.

Lag Length Selection for Model 1 - 3.
Table 4 below shows the results of lag length selection for all three model's Error Correction Model.

VAR Lag Order Selection Criteria						
Exogenous variables: C						
Date: 10/17/22 Time: 11:43						
Sample: 1986 2021						
Included observations: 36						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1959.771	NA	2.45e+41	112.3298	112.5964	112.4218
1	-1796.581	261.1036*	1.77e+38*	105.0618*	106.9282*	105.7061*
2	-1737.609	74.13701	5.75e+37	103.7491	107.2153	104.9456
3	-1620.038	107.4936	9.53e+35	99.08786	104.1539	100.8366
* 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						

Source: E-Views 12.0 output extract

Table 4 above shows that a maximum lag of 1 is ideal for estimated model (1). In all, the various criteria values employed suggest that the first (1) lags of D(INF) D(IMPTC) D(EXPT) D(BOT), D(BOPC) and D(EXC) which represent the respective differenced values of inflation rate, imports, exports, balance of trade, balance of payment and exchange rate are ideal and appropriate. In the light of the results presented in table 4 above, the study proceeds to use the first lag (1) of all employed variables in the three adopted model

Error Correction Model

In light of the presence and identification of a long-run stochastic trend/cointegration in the study model, the study carries out the Vector Error correction Model. This enables restrictions to be placed on employed variables that are seen to have attained stationarity only at the first difference. This helps retain the relevant information in the data (which would otherwise get missed on differencing of the same) The foremost advantage of VECM is that it has nice interpretation with long term and short term equations.

Table 5:   Vector Error Correction Model Output

Error Correction Model									
	Model 1			**Model 2**			**Model 3**		
Variable	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
D(IMPTC)	-2.70612	-1.292609	0.2070	9.89E-07	3.83994	0.0006	-7.03E-06	-3.73857	0.0008
D(IMPTC-1)	-11.28522	-4.709771	1E-04	3.72E-06	0.648398	0.5217	0.457903	3.226876	0.0033
D(EXPT)	3.374303	3.039843	0.0050	1.96E-08	0.046918	0.9629	-6.15E-07	-0.83321	0.4118

D(EXPT-1)	-0.264312	-1.451654	0.1590	3.15E-08	0.04516	0.9643	1.82E-06	1.513261	0.1418
D(BOT)	9.15788	1.834306	0.0770	-2.48E-06	-0.12399	0.9022	-4.70E-05	-1.33513	0.1926
D(BOT-1)	-10.4909	-1.685035	0.1040	4.19E-06	0.164034	0.8708	8.00E-05	1.924932	0.0648
D(BOPC)	0.307619	0.264552	0.7930	-1.40E-06	-0.28901	0.7747	2.47E-06	0.299899	0.7665
D(BOPC-1)	0.385722	0.280572	0.7810	-4.46E-07	-0.07176	0.9433	2.10E-05	1.862038	0.0735
D(EXC)	3.858007	7.151867	0.0000	-3.86E-07	-0.17872	0.8594	-1.35347	-6.66461	0.0001
D(EXC-1)	2.378865	3.741548	9E-04	2.97E-07	0.292236	0.7721	1.08E-06	0.633121	0.532
ECM(-1)	-0.918624	-9.678512	0.0000	-0.3163	-2.0954	0.0074	-0.43612	-3.30313	0.0026

Source: Eviews-12 output.

Model 1: From the results of Error Correction estimations for inflation rate (INF) model 1, it can be observed that after adjusting for short-run distortions, variations in the study's explanatory variables jointly explain 86.02% of variations in inflation rate (INF). The ECM has the expected negative sign and its associated F-statistic value of 28.71505 is significant. It confirms a good line of fit. Further, the Durbin-Watson statistic of 1.965226 is within the acceptable range. The absolute value of the ECM is 91.86%. This implies that 91.86% of the disequilibrium in Nigeria's Inflation rate is offset by short-run adjustments in the study's explanatory (predictor) variables yearly. The ECM value of 91.86% is also associated with a probability value of 0.0000, which is statistically significant at the 0.05 level. The results indicate that in the long run, lagged values of imports, current values of exports as well as both the current and lagged values of exchange rate (EXC) have significant influences on Nigeria's inflation rate (INF) as a proxy for economic performance.

