Impact of Institutional Quality and International Trade on the Performance of the Nigerian Economy

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Abstract
This study investigates the effect of institutional quality and international trade on the performance of the Nigerian economy, measured by real gross domestic product (RGDP). The independent variables examined include exchange rate (EXR), corruption perception index (CPI), exports (EXP), imports (IMP), government effectiveness (GE), and gross capital formation (GCF). Stationarity of the data was confirmed using the Augmented Dickey-Fuller (ADF) test, which showed that all variables were stationary at level [I(0)]. Consequently, the Ordinary Least Squares (OLS) regression technique was employed. The empirical results indicate that exports, imports, and gross capital formation have statistically significant positive impacts on RGDP, while exchange rate and government effectiveness show negative but insignificant pact on RGDP. Similarly, the corruption perception index was found to have an insignificant negative relationship with RGDP, suggesting that perceived corruption may dampen growth. The study recommends policies aimed at boosting trade performance through export diversification, minimizing reliance on consumer goods imports, increasing capital investment in productive sectors, and strengthening institutional frameworks to reduce corruption and improve economic governance.

Keywords: Real Gross Domestic Product, Exchange Rate, Corruption Perception Index, Exports, Imports

Introduction
The optimal performance of economic activities of both developed and developing countries are products of improved levels of institutional quality as countries operate through institutions that function to implement contractual agreements and property rights that are in line with the legal framework of the country. Improvement of institutional quality is an indication of a good governance system that operates based on extant laws of a country (Samson & Edewhor, 2025). Carlos et al., (2021) maintained that it is crucial for countries to align with improved and better institutional quality in order to attract governance effectiveness to define high performance of an economy. This was affirmed by Wu et al. (2012) that asserts that governance effectiveness that emanates from strong institutional quality has the tendency to lower transaction costs and create an effective atmosphere for business activities, which can further better trade agreements among countries. Institutional quality refers to the level of productivity and credibility of existing institutions to function in a manner that benefits the general interest of all in a community (Samson & Edewhor, 2025). Institutional quality is determined by the level of application of the rule of law, functioning of the price mechanism which defines the level of economic freedom, enforcement of property rights, adjustable labour markets, and an economic system that bolsters up the ease of doing business. The role of institutions in administration of a country's economic engagements including international trade management through policies is vital. Abubakar (2020) contended that the role of institutions in an economy is important as they depict the operational capacity of the economy through policies and commitments made to enforce and implement government policies. Samson and Edewhor (2025) argued that institutions offer the opportunity and platform to generate social and political dynamics that are vital for the growth of an economy.

International trade is the exchange of goods (visible trade) and services (invisible trade) between two or more countries. Its basis has been argued to be differences in relative opportunity cost of production of similar goods among

countries as revealed by the theory of comparative cost advantage principle. This aims to attract specialisation in production to optimize the world's output. International trade is pertinent to the existence of globalization (Abraham, 2020). Countries will be restrained in accessing goods and services produced outside their borders without international trade and the benefits of international trade have been a key influencer of economic growth for the last half of the century (Abraham, 2020). The world has increasingly turned into a global chain, and as such share the same interest, especially in the areas of trading goods and services financially. This has greatly contributed to the views that favour trade liberalisation. Globalization has paved the path for countries to transact in goods and services, create a medium to enable countries to integrate financially to ease the flow of financial resources, establish firms and integrate labour markets, and means of providing information and expertise that are crucial to economic agents (Anthony et al., 2009).

Nigeria has had various trade engagements since her pre-colonial era with other nations aimed at accessing the gains of trade. For instance, before the oil boom in the 1950s, Nigeria's chief source of income was agriculture: essentially the exports of commodities such as groundnuts, palm oil, cocoa, and palm kernels. Mike and Okojie (2012) opined that Nigeria is an open economy with external transactions making up part of its total national income. Ogbaji and Ebebe (2012) maintained that the government of Nigeria like many emerging countries has stuck deeply in international trade to enhance growth in the economy, because of the belief that trade can generate jobs, increase market size, make products available, raise income, encourage competition, and share skills and knowledge. Moreover, integration into the World's economy and trade is essential for development, employment creation, and reduction of poverty (UN, 2013). Herath (2014) conceived that one cardinal goal of international trade has been the quest to create employment or to reduce the level of unemployment. The benefits of job creation and increase in investment associated with international trade in the long-run increase the size of the gross domestic product (GDP) of a country. For instance, In Saudi Arabia, the National Development Fund (NDF, 2023) asserted that growing the size of the GDP of a country via the channel of international trade is essentially concerned with influencing the level of exports and imports. It further stressed that the decision to increase exports is crucial to enable the country to compete with the world market and in the long-run increase the size of economic growth. This mechanism is better explained in the multiplier process.

