

Institutional Quality, Trade Openness and Economic Performance: Evidence from Nigeria

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.9020041>

Received: 15 January 2025; Accepted: 25 January 2025; Published: 01 March 2025

ABSTRACT

Trade openness is essential for improving the economic performance of developing countries. Simultaneously, the quality of institutions are crucial for improving economic performance. This research examined the effect of institutional quality and trade openness on Nigeria's economic performance. The objective of the study is to analyse the effect of governance, economic institutions, and trade openness on Nigeria's economic performance. The research utilized the Autoregressive Distributed Lag model, the ARDL bounds test, and the error correction model to achieve the study's objectives. The findings indicated a long-run relationship between components of governance and economic institutions, trade openness on economic performance in Nigeria. The short-run analysis indicated a connection between economic institutions and trade openness on economic performance, while a short-run relationship exists between governance institutions and trade openness on economic performance, except for the government effectiveness component. The empirical findings concluded that institutional strengthening is crucial for leveraging the advantages of trade openness to enhance economic performance in Nigeria. Consequently, the study recommended the government deliberately strengthen governance and economic institutions to leverage the spillover effects of strong institutions that facilitate trade.

Keywords: Institutional Quality, Trade Openness, Economic Performance.

INTRODUCTION

In recent decades, scholars have increasingly focused on the effects of trade openness on economic performance worldwide, particularly in emerging nations. This results from globalization and a rise in regional, plurilateral, and multilateral trade agreements. The establishment of the World Trade Organization (WTO) in 1995 signified the most significant international trade reform since the conclusion of the Second World War, as these reforms facilitated integration deemed essential for the transition from autarky to an open economy (World Trade Organization, 2025; Zahonogo, 2016). In theory, more trade openness in an economy promotes technical transfer, innovation, and economic performance. This rationale has prompted developing nations to embrace a more liberalized trade framework due to the poor performance of trade policy strategies (Udeagha and Ngepah, 2021). Nonetheless, despite the theoretical connection, prior studies exhibit varied outcomes indicating that trade openness may either bolster or impede on economic performance. The correlation between trade openness and economic performance is significantly affected by the factor endowments of various countries, with effects differing among nations, although economic integration generally promotes global economic growth (Wani et al., 2023). Akinlo and Okunlola (2021) confirmed that trade openness has a detrimental influence on growth.

Prior research has identified inadequate institutions as a factor contributing to the adverse impact of trade openness on economic performance. Su *et al.*, (2019) assert that trade openness, bolstered by strong institutions, significantly influences economic growth and performance, as developed nations with robust institutional quality tend to enhance trade gains. Consequently, institutional quality may substantially influence trade openness, as it is essential to international trade flows and patterns. Countries with weak institutions face

elevated trade costs and poor macroeconomic performance (Alhassan et al., 2020; Acemoglu and Robinson, 2012).

Research indicates that elevated levels of capital formation, including human and physical capital, facilitate economic growth (Aslan and Altinoz, 2021; Hye and Lau, 2015). This study aims to investigate the influence of institutional quality on the relationship between trade openness and economic performance in Nigeria. Consequently, this study's contributions encompass the following. First, to examine the effect of governance institution components on trade openness and economic performance in Nigeria. Secondly, to analyze the effects of components of economic institutions, trade openness, and economic performance in Nigeria. This study seeks to provide substantial contributions that are lacking in prior research. The new growth theory is employed to attain these aims. The research used the Autoregressive Distributed Lag (ARDL) estimator to assess the long run and short run effects of institutional quality and trade openness on Nigeria's economic performance.

LITERATURE REVIEW

The research on institutional quality, trade, and economic performance is very nascent and expanding, as only a limited number of empirical studies have established a strong connection among these variables. Conteh et al. (2021) assert the necessity of reforming African trade policy from inward-oriented to outward-oriented methods, driven by skepticism over the impact of trade on growth, particularly in Sub-Saharan Africa (SSA). To enhance the discourse on trade policy choices and their impact on economic performance, the study examined the influence of institutional quality and trade on economic growth. Empirical research indicates that trade openness has a substantial negative effect on economic performance in the SSA region. The concurrent interaction of trade openness and institutional quality results in a considerable and favorable relationship with economic success. This unequivocally establishes that the positive relationship between trade and growth is supported by the quality of institutions. This indicates that economies in Sub-Saharan Africa should prioritize strengthening their institutions before pursuing trade liberalization measures in their trade policy approaches.

Omoke et al., (2021) utilized three metrics of trade openness: total trade, import trade, and export trade. The empirical findings indicate a positive and substantial correlation between export trade and economic growth, while import trade exhibits a negative and significant impact on economic growth in Nigeria. Subsequent studies indicate that the adverse long run relationship between import trade and growth in Nigeria diminishes with intentional institutional enhancement initiatives. Consequently, the report emphatically advocates for effective governance and robust institutions to guarantee that the advantages of trade liberalization are directed towards growth-promoting sectors of Nigeria's economy.

Qasim et al. (2021) presented empirical evidence demonstrating a positive and statistically significant relationship between institutional quality and trade openness on economic performance in South Asia. They recommend that policymakers in India, Bangladesh, Pakistan, and Sri Lanka implement policies to enhance institutional quality to improve trade and, consequently, economic performance and growth. The study additionally examined pertinent literature about the influence of institutions on economic growth and the relationship between commerce and growth. Uddin et al. (2023) asserted that institutional quality is crucial in attaining the sustainable development goals. Institutional quality is essential to Goal 16 of the United Nations Sustainable Development Goals (SDGs), which advocates for peaceful and inclusive societies, ensures access to justice, and fosters effective, accountable, and transparent institutions. The study findings indicate a favorable correlation between institutional quality and globalization for the Human Development Index (HDI), as notable variations in HDI may be ascribed to alterations in institutional quality. Furthermore, to enhance institutional quality, prioritization of transparency is essential, measures to regulate and prevent corruption must be implemented, and robust administrative involvement is required to improve economic performance. Consequently, policymakers must prioritize measures aimed at enhancing institutional quality to foster economic development in developing nations.

Zhuang et al., (2021) demonstrated a favorable correlation between trade openness and economic growth, contingent upon the quality of institutions. Ibrahim et al. (2022) emphasized the necessity of a cohesive trade

facilitation framework within a robust institutional context, underpinned by effective environmental management on the continent, to assess the influence of institutional quality and trade facilitation on sustainability.

