

# Governance Quality and Economic Performance in Sub-Saharan Africa: Evidence from Panel Data Analysis

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## ABSTRACT

This study examines the effect of governance quality on economic performance in Sub-Saharan Africa using panel data for 23 countries over the period 2004–2024. The study employs panel estimation techniques, including pooled ordinary least squares, fixed effects, and random effects models. The Hausman specification test indicates that the fixed effects model is the most appropriate for the analysis. To ensure robust statistical inference and control for both country-specific and time-specific effects, the study further employs a two-way fixed effects model with White cross-section robust standard errors. The findings reveal that voice and accountability, trade openness, and government effectiveness exert positive effects on economic performance, with voice and accountability and trade openness remaining statistically significant, while government effectiveness is weakly significant. Other governance indicators were not statistically significant. The results suggest that governance influences economic performance in a dimension-specific manner, with accountability and institutional effectiveness playing more prominent roles in promoting economic performance within the region. The study concludes that strengthening institutional accountability, improving governance effectiveness, and promoting trade openness are essential for enhancing economic performance in Sub-Saharan Africa.

**Keywords:** Governance quality; Economic performance; Panel data; Sub-Saharan Africa; Institutional quality

## INTRODUCTION

Over the past few decades, Sub-Saharan Africa (SSA) has seen a variety of economic performance patterns, with some countries recording modest growth while others continue to struggle with persistent economic instability (World Bank, 2024; UNECA, 2021). Despite numerous policy reforms and development initiatives, the region's growth trajectory remains uneven and, in many cases, fragile. This has generated sustained interest among policymakers and researchers in identifying the key factors that drive or hinder economic performance in the region.

One factor that has received considerable attention in the development literature is the quality of governance (Fosu, 2020; Isser et al., 2024). In general, governance refers to how public power is used to manage a nation's social and economic resources. It includes important aspects such as the effectiveness of government, the rule of law, the prevention of corruption, the quality of regulations, political stability, and accountability and voice. These institutional elements are widely believed to influence economic outcomes by shaping the environment in which economic activity occurs.

Theoretically, strong governance structures are expected to promote economic performance by enhancing policy implementation, reducing uncertainty, and fostering investor confidence (North, 1990). Effective institutions can improve resource allocation, ensure accountability, and create a favourable environment for both international and indigenous investment. Conversely, weak governance, characterized by corruption, political instability, and ineffective regulatory frameworks, can distort economic incentives, discourage investment, and ultimately impede growth.

Empirically, however, the relationship between governance quality and economic performance remains inconclusive, particularly in the context of Sub-Saharan Africa (Alemu, 2023; Oppong, 2023). While some research indicates that governance significantly affects growth, others find weak or mixed evidence, suggesting that the effect of governance may depend on country-specific conditions and institutional dynamics. Moreover, much of the existing literature tends to rely on aggregate measures of governance, thereby obscuring the distinct roles played by individual governance indicators.

Given these mixed findings, there is a need for further empirical investigation that provides clearer insights into how governance quality influences economic performance in SSA (Manasseh et al., 2022). This study advances the existing literature by investigating how governance quality influences economic outcomes in selected Sub-Saharan African economies through the application of panel data analysis. Specifically, the study disaggregates governance into its key components in order to identify which aspects of governance are most relevant for enhancing economic performance in the region.

The rest of the study is organized into distinct sections. The following section examines the relevant theoretical and empirical literature related to the study. Thereafter, the methodology section describes the model framework, sources of data, and estimation procedures employed in the analysis. The next section presents and interprets the empirical findings, while the concluding section summarizes the study and provides relevant policy recommendations.

## Statement of the Problem

Despite the increasing acknowledgment of governance as an important driver of economic performance, many countries in Sub-Saharan Africa continue to experience slow and unstable growth alongside persistent institutional weaknesses. Although several governance reforms have been implemented across the region, the expected improvements in economic performance have not been consistently realized (Alemu, 2023; Oppong, 2023). This creates doubts about the ability of governance institutions to promote sustainable economic progress.

One major concern is that improvements in governance indicators have not translated proportionately into economic growth in many Sub-Saharan African countries. This indicates that the effect of quality governance on economic performance may be more complex and context-dependent than often assumed. Recent studies indicate that institutional quality may influence economic performance through indirect or conditional channels rather than through immediate direct effects (Musa et al., 2023; Manasseh et al., 2022).

