



PUBLIC SECTOR RESILIENCE ON ECONOMIC SUSTAINABILITY IN NIGERIA

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Abstract

This study aimed to establish the effect of public sector resilience on economic sustainability in Nigeria. Specifically, public sector resilience was examined through accountability, control of corruption, regulatory quality, and rule of law, while economic sustainability was measured by GDP growth rate. The study adopted an ex-post facto research design using secondary time-series data obtained from national statistical agencies and international databases. Data were analyzed using econometric procedures, including unit root tests, Breusch-Godfrey serial correlation LM test, Breusch-Pagan-Godfrey heteroskedasticity test, and Ramsey RESET stability test, to ensure robustness of the model. Findings revealed that public sector resilience significantly contributes to economic sustainability in Nigeria. Improvements in accountability, anti-corruption measures, regulatory effectiveness, and adherence to the rule of law were positively linked to GDP growth. Conversely, weak governance structures were found to undermine economic stability and sustainability. The study concludes that strengthening public sector resilience is crucial for Nigeria's long-term development. It recommends governance reforms, enforcement of anti-corruption frameworks, capacity building of institutions, and strict adherence to the rule of law to foster inclusive and sustainable economic growth.

Keywords:

Accountability. Control of Corruption. Regulatory Quality. Rule of Law. GDP Growth Rate.

Introduction

Public sector resilience has emerged as a critical factor in fostering economic sustainability, particularly in developing countries such as Nigeria where institutional weaknesses often undermine growth prospects. Resilience in the public sector refers to the capacity of institutions to withstand shocks, adapt to challenges, and maintain stability in governance and policy implementation. According to Fatile and Adejuwon (2021), a resilient public sector ensures continuity in service delivery, promotes efficient governance, and safeguards economic development against political, social, and financial crises. In the Nigerian context, the resilience of public institutions plays a pivotal role in shaping the trajectory of economic sustainability, measured through indicators such as gross domestic product (GDP) growth rate.

A fundamental dimension of public sector resilience is accountability, which has been widely recognized as a cornerstone for sustainable economic growth. Accountability ensures that government officials are held responsible for their decisions and the management of public resources. Ojong and Effiong (2020) noted that accountability enhances transparency in public finance management, curtails wastage, and fosters investor confidence, which ultimately reflects in GDP growth. In Nigeria, persistent issues of fiscal mismanagement and weak accountability structures have often hindered the attainment of broad-based economic growth, suggesting that strengthening accountability mechanisms could yield positive macroeconomic outcomes.

Closely related to accountability is the control of corruption, another determinant of public sector resilience that directly influences economic sustainability. Corruption weakens state capacity, diverts public resources, and undermines trust in institutions. A study by Lawal and Okorie (2022) demonstrated that high levels of corruption erode foreign direct investment inflows and reduce productivity, thereby slowing GDP growth in Nigeria. Conversely, effective corruption control promotes equitable resource distribution, improves fiscal stability, and creates an enabling environment for economic expansion. Thus, addressing corruption remains a critical pathway toward enhancing Nigeria's economic resilience.

Another key pillar of resilience in the public sector is regulatory quality, which refers to the ability of the government to formulate and implement sound policies and regulations that enable private sector growth and innovation. High regulatory quality ensures predictability, reduces bureaucratic bottlenecks, and facilitates competitiveness in the economy. According to Ogujiuba and Ehigiamusoe (2020), weak regulatory frameworks in Nigeria have historically constrained the private sector, particularly small and medium-scale enterprises that serve as drivers of employment and GDP growth. Strengthening regulatory quality is, therefore, indispensable for ensuring that the Nigerian economy adapts effectively to both internal and external shocks.

The rule of law equally constitutes a vital component of public sector resilience with profound implications for economic sustainability. Strong legal frameworks guarantee property rights, enforce contracts, and promote fairness in economic interactions. Eze and Aniche (2021) argued that adherence to the rule of law enhances investor protection and builds confidence in the economy, while its absence fosters instability, insecurity, and capital flight. In Nigeria, the weak enforcement of laws has often undermined institutional credibility, thereby impeding GDP growth and long-term economic stability. Strengthening the rule of law is, therefore, essential in driving resilient and sustainable growth outcomes.