Asante et al., (2023) established that the efficacy of institutions, particularly in terms of rule of law, political stability, and regulation, significantly enhances their favorable impact on economic growth. Research conducted by Hunjra et al. (2023) assessed the influence of institutional quality on sustainable development, employing metrics such as adjusted net savings for economic sustainability and CO₂ emissions and forest area preservation as proxies for environmental sustainability. The study findings indicated a beneficial function of institutions in economic sustainability. Simultaneously, a detrimental relationship between institutional quality and CO₂ emissions was identified throughout areas in developing countries, attributed to institutional ineffectiveness regarding deforestation. Subsequent empirical investigation differentiated institutional characteristics, including political stability, administrative capability, rule of law, accountability, and transparency for sustainable development across various locations. Findings indicate that the rule of law significantly influences sustainable development in the Middle East and North Africa. Simultaneously, the regulation of corruption plays a beneficial role in Latin America and the Caribbean, whereas bureaucratic quality has a more significant influence in Asia compared to other regions. Consequently, owing to the varied effects of institutional disaggregated components on sustainable development indicators throughout the region, the study urges careful considerations of these differences when formulating regional environmental policy. Institutional characteristics, including government efficacy, control of corruption, and regulatory quality, exert differing influences on economic growth.

Abayomi and Chidiebere (2021) demonstrated that corruption control was highly efficient in Ghana, whereas the opposite was true in Nigeria, hence fostering economic growth in Ghana and hindering economic performance and growth in Nigeria. Simultaneously, regulatory quality stimulated growth in Nigeria while hindering expansion in Ghana. Both countries exhibited governmental ineffectiveness in their economic growth strategies. The Nigerian government was advised to impose stricter sanctions to enhance the battle against corruption, while the Ghanaian government was suggested to improve regulatory quality to foster economic growth. The report additionally advocates for the implementation of a business process re-engineering program, supported by political commitment, in both countries to enhance governmental efficacy and expedite economic development.

Ngouhouo et al., (2021) asserted that domestic institutions, as a composite measure, influence trade openness. The study additionally indicates that, alongside domestic institutions, governance institutions such as government effectiveness, regulatory soundness, and rule of law all contribute to increased trade openness. The report advises that Sub-Saharan African (SSA) nations should prioritize enhancing the quality of their domestic institutions while formulating international trade policy. Azam et al. (2021) asserted that institutional quality positively influences sustainable development more significantly in lower middle-income nations than in low-income ones. The analysis indicates that the performance of institutional quality factors, when disaggregated, is superior in lower middle-income nations compared to low-income countries. The report advocates for required legislative support through institutional enforcement to create effective and productive policies concerning environmental resource management. The impact of institutional quality on economic performance differs according to the regional location of Sub-Saharan African (SSA) countries.

Wandeda et al. (2021) clearly indicate that in the West Africa region, institutional features are more beneficial in promoting income growth than in the Eastern and Central Africa regions. Subsequent findings indicate that enhancements in institutional quality are more likely to bolster economic performance in low-income Sub-Saharan African countries compared to middle-income Sub-Saharan African countries. The report advises that SSA countries enhance independent institutions responsible for prosecuting criminal offenses, while the continent should endorse African initiatives that coincide with the global development agenda. Additionally, SSA nations ought to enhance institutions that expand democratic space, civil liberties, and citizen engagement in their respective development agendas. In contrast to earlier research, Duodo et al. (2020) found that institutional quality does not affect the relationship between trade openness and economic growth in Ghana, while Dore et al. (2023) concluded that institutional quality does not serve as a significant catalyst for

economic growth over the long term. Yusuf et al. (2021) established that governance institutions, including government effectiveness, regulatory quality, and political stability, negatively impact bilateral trade flows among Organization of Islamic Cooperation (OIC) member countries in Africa, whereas institutional variables are viewed as a strength for Malaysia's economic growth. The report suggests that OIC member nations in Africa implement improved institutional quality reforms to boost and expedite trade, economic growth, and development in the region.

Wani et al., (2021) assert that trade openness is crucial for the economic development of many countries, since institutional quality is essential for attaining a high growth rate. Empirical findings from the study indicate that total commerce has a negative impact, but imports facilitate economic growth in India. Consequently, the report advised that the nation need programs to improve institutional quality and augment the development of people and physical capital. Chatterji et al. (2014) asserted that increases in trade volume had contributed to economic growth in India over the years. Sengupta (2020) asserted that, in the long term, there exists a negative relationship between trade openness and economic growth in India. While existing literature has extensively recognized trade openness as a factor influencing economic performance, a concurrent body of research has identified non-economic elements, such as institutional quality, as significant predictors of economic performance.

According to Doan (2019), institutional quality and its connection with trade openness are seen as predictors of economic performance. Empirical evidence indicates that institutions are essential for the effective execution of economic reforms in developing nations; hence, the inability of trade reforms to improve cross-border commerce and economic performance is directly associated with inadequate institutions. This is because institutions are more closely associated with economic performance than trade openness; therefore, in the absence of adequate institutions, trade openness either hinders or exhibits an insignificant correlation with economic performance (Wani et al., 2021). Moreover, the distribution of capital and labor is not uniform across countries worldwide. Various growth hypotheses have sought to explain this disparity. The Neoclassical synthesis posits that elevated capital formation correlates with increased productivity and stimulates economic growth (Aslan and Altinoz, 2021), however, some scholars contend that both human and physical capital are intrinsically linked to economic growth (Hye and Lau, 2015).

Notwithstanding the plethora of literature, research has not investigated institutional quality in a disaggregated manner (governance institutions and economic institutions). Prior research indicates a positive relationship between trade and growth, supported by institutional quality (Doan, 2019; Conteh et al., 2021; Omoke et al., 2021; Qasim et al., 2021; Zhuang et al., 2021), without disaggregating the components of governance and economic institutions. It is essential to comprehend the distinct effects of components of governance and economic institutions, and trade openness on Nigeria's economic performance, subsequently offering policy recommendations. This study contributes to literature by addressing the research gap regarding the effect of governance and economic institutions on the relationship between trade openness and economic performance in Nigeria.

DATA AND METHODS

The study used annual data from 1996-2022 for estimation. The period witnessed significant dynamics in institutional strengthening and transition from military dispensation to civil regime. The transition to a democratic regime facilitated reforms across governance and economic institutions. This also affected Nigeria's trade policy strategies as well as bilateral and multilateral trade agreements. Given data availability for institutional quality, 1996 has been taken as the start year.

