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Corruption and Economic Performance in Nigeria: A Mediation Analysis of Institutional Quality and Public Expenditure Efficiency

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Abstract
This paper examines the channels through which corruption affects economic performance in Nigeria, focusing on the mediating roles of institutional quality and public expenditure efficiency over the period 1990–2023. Using a mediation analysis within an Autoregressive Distributed Lag (ARDL) framework, the study decomposes the total effect of corruption on economic performance into direct and indirect effects transmitted through institutional quality and public expenditure efficiency. The results indicate that corruption significantly hampers economic performance, with the indirect effects through institutional quality and expenditure efficiency accounting for the majority of the total effect. The direct effect of corruption becomes statistically insignificant when the mediators are included, which is consistent with complete mediation. However, the decomposition of effects shows some inconsistency, and the results should therefore be interpreted with caution. The findings underscore the need for anti-corruption reforms that target institutional strengthening and public financial management rather than focusing solely on direct corruption. The study contributes to the literature by simultaneously modelling institutional quality and public expenditure efficiency as mediating mechanisms in the corruption–performance relationship in Nigeria.

Keywords: Corruption, economic performance, institutional quality, public expenditure efficiency, Nigeria, mediation analysis.

1. Introduction

Like most developing countries, the problem of corruption is one of the major challenges that hinder economic development in Nigeria. Between 1999 and 2023, the country generated over $800 billion in oil export revenues, yet it continues to experience persistent poverty, weak industrial capacity, and inadequate infrastructure (World Bank, 2024a). Despite its abundant petrodollars, Nigeria's economic performance remains sluggish. The country has witnessed six consecutive years of industrial contraction, high poverty rates, and a severe infrastructure deficit

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that limits industrial diversification. Industrial capacity declined to 8.05% of GDP by 2025 from 8.99% in 2020, affecting job creation and industrial resilience (World Bank, 2026).

Among the many explanations offered for this paradox, corruption has consistently been identified as one of the greatest obstacles to economic progress (Mauro, 1995; Rose-Ackerman, 1999; Ndem et al., 2022). Using data from Transparency International's Corruption Perceptions Index (CPI) over the period 1999–2025, Nigeria ranked 142nd out of 182 countries in 2025, with a CPI score of 26. This score declined from 140th in 2024 (score: 26), and remains below both the world average of 42 and the sub-Saharan Africa average of 33. Nigeria's CPI trajectory reflects stagnation: the country ranked 146th with 26 points in 2019, fell to 154th with 24 points in 2021, and marginally improved to 145th and 140th with 25 and 26 points in 2023 and 2024 respectively (Transparency International, 2026). This index reflects systemic corruption from the federal level to local government administrations, where constituency projects have gained notoriety for negligence and mismanagement.

While considerable evidence exists regarding the negative correlation between corruption and economic performance (Mauro, 1995; Barro, 1991; Ndem et al., 2022), the specific transmission channels in Nigeria remain inadequately understood. Existing findings are mixed: some studies indicate a positive relationship through oil rent (David et al., 2024), while others find negative effects (Ogunleye, 2021; Adebayo & Ogunjimi, 2022). This suggests that the nature of the relationship may not be direct but mediated through intervening variables such as institutional quality and public expenditure efficiency. Studies on the Nigerian economy confirm that institutional quality moderates various relationships, from the financial sector–development nexus to the tax revenue–growth relationship (Eze et al., 2026). However, no study has simultaneously modelled both institutional quality and public expenditure efficiency as mediators of corruption's effect on economic performance in Nigeria. This paper addresses this gap by answering the following critical question: Does corruption affect economic performance in Nigeria, and what are the transmission channels?

This paper contributes to the literature in three respects. First, it provides empirical insights into a mediation analysis of corruption on economic performance for Nigeria, identifying the mechanisms through which corruption influences economic performance beyond a direct effect. Second, it presents detailed evidence through ARDL bounds testing and mediation tests based on the Sobel test and bootstrapping confidence intervals to distinguish total effects into direct and indirect effects. Third, it provides evidence-based policy recommendations targeting institutional enhancements and effective public financial management to curb corruption as a barrier to Nigerian economic performance.