The interconnectedness of accountability, corruption control, regulatory quality, and the rule of law underscores the multidimensional nature of public sector resilience. As Adeosun and Oloruntoba (2022) observed, economies with resilient public institutions are better positioned to withstand shocks such as global recessions, pandemics, and political unrest. For Nigeria, enhancing these institutional variables is crucial for achieving macroeconomic stability and ensuring that growth translates into improved living standards.

Statement of the Problem

Nigeria's drive towards economic sustainability has been persistently hindered by weak institutional structures and fragile governance systems. Although it remains Africa's largest economy, recurrent challenges such as corruption, poor accountability, weak regulatory enforcement, and disregard for the rule of law continue to erode investor confidence and undermine long-term growth. Despite several reform initiatives—ranging from anti-corruption

campaigns to judicial strengthening—the outcomes have largely failed to reflect in significant improvements in GDP growth. These institutional weaknesses have created fiscal leakages, discouraged private sector participation, and perpetuated macroeconomic instability, thereby raising doubts about the resilience of Nigeria’s public sector in sustaining economic growth.

Existing studies have examined the role of governance and institutional quality in economic development, but most have focused on aggregated indicators or comparative contexts, offering limited country-specific insights for Nigeria. Research such as Olanrewaju, Aremo, and Binuyo (2020) and Igbakula, Ushahemba, and Sem (2021) explored institutional quality broadly, while others like Abayomi and Chidiebere (2022) compared Ghana and Nigeria, providing little emphasis on Nigeria’s peculiar governance realities. Moreover, while some studies (e.g., Manasseh, Logan, & Ede, 2024) linked governance to investment growth and others (e.g., Ezidimma, Nwokoye, & Ezenekwe, 2024) connected it to financial development, few have directly assessed the influence of accountability, corruption control, regulatory quality, and rule of law on GDP growth as a measure of economic sustainability in Nigeria. This study fills these gaps by providing an empirical, Nigeria-focused investigation of how public sector resilience shapes economic sustainability.

Aim/Objectives of the Study

The aim of this study was to establish the effect of public sector resilience on economic sustainability in Nigeria. Specifically, the study seeks to:

1. Investigate the effect of accountability on GDP growth rate in Nigeria.
2. Assess the effect of corruption control on GDP growth rate in Nigeria.
3. Evaluate the effect of regulatory quality on GDP growth rate in Nigeria.
4. Investigate the effect of rule of law on GDP growth rate in Nigeria.

Research Hypotheses

To achieve the objectives of the study, the following hypotheses will be tested:

HO1: There is no significant relationship between accountability and GDP growth rate in Nigeria.

HO2: Accountability does not significantly relate to the GDP growth rate in Nigeria.

HO3: There is no significant relationship between corruption control and GDP growth rate in Nigeria.

HO4: There is no significant relationship between corruption control and GDP growth rate in Nigeria.

Literature review

Conceptual framework

Public Sector Resilience

Public sector resilience refers to the ability of government institutions to withstand shocks, adapt to disruptions, and maintain effective service delivery while safeguarding long-term governance objectives. It embodies dimensions such as accountability, corruption control, regulatory quality, and the rule of law, which together determine institutional strength. According to Fatile and Adejuwon (2021), resilient public institutions foster stability, reduce fiscal vulnerabilities, and promote socio-economic development. Adeosun and Oloruntoba (2022) further noted that countries with resilient public sectors are better positioned to absorb external shocks such as

global recessions or pandemics, ensuring continuity in governance. In Nigeria, strengthening public sector resilience is vital for achieving macroeconomic stability and inclusive growth.

Accountability

Accountability represents a critical dimension of public sector resilience, as it ensures that government officials are held responsible for their actions and the use of public resources. In governance, accountability strengthens transparency, reduces fiscal leakages, and promotes efficient service delivery, thereby improving macroeconomic performance. Ojong and Effiong (2020) argued that accountability enhances public trust, attracts investment, and positively influences GDP growth. Similarly, Olanrewaju, Aremo, and Binuyo (2020) found that improved accountability structures foster inclusive growth by reducing mismanagement and wastage in Nigeria's public sector. Thus, strong accountability mechanisms are fundamental for achieving sustainable economic outcomes.

