IMPACT OF TRADE LIBERALIZATION ON ECONOMIC GROWTH IN NIGERIA

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Abstract

The study explores the impact of trade liberalization on the economic growth of Nigeria. Trade liberalization is germane because of the increase reality of globalization in recent time and its successes in projecting the economies of China and the Asian Tigers to high growing economies. Amongst other things, trade liberalization promotes economic efficiency, technological diffusion of trade ideas and technology that are growth-inducing, lower consumer prices and increase exports of highly competitive exports. The flip side of trade liberalization however is the possibility of creating unemployment, saturation of domestic markets with poor standards goods and deliberate sabotage of indigenous production technology. The study leveraged on Hecksher-Ohlin (OH) Factor Endowment Theory as basis of Nigeria's adoption of trade liberalization economic policy. The OH theory leverages on factor abundance as drive for trade specialization and exports. The data for the study were collected through secondary sources and were analyzed to validate the study's hypotheses. The results showed while exception of degree of openness and balance of trade, all the variables showed positive impacts on economic growth. In terms of statistical significance, only external trade aligns with the 0.05 statistical thresholds. Base on the findings, the study therefore recommends economic restructuring to internalize the gains of trade liberalization, increase spending on research and development on trade technologies and efficient management of the exchange rate to make Nigeria's exports attractive.

Keywords: Trade, Liberalization, Economic growth, Time Series

INTRODUCTION

The gains from trade when maximized and internalized can put economies on the path of recovery and growth. From earliest times, economists from the Ricardian tradition discover that the gains from trade can be harnessed to drive economic growth when countries lean on their areas of comparative advantage. In the Ricardian framework, specialization, the basis of his theoretical construct, will result in increase total outputs for economies since it engenders efficiency. The Ricardian position resonates with trade liberalization which argues that removal of trade restrictions is the panacea for economic growth. On the contrary, the Mercantilist argues that economies will increase their wealth when they restrict imports to gain more net exports. Lending his voice to the debate on trade openness, Adam Smith frontally dismissed the mercantilist stance on trade restriction and strongly advocates for countries to adopt trade openness on the basis of division of labour which enables increased output in production (Aditya, 2014). Thus, traditionally, the argument on trade runs on two wheels: protectionism and liberalization. Proponents of the two trade policy stances hoped that in their pursuance, economic growth will be achieved.

Over the years, economies of the world, in their drive for economic growth have experimented with either of trade openness or restriction. The countries of Latin American have in the main, inclined more towards restriction citing the need to protect the economy from extreme competition believed to be detrimental to growth of domestic industries and to promote inward industrialization. From their argument, it follows that in the national income equilibrium equation, import is a leakage to the economy (Nwosa, Saibu and Fakunle, 2012).

The empirical and theoretical evidence in support of either trade restriction or openness often clashes and presents mixed conclusions. On the theoretical poles, the New Growth Theory factored in trade openness and FDI flows as main driver of economic growth in their growth matrix. The New growth theorist argues that trade openness will culminates in economic growth since it boost the degree of spillover (Romer, 1990). Arguing for trade, the Neo-liberals aver the potentials of trade openness to champion competition locally and internationally and contend that the opening of the economy to trade jolts firms into efficiency. Agreeing with this position, Elana (2005) endorse removal of trade restrictions as allowing for efficiency in the economy. Thus, a compelling inclination for trade liberalization is enhancement of efficiency and scale economics in production activity (Lawrence, Clem and Nwanneka, 2016).

The popularity and the drive for trade liberalization in recent time is not unrelated to the economic growth experiences of China and the Asian Tigers. Trade openness is instrumental to China's meteoric rise to economic stardom. For instance, New farmer and Sztajerowska (2012) rationalize that the impacts and the input of China in the world's economy grew notably after its economic liberalization. This confirms the earlier position of Dollard and Kraay (2003), contending that the fast development in China is traceable to its trade liberalization policy. In alignment with the preceding views, Qazi (2015), opines that the stupendous economic and financial leapt of China and the Tigers is attributed to their economic openness.