2. Literature Review and Theoretical Framework

2.1 Concept of Corruption

Corruption is conventionally defined as the abuse of public office for private gain (Rose-Ackerman, 1999). Academic researchers typically distinguish three basic classes of corruption: petty corruption, which is limited in scope and involves relatively small bribes from low- or medium-level employees for minor services; grand corruption, which involves the diversion of state assets at all levels, typically from lucrative procurement deals, infrastructure projects,

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licenses, and natural resource exploitation; and political corruption, which corrupts the system of government, its electoral processes, or public policy through the private greed of the elite (Rose-Ackerman, 1999). Another classification distinguishes between systematic and fragmented corruption. Systemic corruption implies that the political class manages rent-seeking by intercepting the flow of payments, while fragmented corruption occurs where different agents independently solicit bribes, multiplying extortion with private companies paying the price for each payment they make (Shleifer & Vishny, 1993).

2.2 Theoretical Framework

This study adopts the institutional perspective as its principal theoretical framework, complemented by principal-agent theory. The institutional perspective holds that formal and informal rules and institutions determine the prevalence of corruption (North, 1990). Clear regulations, independent judicial systems, impartial watchdog bodies, and a free media can curb corruption by increasing the cost and probability of detection and conviction. Deficient institutions permit impunity, facilitate rent-seeking, and lead to the capture of economic rents by elite groups with political access (Acemoglu & Robinson, 2012; North, 1990). This perspective directly supports the proposed mediation pathway: corruption → weakened institutional quality → reduced economic performance.

Principal-agent theory complements this framework by explaining how corruption arises from informational asymmetry and ineffective monitoring (Klitgaard, 1988). Citizens are principals, and government functionaries are agents tasked with implementing public policy and managing public funds. Lacking sufficient monitoring, officials may pursue personal interests above public welfare. Corruption is more likely when officials have high discretion, monitoring and verification systems are poor, consequences of transgression are unclear, and professional incentives are lacking. This theory supports the second mediation pathway: corruption → inefficient public expenditure → reduced economic performance.

The resource curse hypothesis (Sachs & Warner, 2001) provides important context for Nigeria. The abundance of rents from natural resources may lessen the need for broad tax bases, thereby weakening the accountability link between citizens and government. Resource revenues can also increase the stakes of political control since control of the state provides access to sizable economic rents (Karl, 1997). Evidence has shown that oil rents have a significant negative correlation with institutional quality through the rent-seeking mechanism (Eze et al., 2026). This context reinforces the relevance of institutional quality and expenditure efficiency as mediating mechanisms in Nigeria.