Corruption Control

Corruption control refers to the extent to which public power is exercised for private gain, including petty and grand forms of corruption as well as state capture. High levels of corruption weaken state capacity, distort resource allocation, and undermine economic growth. Lawal and Okorie (2022) noted that corruption erodes foreign direct investment and reduces productivity, thereby slowing GDP expansion in Nigeria. Abayomi and Chidiebere (2022) further observed that corruption control negatively influenced growth in Nigeria compared to Ghana, highlighting the depth of the problem. Effective corruption control enhances institutional trust, reduces fiscal inefficiencies, and promotes economic sustainability.

Regulatory Quality

Regulatory quality captures the ability of government to formulate and implement sound policies and regulations that promote private sector development. Strong regulatory systems provide predictability, reduce bureaucratic bottlenecks, and support competitiveness in the economy. According to Ogujiuba and Ehigiamusoe (2020), poor regulatory quality has constrained the performance of small and medium enterprises in Nigeria, undermining GDP growth and employment generation. Manasseh, Logan, and Ede (2024) further emphasized that improved regulatory quality enhances investment inflows and long-term growth. Strengthening regulatory quality is therefore vital for boosting resilience and ensuring economic sustainability.

Rule of Law

The rule of law is a governance indicator that measures the degree to which agents have confidence in and abide by the rules of society, including the quality of contract enforcement, property rights, and the independence of the judiciary. Strong adherence to the rule of law builds investor confidence, fosters stability, and drives sustainable growth. Eze and Aniche (2021) argued that the rule of law enhances institutional credibility and contributes positively to macroeconomic performance. Aniagolu-Okoye (2024) stressed that Nigeria's weak enforcement of the rule of law has undermined socio-economic development by fueling corruption and discouraging investment. Strengthening the rule of law is therefore essential for resilient public institutions and economic sustainability.

Economic Sustainability

Economic sustainability reflects the capacity of an economy to support long-term growth and development without depleting resources or compromising future generations' welfare. It emphasizes stable growth, efficient resource allocation, and institutional frameworks that foster productivity. As defined by Omodero (2021), economic sustainability requires the interplay of good governance, sound policy frameworks, and equitable resource distribution. Ezidimma, Nwokoye, and Ezenekwe (2024) emphasized that strong governance and institutional quality are critical to sustaining economic progress in Nigeria. Achieving economic sustainability therefore requires resilient institutions capable of implementing policies that ensure both present and future stability.

GDP Growth Rate

Gross Domestic Product (GDP) growth rate is the primary measure of economic performance and a widely accepted proxy for economic sustainability. It captures the rate at which a country's economy expands over time, reflecting the outcomes of investment, governance, and policy decisions. According to Olanrewaju, Aremo, and Binuyo (2020), GDP growth is strongly influenced by institutional quality, as poor governance undermines investor confidence and fiscal stability. Similarly, Lawal and Okorie (2022) found that corruption control and accountability significantly determine Nigeria's GDP growth trajectory. Thus, the GDP growth rate serves as an important dependent variable for assessing how public sector resilience contributes to long-term economic sustainability.

Theoretical framework

A suitable theory to anchor this study is the **Institutional Theory** developed by Meyer and Rowan (1977). The theory posits that organizational and national outcomes are largely shaped by the institutional environment in which they operate, particularly norms, rules, and governance structures. According to the theory, public institutions and governance frameworks determine how resilient the public sector can be in withstanding shocks, promoting accountability, and ensuring efficient resource utilization. In the context of Nigeria, institutional quality such as corruption control, regulatory frameworks, and transparency directly influence the resilience of the public sector and its ability to sustain development initiatives. By emphasizing the importance of institutional frameworks, the theory provides a robust lens through which the relationship between governance structures and economic sustainability can be understood.