In line with previous studies, Real Gross Domestic Product per capita is used as a proxy for economic performance, trade openness, foreign direct investment, real gross fixed capital formation as a proxy for capital, and labour force as proxy for labour. This dataset is sourced from the World Bank's World Development Indicators (WDI). The study accounted for the governance institutions using data on four governance indicators (government effectiveness, control of corruption, regulatory quality as well as rule of law) sourced from the World Banks World Governance Indicators (WGI) database. The indicators are

measured on a scale ranging from -2.5 to 2.5 with higher values indicating better governance institutions (Kaufmann et al., 2011). The data on economic institutions are sourced from the Heritage Foundation Index of Economic Freedom database. The components (financial freedom, investment freedom, trade freedom, business freedom, and tax burden) rather than the overall score of economic freedom are used in the study. This is because the use of overall score could make it difficult to empirically analyse the effect of the specific institutional factors and trade openness on economic performance. Each of the component is measured on scores ranging from 0 to 100, with the higher scores showing better economic institutions.

Theoretical Framework

The New Growth Theory underpins the baseline model for this study often referred to as the “endogenous growth theory” advanced by Paul Romer (1986; 1992; 1998). The growth theory suggests that the productivity and growth of the economy are tied directly to people, that is, specifically to what they want and need given that it drives their purchasing and investing decision which in turn drives the economy. The theory also indicates that growth of labour supply and productivity are important factors in the economic growth process given that growth in labour productivity generally emanates from growth in human capital (i.e., accumulation of skills and knowledge), growth in investment (i.e., accumulation of physical capital), and technical progress (i.e., use of new and more efficient production techniques).

The theory also helps us make sense of the paradigm shift from a resource-based economy to a knowledge-based economy. It clearly emphasizes the point that the economic processes which create and diffuse new knowledge are crucial to ensuring the growth of economies, and other economic agents (Cortright, 2001). Thus, following Romer (1986; 1998), Mankiw et al (1992), and Ogbuabor et al (2020) adapted the traditional Cobb-Douglas production function combining capital and labour with constant returns to scale. The modified production function hence took the form so that aggregate output can be expressed thus;

$$Y_t = AK^\alpha L^{1-\alpha} \quad 1.0$$

Where;

Y represents real economic output; K physical capital; L labour; A level of technology progress; t time; α represents output elasticity of physical capital. This study based on the above production function assumes that technological progress is determined by trade openness (trade liberalization), governance and economic institutions. It can be rewritten as follows;

$$A_t = \delta \cdot TOP_t^\sigma \cdot INS_t^\beta \quad 2.0$$

Where;

δ is time-invariant; TOP represents trade openness (measure for trade liberalization); INS represents institutional quality (governance and economic institutions). Thus, substituting equation 1.0 into equation 2.0 we have;

$$Y_t = \delta \cdot TOP_t^\sigma \cdot K_t^\alpha \cdot L_t^{1-\alpha} \cdot INS_t^\beta \quad 3.0$$

The extended log-linear form of the model can be to ensure uniformed measurement of the variables

$$Y_t = \beta_0 + \beta_1 TOP_t + \beta_2 K_t + \beta_3 GFCE_{ij} + \beta_4 LF_{it} + \beta_5 FDI_{it} + \beta_6 INST_{it} + \mu_{it} \quad 4.0$$

In this analysis the above production function is extended by assuming that technological progress is determined by trade openness, institutional quality in terms of governance and economic institutions. This is given as follows:

Model Specification and Estimation

Following previous studies (Omoke & Ipuala-Charles, 2021; Ogbuabor et al., 2020) the empirical model of this study is specified as follows:

$$GDP_pc_{it} = \beta_0 + \beta_1 GDP_pc_{it} + \beta_2 TOP_{ij} + \beta_3 GFCE_{ij} + \beta_4 LF_{it} + \beta_5 FDI_{it} + \beta_6 INST_{it} + \mu_{it} \quad 5.0$$

Where;

GDPPC_{it} Gross Domestic Product Per Capita

TOP Trade Openness

GFCE Gross Fixed Capital Formation proxy for Capital

LF Labour Force proxy for Labour

FDI Foreign Direct Investment

INS Institutional Quality – Governance and Economic Institutions

$$GDP_pc_t = \delta_0 + \sum_{t=1}^a \gamma_i GDP_pc_{t-i} + \sum_{t=0}^b \psi_i TOP_{t-i} + \sum_{t=0}^c \lambda_i FDI_{t-i} + \sum_{t=0}^d \sigma_i GFCE_{t-i} + \sum_{t=0}^e \vartheta_i \log LF_{t-i} + \sum_{t=0}^f \phi_i INST_{t-i} + \mu_t \dots 6.0$$

Where,

δ_0 is the drift component; the terms with summation signs are used to model the short run dynamic structure; $\gamma_i, \psi_i, \lambda_i, \sigma_i, \vartheta_i, \phi_i$ = Short run multiplier; a,b,c,d,e,f = lag length for the short run dynamic structure; μ_t = error term and t = time. Given that there is evidence of a long-run relationship (Cointegration) of the variables, the short run dynamics can be derived by estimating ECT

$$\Delta GDP_pc_t = \delta_0 + \sum_{t=0}^a \gamma_t \Delta GDP_pc_{t-i} + \sum_{t=0}^b \psi_t \Delta TOP_{t-i} + \sum_{t=0}^c \lambda_t \Delta FDI_{t-i} + \sum_{t=0}^d \sigma_t \Delta GFCE_{t-i} + \sum_{t=0}^e \vartheta_t \Delta \log LF_{t-i} + \sum_{t=0}^f \phi_t \Delta INST_{t-i} + \pi ECT_{t-1} \dots 7.0$$

Where

Δ is the difference operator; π in equation 7.0 describes the speed of adjustment while the other coefficients of the short-run equation model are coefficients relating to the short-run dynamics of the model's convergence for equilibrium. ECT is the error correction term.