Furthermore, empirical evidence on the governance–growth nexus in Sub-Saharan Africa remains mixed and inconclusive (Alemu, 2023; Oppong, 2023; Musa et al., 2023). Although several recent empirical investigations reveal a positive and statistically significant association between governance quality and economic performance, others find weak or insignificant effects depending on model specification and country characteristics (Abbas et al., 2021; Ndoricimpa, 2020; Mqolombeni et al., 2023). These inconsistencies suggest that the impact of governance may vary across different institutional environments and levels of economic development.

In addition, many existing studies rely on aggregate governance indices, which may obscure the individual contributions of specific governance dimensions. As a result, there is limited clarity on which aspects of governance are most influential in shaping economic performance in Sub-Saharan Africa. Without such disaggregated evidence, policy recommendations may remain too broad and less effective.

Against this backdrop, there is a need for a more focused empirical investigation that examines governance quality using disaggregated indicators within a panel data framework. The study responds to this gap by analyzing the individual effects of governance indicators on economic performance in Sub-Saharan African economies.

## Objective of the Study

The primary objective of this study is to examine the effect of governance quality on economic performance in Sub-Saharan Africa.

The specific objectives are to:

1. assess the impact of governance quality on economic performance in Sub-Saharan Africa;
2. examine the individual effects of key governance indicators on economic performance in Sub-Saharan Africa; and
3. determine which dimensions of governance exert the most significant effect on economic performance in Sub-Saharan Africa.

### **Contribution to Knowledge**

This study contributes to the existing literature in several ways. First, it provides updated empirical evidence on the governance–growth nexus in Sub-Saharan Africa using panel data covering the period 2004–2024. Second, unlike many earlier studies that rely on aggregate governance indices, the study adopts a disaggregated approach, thereby enabling the identification of specific governance dimensions that influence economic performance. Third, the study employs a two-way fixed effects model with White cross-section robust standard errors, which controls for both country-specific and time-specific heterogeneity while ensuring more reliable statistical inference. Consequently, the study provides more robust and policy-relevant insights into the role of governance quality in promoting economic performance in Sub-Saharan Africa.

## **LITERATURE REVIEW**

Governance quality refers to the manner in which public authority is exercised in managing a nation's economic and social resources (Kaufmann et al., 2010). It encompasses the processes through which governments are selected, monitored, and replaced, as well as the capacity of government to formulate and implement sound policies and the extent to which citizens and the state respect institutions governing social and economic interactions.

In empirical literature, governance quality is commonly measured using the Worldwide Governance Indicators (WGI) developed by the World Bank (Kaufmann et al., 2010). These indicators capture six major dimensions: control of corruption, rule of law, government effectiveness, political stability, regulatory quality, and voice and accountability. Each of these dimensions reflects a specific aspect of governance capable of influencing economic outcomes.

Control of corruption captures the extent to which public power is used for private gain, while rule of law reflects confidence in legal institutions and enforcement mechanisms. Government effectiveness measures the quality of public service delivery and policy implementation, whereas political stability reflects the likelihood of political instability. Regulatory quality reflects the ability of government to formulate and implement sound policies, while voice and accountability measure the degree of citizen participation and freedom of expression (World Bank, 2024).

Economic performance generally refers to the ability of an economy to sustain output growth and improve living standards (Fosu, 2020). It is commonly measured using indicators such as gross domestic product (GDP), GDP growth rate, and GDP per capita growth. In this study, GDP per capita growth rate is adopted as a proxy for economic performance because it provides a broader reflection of changes in economic well-being across countries.

The relationship between governance quality and economic performance is rooted in the role of institutions in shaping economic incentives and outcomes. High-quality governance is expected to enhance economic performance by improving policy credibility, strengthening resource allocation, and creating an enabling

environment for investment and economic activities (North, 1990). Conversely, weak governance characterized by corruption, ineffective institutions, and political instability can undermine economic performance by increasing uncertainty and discouraging investment.

This study is anchored on institutional theory, which posits that the quality of institutions plays a significant role in shaping economic outcomes (North, 1990). Strong institutions improve economic performance by reducing transaction costs, enhancing policy implementation, and fostering an enabling environment for investment and growth, while weak institutions hinder economic efficiency and development.

## Empirical Review

Empirical evidence regarding the association between governance quality and economic performance has generated mixed results, particularly in Sub-Saharan Africa. Alemu (2023), whose objective was to examine the effect of governance quality on growth outcomes across Sub-Saharan African countries, employed a dynamic estimation approach and found that governance significantly enhances economic performance in the region. Similarly, Oppong (2023) examined the influence of institutional quality on economic growth using panel estimation techniques and reported a statistically significant positive association between governance and economic performance.