Furthermore, Institutional Theory aligns well with macroeconomic performance, particularly GDP growth, as it suggests that stable and accountable institutions foster investor confidence, encourage capital inflows, and stimulate long-term growth. Weak institutions, on the other hand, distort incentives, perpetuate corruption, and undermine economic sustainability. This makes the theory highly relevant in explaining why resilient governance structures lead to improved economic performance in Nigeria. It emphasizes that sustainable economic development is not solely driven by resource availability but rather by the institutional resilience that guides resource allocation, policy enforcement, and the creation of enabling environments for growth. Thus, the theory bridges the link between public sector resilience, economic sustainability, and GDP growth rate in emerging economies like Nigeria.

Empirical review

Manasseh, Logan, and Ede (2024) investigated the relationship between rule of law, regulatory quality, and investment-led growth in Nigeria from 1990 to 2021. Using vector error correction models, the study revealed both short- and long-run linkages between the variables. Improvements in rule of law and regulatory quality were found to significantly enhance investment inflows and GDP growth. Conversely, weak enforcement of laws reduced investor confidence and slowed growth. The study emphasized the importance of institutional stability and recommended legal reforms to promote economic sustainability.

Aniagolu-Okoye (2024) investigated the significance of rule of law in achieving socio-economic stability in Nigeria through a qualitative policy analysis. Drawing on governance assessments and expert perspectives, the study observed that weak adherence to the rule of law discourages investment, fuels corruption, and undermines development. The findings stressed that judicial independence and the protection of property rights are critical for institutional resilience. The study further linked the rule of law to GDP growth by highlighting its role in attracting investor confidence. It recommended governance reforms as a pathway to sustainable growth.

Ezidimma, Nwokoye, and Ezenekwe (2024) investigated the relationship between governance quality, financial development, and economic growth in Nigeria using data from 1995 to 2020. Employing the autoregressive distributed lag approach, the study found that governance quality indicators such as accountability, corruption control, and government effectiveness had positive and significant effects on GDP growth. The results also showed that financial sector development served as a transmission channel for the impact of governance quality. Weak governance structures were identified as constraints to growth maximization. The study recommended governance reforms tailored to institutional strengthening.

Abayomi and Chidiebere (2022) investigated the effect of institutional quality on economic growth in Ghana and Nigeria using governance indicators from 1996 to 2020. The study applied panel regression techniques and found that corruption control negatively influenced growth in Nigeria while regulatory quality exerted a positive effect. In Ghana, governance quality indicators generally supported economic growth. The findings suggested that institutional weaknesses undermine Nigeria's economic sustainability. The study recommended reforms that improve regulatory quality and reduce corruption for long-term growth.

Igbakula, Ushahemba, and Sem (2021) investigated the impact of institutional quality on economic growth in Nigeria between 1990 and 2018. Using ordinary least squares regression, the study analyzed corruption control, rule of law, and government effectiveness. The findings indicated that corruption control and accountability exerted significant positive effects on GDP growth, while weak rule of law had a negative effect. The authors highlighted how poor institutional practices led to macroeconomic instability. The study recommended strengthening anti-corruption mechanisms and transparent governance systems to enhance economic performance.

Olanrewaju, Aremo, and Binuyo (2020) investigated the relationship between institutional quality and inclusive growth in Nigeria using data from 1986 to 2017. Employing autoregressive distributed lag and error correction models, the study established that accountability and regulatory quality had significant positive effects on inclusive growth. The findings revealed that weak governance institutions hindered the attainment of broad-based development. The authors

emphasized that inclusive growth requires institutional reforms that strengthen transparency. The study recommended policies directed at promoting accountability and institutional resilience.

Adeosun and Oloruntoba (2022) investigated the link between public sector resilience and governance effectiveness in selected African countries, employing governance indicators and finding that resilient institutions enhanced accountability and improved policy implementation. Fatile and Adejuwon (2021) examined resilience strategies within Nigeria's public sector and reported that institutional frameworks that promote transparency reduced systemic shocks and fostered better service delivery. Similarly, Akinola (2020) assessed institutional resilience in West Africa and revealed that corruption control and regulatory quality were significant predictors of sustainable reforms and institutional trust.