Trade openness broadens the production frontiers of economies beyond their immediate resource endowments. Through trade, spillovers from innovations and knowledge are felt strongly in the industrial spheres of economies, resulting in more output creation and employments, especially for the economies of Africa grappling with development challenges and looking for outlets for growth. While trade liberalization triggers economic growth, in the short run, outward orientation trade police may take tolls on the poor especially (Bittencourt, 2004), however, if properly implemented, trade liberalization allows for rapid economic growth and development. According to FAO (2005) and Chile and Talukder (2013), opening up the economy to external trade spurs growth and development of the economy. When restrictions to trade are removed, it is contended by Lawrence, Clem and Nwanneka (2016) that economic growth performance will be evident through enhanced trade and financial flows. In tandem with the foregoing, Brucker and Lederman (2012) finds that openness to external trade increases economic growth in Sub-Saharan Africa as against protectionist regime which inhibits export growth and diversification (Duru and Okafor, 2020).

While vested interests at home hinges their rationale for trade restrictions on avoiding import dependence and the desire to climbed the economic ladder through home bred industrialization, it is noted by Sarkyi (2011) that no country has grown without trade but admitted that the gains of external trade would depend on macroeconomic management to cushion the short term effect of economic openness on the poor. Economic openness through trade offers greater scope for specialization, increased capacity utilization and import of goods and services (Umoru, 2013). Further, in the literature on open trade, it is agreed that trade creates both static and dynamic gains for economies. The Ricardian comparative advantage notion of trade is pivotal to the static gains

of trade which acknowledges the opportunity cost of production varies among economies, given that nations have differential factor endowments. In contrast, according to Thindwa and Seshamani (2014), dynamic benefits of trade results from increased utilization of resources in production.

In its report on Nigeria, World Development Indicators (2013) explains that trade as a percentage of GDP grew in Nigeria from the pre-liberalization era and rose significantly during the liberalization era. In addition, FDI also exhibits an upward trend during the economic openness era. While considerable contentions are amplified in trade openness and economic growth nexus, with empirical results deeply polarised, the fact of continuous integration of world economies through the lenses of technology and knowledge transfers cannot be disputed. The fact of integration of economies makes trade openness integral to growth and development. While this position echoes the empirical conclusions of Keho & Grace, Wang, (2017); Sakyi et al., (2015a); and Shahbaz, (2012) who reported a positive correlation between trade openness and economic growth, it stood against the empirical conclusions of Malefane and Odhiambo (2019) who suggests an inverse interaction between trade openness and economic growth.

The objectives of this paper is to analyse the Trade liberalization on economic growth in Nigeria. The paper hypothesizes that, Research and development investment does not impact the economic growth of Nigeria (H_{o_1}), Export trade does not affect economic growth of Nigeria (H_{o_2}) and Degree of openness does not impact the economic growth of Nigeria (H_{o_3}). The introduction aside, the remaining parts of the paper is divided into: Section 2, Literature review, Section 3, methodology, Section 4, discussion of results, and Section 5, concluding remarks and recommendations.

LITERATURE REVIEW

Significant empirical studies have gone into establishing the nexus between trade liberalization and economic growth both in developing, emerging and advanced economies. Using different trade liberalization variables, authors present mixed results on the impacts of trade openness on economic growth. The trend of the empirical results arrived at depends largely on factors such the econometric tools employed, the prevailing economic terrain, and the variable tested.

Employing the Autoregressive Distributed Lag (ARDL) econometric framework, Omoke and Oputa-Charles (2021) examine trade openness and economic growth nexus, exploring the role of institutional quality in Nigeria for the periods 1984 to 2017. Their empirical results showed that export trade possess a significant and positive impact on economic growth of Nigeria while import trade affects the economic growth rate negatively. However, the result further confirms that the negative impacts of import trade on economic growth decreases with improvement in institutional quality.

Malefane and Odhiambo (2019) explored the dynamic impact of trade openness on economic growth in Lesotho between 1979 to 2013. Using ARDL approach to long-run analysis and four metrics of trade openness, capturing the role of total trade, exports, imports, and country size and geography in trade, the study unveils that openness of the economy to trade has no significant impact on economic growth in Lesotho. This result applies to both short-run and long-run analyses of the Lesotho economy irrespective of the yardstick of trade openness deployed.