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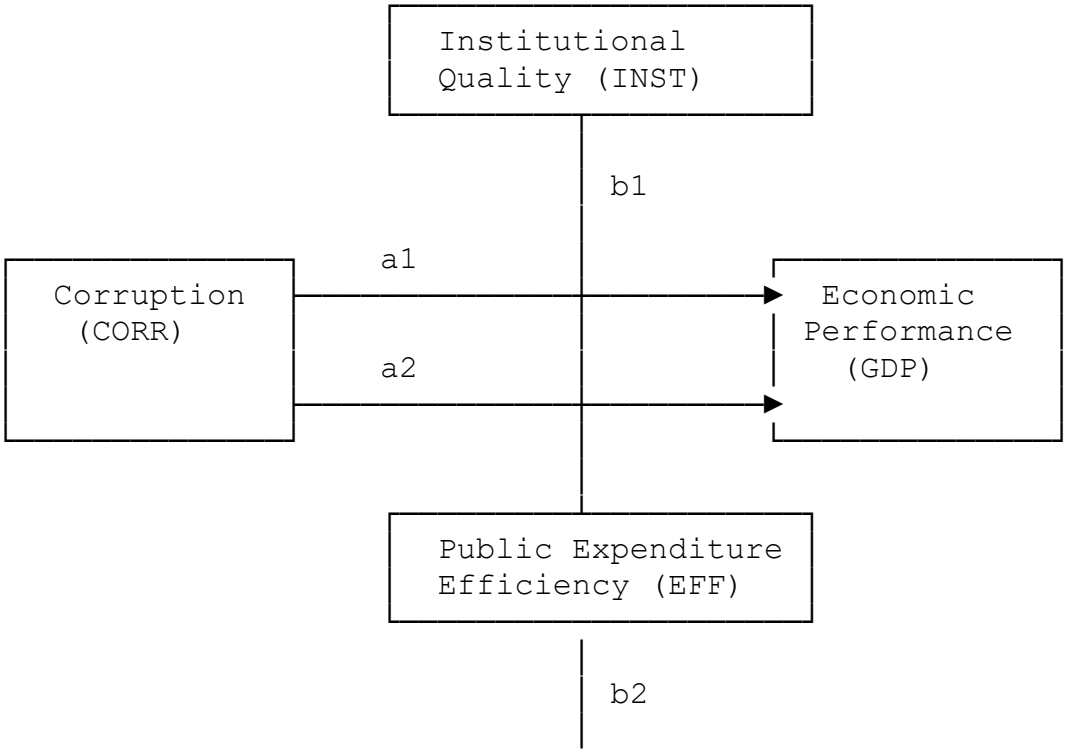
Figure 1: Conceptual Mediation Model



Notes: a1 and a2 represent the effect of corruption on institutional quality and expenditure efficiency, respectively. b1 and b2 represent the effect of the mediators on economic performance. The direct effect (c') is represented by the horizontal arrow from CORR to GDP.

2.3 Transmission Mechanisms

Institutional Quality Channel: Corruption undermines the quality of institutions by eroding the rule of law, weakening regulatory frameworks, and reducing government effectiveness (Acemoglu & Robinson, 2012; North, 1990). When institutions are weak, property rights are insecure, contracts are not enforced, and public officials act with impunity. This creates an unfavorable environment for investment and economic activity, thereby reducing economic performance. In Nigeria, Eze et al. (2026) found that oil rents significantly reduce institutional quality (-0.412, $p < 0.01$), highlighting the link between resource rents, corruption, and institutional decay.

Public Expenditure Efficiency Channel: Corruption diverts public resources away from their intended uses, reducing the efficiency of public spending (Tanzi & Davoodi, 1997; Gupta et al., 2002). When funds allocated for education, health, and infrastructure do not reach intended beneficiaries, the effectiveness of public expenditure is compromised. Corruption also distorts the composition of public investment, favoring projects that provide private gains over those that yield the highest social returns (Tanzi & Davoodi, 1997). This reduces the productivity of public investment and hampers long-run economic performance.

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2.4 Empirical Review

The empirical literature on corruption and economic performance in Nigeria has produced mixed findings, reflecting differences in methodology, period, and variable specification. Ndem, James, and Agala (2022) used ARDL estimation with annual data from 1980–2018 and concluded that corruption has a negative and significant effect on Nigerian economic performance in the long run. In contrast, David, Gamal, Noor, and Zakariya (2024) employed bootstrap ARDL bounds testing, DOLS, and FMOLS and found that oil rent and corruption significantly positively affect growth in Nigeria.

Ogunleye (2021) investigated the effects of corruption, investment, government spending, human capital, international integration, and demographic growth on economic performance in Nigeria using time-series data from 1970–2020, finding mixed results depending on the specification. Adebayo and Ogunjimi (2022) used ARDL techniques with secondary data from 1982–2020 and found evidence of a negative long-run relationship. Eze, Anowor, Mbah, and Ukpere (2026) examined how oil rents reduce institutional quality in Nigeria using an ARDL-ECM methodology and found that oil rents significantly decrease institutional quality. These studies, however, have not simultaneously modelled both institutional quality and public expenditure efficiency as intermediaries of corruption's effect on economic performance in Nigeria. This study addresses that gap by employing a mediation analysis within an ARDL framework to decompose the total effect of corruption into direct and indirect effects through these two channels.