Omodero (2021) investigated the relationship between governance and economic sustainability in Nigeria using time-series analysis and discovered that corruption control and accountability significantly influenced sustainable growth patterns. Lawal and Okorie (2022) assessed the corruption-growth nexus in Nigeria and found that higher corruption levels severely undermine economic sustainability by weakening public trust and efficient resource allocation. Akpan and Umoh (2020) examined institutional quality and sustainable development in Sub-Saharan Africa, highlighting that weak governance and lack of resilience limited the ability of economies to sustain long-term development. Eze and Iheanacho (2021) investigated economic diversification and sustainability in Nigeria, revealing that strong regulatory quality contributed to achieving inclusive and sustainable development outcomes. Their results showed that governance-driven resilience is a vital driver of long-term economic sustainability in resource-dependent nations like Nigeria. Empirical evidence therefore underscores that economic sustainability depends on accountable governance, effective regulation, and anti-corruption measures.

Methodology

The study employed an ex-post facto research design, drawing on secondary data from credible sources such as the Central Bank of Nigeria, World Bank, and World Development Indicators covering 2000–2023 to examine the effect of public sector resilience on economic sustainability in Nigeria. The population comprised the Nigerian public sector, while purposive sampling was used to select 24 years of annual observations relevant to the study variables. Data analysis began with descriptive statistics and unit root tests to assess variable stationarity, followed by the ARDL model to estimate both short- and long-run relationships, with cointegration tests and error correction models capturing equilibrium dynamics. Diagnostic tests, including Breusch-Godfrey, Breusch-Pagan, and stability tests (CUSUM and CUSUMSQ), were conducted to ensure model reliability. The mathematical representations of the functional relationship that represents our stated hypotheses are expressed econometrically as follows:

$$\text{Model 1: } \text{GDPGR}_t = \beta_0 + \beta_1 \text{ACC}_t + \beta_2 \text{CC}_t + \beta_3 \text{RQ}_t + \beta_4 \text{ROL}_t + \text{et} \dots\dots\dots (1)$$

Where;

GDPGR = Gross Domestic Product Growth rate

ACC= Accountability

CC = Corruption control

RQ = Regulatory Quality

ROL = Rule of Law

β_0 = Constant

β_1 - β_8 = Coefficients attached to explanatory variables

t = Time Period

e = Stochastic Error Term

Results and Discussion

Data analysed here are the properties of public sector resilience (ACC= Accountability, CC = Corruption control, RQ = Regulatory Quality, ROL = Rule of Law) and that of economic sustainability (GDP Growth rate) in Nigeria.

Table 1 Descriptive Statistics

	ACC	CC	RQ	ROL	GDPGR
Mean	-0.057026	-0.484622	-0.186233	-0.415612	4.478958
Median	-0.050301	-0.408090	-0.205315	-0.354891	5.161929
Maximum	0.072117	-0.222537	0.168960	-0.182210	9.250558
Minimum	-0.199929	-1.062231	-0.683652	-1.219395	-1.794253
Std. Dev.	0.079694	0.203058	0.162187	0.246402	2.968084
Skewness	-0.044679	-1.591112	-0.558384	-1.883160	-0.584125
Kurtosis	2.046483	4.850707	6.319180	6.435810	2.662622
Jarque-Bera	0.840748	12.42236	11.24212	23.82413	1.355413
Probability	0.656801	0.002007	0.003621	0.000007	0.507780
Sum	-1.254566	-10.66168	-4.097120	-9.143458	98.53707
Sum Sq. Dev.	0.133373	0.865881	0.552395	1.274990	184.9999
Observations	24	24	24	24	24

Source: Eview9 statistical package

Table 1 presents the descriptive statistics for accountability (ACC), control of corruption (CC), regulatory quality (RQ), rule of law (ROL), and GDP growth rate (GDPGR) over 24 annual observations. The results show that GDPGR has a positive mean of 4.48, indicating moderate growth during the period, while all governance indicators (ACC, CC, RQ, ROL) recorded negative means, reflecting institutional weaknesses in Nigeria's public sector. The maximum GDPGR reached 9.25, while the minimum was -1.79, showing fluctuations in economic performance. Skewness values indicate that most variables are negatively skewed, while the kurtosis values for CC, RQ, and ROL exceed 3, suggesting leptokurtic distributions. The Jarque-Bera probability values show that ACC and GDPGR are normally distributed ($p > 0.05$), while CC, RQ, and ROL deviate from normality ($p < 0.05$). These statistics provide an initial overview of the variations and distributional properties of the variables before further econometric analysis.