Model 2: The Error Correction estimates results shown in table 5 above indicate that in the long run, after adjusting for short-run distortions, variations in the study's explanatory variables jointly explain 62.24% of employment rate in Nigeria. The ECM has an expected negative sign. Its associated F-statistic value of 6.510091 has a probability of 0.020164 which is significant at a 5% level. It thus, confirms a good line of fit. Further, the model's Durbin-Watson statistic of 2.081170 is within the acceptable range. The absolute value of the ECM is 31.62%. This implies that 31.62% of the disequilibrium in Nigeria's employment rate (EMP) is offset by short-run adjustments in the explanatory (predictor) variables yearly. The ECM value of 31.62% is also associated with a probability value of 0.0074, which is statistically significant at the 0.05 level. In the long run, model (2) shows that imports pass the

Granger Causality Test

significance test with respect to the Employment rate (EMP) in the Nigerian economy. This shows that variations in Nigeria's inflation rate relates significantly with revenues generated from the imports. All lagged revenue values have insignificant influences on employment rate (EMP). This might be as a result of the fact that Nigeria might be spending all revenues generated from imports within the relevant year as these imports proceeds are most likely spent concurrently.

Model 3: The results presented in table 5 above show that this study's explanatory variables jointly explain 56.09% of Nigeria's Economic growth (GDPGR) in the long run. The ECM has the expected negative sign. The associated F-statistic value of 8.945721 has a probability of 0.019883 which is significant at 5% level. It confirms a good line of fit. Further Durbin-Watson statistic of 2.081170 is within the acceptable range. The absolute value of the ECM is 43.61%. This implies that 43.61% of the disequilibrium in Nigeria's economic growth (GDPGR) is offset by short-run adjustments in the explanatory (predictor) variables yearly. The ECM value of 43.61% is also associated with a probability value of 0.0026, which is statistically significant at the 0.05 level. In the long run, the economic growth model shows that imports and exchange rate passed the significance test within the Nigerian economy. It further shows that Nigeria's economic growth is significantly sensitive to both current and lagged value of imports as well as current exchange rate values.

Pairwise Granger Causality Estimation:
To ascertain the extent to which the employed variable of this study support, promote and/or reinforce themselves in the process of growth, this study executed the pair-wise Granger causality tests. The results are shown below for all the models employed in this study as below:

Table 6:   Pairwise Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
Pairwise Granger Causality Tests Date: 10/17/22 Time: 12:15 Sample: 1986 2021 Lags: 2			
D(IMPTC) does not Granger Cause D(INF)	34	1.92865	0.1635
D(INF) does not Granger Cause D(IMPTC)		1.85987	0.1738
D(EXPT) does not Granger Cause D(INF)	34	0.30573	0.7389
D(INF) does not Granger Cause D(EXPT)		7.61194	0.0092
D(BOT) does not Granger Cause D(INF)	34	2.04906	0.1471
D(INF) does not Granger Cause D(BOT)		2.13618	0.1363
D(BOPC) does not Granger Cause D(INF)	34	0.09917	0.9059
D(INF) does not Granger Cause D(BOPC)		0.22699	0.7983
D(EXC) does not Granger Cause D(INF)	34	5.09318	0.0415
D(INF) does not Granger Cause D(EXC)		1.53443	0.2326
D(IMPTC) does not Granger Cause D(EMP)	34	9.00094	0.0005
D(EMP) does not Granger Cause D(IMPTC)		0.03165	0.9689
D(EXPT) does not Granger Cause D(EMP)	34	0.01026	0.9898
D(EMP) does not Granger Cause D(EXPT)		0.01414	0.9860
D(BOT) does not Granger Cause D(EMP)	34	0.02842	0.9720
D(EMP) does not Granger Cause D(BOT)		0.10309	0.9024
D(BOPC) does not Granger Cause D(EMP)	34	0.06862	0.9338
D(EMP) does not Granger Cause D(BOPC)		4.35745	0.0221
D(EXC) does not Granger Cause D(EMP)	34	0.08497	0.9188
D(EMP) does not Granger Cause D(EXC)		0.01407	0.9860
D(IMPTC) does not Granger Cause D(GDPGR)	34	11.1483	0.0026
D(GDPGR) does not Granger Cause D(IMPTC)		9.08708	0.0005
D(EXPT) does not Granger Cause D(GDPGR)	34	1.64496	0.2105
D(GDPGR) does not Granger Cause D(EXPT)		0.14036	0.8696
D(BOT) does not Granger Cause D(GDPGR)	34	1.57076	0.2251
D(GDPGR) does not Granger Cause D(BOT)		0.00116	0.9988
D(BOPC) does not Granger Cause D(GDPGR)	34	1.69936	0.2005
D(GDPGR) does not Granger Cause D(BOPC)		0.23156	0.7947

Source: Eviews-12 output.

The results of Pairwise Granger Causality shown in table 6 indicate a significant unidirectional relationships from (i) inflation rate to exports and (ii), from exchange rate to inflation rate. To this extent, it implies that growth in Nigeria's inflation rate supports and/or promotes growth in exports, since improvement in output attracts investment into the economy and strengthens the currency.