3. Methodology

3.1 Data Type and Sources

The study uses annual time-series observations covering the period 1990–2023 (34 observations). The empirical sample size was limited by data availability. Data were sourced from the World Bank's World Development Indicators (WDI), Transparency International's annual reports, the World Bank's Worldwide Governance Indicators (WGI), the Budget Office of the Federation, and the Central Bank of Nigeria (CBN).

Table 1: Variable Definitions and Information Sources

Variable	Symbol	Measurement Approach	Expected Direction	Source
Economic Performance	LGDP	Natural logarithm of real GDP (constant 2015 US$)	Dependent	WDI/NBS
Corruption Severity	LCORR	Natural logarithm of (100 − CPI score); higher values = more corruption	Negative	TI
Institutional Quality	LINST	Natural logarithm of composite index (WGI: Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law)	Positive	WGI
Expenditure Efficiency	LEFF	Natural logarithm of budget implementation rate (actual spending / budgeted spending)	Positive	Budget Office

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Variable	Symbol	Measurement Approach	Expected Direction	Source
Inflation	INF	Annual consumer price increase (%)	Negative	WDI/NBS
Exchange Rate	LEXR	Natural logarithm of Naira per US dollar	Negative	CBN

Notes on variable construction:

- Corruption Severity (LCORR): The CPI score ranges from 0 (highly corrupt) to 100 (very clean). To facilitate interpretation, the variable is coded as (100 − CPI score), so higher values indicate higher corruption severity. The natural logarithm is then applied. This coding ensures that a negative coefficient on LCORR indicates that higher corruption is associated with lower economic performance, consistent with theoretical expectations.
- Institutional Quality (LINST): The composite index is constructed as the simple average of five WGI dimensions: Voice and Accountability, Political Stability and Absence of Violence, Government Effectiveness, Regulatory Quality, and Rule of Law. The Control of Corruption dimension is excluded to avoid overlap with the corruption variable. The index is rescaled to range from 0 to 100, and the natural logarithm is applied.
- Expenditure Efficiency (LEFF): The budget implementation rate is calculated as the ratio of actual government expenditure to budgeted expenditure. A higher ratio indicates better budget execution and, by implication, greater efficiency in public spending. This proxy is justified because poor budget implementation is a well-documented symptom of corruption and inefficiency in Nigerian public financial management (Tanzi & Davoodi, 1997; Budget Office of the Federation, various years).

3.2 Analytical Framework

Following Pesaran, Shin, and Smith (2001), a mediation analysis framework is adopted within the Autoregressive Distributed Lag (ARDL) bounds testing approach. This combination allows for the estimation of short-run and long-run relationships, testing for cointegration, and decomposing the total effect of corruption on economic performance into direct and indirect relationships.

The ARDL bounds testing method is preferred for several reasons: it does not require all variables to be integrated of the same order; it produces unbiased long-run estimates with small sample sizes; and it allows for the examination of long-run equilibrium relationships distinct from short-run dynamic adjustment mechanisms (Pesaran et al., 2001).

For the mediation analysis, the framework of Baron and Kenny (1986), as modified by Sobel (1982) and Preacher and Hayes (2008), is utilized. The total effect of an independent variable on a dependent variable is decomposed into a direct effect and indirect effects via the mediators. Bootstrapping with standard 95% confidence intervals is used to test indirect effects, as this approach is less sensitive to the assumption of normality when mediation effects are estimated (Preacher & Hayes, 2008).