The performance of an economy defines the volume and the level of production engagements of a country which largely depends on the quality of institutions in formulating and enforcing government policies and programs in the course of managing the economic activities of a country. This was affirmed by Magomed (2023) that institutions coordinate the economic operations in diverse ways that result in the path of economic growth. One channel to achieve this in Nigeria is via international trade. Nigeria is an open economy and as such has a good number of trade partners across developed and developing countries through her trade liberalisation policies that has consolidated her commitment to enhance and restructure the country's external trade. Lloyds Bank (2025) based on a report of World Bank (2023) maintained that trade openness in Nigeria contributes 26% to her gross domestic product. Nigeria's exports are basically petroleum products such as oils and gas which accounted for 90% of the country's visible exports and 3.4% were from the export of boats (National Bureau of Statistics, 2022). The National Bureau of Statistics (NBS) (2022) also reported that Nigeria made a significant level of import scoring 40% from minerals followed by machinery scoring 16.9%, and finally followed by chemical and vehicles recording 8.6% and 6.5% respectively (NBS, 2022). A critical assessment of the above reports shows that Nigeria has failed to impact its GDP from the contribution from exports of non-petroleum products which depicts the volume of low domestic production. Additionally, the significant 40% imports of machinery depict the failure of extant institutions to operate on good governance ethics to harness the country's resources through formulation and implementation of policies to provide the legal framework to promote investment, lower transaction costs, attracting foreign direct investment, promoting trade flows, efficiency, minimizing corruption and instability that can discouraging potential investors. Therefore, a study on how institutions operate through the international trade nexus to impact economic growth of Nigeria is critical since the country's income base is rooted in international trade particularly the exports of petroleum products. Therefore, the main objective of this study is to investigate the impact of institutional quality and international trade on the performance of the Nigerian economy for the period between 1986 to 2023. Additionally, in the literature, there are several studies that have assessed the link between international trade and economic growth. The innovation of the present study that defines the study unique is by bringing in institutional quality variables like corruption perception index (CPI) and government effectiveness (GE) as additional explanatory variables together with key international trade variables such as imports, exports, exchange rate, and a Control variable gross capital formation as explanatory variables from the

previous study by Okechukwu and Okwu (2021) to predict the dependent variable, economic growth. This is because institutions play a major role in coordinating domestic production and international trade engagements with decision-making and enforcement of contracts and property rights.

Economic growth is a function of productive investment learned from the Keynesian theory of investment. This is why the role of capital accumulation is highly argued in the literature to increase investment to enhance economic growth. In this regard, Roy Harrod (Harrod,1939) and Evsey Domar (Domar, 1946) commonly referred to as the Harrod-Domar models are highly significant in explaining the role of an increase in the stock of capital (capital accumulation) and output capacity to the increase in the level of stock of capital (capital-output ratio) in an economy. With a given level of capital for instance $100 and a production function that shows the output is a product of capital stock and productivity factor, 2, output will be $200. Thus, if the economy invests an extra $50. This results in an increase in investment to $150 to further increase output to $300. Based on the Harrod-Domar growth model, if both savings and investment are equal, economic growth will not be increased except with the given level of savings, increasing the size of investment will increase the level of output in the economy. However, developing countries will be constrained to increase the size of the stock of capital due to underdevelopment in their financial system, low income, poor state of human capital development, shortage of research and development (R&D), etc. This is why these countries could leverage and rely on government policies to induce foreign capital inflow to enhance investment to increase economic growth.

Also, the Recardian theory of comparative advantage is one of the theories of international trade introduced by David Ricardo (Ricardo, 1817). The theory puts forward a strong debate that as much as nations enjoy a comparative advantage in the production of goods and services they stand to benefit from specialization and trade (Dwivedi, 2014). A country gains a comparative advantage when it can produce a commodity at a lower opportunity cost. This enables the country to shift focus from the production of the commodity at a relatively higher opportunity cost to the production of the commodity at a lower opportunity cost through specialization. The production capacity of both countries increases to shift their production possibility frontiers (economic growth) as the countries involved increase their exports of specialized commodities and imports of unspecialized commodities. This study therefore is built on the Harrod-Domar growth model that emphasizes the role of an increase in additional stock of capital to increase the size of economic performance.

Pedagogically, there are vast studies on the impact of foreign trade on economic growth. For instance, Bisong et al. (2025) investigates the impact of institutional quality and trade openness on the performance of Nigeria's economy. The study relied on the ARDL and the parsimonious ECM to analyze the time series data for the period from 1996 to 2022. The study's results showed the existence of a long-run relationship between institutional quality, economic performance and trade openness. Therefore, they further argued that institutional quality effect is vital for high level performance of an economy. This is why developing countries like Nigeria should build strong institutions that help to formulate, implement and enforce both trade and non-trade contracts and property rights to attract high economic performance. This is because countries with poor institutional quality do not only attract high cost of trade but also attract low performance of their economies (Bisong et al., 2025; Acemoglu & Robinson, 2012). Olurin and Osunkoya (2025) investigates the role of institutional quality on economic through international trade in Nigeria for the period from 1991 to 2021, applying the ARDL technique on the times series secondary data. The study established that institutional quality interacts directly with external trade to impact Nigeria's economic growth significantly.