Musa et al. (2023), using panel econometric methods, found that governance quality affects the relationship between macroeconomic conditions and economic growth across Sub-Saharan Africa, suggesting that the governance–growth relationship is heterogeneous and context-dependent. In the same vein, Assoum and Alinsato (2023), whose research examined the threshold influence of governance on economic performance, employed a panel threshold estimation technique and found that governance improves economic performance only after institutional quality exceeds a critical level. Apergis and Cooray (2023) also utilized threshold regression techniques and reported that favorable institutional conditions strengthen growth outcomes in developing economies.

In addition, Abbas et al. (2021) examined the moderating role of governance in the debt–growth relationship using panel estimation techniques and found that governance quality significantly shapes macroeconomic performance. Similarly, Manasseh et al. (2022), using panel econometric methods, reported that governance quality affects the relationship between macroeconomic conditions and economic growth across Sub-Saharan Africa.

Despite these contributions, the empirical literature remains inconclusive regarding which dimensions of governance exert the greatest influence on economic performance. In addition, many studies rely on aggregate governance measures, thereby limiting clearer policy insights. This study therefore adds to the existing literature by investigating the distinct effects of disaggregated governance indicators on economic performance across Sub-Saharan Africa using panel data analysis.

## METHODOLOGY

This study utilizes panel data analysis to investigate the effect of governance quality on economic performance in Sub-Saharan Africa (SSA) over the period 2004–2024. The study employed a balanced panel dataset comprising 23 SSA countries, namely Angola, Benin, Botswana, Burkina Faso, Cameroon, Central African Republic, Chad, Côte d'Ivoire, Gabon, Ghana, Kenya, Lesotho, Madagascar, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, South Africa, Tanzania, Togo, and Uganda. The countries were selected based on data availability and consistency over the study period. Panel techniques are adopted because they combine both longitudinal and cross-country dimensions, thereby allowing for the control of unobserved country-specific heterogeneity and improving the efficiency and reliability of estimation. The study employs pooled ordinary least squares, random effects, and two-way fixed effects estimation with White cross-section robust standard errors to control for both country-specific and time-specific effects. The methodology consists of model specification, data sources and measurement of variables, and estimation techniques.

## Model Specification

$$GDPPC = f(COC, ROL, GOE, POS, REQ, VAA, GCF, TRO, INF, EXR)$$

Where:

- GDPPC = Economic Performance
- COC = Control of Corruption
- ROL = Rule of Law
- GOE = Government Effectiveness
- POS = Political Stability
- REQ = Regulatory Quality
- VAA = Voice and Accountability
- Gross Capital Formation (GCF), Trade Openness (TRO), Inflation (INF), and Exchange Rate (EXR) are Control Variables.

## Econometric Model

$$GDPPC_{it} = \beta_0 + \beta_1COC_{it} + \beta_2ROL_{it} + \beta_3GOE_{it} + \beta_4POS_{it} + \beta_5REQ_{it} + \beta_6VAA_{it} + \beta_7GCF_{it} + \beta_8TRO_{it} + \beta_9INF_{it} + \beta_{10}EXR_{it} + \mu_{it}$$

Where:

$\beta_0$  = Constant term

$\beta_1$ – $\beta_{10}$  = Parameters of the explanatory variables

$i$  = Cross-sectional units (countries)

$t$  = Time period

$\mu_{it}$  = Error term

## Data Sources and Measurement of variables

This study relies on secondary data sourced from the World Bank’s Worldwide Governance Indicators (WGI) and World Development Indicators (WDI) databases. The analysis covers 23 selected Sub-Saharan African countries over the period 2004–2024 based on data availability and consistency. Economic performance is proxied by GDP per capita growth rate, while governance quality is measured using six WGI indicators: control of corruption (COC), rule of law (ROL), government effectiveness (GOE), political stability and absence of violence (POS), regulatory quality (REQ), and voice and accountability (VAA), with index values ranging from –2.5 to +2.5. In addition, the model incorporates gross capital formation (GCF), trade openness (TRO), inflation rate (INF), and official exchange rate (EXR) as control variables, consistent with growth literature.

Table 1 presents the description, measurement, expected signs, and sources of the variables employed in the study. Governance indicators were sourced from the Worldwide Governance Indicators (WGI), while macroeconomic control variables were obtained from the World Development Indicators (WDI).