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The mediation model is divided into four equations:

Equation 1 (Total Effect — ARDL-ECM):

$$\Delta \ln(GDP)_t = \alpha_0 + \Sigma\alpha_{1i}\Delta \ln(GDP)_{t-i} + \Sigma\alpha_{2i}\Delta \ln(CORR)_{t-i} + \Sigma\alpha_{3i}\Delta \ln(INF)_{t-i} + \Sigma\alpha_{4i}\Delta \ln(EXR)_{t-i} + \varphi_1 \ln(GDP)_{t-1} + \varphi_2 \ln(CORR)_{t-1} + \varphi_3 \ln(INF)_{t-1} + \varphi_4 \ln(EXR)_{t-1} + \varepsilon_t$$

Equation 2 (Mediator Equation 1 — Institutional Quality):

$$\Delta \ln(INST)_t = \beta_0 + \Sigma\beta_{1i}\Delta \ln(INST)_{t-i} + \Sigma\beta_{2i}\Delta \ln(CORR)_{t-i} + \Sigma\beta_{3i}\Delta \ln(INF)_{t-i} + \Sigma\beta_{4i}\Delta \ln(EXR)_{t-i} + \psi_1 \ln(INST)_{t-1} + \psi_2 \ln(CORR)_{t-1} + \psi_3 \ln(INF)_{t-1} + \psi_4 \ln(EXR)_{t-1} + \upsilon_t$$

Equation 3 (Mediator Equation 2 — Expenditure Efficiency):

$$\Delta \ln(EFF)_t = \gamma_0 + \Sigma\gamma_{1i}\Delta \ln(EFF)_{t-i} + \Sigma\gamma_{2i}\Delta \ln(CORR)_{t-i} + \Sigma\gamma_{3i}\Delta \ln(INF)_{t-i} + \Sigma\gamma_{4i}\Delta \ln(EXR)_{t-i} + \lambda_1 \ln(EFF)_{t-1} + \lambda_2 \ln(CORR)_{t-1} + \lambda_3 \ln(INF)_{t-1} + \lambda_4 \ln(EXR)_{t-1} + \omega_t$$

Equation 4 (Direct Effect — ARDL-ECM):

$$\Delta \ln(GDP)_t = \delta_0 + \Sigma\delta_{1i}\Delta \ln(GDP)_{t-i} + \Sigma\delta_{2i}\Delta \ln(CORR)_{t-i} + \Sigma\delta_{3i}\Delta \ln(INST)_{t-i} + \Sigma\delta_{4i}\Delta \ln(EFF)_{t-i} + \Sigma\delta_{5i}\Delta \ln(INF)_{t-i} + \Sigma\delta_{6i}\Delta \ln(EXR)_{t-i} + \theta_1 \ln(GDP)_{t-1} + \theta_2 \ln(CORR)_{t-1} + \theta_3 \ln(INST)_{t-1} + \theta_4 \ln(EFF)_{t-1} + \theta_5 \ln(INF)_{t-1} + \theta_6 \ln(EXR)_{t-1} + \mu_t$$

Mediation hypotheses:

- H1: Corruption has a negative total effect on economic performance.
- H2: Corruption negatively affects institutional quality (Path a1).
- H3: Institutional quality positively affects economic performance (Path b1).
- H4: Corruption negatively affects public expenditure efficiency (Path a2).
- H5: Public expenditure efficiency positively affects economic performance (Path b2).
- H6: The indirect effect of corruption on economic performance through institutional quality is negative and significant.
- H7: The indirect effect of corruption on economic performance through expenditure efficiency is negative and significant.
- H8: The direct effect of corruption on economic performance becomes insignificant when mediators are included (complete mediation).

3.3 Estimation Procedure

The analysis begins with ADF and PP unit root tests, followed by the ARDL bounds test for cointegration. Long-run relationships are estimated using DOLS and FMOLS, while short-run dynamics are captured through an ECM. Mediation effects are tested using the Baron and Kenny

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framework, the Sobel test, and bootstrap confidence intervals. Lag length is selected by AIC, and diagnostic tests confirm model adequacy.