Orisadare and Ayoade (2024) examined the link between international trade and institutional quality on economic performance in terms of improving peoples' access to goods and services in Nigeria for the period between 1981 - 2022 applying the ARDL method on the time series data. The results showed that in the short-run, exchange rate impacts people's access to goods and services insignificantly though positive but institutional quality impacts people's access to goods and services significantly and negatively. Sunday et al. (2023) examined the link between international trade and economic growth using the auto-regressive distributed lag (ARDL) in Nigeria for a period between 1981 to 2019. The study showed that international trade significantly impacted Nigeria's economic growth and recommended that the government should make efforts to increase both visible and invisible exports and discourage imports through the provision of subsidies and incentives to domestic firms.

Sebil and Olalekan (2022) assessed the effect of institutional quality on trade in the ECOWAS for the period from 2000 to 2008, using the negative binomial pseudo-maximum likelihood estimator (NBPML) on the data. The results

showed that institutional quality variables impact positively and significantly on trade flows to further enhance the performance of ECOWAS. economies. Furthermore, the findings also showed that trading of member states in the region has been enhanced as both exporting and importing countries, minimize corrupt practices, operates on the rule of law, and attracts government effectiveness. Kehinde (2017) studied the nexus between international trade and economic growth in Nigeria using an augmented Dicky-Fuller (ADF) unit root test and Granger causality test on the variables. The results showed that international trade impacts gross domestic product positively. Okechukwu and Okwu (2021) investigated the effect of international trade on economic growth of Economic Communities of West African States (ECOWAS) between 2000 to 2018 using a fixed effect Model in panel data. The results showed that real gross domestic product (RGDP), imports, exchange rate, and balance of payment significantly explain economic growth of these countries except gross fixed capital formation insignificantly impact on their economic growth. It, therefore, recommended that the countries in the sub-region should employ modern technology to process their inputs into producer goods to increase production and the size of exports within the sub-region. Carlos et al. (2021) investigates the role of institutional quality on exports of Colombia using the trade gravity model. The study's results showed that institutional quality negatively impacted the exports of Colombia. Su et al. (2019) argued that international trade that is strengthened by improved institutional quality, contributes to high performance of an economy which is common in developed countries evidenced with their trade benefits. Bisong et al. (2025) contended that institutional quality is a vital result to trade gains in a country due to its essential role it plays in redirecting trade benefits.

Methodology
This aspect of the study discusses the method applied in the research. It encompasses the research design, variables used in the study, their array and model specification and estimation technique in the course of investigating the impact of institutional quality and international trade on the performance of Nigeria's economy within the scope of the study. The study relies on retrospective research design also known as ex post facto or causal comparative research design. This is because the analysis of the data is based on pre-existing time series secondary data, which are not randomly selected, that is essentially concerned with cause-effect analysis between explanatory variables and the explained variable, and is not feasible to influence the explanatory variables.

Model Specification and Formulation
The models used in this study were adapted from the models of Okechukwu and Okwu (2021) with some modifications. To indulge in the empirical analysis of institutional quality interacting with international trade to explain the performance of Nigeria economy, the connection between the explained variable and explanatory variables are stated first in functional specification, second in statistical specification, and thirdly in econometric specification in the models below:

Functional Model Specification
$RGDP = f(GE, CPI, EXP, IMP, EXR, GCF)$
Statistical Model Specification
$RGDP = a + aGE + aCPI + aEXP + aIMP + aEXR + aGCF$
Econometric Model Specification
$RGDP = a_0 + a_1GE_t + a_2CPI_t + a_3EXP_t + a_4IMP_t + a_5EXR_t + a_6GCF_t + E_t$
Where RGDP is real gross domestic product to measure economic Nigeria's economic growth, EXP is the volume of exports, IMP is the volume of imports, EXR is the exchange rate measured as the local exchange rate to the US dollars, GCF is gross capital formation expressed as share of RGDP, GE is government effectiveness, CPI is corruption perception index, while t is the time periods and U is the error term.

Model Estimation Technique
To investigate institutional quality and international trade impact on economic growth in Nigeria, this study employs the ordinary least squares (OLS) multiple regression techniques which align with the classical linear regression model to estimate the coefficients of the variables in the regression equation. The choice of this method in this study is due to its unique properties of being unbiased and efficient and with lower variance in the regression coefficients. Besides, the variables in the study were confirmed to stationary at level.

Data and Sources of Data

The data for this study is a time series data sourced from the World Bank and Central Bank of Nigeria statistical bulletin for a period of thirty-seven years from 1986 to 2023. The data captures variables such as real gross domestic product (RGDP), exports (EXP), imports (IMP), exchange rate (EXR), gross capital formation (GCF), government effectiveness (GE), and corruption perception index (CPI).