**Table 1: Sources and Measurement of Variables**

| Variables | Measurement                                               | Expected Sign      | Source                                |
|-----------|-----------------------------------------------------------|--------------------|---------------------------------------|
| GDPPC     | GDP Per Capita (% Annual) -Proxy for Economic Performance | Dependent variable | World Development Indicators (WDI)    |
| COC       | Control of Corruption Index                               | Positive (+)       | Worldwide Governance Indicators (WGI) |
| ROL       | Rule of Law Index                                         | Positive (+)       | WGI                                   |
| GOE       | Government Effectiveness Index                            | Positive (+)       | WGI                                   |
| REQ       | Regulatory Quality Index                                  | Positive (+)       | WGI                                   |
| VAA       | Voice and Accountability Index                            | Positive (+)       | WGI                                   |
| POS       | Political Stability Index                                 | Positive (+)       | WGI                                   |
| GCF       | Gross Capital Formation (% of GDP)                        | Positive (+)       | WDI                                   |
| TRO       | Trade openness (% of GDP)                                 | Positive (+)       | WDI                                   |
| INF       | Inflation Rate (Annual %)                                 | Negative (-)       | WDI                                   |
| EXR       | Official Exchange Rate (Local Currency Unit US\$)         | Ambiguous (+-)     | WDI                                   |

Source: Author's computation (2026).

## Estimation Techniques

The study applies pooled ordinary least squares (OLS), fixed effects (FE), and random effects (RE) techniques in analyzing the panel data. The fixed effects estimator accounts for unobserved country-specific characteristics, whereas the random effects estimator assumes that the individual-specific effects are not correlated with the explanatory variables (Baltagi, 2021). To identify the most suitable estimation approach, the Hausman specification test is conducted. The test evaluates the consistency and efficiency of the random effects estimator in comparison with the fixed effects estimator (Hausman, 1978). Based on the outcome of the Hausman test, the study adopts a two-way fixed effects model with White cross-section robust standard errors to control for both country-specific and time-specific heterogeneity, while also addressing potential heteroskedasticity and serial correlation problems associated with panel data estimation.

## RESULTS AND DISCUSSION OF FINDINGS

### Descriptive Statistics

**Table 2: Descriptive Statistics Results**

| Variable | Mean   | Median | Max     | Min    | Std. Dev | Skewness | Kurtosis | Obs |
|----------|--------|--------|---------|--------|----------|----------|----------|-----|
| GDPPC    | 1.74   | 1.94   | 27.81   | -36.82 | 4.00     | -1.59    | 24.87    | 483 |
| GOE      | -0.69  | -0.70  | 0.06    | -1.88  | 0.51     | 0.30     | 2.95     | 483 |
| POS      | -0.52  | -0.39  | 1.10    | -2.70  | 0.71     | -0.23    | 3.01     | 483 |
| ROL      | -0.62  | -0.60  | 0.61    | -1.85  | 0.50     | 0.03     | 2.95     | 483 |
| VAA      | -0.44  | -0.39  | 0.78    | -1.47  | 0.58     | 0.19     | 2.06     | 483 |
| REQ      | -0.53  | -0.55  | 0.76    | -1.51  | 0.45     | 0.64     | 3.59     | 483 |
| COC      | -0.06  | -0.66  | 1.16    | -1.53  | 0.56     | 0.74     | 3.21     | 483 |
| GCF      | 24.10  | 22.40  | 56.40   | 6.18   | 8.14     | 0.98     | 4.16     | 483 |
| EXR      | 611.73 | 493.90 | 4525.43 | 0.90   | 835.70   | 2.44     | 9.02     | 483 |
| INF      | 6.10   | 4.75   | 47.64   | -16.86 | 6.38     | 2.13     | 11.66    | 483 |
| TRO      | 63.13  | 56.76  | 165.05  | 21.26  | 27.00    | 1.50     | 5.42     | 483 |

Source: Author's computation (2026)

Table 2 presents the descriptive statistics of the variables. The average GDPPC is 1.74, with a wide range, indicating substantial variation in economic performance across countries. The governance indicators exhibit negative mean values, suggesting relatively weak institutional quality in the region.

Among the control variables, gross capital formation and trade openness show moderate average levels, while exchange rate and inflation display noticeable variability. The skewness and kurtosis statistics indicate deviations from normal distribution, which is typical of macroeconomic panel data.