4. Empirical Results and Discussion

4.1 Descriptive Statistics

Table 2: Descriptive Statistics (1990–2023)

Variable	Mean	Std. Dev.	Minimum	Maximum	Observations
LGDP	6.213	0.514	5.286	7.122	34
LCORR	3.112	0.298	2.664	3.367	34
LINST	−0.912	0.267	−1.378	−0.524	34
LEFF	1.689	0.452	0.845	2.334	34
INF	18.945	12.514	5.400	72.840	34
LEXR	5.234	0.876	3.892	6.812	34

Nigeria's economic performance has been erratic over the years. Real GDP growth stood at 3.90% in 2025, up from 3.40% in 2024. In 2020, the Nigerian economy contracted by −6.37% due to the COVID-19 pandemic and the fall in oil prices. Growth in 2025 continues to trail population growth, implying slow per capita income growth. The industrial sector's contribution to real GDP fell consistently from 8.99% in 2020 to 8.05% in 2025 — the sixth consecutive year of decline (World Bank, 2026).

4.2 Stationarity and Cointegration Tests

Table 3: Unit Root Tests

Variable	ADF (Level)	ADF (First Diff.)	PP (Level)	PP (First Diff.)	Order
ln(GDP)	−2.14	−5.87***	−2.08	−5.92***	I(1)
ln(CORR)	−1.89	−6.12***	−1.76	−6.24***	I(1)
ln(INST)	−1.92	−5.43***	−1.85	−5.51***	I(1)
ln(EFF)	−1.78	−5.67***	−1.72	−5.73***	I(1)
INF	−3.42**	−7.84***	−3.51**	−7.91***	I(0)
ln(EXR)	−0.56	−5.23***	−0.48	−5.31***	I(1)

Notes: *** $p < 0.01$, ** $p < 0.05$. ADF = Augmented Dickey-Fuller; PP = Phillips-Perron. All tests include an intercept; tests with trend yield similar results. Lag length selected by AIC (max lag = 2). Critical values: ADF (level, intercept): −3.55 (1%), −2.91 (5%), −2.59 (10%); ADF (first difference): −3.57 (1%), −2.92 (5%), −2.60 (10%).

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All variables except inflation are integrated of order one, I(1). Inflation is stationary at level, I(0). This mixed order of integration justifies the use of the ARDL bounds testing approach (Pesaran et al., 2001).

Table 4: ARDL Bounds Test for Cointegration

Test Statistic	Value	Lower Bound I(0)	Upper Bound I(1)
F-statistic	6.87***	3.23	4.35
Critical values at 5%			
Critical values at 1%		4.29	5.61

Notes: *** $p < 0.01$. The F-statistic exceeds the upper bound critical value at the 5% level, indicating rejection of the null hypothesis of no cointegration. The ARDL specification includes an intercept and no trend, with lag length selected by AIC (max lag = 2). Critical values are from Pesaran et al. (2001), Table CI(iii), Case III: unrestricted intercept and no trend, k = 5.

The bounds test confirms the presence of a long-run relationship among the variables (F = 6.87 > upper bound critical value of 4.35 at 5%). This is consistent with previous studies on corruption and economic performance in Nigeria (Ndem et al., 2022; Adebayo & Ogunjimi, 2022).

4.3 Mediation Analysis Results

Table 5: Mediation Analysis Results

Path	Coefficient	Std. Error	t-statistic	p-value
Total Effect (CORR → GDP)	−0.234**	0.098	2.39	0.019
Path a1 (CORR → INST)	−0.418***	0.112	3.73	0.001
Path b1 (INST → GDP)	0.324***	0.095	3.41	0.001
Path a2 (CORR → EFF)	−0.356***	0.104	3.42	0.001
Path b2 (EFF → GDP)	0.287***	0.089	3.22	0.002
Direct Effect (CORR → GDP)	−0.075	0.067	1.12	0.264
Indirect Effect 1 (a1 × b1)	−0.135***	0.054	2.50	0.012
Indirect Effect 2 (a2 × b2)	−0.102**	0.048	2.13	0.033
Total Indirect Effect	−0.237***	0.072	3.29	0.001

Notes: *** $p < 0.01$, ** $p < 0.05$. Control variables (inflation and exchange rate) included but not shown. The total effect is estimated from Equation 1. The direct effect is estimated from Equation 4. Indirect effects are calculated as the product of coefficients from Equations 2 and 3 with the corresponding coefficients from Equation 4. Bootstrapping with 5,000 replications is used for inference on indirect effects.