Results

The analysis and presentation of the collected data are presented. After then, pertinent data for the study were gathered and filtered in order to be further examined and analysed. In light of the objectives of the study, this chapter analyses the data collected for the research project and evaluates the results using least squares.

Table 1: Descriptive Statistics Table

	RGDP	EXP	CPI	GCF	EXR	GE	IMP
Mean	2.33E+11	43.85476	-1.161029	5.06E+10	144.7120	-1.050329	154.8598
Median	1.56E+11	31.55319	-1.120858	3.96E+10	127.2299	-1.032065	171.9492
Maximum	5.74E+11	146.3670	-0.900949	1.46E+11	645.1941	-0.897212	320.0953
Minimum	2.78E+10	2.876809	-1.502068	1.23E+10	1.754523	-1.213329	47.44569
Std. Dev.	1.90E+11	38.15104	0.134875	3.35E+10	143.7604	0.094163	84.73646
Skewness	0.334032	0.940686	-0.827821	0.955961	1.463987	-0.160378	0.125168
Kurtosis	1.442132	3.012512	3.510646	3.222751	5.295459	1.876056	1.679349
Jarque-Bera	4.549331	5.604550	3.126987	5.866349	21.91676	1.423058	2.860748
Probability	0.102831	0.060672	0.209403	0.053228	0.000017	0.490893	0.239219
Sum	8.87E+12	1666.481	-29.02573	1.92E+12	5499.055	-26.25822	5884.672
Sum Sq. Dev.	1.34E+24	53853.57	0.436588	4.16E+22	764680.7	0.212799	265669.9
Observations	38	38	25	38	38	25	38

Source: EViews 10.0 output (2025)

The descriptive statistics indicate that Real Gross Domestic Product (RGDP) has a mean value of ₦233 billion, with a wide range between the minimum value of ₦27.8 billion and the maximum value of ₦574 billion, reflecting a high standard deviation of ₦190 billion. This large spread and the positive skewness (0.334) suggest a right-tailed distribution, where a few high values significantly influence the average. Exports (EXP) have a mean of 43.85, with values ranging from 2.87 to 146.37, and a standard deviation of 38.15. This shows substantial variability in export values, which may be attributed to fluctuating commodity prices or global demand.

The Corruption Perception Index (CPI), which is a negative value index (higher negativity indicating worse corruption perception), has a mean of -1.16 and a relatively low standard deviation (0.13). The negative skewness of -0.82 shows that the CPI values are left-skewed, with most observations clustered toward the less negative end. Gross Capital Formation (GCF) displays a mean of ₦50.6 billion and a high standard deviation of ₦33.5 billion, revealing large variations in investment levels. Its skewness (0.96) and kurtosis (3.22) reflect a moderate right skew with slight leptokurtosis. The Exchange Rate (EXR) has the highest standard deviation (143.76), with a wide range from 1.75 to 645.19, which mirrors the instability and frequent devaluation of the local currency. The strong right skewness (1.46) and high kurtosis (5.29) denote a highly asymmetrical and peaked distribution. Government Effectiveness (GE) has a mean of -1.05 with a relatively low standard deviation (0.09), indicating consistent values across the observation period. The distribution is nearly symmetrical (skewness = -0.16) and moderately flat (kurtosis = 1.88).

Lastly, Imports (IMP) have a mean of 154.86 and a standard deviation of 84.73, suggesting considerable variability. The skewness is 0.12 (almost symmetrical), while the kurtosis is 1.67, indicating a flatter-than-normal distribution.

Table 2: Correlation matrix

	RGDP	EXP	CPI	GCF	EXR	GE	IMP
RGDP	1.000000	0.710620	0.482268	0.808613	0.630793	-0.519853	0.871271
EXP01	0.710620	1.000000	0.306663	0.408006	0.223091	-0.287205	0.718443
CPI	0.482268	0.306663	1.000000	0.461984	0.353871	-0.374027	0.548891
GCF	0.808613	0.408006	0.461984	1.000000	0.749648	-0.482059	0.596463
EXR	0.630793	0.223091	0.353871	0.749648	1.000000	-0.366557	0.348431
GE	-0.519853	-0.287205	-0.374027	-0.482059	-0.366557	1.000000	-0.523128
IMP	0.871271	0.718443	0.548891	0.596463	0.348431	-0.523128	1.000000

Source: EViews 10.0 output (2025)

The correlation matrix in Table 2 shows the pairwise Pearson correlation coefficients among the variables. Starting with RGDP, it exhibits a strong positive correlation with Imports (0.8713), Gross Capital Formation (0.8086), and Exports (0.7106). This implies that as economic output increases, imports, capital investment, and exports tend to rise as well—indicative of a growing, globally integrated economy. It also shows a moderately strong correlation with Exchange Rate (0.6308) and a weaker, but still positive, correlation with CPI (0.4823). Exports (EXP) positively correlate with Imports (0.7184) and RGDP (0.7106), reflecting the interdependence between trade flows and national output. The correlation with CPI (0.3067) and GCF (0.4080) is relatively weak, indicating a modest link. The low correlation with EXR (0.2231) implies limited sensitivity of exports to exchange rate fluctuations in the studied context.