Duodu et al. (2020) examined trade liberalization in Ghana using the period from 1984 to 2018 and incorporating the role of institutional quality. Short-run and long-run estimates from the autoregressive-distributed lag model (ARDL) suggest that trade openness and quality of

institutions have a significantly positive impact on economic growth while the interaction between the two variables has an insignificant impact.

In Nigeria, Olubiyi (2014) and Lawal, Nwanji, Asalege and Ahmed (2016) provide varied results on the interaction of trade openness and economic growth. Olubiyi (2014) investigated the impact of trade components, exports, and imports, on economic growth in Nigeria for the period spanning from 1980 to 2012. The results show that export trade generates economic growth in Nigeria. Lawal et al. (2016) used ARDL estimation technique to examine the existence of a long-run relationship between economic growth, financial development, and trade openness. The results show that the relationship between economic growth and trade openness in Nigeria is negative and significant in the long run but positive and significant in the short run. In a similar study, Nwadike et al. (2020) using the ratio of total trade to GDP concludes that trade openness has a significantly positive impact on economic growth in Nigeria for the period 1970–2011. Employing the Classical Linear Regression Model (CLRM) over the period of 1991 to 2013, Kalu, Nwude, and Nnenna (2016) investigated the impact of trade openness on economic growth in Nigeria. The results revealed that export and net export both had positive and significant impacts on economic growth. However, import had a positive and significant correlation with economic growth.

Moreover, Ajayi and Araoye (2019) used the VECM to investigate the impact of trade openness on Nigeria's economic growth for the period of 1970 to 2016. The result of the cointegration test showed the existence of a long-run relationship among the variables. The findings revealed that trade liberalization had a negative link with economic growth in Nigeria.

Methodology
The study adopts the ex post factor research framework to analyse the impacts of government expenditure on agricultural development in Nigeria. This paper adopt endogenous growth model of (Romer, 1986, 1990), expressed the functional relationship between output (proxy for economic growth), on the one hand, and contributions of labour and capital to growth, on the other hand, as follows:

$$Y = K^a(AL_Y)^b \quad .... \quad (1)$$

Where Y is output, A is stock of knowledge; K and L are capital and labour respectively. a is output elasticity of capital (K), and β is the output elasticity of labour use inclusive of knowledge. Expressing the above function as a logarithmic linear equation translates into:

$$Y = aK + A(1 – a)L \quad .... \quad (2)$$

Where a is share of capital (K) and (1-α = b) is the share of labour (L) in national output (Y).

In this study, resources used for the enhancement of the export sector are used as proxy for capital and L is assumed to be the role of entrepreneurs involved in export and import trade in the economy as an interactive variable. Equation (2) states that the growth rate of the economy depends on the contributions of resources channeled into the export sector and aggregate human labour participation in terms of entrepreneurial activity in the import and export segment of the international trade.

Model Specification
To explore the effects of trade liberalization on economic growth (GDP) in Nigeria, we specify a production function that was adapted from Ojeyinka, and Adegboye (2017) in their submission on the impact of openness to trade on the economic performance of Nigeria with emphasis on the agricultural and manufacturing sector;

$$Y_t = A_t K_t^\alpha L_t^\beta \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (3)$$

Where;
Y_t = overall output of the economy at period t
K_t = capital stock in the economy at period t
A_t = total factor productivity at period t
L_t = stock of labour at period t
α = output elasticity of capital stock
β = output elasticity of labour use inclusive of knowledge

Since the study intends to establish whether trade liberalization impacts growth of the economy via increases in productivity, we assume TFP could be shown to depend on degree of trade openness (DOP), export trade (EXT), research and development investment (RDI), balance of payments (BOP) and exchange rate (EXR) in the Nigerian economy.