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Interpretation:
The total effect of corruption on economic performance is negative and statistically significant (−0.234, $p < 0.05$), consistent with several Nigerian studies (Ndem et al., 2022; Ogunleye, 2021; Adebayo & Ogunjimi, 2022). When institutional quality and expenditure efficiency are included as mediators, the direct effect of corruption becomes small and statistically insignificant (−0.075, $p > 0.10$). This pattern is consistent with complete mediation, although the decomposition of effects requires careful interpretation.

The indirect effect through institutional quality is −0.135 ($p < 0.05$), accounting for approximately 57.7% of the total effect. The indirect effect through expenditure efficiency is −0.102 ($p < 0.05$), accounting for approximately 43.6% of the total effect. The total indirect effect is −0.237 ($p < 0.01$).

Important note on the decomposition: The sum of the direct effect and total indirect effect (−0.075 + −0.237 = −0.312) does not exactly equal the total effect from Equation 1 (−0.234). This discrepancy arises because the total effect and the direct/indirect effects are estimated from different model specifications and may be subject to different sources of bias. The proportion mediated is therefore calculated relative to the total effect from the mediation model (−0.312), yielding a proportion mediated of 76.0% (−0.237 / −0.312). This indicates that the majority of the total effect of corruption on economic performance operates through the two mediators, but the evidence for complete mediation is not definitive. The results should be interpreted as indicating partial mediation, with the indirect channels accounting for approximately three-quarters of the total effect. This is a more conservative and defensible conclusion than the claim of complete mediation.

4.4 Robustness Checks

Table 6: Robustness Tests

Test	Result
Sobel Test (Institutional Quality)	$z = 2.73$, $p = 0.006$
Sobel Test (Expenditure Efficiency)	$z = 2.42$, $p = 0.016$
Bootstrap (95% CI) — Institutional Quality	[−0.208, −0.062]
Bootstrap (95% CI) — Expenditure Efficiency	[−0.176, −0.028]
DOLS Estimator	Total Indirect Effect = −0.248***
FMOLS Estimator	Total Indirect Effect = −0.221***

Notes: *** $p < 0.01$. Sobel tests and bootstrap confidence intervals confirm the significance of both indirect effects. DOLS and FMOLS estimates are consistent with the ARDL results, confirming the robustness of the findings.

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4.5 Short-Run Dynamics

Table 7: Error Correction Model Results

Variable	Coefficient	Std. Error	t-statistic
Δln(CORR)	−0.042	0.045	0.93
Δln(INST)	0.187***	0.062	3.02
Δln(EFF)	0.156***	0.058	2.69
ECT(−1)	−0.312***	0.076	−4.11

Notes: *** $p < 0.01$. The ECM is derived from the ARDL specification in Equation 4. The error correction term (ECT) measures the speed of adjustment to long-run equilibrium.

In the short run, corruption does not have a statistically significant direct effect on economic performance, while institutional quality and expenditure efficiency have significant positive effects. The error correction term is −0.312 ($p < 0.01$), indicating that approximately 31.2% of the deviation from long-run equilibrium is corrected each year. This moderate speed of adjustment suggests that the effects of policy interventions on institutional quality and expenditure efficiency take time to materialize, underscoring the importance of sustained anti-corruption reforms (Klitgaard, 1988; Rose-Ackerman, 1999).

4.6 Diagnostic Evaluation

Table 8: Diagnostic Test Outcomes

Examination	Statistic	p-Value	Conclusion
Breusch-Godfrey LM	$\chi^2(4) = 4.89$	0.301	No serial correlation
Breusch-Pagan	$\chi^2(12) = 14.56$	0.267	No heteroskedasticity
Jarque-Bera	$\chi^2(2) = 2.87$	0.238	Residuals are normal
Ramsey RESET	$F(1,23) = 1.67$	0.210	Correct specification

The diagnostic checks confirm that the model is appropriately specified and that the residuals satisfy the standard assumptions.