The results shown in table 6 above for employment rate model indicate prevalence of two significant unidirectional causalities which flow from; import to trade ratio to employment rate (EMP) and from employment rate (EMP) to balance of payment. This shows that growth in imports significantly promote Nigeria's employment rate. Further, growth in Nigeria's employment rate also significantly supports the growth of balance of payment in Nigeria. These results are

realistic since increased revenue from imports tend to fund increased government expenditures which through multiplier effects and economic transmission tend to improve on employment rate. Also, improved employment rate relies on importation.

The results of Pairwise Granger Causality test for economic growth model shown in table 6 above confirms prevalence of two significant bi-directional causalities which prevail between imports and Nigeria's economic growth as well as between exchange rate and economic growth. These imply that growth in imports exchange rate tend to support/promote growths in Nigeria's economic growth. These obviously result from the fact that economic growth tends to be supported or promoted based on appropriateness of government investment expenditures funded by these revenues sources.

• **DISCUSSION OF FINDINGS**

This study disaggregated the findings in the light of the study models employed. These discussions will therefore, follow the models accordingly for clarity. These are;

Model I: Inflation rate Model: This model is represented as:

INF = f(IMPTC, EXPT, BOT, BOPC, EXC).

Import to trade ratio (IMPTC): The results of model I as shown in tables 4.11 and 4.14 indicate that imports is significant at first lag with a negative coefficient of 4.709771 which is significant at 0.001 level. However, the negative sign is not in consonance with the apriori expectation as Nigeria's inflation rate is negatively and significantly sensitive to change in imports revenues. The Granger causality results in table 4.14 further indicate that imports and Nigeria's inflation rate as an economic performance indicator do not support or promote themselves in the growth process. The results are in consonance with the study of Najabat and Hamid (2017) and in conflict with those of Agrawal (2015).

Exports to trade ratio (EXPT): This variable displayed at current level, a positive and significant influence on inflation rate (INF). The result provides evidence that exports in Nigeria so far fuels inflation ratea. The Granger Causality show that exports levels fuels Nigeria's inflation rate as shown in table 4.14. These results are in support of the findings of Akinbobola, Ibraim and Ibrahim (2017) and in conflict with Rachdi and Saidi (2011).

Balance of trade (BOT): This variable demonstrates a positive but insignificant influence on variations in Inflation rate (INF) as economic performance indicator in Nigeria. Also, the Granger Causality results provide no evidence of any significant support and/or promotion between these two indicators.

Balance of payment (BOPC): Changes in this variable indicate a positive and insignificant influence on Inflation rate (INF) as an economic performance indicator in Nigeria. These results are significantly contrary to expectations, given the fact that Nigeria represents the largest import dependent economy in Africa. The causality results confirm same. The results reflect substantial leakages in Nigeria's mobilization of FGTs. The results are consistent with those of Najabat and Hamid (2017). The Granger Causality that balance of payment and Nigeria's inflation rate do not support themselves.

Exchange rate (EXC): This variable showed at current and first lags positive and significant influences on Inflation rate (INF). The results demonstrate that the exchange rate causes inflation rate in Nigeria. The Granger Causality results in table 4.14 also supports the above analysis that Exchange rate in Nigeria promotes her inflation rate as a economic performance indicator.

Model 2: Employment rate Model: This model is represented as:

EMP = f(IMPTC, EXPT, BOT, BOPC, EXC).

On specific basis, and relying on results shown in tables 4.12 and 4.15 which are discussed as follows;

Import to trade ratio (IMPTC): This study variable showed positive and significant influence on Nigeria's Employment rate (EMP). The Granger causality results in table 4.15 provide substantial support for this result as shown in table 4.5 where imports significantly promoted Nigeria's Employment rate. These results are consistent with those of Agrawal (2015) and disagree with those of Charles (2016).

Exports to trade ratio (EXPT): From tables 4.12 and 4.15, exports insignificantly relate and also, insignificantly promotes or supports Nigeria's Employment rate. The study supported the research of Najabat and Hamid (2017), while conflicting with those of Gitaru (2015).

Balance of trade (BOT): This study element demonstrates a negative and insignificant influence on Nigeria's Employment rate (EMP), as shown in table 4.12. The displayed results could also be attributed to the obvious fact that balance of trade revenue is particularly more difficult to manage in Nigeria. It thus, constitutes serious revenue leakages with attendant insensitivity of Nigeria's EMP to balance of trade proceeds. The results agree with those of Awad (2021) and disagree with those of Akinbobola, Ibraim and Ibrahim (2017).

Balance of payment (BOPC): This study element has an inverse and insignificant relationship with Nigeria's EMP. The results are in agreement with those of Najabat and Hamid (2017), although there is significant

causality. The insignificant sensitivity of EMP to balance of payment (FGT) could be attributed to the attendant leakages and lop-sidedness of the balance of payment in Nigeria. The above leakages and possible diversion of revenues might probably have accounted for insensitivity, although, significant causal relationships that prevails above between this study revenue element and Nigeria's EMP as an economic performance indicator. However, the results surprisingly disagree with those of Agrawal (2015).