The rationale for bringing in these variables is to stem spurious results with respect to the growth model and to endogenize the growth equation. The endogenization of a model rids the model of simultaneity bias (Shan and Sun, 1998). Therefore, the TFP is expressed as:

$$log\text{GDP} = \alpha_0 + \alpha_1 log\text{DOP} + \alpha_2 log\text{EXT} + \alpha_3 log\text{CAP} + \alpha_4 log\text{EXR} + \alpha_5 log\text{BOT} + \alpha_6 log\text{RDI} + \varepsilon_t \dots\dots (4)$$

Where;
GDP = Gross Domestic Product (economic growth indicator)
DOP = Degree of openness (proxy for trade liberalization measured as $\frac{X+M}{GDP}$, where X and M represents exports and imports respectively.)
EXT = Export trade
EXR = Exchange Rate
CAF = Capital formation
BOT = Balance of trade
RDI = Expenditure on research and development proxied by government expenditure on tertiary education as a percentage of GDP
ε_t = Error term

$$\Delta X_t = \mu + \beta_t + \alpha X_{t-1} + \sum_{k=1}^{n} \delta_k \Delta X_{t-k} + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (5)$$

X_t is RGDP_t growth rate, housing financing variables growth rate

$$\Delta X_t = (X_t - X_{t-1}) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (6)$$

Where $\mu, \beta, \alpha, \delta$ represent parameter and ε_t is the error term.

$$Y_t = \mu + \Delta 1 Y_{t-1} + \dots \dots \dots \dots \Delta P Y_{t-p} + e_t \dots\dots\dots\dots\dots\dots\dots \quad (7)$$

In testing the H_o that the separate cointegrating vector is $\leq q$ against a general unrestricted alternatives q = r, the step below is followed:

$$\lambda \text{Trace (r)} = -T \sum In(1 - \lambda_t) \dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (8)$$

Where T is the number of usable observations and λ is the estimated Eigen value from the matrix.

$$Y_t = \beta_0 + \beta_1 X_t - \pi \hat{u}_{t-1} + e_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (9)$$

Equation (9) allows the integration of information at different time periods. In the current model, β_1 represent the measure of the immediate effect a change in X_t will show on Y_t. Conversely, π represents the adjustment effect, and it captures the proportion of the disequilibrium that is been

corrected. Given that $\hat{\mu}_{t-1} = Y_{t-1} - \hat{\beta}_1 - \hat{\beta}_2 X_{t-1}$, it follows, that β_2 is also the long-run response. In equation (9), the model variables are stationary, as they are taken to be I(1) variables, and the residual arising from the levels regression is stationary as well, going by the assumption of cointegration. The ECM is deployed to examine the adjustment speed of the variables as it relates to equilibrium in the long run from the short run disequilibrium disturbance.

$$GDP_t = \sum_{i=1}^{n} \alpha_i \ln DOP_{t-1} + \sum_{j=1}^{n} \beta_j \ln GDP_{t-1} + \varepsilon_{t1} \dots\dots\dots\dots\dots\dots\dots (10)$$

$$DOP_t = \sum_{i=1}^{n} \gamma_i \ln GDP_{t-1} + \sum_{j=1}^{n} \theta_j \ln DOP_{t-1} + \varepsilon_{t2} \dots\dots\dots\dots\dots\dots\dots (11)$$

Equation (10) shows that the current GDP is correlated with DOP or DOP$_{t-1}$ as well as GDP$_{t-1}$, given i and j as the time lags and α and β as coefficients, while ε_{t1} represents the disturbance term and n, the number of lag terms included.

Similarly, equation (11) projects that the current DOP$_t$ is associated with DOP$_{t-1}$ or GDP$_{t-1}$, and the same analysis in equation (10) is true for equation (11). β, α, γ and θ represents the coefficients, and ε_1 and ε_2 represents the disturbance terms, taken as uncorrelated, t connotes the time series parameter of the regression. In equation (10), H$_o$: $\beta = \alpha = 0$ is tested against H$_1$: $\beta \neq 0$ and $\alpha \neq 0$. When β is significant but not α, then we conclude GDP causes DOP. Conversely, then DOP causes GDP. However, if both coefficients are significant, there is said to be bidirectional causality between the variables. The same steps are followed for equation (11) and the others independent variables. The F-statistic ratios are employed to establish the causal path premised on the significance level of the unrestricted OLS regression.

   A Priori Expectation: $\alpha_1 - \alpha_6 > 0$.