Thus, ECT is defined as

$$ECT_t = \Delta GDP_{pc_t} - \delta_0 - \sum_{t=0}^a \gamma_t \Delta GDP_{pc_{t-i}} - \sum_{t=0}^b \psi_t \Delta TOP_{t-i} - \sum_{t=0}^c \sigma_t \Delta FDI_{t-i} - \sum_{t=0}^d \vartheta_t \Delta GFCF_{t-i} - \sum_{t=0}^e \phi_t \Delta \log LF_{t-i} - \sum_{t=0}^f \theta_i INST_{t-i} \dots 8.0$$

The Autoregressive Distributed Lag (ARDL) model is used to estimate the model. It is the appropriate estimator for the study because it is used to analyse the long run and short run relationship in time series variables as well as time series data that are non-stationary or have mixed integration orders. For diagnostics some selected post estimation tests include Ramsey test for linearity, serial correlation, normality test and heteroscedasticity as well as CUSUM Square test for stability.

RESULTS AND DISCUSSIONS

Effect of governance institution, trade and economic performance in Nigeria

The research assessed the effect of governance institutions and trade on Nigeria's economic performance. The estimation incorporated economic performance, measured by GDP per capita, as the dependent variable. Trade openness and the control variables identified in existing literature as enablers of economic performance (labor, capital, and foreign direct investment). The regression output of the model aligns with the findings of existing empirical investigations. Therefore, the components of governance institutions are suitable for further investigation in this study. Table 1 contains the estimations of the effect of governance institutions on trade and economic performance. The findings indicate that government effectiveness and trade openness exhibit a positive yet insignificant relationship with economic performance. Consequently, in addition to formulating policies, the government must demonstrate the political will to implement trade-related policies to improve economic performance among micro, small, and medium enterprises (MSMEs) and other economic entities. It is anticipated that rising MSMEs' economic performance will result in economic expansion. The channels of the insignificant link with economic performance include labor and capital, which exhibit an adverse relationship, along with foreign direct investment (FDI), which shows negligible values. Thus, utilizing a youthful labor population, along with investment in both physical and soft infrastructure through efficient policy execution, will attract foreign direct investment, promote trade, and stimulate economic growth. This finding aligns with the assertion of Duodo et al. (2020) that government effectiveness and trade openness do not affect economic growth. According to Alam et al. (2017), government effectiveness fosters efficient labor divisions, enhances productive investment, and expedites the execution of social and economic programs, hence facilitating economic growth.

Table 1: Effect of governance institution, trade and economic performance in Nigeria (Long run estimates)

| Regressors | (1) | (2) | (3) | (4) |
|------------|----------|----------|-----------|-----------|
| Constant | 43.21692 | .24650 | -15.47077 | -139.7985 |
| | (0.6702) | (0.4293) | (0.8691) | (0.2055) |
| GDPPC (-1) | 0.188121 | 0.048879 | 0.141222 | -0.127253 |
| | (0.5105) | (0.8471) | (0.5143) | (0.6021) |
| TOP | 0.037038 | 0.067413 | 0.027045 | 0.049914 |
| | (0.6539) | (0.3987) | (0.7092) | (0.4730) |
| FDI | 1.446409 | 1.839314 | 1.728650 | 1.213839 |

| | | | | |
|----------------|-----------|-----------|-----------|-----------|
| | (0.1398) | (0.0570) | (0.0530) | (0.1374) |
| Log (LF) | -2.442370 | -4.731230 | 0.150383 | 6.835609 |
| | (0.6592) | (0.3806) | (0.9763) | (0.2433) |
| GCFC | -0.030157 | -0.145852 | -0.047195 | -0.027077 |
| | (0.7991) | (0.2767) | (0.6505) | (0.7823) |
| GE | 0.680031 | (0.6317) | | |
| RQ | 8.174808 | (0.1021) | | |
| CC | -10.58370 | (0.0337) | | |
| RL | -15.78068 | (0.0112) | | |
| Adj. R-Square | 0.24 | 0.33 | 0.40 | 0.46 |
| F-statistics | 2.31 | 3.08 | 3.73 | 4.49 |
| Prob (F-stats) | (0.08) | (0.03) | (0.01) | (0.01) |

Note: () represent probability

Equally, the result reveals that regulatory quality and trade openness exert a positive but insignificant effect on economic performance. By implication, regulatory quality facilitates trade and drives economic performance. The insignificant nexus between regulatory quality, trade openness and economic performance is triggered by labour and capital with a negative coefficient and foreign direct investment with an insignificant coefficient. According to the International Monetary Fund (IMF), the reason why economic growth is slower in developing is because of deficit regulation and a lack of trade-facilitating infrastructures. The finding conforms with Duodo et al (2020) who asserted that regulatory quality and trade openness exert an insignificant impact on economic performance.

Effects of economic institutions, trade on economic performance in Nigeria

The assessments of the effect of the components of economic institutions and trade liberalization on economic performance encompass structural and policy factors recognized in the existing research as significant catalysts of economic performance. The variables in the regression models exhibit robust theoretical and empirical connections. Incorporating all economic institution metrics into a regression model presents a multicollinearity issue. Therefore, to mitigate this issue, each indicator is incorporated into an individual regression analysis. The results are shown in Table 2.0 for clarity in interpretation. The data indicates that financial freedom demonstrates a negative albeit insignificant correlation with economic performance. This may be ascribed to the adverse and negligible relationship between labor and capital about economic performance. Simultaneously, trade openness and foreign direct investment demonstrated a positive yet insignificant correlation with economic performance, respectively. The adverse and negligible association may be attributed to policy inconsistency, heightened risk, and market volatility. Trade freedom demonstrates a negative and insignificant correlation with economic performance, but trade openness indicates a favorable albeit insignificant association. The negligible connection may be attributed to uncertainty in trade policy, uncompetitive industries, and susceptibility to external shocks, considering Nigeria's focus on commodities trading rather than value-added products, among other factors. Furthermore, investment freedom shown a negative and insignificant correlation with economic performance, but trade openness exhibited a positive yet insignificant association with economic performance. An unfavorable investment climate results in divestment

and diminished foreign capital inflows, attributable to economic policy uncertainty, market volatility, and insufficient restrictions to safeguard both domestic and foreign investors.