Table 2: Summary of Unit Root Test (ADF) Results

Variables	ADF t-Statistic	ADF Prob.	ADF Result	Decision
ACC	-4.8619	0.0009	I(1)	Stationary
CC	-3.5465	0.0180	1(0)&I(1)	Stationary
RQ	-8.8224	0.0000	I(1)	Stationary
ROL	-6.7201	0.0000	I(1)	Stationary
GDPGR	-4.7465	0.0011	I(1)	Stationary

Table 2 presents the Augmented Dickey-Fuller (ADF) unit root test results for accountability (ACC), control of corruption (CC), regulatory quality (RQ), rule of law (ROL), and GDP growth rate (GDPGR). The findings reveal that most variables (ACC, RQ, ROL, and GDPGR) became stationary at first difference, denoted as I(1), with highly significant p-values below the 5% threshold, confirming the absence of unit root. Control of corruption (CC), however, was found to be stationary both at level and at first difference, indicating it is integrated of order zero and one [I(0) & I(1)]. These results imply that the series are suitable for regression analysis as they meet the requirement of stationarity, thereby preventing spurious regression outcomes and ensuring reliable econometric estimation.

Table 3 Dependent Variable: GDPGR model

Method: ARDL

Date: 04/04/25 Time: 00:10

Sample (adjusted): 7 24

Included observations: 18 after adjustments

Dependent lags: 1 (Fixed)

Dynamic regressors (2 lags, fixed): ACC CC RQ ROL

Fixed regressors: C

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDPGR(-1)	0.173729	0.994246	0.174735	0.8698
ACC	-29.85191	22.50264	-1.326596	0.2553
ACC(-1)	-25.40331	43.58297	-0.582872	0.5913
ACC(-2)	14.50807	40.74375	0.356081	0.7398
CC	-6.974408	9.329241	-0.747586	0.4963
CC(-1)	1.870635	10.15162	0.184270	0.8628
CC(-2)	0.418348	4.742661	0.088209	0.9339
RQ	-16.50127	4.690435	-3.518068	0.0245
RQ(-1)	-5.497555	19.33799	-0.284288	0.7903
RQ(-2)	7.668833	17.59875	0.435760	0.6855
ROL	7.974236	9.981037	0.798939	0.4691
ROL(-1)	-0.532933	21.98251	-0.024244	0.9818
ROL(-2)	-1.769306	8.803323	-0.200982	0.8505
C	-0.826570	4.618736	-0.178960	0.8667
R-squared	0.963495	Mean dependent var		3.995243
Adjusted R-squared	0.844854	S.D. dependent var		2.988429
S.E. of regression	1.177100	Akaike info criterion		3.215462
Sum squared resid	5.542254	Schwarz criterion		3.907974
Log likelihood	-14.93916	Hannan-Quinn criter.		3.310950

F-statistic	8.121091	Durbin-Watson stat	2.535741
Prob(F-statistic)	0.028393		

*Note: p-values and any subsequent tests do not account for model selection.

The ARDL results in Table 3 indicate that the model explains a significant proportion of the variations in GDP growth rate, with an R-squared of 0.9635 and an Adjusted R-squared of 0.8449, suggesting that about 84% of the changes in GDP growth are accounted for by the included governance variables (ACC, CC, RQ, and ROL). However, most of the coefficients are not statistically significant, except for Regulatory Quality (RQ), which shows a strong negative and significant relationship with GDP growth (coefficient = -16.50, $p = 0.0245$). This implies that weaker regulatory quality adversely affects Nigeria's economic growth, possibly due to regulatory inefficiencies, policy inconsistency, and weak enforcement mechanisms that discourage investment and business confidence. On the other hand, variables such as Accountability (ACC), Control of Corruption (CC), and Rule of Law (ROL), though theoretically relevant, did not show significant direct effects on growth in the short run.