EMPIRICAL RESULTS
Data Analysis

Table 1: Descriptive Statistics

	GDP	DOP	EXT	EXR	CAF	BOT	RDI
Mean	51542.62	48.36106	3706933.	68.41834	3185.202	13.20481	136.2559
Median	38777.00	38.75300	1748017.	29.19000	1823.175	5.050000	57.96000
Maximum	224797.0	197.0731	15002868	157.4994	10281.95	84.54000	1359.000
Minimum	21680.20	9.135846	8920.600	0.000000	108.8000	0.750000	0.230000
Std. Dev.	42699.19	43.04573	4316471.	59.70784	3448.334	18.49325	268.5110
Skewness	2.587451	2.669715	1.130336	0.221707	0.899691	2.469615	3.713510
Kurtosis	10.33732	8.951059	3.304786	1.259219	2.307003	9.338932	17.26242
Jarque-Bera	104.1288	90.55989	7.371675	4.033670	4.647529	72.65032	290.8995
Probability	0.000000	0.000000	0.025076	0.133076	0.097904	0.000000	0.000000
Sum	1597821.	1644.276	1.26E+08	2052.550	95556.07	356.5300	3678.910
Sum Sq. Dev.	5.47E+10	61146.84	6.15E+14	103385.8	3.45E+08	8892.012	1874552.
Observations	31	34	34	30	30	27	27

Source: **Author's Computation Using EVIEW 9, 2021**

From Table1 shows the result of GDP and EXT exhibits high mean values. The mean values however trended downwards, starting from CAF, RDI, DOP and BOT. Again, like their mean values, GDP and EXT showed high standard deviations, which indicate a high disparity with their individual mean values. This is followed by CAF, RDI, EXR and DOP. It can also be verified that BOT showed the smallest standard deviation, connoting it has a close proximity to its mean value. All the variables are positively skewed with RDI showing the highest skewness.

Table 2: Unit Root Test

Variables	ADF Test	Mackinnnon Critical Values			Stationarity level
GDP	-8.689109	-4.394309	-3.612199	-3.243079	I(1)
DOP	-30.20335	-4.284580 1%	-3.562882 5%	-3.215267 10%	I(1)
EXT	-7.671251	-4.284580	-3.562882	-3.215267	I(1)
EXR	-4.674635	-4.394309	-3.612199	-3.243079	I(1)
CAF	-5.985101	-4.394309	-3.612199	-3.243079	I(1)
BOT	-6.814608	-4.498307	-3.658446	-3.268973	I(1)
RDI	-7.935875	-4.394309	-3.612199	-3.243079	I(1)

Source: **Author's Computation Using EVIEWS 9, 2021**

The Unit Root test is intended to make the data stationary. Stationarity of data ensures stability of the data for meaningful analysis and inferences. The data are differenced at level I(0), first I(1) and second I(2) difference. The test is conducted to validate the absence of unit root in the data employed in the study. The null hypothesis (H_o) of the test posits the existence of a unit root process against the alternative hypothesis (H_1) of no unit root. As a rule, the presence of unit root or otherwise is determined through comparison of the ADF test statistic and the Mackinnon Critical value at the specified level of significance. Unit root is said to be present when the Mackinnon critical value exceeds the ADF test statistic, otherwise, the data is free from unit root.

From the result of the unit root test in table 2, all the variables were stationary at their first difference I(1) at the 1 percent, 5 percent and 10 percent level of significance. The evidence of stationarity of data makes the data fit for further estimation. The data are stationary suggests that they all revolve around a constant mean value, had finite variance and exhibits a tendency to revert back to mean value equilibrium at the instant of a disequilibrium. Thus, we can proceed with the cointegration test procedure which establishes the long run relationship between variables in an economic model.