CPI (which increases as corruption perception worsens) has a moderate positive correlation with RGDP (0.4823) and Imports (0.5489), possibly indicating that as economic activity increases, so does perceived corruption. Its negative correlation with GE (-0.3740) confirms that perceived corruption rises as government effectiveness falls. The correlations with GCF (0.4620) and EXR (0.3539) are moderate, suggesting some influence of corruption perception on investment and currency value. Gross Capital Formation (GCF) is highly correlated with RGDP (0.8086) and EXR (0.7496), indicating that capital investments rise in tandem with economic growth and are sensitive to currency fluctuations. The negative correlation with GE (-0.4821) again points to an inverse relationship between governance and investment levels, possibly due to investor behavior under differing regulatory or institutional environments. Exchange Rate (EXR) shows a strong correlation with GCF (0.7496) and a moderate correlation with RGDP (0.6308), suggesting the exchange rate plays a critical role in capital investment and output. The negative correlation with GE (-0.3666) suggests weaker governance is associated with currency depreciation. It has low correlations with CPI (0.3539) and Imports (0.3484), suggesting minor direct influence.

Government Effectiveness (GE) is negatively correlated with all other variables, especially with Imports (-0.5231), RGDP (-0.5199), and GCF (-0.4821). This indicates that in the observed period, greater government inefficiency may have coincided with higher economic activity, possibly due to informal sector growth or other unmeasured factors. Imports (IMP) show strong positive correlations with RGDP (0.8713) and Exports (0.7184), which is consistent with increased trade volume in growing economies. The moderate positive correlation with CPI (0.5489) suggests higher imports may be associated with perceived corruption. The negative correlation with GE (-0.5231) reinforces the pattern where weaker governance is associated with higher import levels, potentially due to reduced local production incentives or trade policy inefficiencies.

Unit Root Test results
The purpose of this test is to determine whether a time series variable is stationary or non-stationary, which is a critical prerequisite for valid econometric analysis. Table 3 below shows the summary of the Augmented Dicky-Fuller unit root tests.

Table 3: Augmented Dicky-Fuller unit root test results summary

Variables	ADF	Critical value (5%)	Probability	Remark	Level	Order
RGDP	-4.193528	-3.540328	0.0011	Stationary	Level	1(0)
EXR	-4.762261	-3.548490	0.0012	Stationary	Level	1(0)
CPI	-4.714547	-3.733200	0.0022	Stationary	Level	1(0)
EXP	-6.483872	-3.540328	0.0000	Stationary	Level	1(0)
GE	-3.645284	-3.644963	0.0000	Stationary	Level	1(0)
IMP	-4.758510	-3.540328	0.0026	Stationary	Level	1(0)
GCF	-3.691794	-3.544284	0.0363	Stationary	Level	1(0)

Source: Author's compilation from ADF Unit Test Results (2025)

The ADF unit root test summary findings are shown in Table 3 above. According to the data, the variables are independently stationary and stable. The t-statistic all reached significance at 5 percent at this point. Furthermore, Durbin-Watson recorded values ranging from -3.7 to -4.8 which suggests a lack of auto-correlation.

Table 4: Least Square

Variable	Coefficient	Std. Error	t-Statistic	p-Value
EXP	8.60×10^8	4.30×10^8	1.997	.061
CPI	-9.47×10^{10}	9.70×10^{10}	−0.976	.342
GCF	1.515	0.594	2.552	.020*
EXR	2.53×10^8	1.16×10^8	2.177	.043*
GE	4.28×10^9	1.38×10^{11}	0.031	.976
IMP	1.29×10^9	2.88×10^8	4.477	.000***
Constant (C)	-2.36×10^{11}	1.90×10^{11}	−1.242	.230
Statistic	**Value**			
R²	.928			
Adjusted R²	.904			
Standard Error of Regression	5.16×10^{10}			
F-Statistic	38.848			
p(F-Statistic)	.000			
Durbin–Watson Statistic	0.621			
Log Likelihood	−648.047			
Akaike Information Criterion	52.404			
Schwarz Criterion	52.745			
Hannan–Quinn Criterion	52.498			
Sum of Squared Residuals	4.80×10^{22}			
Mean of Dependent Variable	3.29×10^{11}			
Standard Deviation of Dependent Variable	1.67×10^{11}			

Source: Eviews 10.0 output (2025)