Table 2: Effects of economic institutions, trade on economic performance in Nigeria (Long-run estimates)

| Regressors | (1) | (2) | (3) | (4) | (5) |
|----------------|-----------|-----------|-----------|-----------|----------|
| Constant | 27.32446 | 83.73736 | 12.71435 | 34.19193 | 62.1957 |
| | (0.8060) | (0.5156) | (0.9142) | (0.7447) | (0.5559) |
| GDP PC (-1) | 0.250387 | 0.234527 | 0.255245 | 0.287906 | 0.267436 |
| | (0.3010) | (0.3366) | (0.2838) | (0.2454) | (0.2582) |
| TOP | 0.034830 | 0.035391 | 0.034979 | 0.028298 | 0.012590 |
| | (0.6735) | (0.6657) | (0.6694) | (0.7297) | (0.8829) |
| FDI | 1.425959 | 0.842241 | 1.399130 | 1.226357 | 1.561366 |
| | (0.1469) | (0.5411) | (0.1470) | (0.2401) | (0.1230) |
| Log (LF) | -1.459921 | -4.616046 | -0.585419 | -2.151531 | 0.654930 |
| | (0.8158) | (0.5058) | (0.9303) | (0.7024) | (0.9155) |
| GCFC | -0.031610 | 0.011223 | -0.035779 | -0.022663 | 0.003296 |
| | (0.7212) | (0.9304) | (0.7678) | (0.8463) | (0.9780) |
| FIN FREE | -0.059900 | | | | |
| | (0.7312) | | | | |
| INV FREE | | -0.060135 | | | |
| | | (0.1021) | | | |
| TRADE FREE | | | -0.052801 | | |
| | | | (0.6198) | | |
| BUS FREE | | | | 0.065177 | |
| | | | | (0.7383) | |
| TAX BURDEN | | | | | 0.612009 |
| | | | | | (0.5218) |
| Adj. R-Square | 0.23 | 0.24 | 0.24 | 0.23 | 0.24 |
| F-statistics | 2.28 | 2.32 | 2.31 | 2.27 | 2.36 |
| Prob (F-stats) | (0.08) | (0.08) | (0.08) | (0.08) | (0.07) |

Note: () represent probability

Conversely, business freedom and trade openness demonstrate a positive yet insignificant relationship with economic performance. Although a theoretical linkage suggests a possible contribution of these factors to economic performance, the regression analysis does not indicate a statistically significant relationship. This may be ascribed to the adverse coefficients of labor and capital in the regression results, together with several structural and policy limitations that considerably affect economic performance. The tax burden and trade openness exhibit a positive yet insignificant link with economic performance. The negligible connection may be ascribed to various tax regimes within the system that affect the expansion of MSMEs, hence significantly influencing economic performance.

ARDL Bound Test

Table 3: Bound Test (Governance Institutions)

| Variables | F-statistic | Lower Bound | Upper Bound | Decision |
|-----------|-------------|-------------|-------------|-------------------|
| GE | 4.228633 | 6.44* | 6.44* | Not Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| RQ | 7.391247 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| CC | 8.661460 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| RL | 11.16842 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |

Note *, **, *** represent 1%, 5% and 10% level of significance

Table 3.0 results reveal that the alternative hypothesis of cointegration for governance institution variables (Regulatory Quality, Control of Corruption and Rule of law) is accepted and null hypothesis of no cointegration is rejected. While the null hypothesis of no cointegration is accepted for Government effectiveness. This shows a long-run causal relationship between governance institutions (regulatory quality, control of corruption and rule of law), trade openness and economic performance in Nigeria. The table also highlights the lower and upper bound values in the specification.

Table 4: Bound Test (Economic Institutions)

| Variables | F-statistic | Lower Bound | Upper Bound | Decision |
|-----------|-------------|-------------|-------------|---------------|
| Bus Free | 4.650831 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |

| | | | | |
|------------|----------|--------|--------|---------------|
| Inv Free | 5.351742 | 6.44 | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| Trade Free | 5.330191 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| Fin Free | 5.124315 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |
| Tax-Burden | 5.140466 | 6.44* | 6.44* | Co-integrated |
| | | 4.6** | 4.6** | |
| | | 3.8*** | 3.8*** | |

Note *, **, *** represent 1%, 5% and 10% level of significance

Table 4.0 presents the f-statistics from the ARDL bound test and compares it with critical values from Narayan (2005). The results reveal that the alternative hypothesis of cointegration across economic institution variables is accepted and null hypothesis of no cointegration is rejected. This shows long run causal relationship between economic institutions, trade openness and economic performance in Nigeria. The table also highlights the lower and upper bound values in the specification.

4.4 Short Run Estimates

Table 5: Effect of governance institution, trade and economic performance in Nigeria (Short-run estimates)

| Regressors | (1) | (2) | (3) |
|------------|-----------|-----------|-----------|
| TOP | 0.067413 | 0.027045 | 0.049914 |
| | (0.3793) | (0.6990) | (0.4579) |
| FDI | 1.839314 | 1.728650 | 1.213839 |
| | (0.0391) | (0.0365) | (0.1239) |
| Log (LF) | -4.731230 | 0.150383 | 6.835609 |
| | (0.0010) | (0.5722) | (0.0001) |
| GCFC | -0.145852 | -0.047195 | -0.027077 |
| | (0.1701) | (0.05480) | (0.7187) |
| RQ | -8.174808 | | |
| | (0.0923) | | |
| CC | | -10.58370 | |

| | | | |
|---------------|----------|----------|-----------|
| | | (0.025) | |
| RL | | | -15.78068 |
| | | | (0.0044) |
| ECM(-1)* | -0.9511 | -0.8588 | -1.1273 |
| | (0.0009) | (0.0004) | (0.0001) |
| Adj. R-Square | 0.32 | 0.38 | 0.44 |

Note: () represent probability

Table 5.0 presents the short-run estimates of the ARDL model. The data indicate that regulatory quality has a negative yet insignificant impact on economic performance, whereas trade openness demonstrates a positive but insignificant relationship with economic performance in Nigeria. A potential reason could be the adverse impact of control variables (labor and capital) that hindered economic performance in the short term. The results demonstrate that trade openness in an economy characterized by weak institutions might negatively affect economic performance. Simultaneously, the control of corruption and adherence to the rule of law shown a detrimental and substantial impact on economic performance, whereas trade openness exhibited a beneficial albeit small effect on economic performance. The adverse effects of control of corruption on economic performance is substantiated by the study of Abayomi and Chidiebere (2021), whereas the substantial relationship between the rule of law and economic performance aligns with the conclusions of Hunjra et al. (2023).