Cointegration Test Result

Cointegration test allows us to validate the presence of long run relationship between variables in an economic model given that the variables have stochastic trend. The test is designed to establish whether the predictor variables can predict the dependent variable in the short and long run respectively. The null hypothesis (H_0) of the test indicates that there is no cointegration among the variables. The decision criteria based upon this test is: if the trace statistic and maximum Eigen value is greater than the critical value then we reject null and accept alternative hypothesis. The details of the tests are presented in table 3

Table 3: The Co-integration Test Based on Trace Statistic

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05% Critical Value	Prob**
At None*	0.999934	534.8261	150.5585	0.0000
At most 1*	0.990890	313.5272	117.7082	0.0000
At most 2*	0.973097	205.4631	88.80380	0.0000
At most 3*	0.898060	122.3061	63.87610	0.0000
At most 4*	0.819598	69.78869	42.91525	0.0000
At most 5*	0.621610	30.39964	25.87211	0.0127
At most 6	0.295237	8.047563	12.51798	0.2478

Source: **Author's computation Using EVIEW 9, 2021**

From table 3, we reject the null hypothesis of no long run relationship among the variables given that the value of Trace statistic (534.826) at None, is greater than its critical value (150.559). The same conclusion can be said for At most 1 to At most 5. In effect, the alternative hypothesis which concludes that there was a long run relationship among the variables is accepted. This result is also corroborated by their respective probabilities values (0.0000, 0.0000, 0.0000, 0.0000, 0.0000 and 0.0127) all of which are under the 5 percent level of significance, further validating the existence of a long-run relationship among the variables under consideration. Based on the result in table 3, there are six cointegrated variables, revealing cointegration among the variables in at least six equations and thus we conclude the existence of a positive and significant long run relationship between economic growth (GDP) and the explanatory variables at 5 percent level of significance within the study's time frame.

Table 4: Unit Root Test on Residual (ECT)

Variable	ADF	Mackinnon Critical Values			P-value	Order of Integration
		1%	5%	10%		
Residual (ECT)	-28.70041	-4.416345	-3.622033	-3.248592	0.0000	I(0)

Source: **Author's Computation Using EVIEW 9, 2021**

From the result of the residual (ECT) unit root test in table 4, it is stationary at the 1 percent, 5 percent and 10 percent level of significance at level and we therefore conclude that there is long-run equilibrium relationship between GDP and the explanatory variables. In other words, on the long-run, degree of openness (DOP), export trade (EXT), exchange rate (EXR), capital formation (CAF), balance of trade (BOT) and research and development investment (RDI) has significant effect on the economic growth of Nigeria. The residual P-value of 0.0000 is statistically significant at the 1 percent, 5 percent and 10 percent level of significance and this implies that there is short run equilibrium relationship between GDP and the explanatory variables and hence we can run the Granger causality test and an Error Correction Model (ECM) to confirm that the deviations from a long run equilibrium influences its short run dynamics.

Pairwise Granger Causality Results

The results of Pairwise Granger Causality test is presented in the table 5 below.

Table 5: Results of Granger Causality Test

Null Hypothesis	Obs	F-Statistics	P-Value	Decision
DOP does not Granger Cause GDP	23	0.48361	0.6983	Accept Null
GDP does not Granger Cause DOP		0.10758	0.9544	Accept Null
EXT does not Granger Cause GDP	23	1.18492	0.3468	Accept Null
GDP does not Granger Cause EXT		2.70149	0.0803	Accept Null
EXR does not Granger Cause GDP	22	5.91281	0.0072	Reject Null
GDP does not Granger Cause EXR		0.14424	0.9318	Accept Null
CAF does not Granger Cause GDP	22	0.99942	0.4201	Accept Null
GDP does not Granger Cause CAF		0.74675	0.5409	Accept Null
BOT does not Granger Cause GDP	22	1.11482	0.3742	Accept Null
GDP does not Granger Cause BOT		11.6927	0.0003	Reject Null
RDI does not Granger Cause GDP	22	0.39610	0.7577	Accept Null
GDP does not Granger Cause RDI		0.39238	0.7603	Accept Null

Source: **Author's computation Using EVIEW 9, 2021**

The granger causality framework allows us to test the null hypothesis (H_o) of non-causality against the alternative hypothesis (H_1) of causality of variables. It measures the causal effect or the

forecasting power of one variable on another. The results in table 5 show unidirectional causality between EXR and GDP, and between GDP and BOT. This conclusion is validated by their p-values of 0.0072 and 0.0003 respectively. This result in essence means that the variables EXR and BOT allow us to forecast the behaviour of GDP which represents economic growth in this study. Further, we fail to accept the null hypothesis that DOP does not granger cause GDP and vice versa given their respective p-values of 0.6983 and 0.9544. The same reasoning applies to EXT and GDP, CAP and GDP, and RDI and GDP all implying independence.