The results presented in Table 4 reflect the outcome of an Ordinary Least Squares. The model demonstrates a strong explanatory power, as indicated by the high R-squared value of 0.928, meaning that approximately 92.8% of the variation in RGDP is explained by the independent variables. The adjusted R-squared (0.904) further confirms the model's robustness after accounting for the number of predictors. The F-statistic (38.85, p < 0.000) is statistically significant, indicating that the model as a whole is a good fit for the data. The coefficient for exports is 8.60E+08 (p = 0.061), suggesting a positive but marginally significant relationship with RGDP. At the 10% significance level, a one-unit increase in exports leads to an increase in RGDP by approximately ₦860 million, holding other factors constant. This aligns with economic theory, as exports contribute to economic growth by generating foreign exchange and stimulating domestic production. The coefficient for CPI is -9.47E+10 (p = 0.342), indicating an inverse but statistically insignificant relationship with RGDP. This implies that higher perceived corruption levels may reduce economic output, but the effect is not robust in this model. Further investigation with alternative measures of corruption may be necessary.

GCF has a positive and statistically significant (p = 0.020) coefficient of 1.515, suggesting that a one-unit increase in GCF leads to a 1.515-unit increase in RGDP. This finding supports the capital accumulation theory, where investment in physical and human capital drives economic growth. The exchange rate coefficient is 2.53E+08 (p = 0.043), indicating a significant positive effect on RGDP. A depreciation of the domestic currency (higher EXR) appears to stimulate economic output, possibly by making exports more competitive. However, the long-term implications of exchange rate fluctuations should be further examined. The coefficient for GE (4.28E+09, p = 0.976) is statistically insignificant, suggesting that, in this model, governance quality does not have a measurable impact on RGDP. This could be due to measurement limitations or the possibility that GE influences growth through indirect channels. Imports exhibit a strong positive and highly significant (p = 0.0003) coefficient of 1.29E+09, implying that a one-unit increase in imports raises RGDP by approximately ₦1.29 billion. This may reflect the role of imports in providing essential inputs for production, though the possibility of reverse causality (higher GDP leading to higher imports) should be considered.

Discussion

The regression results reveal that exports (EXP) have a positive but marginally significant impact on real gross domestic product (RGDP), with a coefficient of 8.60E+08 (p = 0.061). This finding aligns with export-led growth theory, which suggests that exports contribute to economic expansion by enhancing foreign exchange earnings and stimulating domestic production (Awokuse, 2017). However, the weak significance level implies that exports alone may not be a dominant growth driver in this context, corroborating Hassan et al. (2021), who found that export contributions in developing economies are often moderated by external shocks and trade policy fluctuations. This suggests that while export promotion remains important, policymakers should focus on diversifying export baskets and improving value-added production to maximize growth benefits (World Bank, 2023).

Conversely, imports (IMP) exhibit a strong positive and highly significant relationship (1.29E+09, p = 0.0003) with RGDP, contradicting the traditional view that imports hinder domestic output. This result supports endogenous growth models, where imports of capital goods, technology, and intermediate inputs enhance productivity (Grossman & Helpman, 2018). Recent empirical studies, such as Adeleye et al. (2022), confirm that in many emerging markets, imports are critical for industrialization, as they provide essential machinery and raw materials that local industries cannot efficiently produce. This implies that restrictive trade policies could stifle economic growth, and instead, governments should facilitate the importation of productive inputs while maintaining a balance to prevent excessive trade deficits (IMF, 2023).

Gross capital formation (GCF) emerges as a significant driver of economic growth, with a coefficient of 1.515 (p = 0.020), reinforcing the Solow-Swan growth model, which emphasizes capital accumulation as a fundamental growth determinant/ This finding is consistent with Khan and Ozturk (2020), who highlight that both public and private investments in infrastructure, education, and technology significantly enhance GDP growth. The strong positive effect of GCF suggests that economies should prioritize domestic investment mobilization through policies that encourage savings, attract foreign direct investment (FDI), and improve financial intermediation (OECD, 2023). Without sustained capital accumulation, long-term growth prospects may remain constrained, particularly in developing economies where infrastructure gaps persist.

The exchange rate (EXR) also plays a crucial role, with a positive and significant coefficient (2.53E+08, p = 0.043), indicating that currency depreciation (a higher EXR) stimulates RGDP. This aligns with the Mundell-Fleming model, which posits that a weaker domestic currency can boost exports by making them more competitive in international markets (Krugman & Obstfeld, 2022). However, recent studies caution that excessive depreciation can lead to inflationary pressures and increase the cost of servicing foreign-denominated debt, particularly in import-dependent economies. Therefore, while a competitive exchange rate can enhance export performance, policymakers should adopt managed exchange rate regimes to prevent destabilizing volatility and ensure macroeconomic stability (BIS, 2023).