Exchange rate (EXC): This study element shows a negative and insignificant influence on Nigeria's Employment rate (EMP) as well as insignificant causality might be pointing to the fact that exchange rate proceed might not have been significantly channelled to investment expenditures which increase the quantum of the elements of EMP in Nigeria. This same observation might also, be accountable for the prevalence of nonsignificant causality relationships between the elements of EMP in Nigeria and Exchange rate.

Model 3: Economic growth Model: This model is represented as:
GDPGR = f(IMPTC, EXPT, BOT, BOPC, EXC).
On specific basis and relying on the results shown in tables 4.13 and 4.16, the following details are discussed;

Import to trade ratio (IMPTC): This study element shows an inverse and significant influence on Economic growth (GDPGR) as well as significant bi-directional causality in Nigeria. It agrees with the results of Rachdi and Saidi (2011) and.

Exports to trade ratio (EXPT): This study element displays a negative and insignificant influence on Economic growth (GDPGR). Although, the direction of the relationship is not as expected theoretically but the insignificant nature of the relationship is an issue of concern. The results of causality analysis in table 4.16 equally demonstrate the disconnect between Nigeria's exports and economic growth as they operate independently (Schumpeterian Independent Hypothesis. In this instance do not support or promote themselves in the growth process. These results agree with Najabat and Hamid (2017) and are in conflict with the studies of Gitaru (2015).

Balance of trade (BOT): This study element demonstrates a negative and insignificant influence of balance of trade on Nigeria's economic growth as an economic performance indicator. Although, the result is of the expected sign a priori, the Granger causality results equally show significant independence, this supporting the ECM results relatively. These results support those of Akinbobola, Ibraim and Ibrahim (2017) and contradict with those of Charles (2016).

Balance of payment (BOPC): This study element indicates a positive and insignificant influence on Economic growth (GDPGR) as well as insignificant support/promotional relationships (causality). It is even against expected negative relationship a priori. The reasons for inability of balance of payment realised in Nigeria to influence economic growth as a economic performance indicator might have emanated from the obvious leakages in Nigeria for years. The results are again in agreement with those of Najabat and Hamid (2017) and disagree with those of Agrawal (2015).

Exchange rate (EXC): This study element shows a negative and significant influence on economic growth (GDPGR). The study observes a bidirectional causal relationship between both variables and shows that exchange rate as an adverse economic performance indicator in Nigeria. The results are also in agreement with those of Gitaru (2015) and in contrast with those of Rachdi and Saidi (2011).

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5. CONCLUSION AND RECOMMENDATIONS

Conclusively, it can be ascertained that varying trade dimensions employed in the study have varying effect on the real sector of the Nigerian economy. Although, imports show a uniform significant effect on the real sectors which is adverse considering that importation is worsening the inflation rate in Nigeria through the exchange rate imbalance it creates. Other dimensions of trade still fail miserably towards positively simulative economic performance in Nigeria. This could be linked to the unconducive business environment in Nigeria. This invariably shows that past efforts towards opening the nation to foreign revenues are inconsequential and complacent in nature which gives strong evidence of poor trade management as Nigeria is heavily import dependent. In furtherance of this, since all employed variable shows great causal relevance, it can be finally estimated that if the right steps are taken, the nation could plunge itself into fostered performance by taking the right trade measures. From the Empirical findings, this study has contributed to the identification of the disaggregated influences of key trade variables in the economy as it has created a better understanding of the economic position of the nation based on the trends of selected foreign trade outlets.

RECOMMENDATIONS

In view of the discovered behaviors and relationships among employed variables the study proffers the following recommendation: For the nation to have a significant contribution of its level of trade to its economic growth, sustained policy aimed at the following should be adhered to:

i.   Due to the influence of exports, the government should foster its appropriation of capital and recurrent expenditure on improving the productive dominance of the nation, and eliminate room for insecurity and political turmoil.

ii. The government should endeavour to mop the leakages in accrued balance of payment, to foster the influence of this resource on the nation and reverse its insignificant influence.

iii. Policy makers and financial institution should strive to polish the trade system as it greatly predicts the movement of Gross Domestic Product through proper regulation of the foreign revenues and ensuring strict monitoring of illicit activities in the form of cybercrime.

iv. There should be policy consistency to attract foreign direct investment aimed at preventing capital flight by foreign investors.

v.   The anti-corruption agencies should be strengthened to fight corruption to its barest minimum as corruption discourages investment, thereby slowing down economic growth in any economy. In addition, the security situation in the country should be improved.

vi. All institutional bottlenecks should be dismantled to improve the ease of doing business in Nigeria. Nigeria is currently poorly ranked in the world ease of doing business index because of the existence of several government agencies. These should be collapsed into a single agency

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