Regression Analysis
The performance of each of the predictor variable in our empirical model on the dependent variables is evaluated through the tool of regression analysis. Regression analysis helps us to see how each of the predictor variable impacts the dependent variable explicitly from the signs and the magnitude of their coefficients. From the regression output, DOP against the apriori expectation of a direct impact on growth, retards economic growth. It reduces the growth rate of the economy by 432.2 percent. Also, from the p-value posted by DOP, it failed the test of statistical significance since its p-value from the result of regression is above the 0.05 percent threshold. Following this result, we fail to reject the null hypothesis three (H_3) of this study which states that the degree of openness does not impact economic growth of Nigeria. In the same vein, contrary to the theoretical premises of our economic model which posits a positive relationship between BOT and GDP, the result showed otherwise. BOT from the empirical result was negatively signed, meaning in the main that, it contracts economic growth of Nigeria during the period under investigation. In like manner with DOP, its p-value of 0.5289 is higher than the benchmark for statistical significance. Hence, BOT, like DOP is not significant in its relationship with economic growth in Nigeria.   The negative effect of BOT on economic growth may be attributed to the falling terms of trade which is characteristic of the trade relationship between developed and developing economies over time wherein imports from developed economies by developing economies often exceeds export to them.

In agreement with the theoretical postulation of the model, EXT exerts a positive influence on economic growth of Nigeria as evidenced by its positive coefficient of 0.01. A change in the value of EXT triggers a corresponding growth in GDP by 0.01 percent. Again, and unlike DOP and BOT, EXT is statistically significant in its impact on economic growth. This conclusion is validated by its p-value of 0.033 which aligns with the acceptable benchmark for statistical significance at the 0.05 percent level. This result allows us to reject the null hypothesis two (H_2) of the study which states that external trade does not impact economic growth of Nigeria and accepts the alternative hypothesis instead of the impact of external trade on economic growth of Nigeria.

Again, CAF and RDI passed the apriori expectation of a positive relationship with economic growth (GDP). A change in this variables impacts economic growth of Nigeria by 7.45 and 1.83 percent respectively. This outcome buttresses the role of capital formation and research and development investment or spending in boosting the economic growth process. Their p-values however fail to align with the 0.05 percent benchmark for statistical significance. Given the p-value of 0.8764 for RDI, we fail to reject the null hypothesis one (H_1) of the study which states that research and development investment does not impact the economic growth of Nigeria.

The regression result also showed that the predictor variable EXR is positively signed, implying that it boost economic growth. In concrete terms, it contributed 133.7 percent to the economic growth process. This represents the largest single contribution by an individual variable in the model and the positive effects of EXR on GDP confirm the view that exchange rate appreciation reflects in prices and thus results in increase exports value and hence economic growth. Despite

the quantum of contribution however, EXR going by its p-value is not significant in its impact on economic growth of Nigeria within the time dimension of the study.

The error correction term is correctly signed (negative sign), found to be high (0.987 per cent) and statistically significant at 5 percent level as revealed by its p-value of 0.0000. This term measures the speed at which the endogenous variable (GDP) adjusts to changes in the explanatory variables (DOP, EXT, EXR, CAF, BOT and RDI) before converging to its equilibrium level. A significant error correction term implies that the adjustment process to restore equilibrium is very effective. Further, a relatively high error correction coefficient implies a faster adjustment process and measures the proportion of disequilibrium that dissipates in the growth process.

The regression result reports R^2 of 0.86 percent, which means that the predicator variables accounted for 86 percent of the changes in the dependent variable (GDP), while the balance of 14 percent is explained by the error term. The error term represents other influences on the dependent variable that are not explicitly shown in the model. Based on the R^2 value, we conclude that the model has sufficient explanatory power to explain the economic growth process in Nigeria. The high R^2 also suggest the model's goodness of fit. The predictor variables collectively are significant in determining the economic growth of Nigeria as can be verified from the Prob(F-statistic) of 0.0000. This result allows us to validate the positive impact of trade liberalization on economic growth of Nigeria