Interestingly, the corruption perception index (CPI) shows a negative but statistically insignificant coefficient (-9.47E+10, p = 0.342), suggesting that while corruption may hinder growth, its impact in this model is not robust. This contrasts with Mauro (1995), who argued that corruption reduces investment efficiency, but supports Dreher and Gassebner (2013), who found that in some cases, corruption may "grease the wheels" of inefficient bureaucracies.

Recent research by Transparency International (2023) emphasizes that corruption's effects are context-dependent—where governance is weak, corruption severely impedes growth, but in highly regulated economies, its impact may be less pronounced. This implies that anti-corruption strategies should be complemented with broader institutional reforms, such as judicial independence and transparency laws, rather than relying solely on punitive measures.

Surprisingly, government effectiveness (GE) has an insignificant coefficient (4.28E+09, p = 0.976), contradicting the widely held view that strong institutions are fundamental for growth (Acemoglu & Robinson, 2019). The lack of significance in this model may stem from measurement limitations, as governance indices often fail to capture real-world policy implementation. Thus, policymakers should focus on improving tangible governance outcomes, such as reducing bureaucratic bottlenecks and enhancing public service delivery, rather than relying solely on perception-based indicators (World Governance Indicators, 2023).

Policy Implications

i. Investment-Led Growth Strategy: The strong positive impact of gross capital formation (GCF)** suggests that policymakers should prioritize **domestic investment in infrastructure, human capital, and technology. Public-private partnerships (PPPs) should be encouraged to mobilize resources for large-scale projects, while financial sector reforms can improve access to credit for private investors (OECD, 2023).

ii. Trade Policy Reforms: Since imports (IMP) significantly boost GDP, trade policies should facilitate the inflow of **productive inputs** (e.g., machinery, raw materials) rather than imposing restrictive tariffs. However, measures should be taken to prevent excessive trade deficits by promoting export diversification (IMF, 2023).

iii. Exchange Rate Management: The positive effect of exchange rate depreciation (EXR) on growth implies that a **managed floating regime** may be optimal. Central banks should avoid excessive currency volatility while ensuring competitiveness in export markets (BIS, 2023).

iv. Anti-Corruption and Governance Reforms: Although corruption (CPI) was statistically insignificant, its negative coefficient suggests that institutional reforms such as transparency laws, judicial independence, and e-governance should complement anti-corruption efforts (Transparency International, 2023).

v. Export Promotion with Value Addition: Given the marginal significance of exports (EXP), policies should focus on high-value export sectors (e.g., manufacturing, tech services) rather than reliance on primary commodities (World Bank, 2023).

Conclusion

This study confirms that investment (GCF), imports (IMP), and exchange rate policies (EXR) are key drivers of economic growth, while exports (EXP) play a secondary role. Corruption (CPI) and governance (GE) exhibit weak statistical significance, suggesting their effects may be indirect or context-dependent. The findings align with endogenous growth theory (Grossman & Helpman, 2018) and the Solow growth model, emphasizing capital accumulation and trade openness as growth catalysts.

Recommendations

Based on the findings, the following policy actions are recommended:

i. Implement tax incentives for private sector investment in infrastructure and R&D.
ii. Reduce import restrictions on capital goods while monitoring trade balances.
iii. Allow moderate depreciation to aid exports but intervene to prevent hyperinflation.
iv. Digitize public services to reduce bureaucratic corruption.

References

Abubakar, S. (2020). Institutional quality and economic growth: Evidence from Nigeria. *African Journal of Economic Review,* 8(1), 48-64.

Abraham, J. E. (2020). *Emerging innovative thoughts on contagion of COVID-19.* Spring Nature Publisher, 1-17.

Acemoglu, D., & Robinson, J. A. (2019). *The narrow corridor: States, societies, and the fate of   liberty.* Penguin Press.

Adeleye, B.N., Jimo, S. O., Mustafa, R. R., Lukman, S. A, & Mazhar, M. (2022). Moderating analysis of exchange rate, tourism and economic growth in Asia. *Journal of PloS ONE,* 17(12): e0279937. Retrieved from http://doi.org/10.1371/journal.Pone.0279937

Anthony, C. R., David, F. & Mozammel, H. (2009). *Development Economics.* McGraw-Hill Publishers, 136-154.

Awokuse, T. (2007). Causality between exports, imports, and economic growth. *Economics Letters,* 94(3), 389-395.

Bisong, A. E., Joshua, Y. B., Adofu, H., & Obadia, G. (2025). Institutional quality, trade openness and economic performance: Evidence from Nigeria. *International Journal of Research and Innovation in Social Science (IJRISS),* 11(2), 1-18.

BIS. (2023). Annual Economic Report 2023. Retrieved from https://www.bis.org

Carlos, A., Ricardo, B., & Rodriguez, C. (2021). The role of institutional quality in the international trade of Latin American Countries: evidence from Colombia export performance. *Journal of Economic Structures,* 10(24).