The findings underscore the significance of governance institutions within policy strategies to leverage on the benefits of trade openness for enhancing economic performance in Nigeria. The coefficient of ECM (-) is consistently negative and significant across all variables of economic institutions. This indicates the rate of transition from short-run disequilibrium to a stable long-run equilibrium.

Table 6: Effect of Economic Institutions, Trade and Economic Performance in Nigeria (Short run estimation)

| Regressors | (1) | (2) | (3) | (4) | (5) |
|------------|-----------|-----------|-----------|-----------|----------|
| TOP | 0.034830 | 0.035391 | 0.034979 | 0.028298 | 0.012590 |
| | (0.6565) | (0.6554) | (0.6542) | (0.7188) | (0.8744) |
| FDI | 1.425959 | 0.842241 | 1.399130 | 1.226357 | 1.561366 |
| | (0.1070) | (0.4013) | (0.1170) | (0.2155) | (0.1014) |
| Log (LF) | -1.459921 | -4.616046 | -0.585419 | -2.151531 | 0.654930 |
| | (0.0166) | (0.0033) | (0.1907) | (0.0060) | (0.8793) |
| GCFC | -0.031610 | 0.011223 | -0.035779 | -0.022663 | 0.003296 |
| | (0.7683) | (0.9273) | (0.7403) | (0.7996) | (0.9738) |
| FIN FREE | -0.059900 | | | | |
| | (0.6969) | | | | |
| INV FREE | | -0.060135 | | | |

| | | | | | |
|---------------|----------|----------|-----------|----------|----------|
| | | (0.5088) | | | |
| TRADE FREE | | | -0.052801 | | |
| | | | (0.5517) | | |
| BUS FREE | | | | 0.065177 | |
| | | | | (0.7250) | |
| TAX BURDEN | | | | | 0.612009 |
| | | | | | (0.4916) |
| ECM (-1)* | -0.7496 | -0.7655 | -0.7448 | -0.7121 | -0.7326 |
| | (0.0039) | (0.0033) | (0.0034) | (0.0055) | (0.0039) |
| Adj. R-Square | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |

Note: () represent probability

The short-run estimates for economic institutions, trade openness and economic performance. The findings reveal that financial, investment and trade freedom has a negative and insignificant effect on economic performance, while trade openness exerts a positive but insignificant effect on economic performance in Nigeria. This could be attributed to the negative effect of labour and capital (control variables) on economic performance, as well as policy uncertainties in the economy ranging from foreign exchange policy, border policy and investment climate in Nigeria. On the other hand, business freedom, tax burden and trade openness exerted positive but insignificant effect on economic performance in Nigeria. One of the reasons for the insignificant effect may be the presence of other dominant economic factors, the complexity of economic interactions, time lag between policy changes and observable economic outcomes among others.

The results show the need for strengthening economic institutions as part of policy strategy to leverage on the benefit of trade openness to enhance economic performance in Nigeria. Lastly, the coefficient of ECM (-) is negative and significant in all economic institutions' variables. This reveals the speed of adjustment from short-run disequilibrium to established long-run equilibrium.

Post Estimation Tests

The result of some selected post estimation tests which include Ramsey test for linearity, serial correlation, normality test and heteroscedasticity are presented in table 7.0 for governance institutions and table 8.0 for economic institutions. The results confirms that the estimated linear ARDL model was correctly specified as shown in the Ramsey test, there is no such problem of serial correlation and heteroscedasticity, and residuals are normally distributed and can be use to predict future effect of institutional quality, trade openness and economic performance in Nigeria.

Table 7.0: Post Estimation Test (Governance Institutions)

| Diagnostics | RQ | CC | RL |
|-------------|----------------|----------------|----------------|
| Ramsey Test | 0.422* (0.68) | 0.162* (0.88) | 0.111* (0.91) |
| | 0.178**(0.68) | 0.026**(0.88) | 0.012**(0.91) |
| LM Test | 2.369**(0.124) | 2.158**(0.146) | 0.785**(0.472) |

| | | | |
|-----------------------|-----------------|-----------------|-----------------|
| Normality Test | 1.131***(0.568) | 0.100***(0.951) | 0.272***(0.873) |
| Breusch-Pagan-Godfrey | 0.560** (0.757) | 0.838** (0.555) | 0.801** (0.581) |

Note: *, **,***, () represent t-statistic, F-statistics, Jarque-Bera and Probability

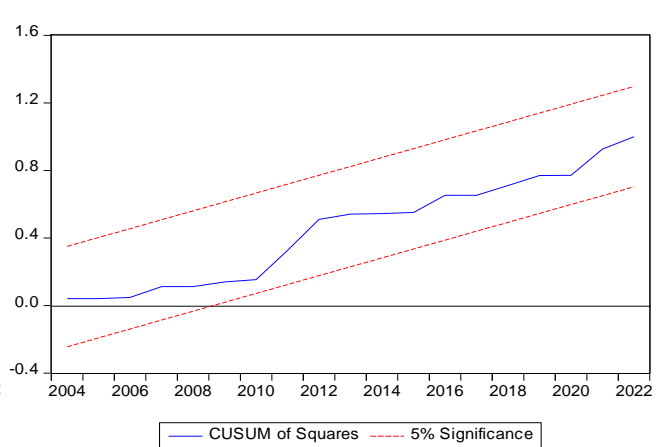
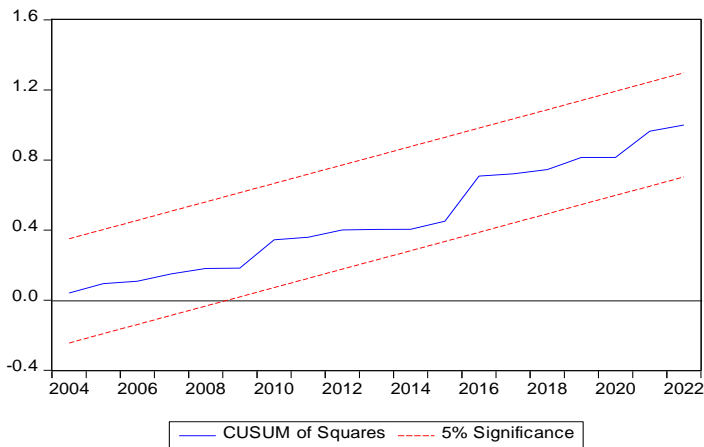
Table 8.0: Post Estimation Test (Economic Institutions)

| Diagnostics | Inv free | Fin free | Trade free | Bus free | Tax burden |
|-----------------------|----------------|----------------|----------------|----------------|---------------|
| Ramsey Test | 0.70* (0.49) | 0.83*(0.42) | 0.61* (0.55) | 0.56* (0.59) | 0.73*(0.47) |
| | 0.49**(0.49) | 0.68**(0.42) | 0.38**(0.55) | 0.31**(0.59) | 0.54**(0.47) |
| LM Test | 2.35**(0.13) | 3.44**(0.06) | 7.28**(0.01) | 3.03**(0.07) | 1.72**(0.21) |
| Normality Test | 15.14***(0.00) | 10.20***(0.01) | 10.02***(0.01) | 13.18***(0.00) | 4.64***(0.00) |
| Breusch-Pagan-Godfrey | 0.33**(0.91) | 0.42**(0.86) | 0.32** (0.92) | 0.26**(0.95) | 0.30**(0.93) |