DISCUSSION OF FINDINGS
The world's economies are increasingly integrated through the vehicle of trade. Hence, trade policies with bias for liberalization are fast becoming popular economic growth drivers. This is coming against the background of the achievements of China and the Asian Tigers with the policy of trade liberalization. Integration of economies through trade openness is argued to results in improvement in economic efficiency, technological transfers and diffusion of ideas and lower prices that benefits the consumers. It was noted in the findings that the past two decades have witnessed increase integration of the developing economies to the global economy and through this; the global economy has grown by approximately 6 percent annually. Again, over the course of the past two decades, trade among developing economies as result of trade integration have soared by over 40 percent and while this increase in trading activities has increased the growth prospects of this economies, counter arguments about the gains of trade openness persists. Antagonist of trade liberalization contends that it results in unemployment, inflow of low quality goods and services into the domestic markets of the developing economies and it suppresses endogenous technology in domestic production efforts. While these concerns about the disservice of trade liberalization on the economies of developing countries especially are genuine and the policy should be pursued with caution, the concerns will be non-existent if the proper economic restructuring is undertaken before the application of the policies of trade openness. And viewed against the backdrop of the experiences of the South East Asia with trade liberalization, the growth potentials of trade openness are not far-fetched. For instance, from the findings, tariff rates in these East Asia economies has fallen from 30 to 20 percent over the past two decades resulting in fast integration of their economies. This trend toward trade integration has resulted in the reduction of the number of absolute poor in these economies by over 120 million over these time periods.

The theories examined in this study upheld that trade liberalization leads to economic growth. The effect of trade openness from the empirical findings of this study however collides and diverged with the projections of these theories on trade openness. The negative effect of trade openness on the economy of Nigeria from the findings of this study may be attributed to the unfavorable trade terms that typify the trade relationship between developing and developed economies. This

finding coincides with those of Keho and Grace-Wang (2017) for Cote d'ivoire, Malefane and Odhiambo (2019) for Lesotho, Tang et al, (2019) for the Island of Mauritius and Elisha and Musa (2019) for Nigeria. These studies found, like this one, a negative impact of trade openness on economic growth. Contrary to these results however, the studies of Nwabisa and Hlalefang (2017) for Ghana, Nwadike et al. (2020) for Nigeria and Akanebu (2018) also for Nigeria found a positive and significant relationship of trade openness with economic growth. Following closely with this result, is the finding that balance of trade retards economic growth in Nigeria. A result attributed to unbalanced trade flows between Nigeria and her trade partners in the period under consideration.

As a rule, trade openness starts with the removal, relaxations and reduction of trade barriers such as tariff that constrains free flow of trade across economies. Effective relaxations of trade barriers increase the volume of export trade. From the result of this study, export trade was a significant driver of economic growth. This conclusion agrees with those of Omole and Oputa-Charles (2021), Olubiyi (2014) both for Nigeria, and Shahbaz (2012) for Pakistan. Omole and Oputa-Charles in their study however concluded that for trade liberalization to make impact and drives economic growth in Nigeria, institutional quality of the economy must be factored in.

It was also observed from the result of the findings that while some variables such as exchange rate, capital formation and research and development investment positively affects the economic growth of Nigeria, they were found not significant in these impacts. The performance of exchange rate in this study dovetail with that of Echekoba, Okonkwo and Adigwe (2015) who found that exchange rate does not have significant impact on the economic growth of Nigeria. In disagreement with this finding on exchange rate however, Ude and Agodi (2015) in their study concluded that exchange rate exerts a significant positive effect on economic growth of Nigeria.

In conclusion, while it was obvious from the findings that some of the trade liberalization variables underperformed and others hurts economic growth, trade liberalization when well tailored, followed and streamlined with economic restructuring, integrate Nigeria economy properly into the global economy, slashed down the population of the poor and holds great potentials for the economic growth of Nigeria.

RECOMMENDATIONS

Following the findings and conclusions of the study, the study recommends:
  i.   Economic restructuring to internalize the gains of trade liberalization and make it harmless to the Nigerian economy.
  ii.   Increase spending or investment in research and development of trade technologies to optimize the gains from trade.
  iii. Efficient management of the exchange rate to make Nigeria's exports attractive to trading partners.

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