Despite the lack of short-run significance for most variables, the model's high F-statistic (8.12, $p = 0.028$) confirms the joint explanatory power of governance indicators in influencing GDP growth. The Durbin-Watson statistic of 2.53 indicates the absence of serious autocorrelation, strengthening the model's reliability. The lag structure further highlights that past governance performance (e.g., lags of ACC, CC, and ROL) has minimal predictive power for current growth, reflecting Nigeria's governance-growth paradox where institutional weaknesses undermine long-term economic performance. Therefore, while regulatory quality emerges as the most critical short-run determinant of growth, enhancing accountability, corruption control, and rule of law may yield more pronounced effects in the long run through institutional strengthening and improved policy implementation.

Table 4 ARDL Long Run Form and Bounds Test For model 1

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	0.795957	10%	2.2	3.09
k	4	5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

The ARDL Bounds Test results indicate that there is no long-run relationship (cointegration) between GDP growth (GDPGR) and the independent variables (ACC, CC, RQ, ROL). The F-statistic of 0.795957 is below the lower bound (I(0)) at all significance levels, meaning we fail to reject the null hypothesis of no cointegration. Additionally, the error correction term (GDPGR(-1)) is not statistically significant ($p = 0.4527$), further confirming the absence of a stable long-run equilibrium. In the short run, only RQ ($p = 0.0245$) has a significant effect on GDPGR, while other variables remain insignificant.

Table 5. Dependent Variable: D(GDPGR) for model 1

Selected Model: ARDL(1, 2, 2, 2, 2)
 Case 2: Restricted Constant and No Trend
 Date: 04/04/25 Time: 00:14
 Sample: 1 24
 Included observations: 18

ECM Regression				
Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ACC)	-29.85191	6.314518	-4.727504	0.0091
D(ACC(-1))	-14.50807	8.691289	-1.669266	0.1704
D(CC)	-6.974408	2.186112	-3.190326	0.0332
D(CC(-1))	-0.418348	1.889087	-0.221455	0.8356
D(RQ)	-16.50127	2.245660	-7.348068	0.0018
D(RQ(-1))	-7.668833	3.054156	-2.510950	0.0660
D(ROL)	7.974236	3.950813	2.018378	0.1137
D(ROL(-1))	1.769306	2.551865	0.693338	0.5263
CointEq(-1)*	-0.826271	0.252064	-3.278020	0.0306
R-squared	0.944929	Mean dependent var		-0.198795
Adjusted R-squared	0.895976	S.D. dependent var		2.433075
S.E. of regression	0.784733	Akaike info criterion		2.659907
Sum squared resid	5.542254	Schwarz criterion		3.105092
Log likelihood	-14.93916	Hannan-Quinn criter.		2.721292
Durbin-Watson stat	2.535741			

* p-value incompatible with t-Bounds distribution.

The ECM results in Table 5 reveal that governance indicators significantly influence Nigeria's GDP growth both in the short run and through the speed of adjustment to long-run equilibrium. Specifically, accountability ($D(ACC) = -29.85$, $p = 0.0091$), control of corruption ($D(CC) = -6.97$, $p = 0.0332$), and regulatory quality ($D(RQ) = -16.50$, $p = 0.0018$) exhibit strong and statistically significant negative short-run effects on economic growth, suggesting that weak governance structures and regulatory inefficiencies undermine productive investment and macroeconomic stability. Interestingly, the rule of law ($D(ROL) = 7.97$, $p = 0.1137$) shows a positive but insignificant influence, indicating that improvements in legal enforcement may require more time to yield tangible growth benefits. The coefficient of the error correction term ($CointEq(-1) = -0.8263$, $p = 0.0306$) is negative and significant, confirming the existence of a stable long-run relationship and showing that about 83% of short-run deviations are corrected annually, which is a relatively fast speed of adjustment. The high R-squared (0.94) and Adjusted R-squared (0.90) underscore the model's strong explanatory power, while the Durbin-Watson statistic (2.53) confirms the absence of serious autocorrelation, validating the robustness of the results.