Note: *, **,***, () represent t-statistic, F-statistics, Jarque-Bera and Probability

Regulatory Quality

Control of Corruption



Rule of Law

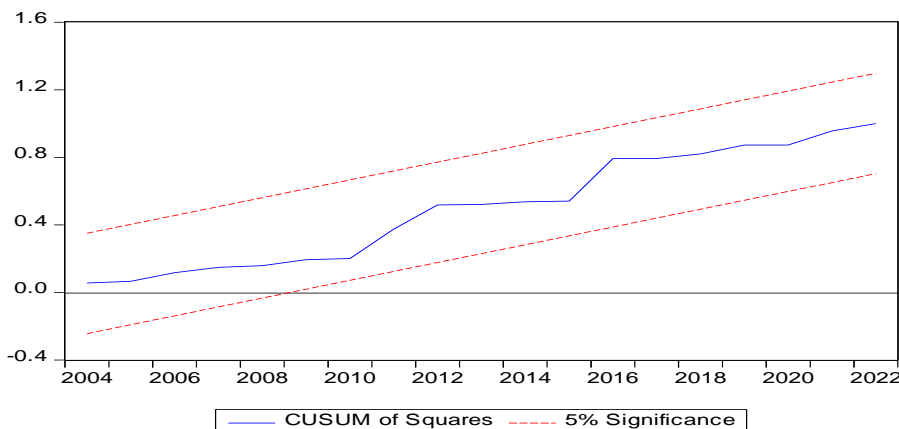
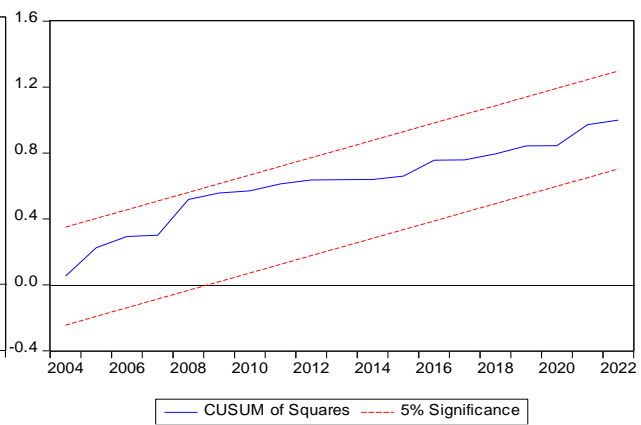
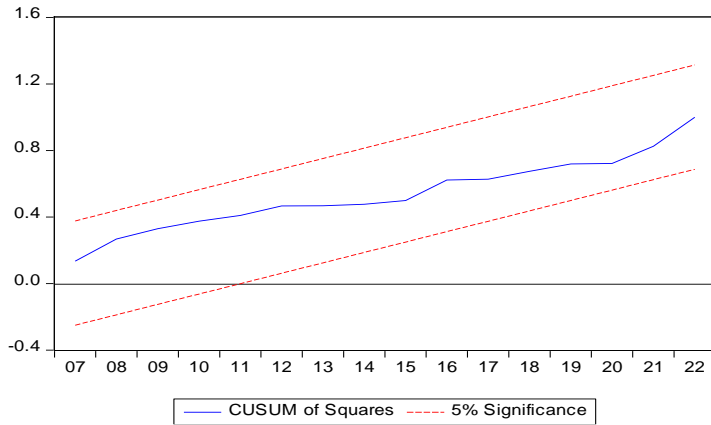


Figure 1.0: CUSUM SQUARE GRAPH (Governance Institutions)

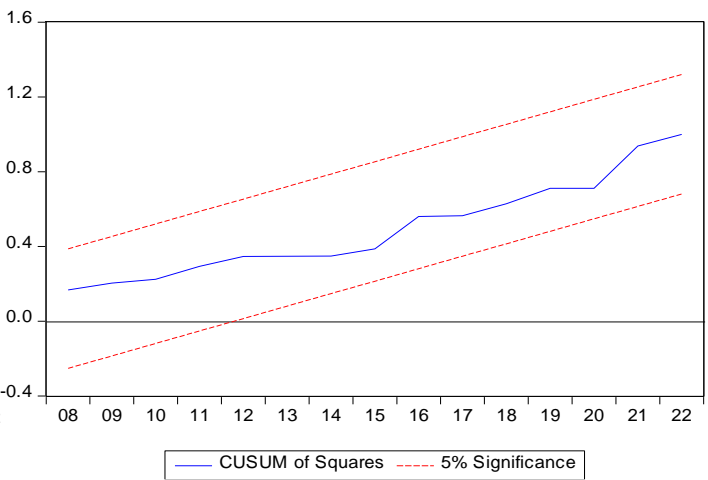
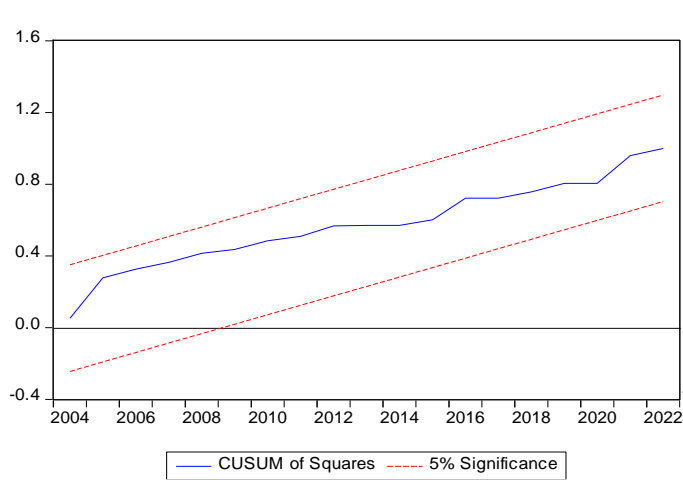
Business Freedom