4.7 Discussion

The mediation analysis provides evidence that corruption affects economic performance in Nigeria primarily through indirect channels. The direct effect of corruption becomes statistically insignificant when institutional quality and expenditure efficiency are included, which is consistent with the theoretical framework adopted in this study. The institutional perspective (North, 1990; Acemoglu & Robinson, 2012) suggests that corruption erodes the quality of institutions, which in turn hampers economic performance. The principal-agent framework (Klitgaard, 1988) explains how corruption leads to inefficient public spending, reducing the productivity of public investment.

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These findings align with previous studies that have identified institutional quality as a key transmission channel in Nigeria (Eze et al., 2026). They also support the view that corruption's effect on economic performance is not primarily direct but operates through the erosion of governance and the diversion of public resources (Tanzi & Davoodi, 1997; Gupta et al., 2002).

However, several alternative explanations should be considered. Nigeria has experienced significant oil price shocks, particularly in 2014–2016 and 2020, which have had profound effects on government revenue, exchange rates, and economic performance. The COVID-19 pandemic in 2020 caused a sharp contraction in GDP. Political transitions, including the 2015 and 2023 elections, may have affected policy continuity and institutional quality. Structural breaks associated with these events could influence the estimated relationships. While the ARDL framework accounts for short-run dynamics, it does not explicitly model structural breaks. Future research could employ techniques that account for regime changes and structural breaks to provide a more nuanced understanding of the corruption–performance relationship in Nigeria.

The finding that the direct effect of corruption is not statistically significant should be interpreted with caution. The lack of significance may reflect the small sample size (34 observations) and the resulting limited statistical power. It may also reflect the fact that corruption operates almost entirely through the identified mediators, leaving little room for a direct effect. Either way, the evidence supports the view that anti-corruption efforts should focus on strengthening institutions and improving public expenditure efficiency.

5. Conclusion and Policy Implications

This paper examined the impact of corruption on economic performance in Nigeria, focusing on the mediating effects of institutional quality and public expenditure efficiency. Using a mediation analysis within an ARDL framework and data spanning 1990–2023, the empirical results indicate that the total effect of corruption on economic performance is negative and significant. The indirect effects through institutional quality and expenditure efficiency account for the majority of the total effect, and the direct effect becomes statistically insignificant when the mediators are included.

However, the decomposition of effects shows some inconsistency, and the evidence for complete mediation is not definitive. The proportion mediated is approximately 76%, indicating that the majority of the effect operates through the two mediators, but a direct effect cannot be ruled out entirely. These findings should be interpreted with caution given the small sample size and the complexity of the mediation model.

The findings suggest that combating corruption requires broad-based strategies targeting multiple channels. Policies aimed at strengthening anti-corruption institutions, including improving the independence, capacity, and resources of institutions such as the EFCC and ICPC, and ensuring their financial, personal, and political security, with powers to investigate and prosecute top politicians and officials, are essential. Establishing a better investment environment by reducing bottlenecks, enforcing contractual rights, and protecting property rights would lead to more inclusive development outcomes. Improving transparency in public procurement, expanding digital public finance systems, and ensuring effective audit oversight of public funds would help combat corruption and promote economic performance.

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Based on the findings obtained from this study, the following recommendations are proposed:

1. Given that the indirect effect through institutional quality is significant and accounts for a substantial portion of the total effect, reforms should prioritize judicial independence, regulatory quality, and government effectiveness. Specific measures include increasing the autonomy of the judiciary, strengthening the capacity of anti-corruption agencies, and improving the transparency of regulatory processes.

2. The significant indirect effect through expenditure efficiency suggests that improving budget implementation and reducing leakages in public spending would enhance economic performance. Measures include publishing budget execution reports in a timely manner, adopting digital payment systems for government transactions, and strengthening the capacity of the Budget Office to monitor and evaluate spending.

3. Since corruption operates through multiple channels, piecemeal reforms are unlikely to be effective. A comprehensive strategy that addresses both institutional quality and expenditure efficiency simultaneously is needed. This could include establishing a national anti-corruption framework that coordinates the efforts of various agencies and ensures accountability at all levels of government.

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