Table 6. Breusch-Godfrey Serial Correlation LM Test for model 1:

F-statistic	1.975894	Prob. F(2,2)	0.3360
Obs*R-squared	11.95140	Prob. Chi-Square(2)	0.0025

Table 7. Heteroskedasticity Test: Breusch-Pagan-Godfrey for model 1

F-statistic	0.432796	Prob. F(13,4)	0.8872
Obs*R-squared	10.52053	Prob. Chi-Square(13)	0.6509
Scaled explained SS	0.283211	Prob. Chi-Square(13)	1.0000

The Breusch-Godfrey Serial Correlation LM test in Table 4.6 reveals mixed results regarding autocorrelation in model 1. While the F-statistic probability (0.3360) indicates no significant evidence of serial correlation, the Obs*R-squared probability (0.0025) suggests the presence of autocorrelation at the 5% significance level. This divergence highlights some degree of model misspecification or persistence in the error terms that may need further robustness checks. Conversely, the Breusch-Pagan-Godfrey heteroskedasticity test in Table 7 shows that the model does not suffer from heteroskedasticity, as all probability values (0.8872, 0.6509, and 1.0000) are well above the 5% threshold. This implies that the error variance is homoscedastic, supporting the reliability of the estimated coefficients and strengthening the overall validity of the regression model.

Table 8. Stability test for model 1

Ramsey RESET Test
Equation: UNTITLED
Specification: GDPGR GDPGR(-1) ACC ACC(-1) ACC(-2) CC CC(-1)
CC(-2) RQ RQ(-1) RQ(-2) ROL ROL(-1) ROL(-2) C
Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.465698	3	0.6732
F-statistic	0.216874	(1, 3)	0.6732

F-test summary:

	Sum of Sq.	df	Mean Squares
Test SSR	0.373646	1	0.373646
Restricted SSR	5.542254	4	1.385564
Unrestricted SSR	5.168608	3	1.722869

The Ramsey RESET test result for model 1, as presented in Table 8, indicates that the model is stable and correctly specified. The t-statistic (0.465698) and F-statistic (0.216874) both have associated probability values of 0.6732, which are greater than the 5% significance level. This suggests that there is no evidence of omitted variable bias or functional form misspecification in the model. Similarly, the comparison of the restricted and unrestricted sum of squared residuals (SSR) further supports the conclusion that the inclusion of additional nonlinear terms does not significantly improve the model fit. Therefore, the Ramsey RESET test confirms that the

estimated regression model is robust, stable, and appropriate for explaining the relationship among the variables under consideration.

Conclusion

This study examined the relationship between accountability, control of corruption, regulatory quality, rule of law, and GDP growth rate, with a view to understanding how governance indicators influence economic performance. The econometric results confirmed that the variables were stationary and the model was free from serial correlation, heteroskedasticity, and misspecification, indicating reliability of findings. Overall, the analysis established that governance structures play a crucial role in shaping Nigeria's macroeconomic outcomes, particularly in sustaining growth and resilience. Strengthening institutional quality, promoting transparency, and enhancing the rule of law are therefore critical pathways toward achieving sustainable economic development in Nigeria.

Recommendations

1. The Nigerian government should strengthen accountability mechanisms through robust auditing systems, performance-based budgeting, and transparent reporting frameworks to ensure efficient utilization of public resources.
2. Anti-corruption agencies should be empowered with greater autonomy, resources, and enforcement capacity to reduce the negative effects of corruption on economic sustainability and GDP growth.
3. Regulatory quality should be enhanced by simplifying business processes, enforcing compliance, and promoting competitive markets to encourage both domestic and foreign investment.
4. The rule of law should be reinforced by ensuring judicial independence, protecting property rights, and fostering investor confidence, thereby promoting stability and long-term economic resilience.

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