Investment Freedom



Trade Freedom

Financial Freedom



Tax Burden

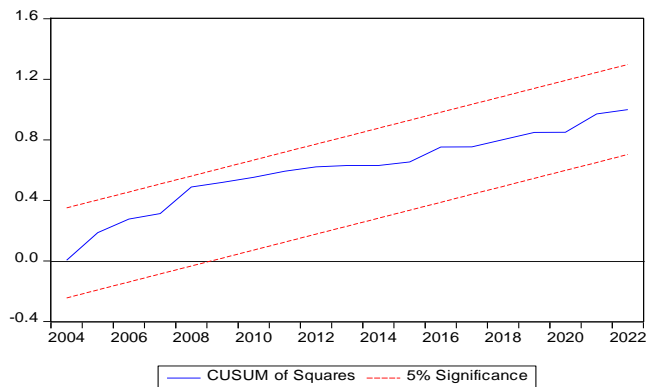


Figure 2.0: CUSUM SQUARE GRAPH (Economic Institutions)

Finally, the stability of the model for institutional quality, trade openness and economic performance is confirmed by plots of CUSUMQ in the critical bound of 5% level of significance as shown in figures 1.0 and 2.0 respectively.

CONCLUSION AND POLICY RECOMMENDATIONS

This study empirically examined the relationship between institutional quality, trade, and economic success in Nigeria. It examined the many elements of governance, economic institutions, and trade openness about economic performance. The principal findings indicate that economic fundamentals, specifically labor and

capital, are predictors of economic performance in Nigeria. The significance of institutional quality and trade openness in improving economic performance is critical, although the regression output indicates it is insignificant. The impact of governance, economic institutions, and trade openness on economic performance is inconsistent. Control of corruption and rule of law adversely affected economic performance, whereas government effectiveness, regulatory quality, and trade openness positively influenced economic performance in the long term. The bound test results indicated a prolonged link among governance institution components, trade openness, and economic success, except the government effectiveness component. Furthermore, the short run indicated a negative correlation between the components of governance institutions—namely regulatory quality, control of corruption, and rule of law—and economic performance, whereas trade openness demonstrated a positive influence on economic performance across these governance components.

Additionally, elements of economic institutions and trade openness were positively correlated with economic performance. Business freedom, tax burden, and trade openness positively influenced economic performance, whereas financial freedom, investment freedom, and trade freedom adversely impacted economic performance in both the long and short run. The bound test results indicated that a long-term relationship exists among the components of economic institutions, trade openness, and economic performance in Nigeria.

Consequently, institutional strengthening is essential to harness the advantages of trade openness and improve economic performance in Nigeria. Furthermore, labor, capital, and foreign direct investment exhibited varied impacts on economic performance.

For governance institutions, labor negatively impacted economic performance in the long term for government efficacy and regulatory requirements, as well as in the near term for the latter. A positive relationship was observed between the control of corruption and the rule of law in both the long and short term. In the context of economic institutions, labor negatively impacted economic performance concerning financial freedom, trade freedom, investment freedom, and business freedom, although business freedom and tax burden had a positive relationship in the long run. In the short-run analysis, a negative correlation exists across the components of economic institutions, except for tax burden, which demonstrated a positive association. A negative association was identified between capital and governance institution components in both the long and short run.

The findings indicate an adverse effect of capital on economic performance concerning financial freedom, trade freedom, and business freedom in both the long and short run, while demonstrating a positive relationship between capital and economic performance regarding investment freedom and tax burden in both time frames. Foreign direct investment positively influenced economic performance in both governance and economic institutions over both the long and short run. It is important to acknowledge that, despite the inconclusive findings regarding the effect of institutional quality and trade openness on Nigeria's economic performance, the country continues to experience a deficiency in the quality of its governance and economic institutions. Azam et al. (2021) clearly agree that the effects of institutional quality on economic performance differs according to the regional location of Sub-Saharan African (SSA) countries. Consequently, an enhancement in institutional quality is more probable to elevate economic performance in Sub-Saharan African nations, as corroborated by Wandeda et al. (2021). Consequently, improving governance and economic institutions in Nigeria will ensure that the benefits of trade openness are directed towards growth-enhancing sectors of the Nigerian economy (Omoke et al., 2021). The weak performance of the Nigerian economy is attributable to weak institutions and contradictions in trade policy. Consequently, the recommendations of this study focus on institutional and trade-related concerns.

First, the Nigeria government must intentionally strengthen governance and economic institutions to capitalize on the spillover effects of robust institutions that promote trade.

Second, the study indicates that control of corruption and adherence to the rule of law negatively impact economic performance in Nigeria. Consequently, the government must implement, enhance, and institutionalize anti-corruption initiatives inside the public sector, in addition to strengthening the judicial system. Bilateral and multilateral trade agreements, along with trade policy, must comply with the rule of law and anti-corruption measures.

Third, the study indicates that financial freedom, investment freedom, and trade freedom negatively effect economic performance in Nigeria. Consequently, the Nigerian government ought to formulate and enact a legal framework to establish Nigeria as a premier destination for trade and investment. Trade partners and investors will fully comprehend the prerequisites for conducting business in Nigeria, including investment incentives such as tax reductions and tax vacations for substantial investment, which should be included in trade agreements.

Fourth, the analysis indicates that the relationship between trade openness and economic performance in Nigeria is positive although insignificant. Consequently, the Nigerian government must involve critical stakeholders from both the public and private sectors, along with micro, small, and medium enterprises (MSMEs) that are pivotal to the economy, to reassess and revise the national trade policy, ensuring that obstacles and trade barriers are effectively addressed.

Fifth, the Nigeria government must guarantee that trade and market performance policies align with national policies, international obligations, and regional trade agreements (both bilateral and multilateral) as well as development objectives. Measures should be implemented to document a minimal level of policy ambiguity.

Lastly, the collaboration between the monetary and fiscal policy authorities must be enhanced. Coordination will fortify institutions, augment resource availability for MSMEs, stimulate cross-border commerce, and promote economic performance.

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