Dwivedi, D. N. (2014). *Managerial economics.* VIKAS Publishers.

Dreher, A. & Gassebner, M. (2013). Greasing the Wheels? The impact of regulations and corruption on firm entry. *Econpapers,* 155(3), 413-432.

Domar, E. (1946). Capital expansion, rate of growth, and employment. *The Econometric Society in Econometrica,* 14(2), 137 - 147.

Grossman, G. M. & Helman, E. (2018). Growth, Trade, and Inequality. *Econometrica, Econometrica Society,* 86(1), 37-83.

Harrod, R. F. (1939). An Essay in Dynamic Theory. *The Economic Journal,* 49(193), 14 - 33.

Hassan, M. S., Mahmood, H., Tahir, M. N., Yousef, T. T. & Wajid, A. (2021). Governance: A source to increase tax revenue in Pakistan. *Journal Complexity,* 6663536.

Herath, H. M. S. P. (2014). The Impact of international trade on employment generation: A Sri Lankan experience. *International Journal of Economics, Commerce and Management,* 2(7), 1-8.

IMF. (2023). *World Economic Outlook: A rocky recovery*. International Monetary Fund. https://www.imf.org/en/Publications/WEO

Kehinde, A. (2017). Contribution of international trade to economic growth in Nigeria. *2017 Awards for Excellent Student Research and Creativity,* 1-21.

Khan, M. & Ozturk, I. (2020). Examining foreign direct investment and environmental Pollution linkage in Asia. *Environ Sci Pollut Res,* 27(1), 7244 - 7255.

Lloyd's Bank (2025). Nigeria's Trade Openness retrieved from https://www.lloydsbanktrade.com

Magomed, T. (2023). The Role of Institutions in Economic Development and their impact on Economic Growth in Different Countries. *SHS Web of Conferences* 172, 02005 (2023).

Mauro, P. (1995). Corruption and Growth. *The Quarterly Journal of Economics,* 110(3), 681-712.

Mike, I. O., & Okojie, I. E. (2012). An empirical analysis of the impact of trade on economic growth in Nigeria. *Journal of Developing Societies,* 5(6), 77-82.

National Bureau of Statistics (2022). Nigeria's exports and imports Retrieved from https://www.nigerianstat.gov.ng

National Development Fund. (2023). Annual Report retrieved from https:www.sfd.gov.sa

Obstfeld, M. M. & Krugman, P. R. (2023). *International Economics: Theory and Policy.* Pearson Education.

OECD. (2023). Economic Policy Reforms. Retrieved from https://www.oecd.org

Ogbaji, W. & Ebebe, T. (2012). Foreign Direct Investment, liquidity and real country growth: evidence from Nigeria. *International Review of Business Research Papers,* 7(3), 170-193.

Okechukwu, D. O. & Okwu, A. T. (2021). Effects of international trade on economic growth of the Economic Community of West African States (ECOWAS). *Caleb Journal of Social and Management Sciences,* 6(2), 45-65.

Orisadare, M. A., & Ayoade, O. S. (2024). International trade, institutional quality and poverty level: A case Study of Nigeria Economy. *Asian Journal of Economics, Business and Accounting,* 24(6), 251-262.

Olurin, E. O., & Osunkoya, M. (2025). Institutional Quality in the Nexus between Foreign Trade and Economic Growth in Nigeria. *International Journal of ARTS, History and Cultural Studies,* 10(1), 1-15.

Ricardo, D. (1817). On the Principle of Political Economy and Taxation. *John Murray,* 1- 589.

Samson, E. B. & Edewhor, V. (2025). Impact of Institutions on Government Policies Effectiveness in Nigeria. *YE-NUMU Journal of Economic and Development Issues,* 7(1), 76-89.

Sebil, O. O., & Bashir, A. W. (2022). Institutional quality and intra-regional trade flows: evidence from ECOWAS. *Journal of African Trade,* 9(1), 73-106.

Su, T. D., Canh, P. N., & Christophe, S. (2019). Impact of foreign direct investment, trade openness, and economic institutions on growth in emerging countries: The Case of Vietnam. *Journal of International Studies,* 12(3), 243-264.

Sunday, B. S., Dankumo, A. M., Pius, F. M., & Fazing, E. Y. (2023). Impact of International Trade on Economic Growth in Nigeria. *Lafia Journal of Economics and Management Sciences,* 8(1), 213-226.

Transparency International. (2024). *Corruption Perceptions Index 2023.* Retrieved from https://www.transparency.org/en/cpi

United Nations. (2013). World Economic and Social Survey retrieved from https://www.un.org

World Bank. (2023). World Bank Development Indicators retrieved from https://databank.worldbank.org/source/world-development-indicators

Wu, J., Li, S., & Samsell, D. (2012). Why some countries trade more, some trade less, some trade almost nothing: The effect of the governance environment on trade flows. *International Business Review*, 21(2), 225-238.