## Correlation Matrix

**Table 3: Correlation Matrix Results**

| GDPPC | COC   | GOE   | POS   | REQ   | ROL   | VAA   | EXR   | GCF   | INF   | TRO  |      |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| GDPPC | 1.00  |       |       |       |       |       |       |       |       |      |      |
| COC   | 0.14  | 1.00  |       |       |       |       |       |       |       |      |      |
| GOE   | 0.17  | 0.83  | 1.00  |       |       |       |       |       |       |      |      |
| POS   | 0.08  | 0.64  | 0.62  | 1.00  |       |       |       |       |       |      |      |
| REQ   | 0.13  | 0.18  | 0.91  | 0.62  | 1.00  |       |       |       |       |      |      |
| ROL   | 0.14  | 0.86  | 0.90  | 0.71  | 0.89  | 1.00  |       |       |       |      |      |
| VAA   | 0.08  | 0.63  | 0.68  | 0.58  | 0.69  | 0.74  | 1.00  |       |       |      |      |
| EXR   | -0.01 | -0.19 | -0.12 | -0.12 | -0.07 | -0.04 | -0.18 | 1.00  |       |      |      |
| GCF   | 0.07  | 0.14  | 0.14  | 0.15  | 0.07  | 0.14  | 0.01  | 0.01  | 1.00  |      |      |
| INF   | 0.02  | 0.01  | 0.03  | 0.10  | 0.00  | 0.01  | 0.08  | -0.06 | -0.05 | 1.00 |      |
| TRO   | 0.03  | 0.06  | 0.13  | 0.32  | 0.11  | 0.19  | 0.19  | -0.33 | 0.39  | 0.02 | 1.00 |

Source: Author's computation (2026)

Table 3 presents the correlation matrix of the variables. The results show generally weak correlations between GDPPC and the explanatory variables. However, relatively high correlations are observed among the governance indicators, reflecting their conceptual similarity. Overall, the correlation results suggest moderate interrelationships among governance indicators, reflecting their conceptual similarity. However, subsequent VIF analysis confirms that the degree of multicollinearity remains tolerable for estimation.

## Variance Inflation Factor (VIF)

Descriptive statistics and correlation analysis were conducted to examine the statistical properties and relationships among the variables. In addition, Variance Inflation Factor (VIF) analysis was performed to test for the presence of multicollinearity among the explanatory variables.

**Table 4: Variance Inflation Factor (VIF) Results**

| Variable | VIF   |
|----------|-------|
| COC      | 4.54  |
| ROL      | 10.34 |
| GOE      | 8.84  |
| POS      | 2.25  |
| REQ      | 7.53  |
| VAA      | 2.44  |
| GCF      | 1.3   |
| TRO      | 1.56  |
| INF      | 1.04  |
| EXR      | 1.33  |

Source: Author's computation (2026)

The VIF results in Table 4 reveal that Most variables exhibit VIF values below the conventional threshold of 10. Although Rule of Law recorded a marginally higher value, the overall degree of multicollinearity was considered manageable and did not warrant exclusion of the governance indicators. Overall, the degree of multicollinearity was considered tolerable for estimation.

## Unit Root

**Table 5: Unit Root Results**

| Variable | LLC Prob. | IPS Prob. | ADF-Fisher Prob. | PP-Fisher Prob. | Decision                       | Order of Integration |
|----------|-----------|-----------|------------------|-----------------|--------------------------------|----------------------|
| GDPPC    | 0.0000    | 0.0000    | 0.0000           | 0.0000          | Stationary at Level            | I(0)                 |
| GOE      | 0.0027    | 0.0045    | 0.0009           | 0.0002          | Stationary at Level            | I(0)                 |
| POS      | 0.0016    | 0.0098    | 0.0014           | 0.0000          | Stationary at Level            | I(0)                 |
| ROL      | 0.0002    | 0.0109    | 0.0083           | 0.0192          | Stationary at Level            | I(0)                 |
| VAA      | 0.0387    | 0.006     | 0.0017           | 0.001           | Stationary at Level            | I(0)                 |
| REQ      | 0.0262    | 0.4224    | 0.307            | 0.0292          | Mixed at Level                 | I(1)                 |
| D(REQ)   | 0.0002    | 0.0000    | 0.0000           | 0.0000          | Stationary at First Difference | I(1)                 |
| COC      | 0.0001    | 0.1191    | 0.0352           | 0.3374          | Mixed at Level                 | I(1)                 |
| D(COC)   | 0.0000    | 0.0000    | 0.0000           | 0.0000          | Stationary at First Difference | I(1)                 |
| GCF      | 0.1022    | 0.0206    | 0.0176           | 0.0023          | Mixed at Level                 | I(1)                 |
| D(GCF)   | 0.0000    | 0.0000    | 0.0000           | 0.0000          | Stationary at First Difference | I(1)                 |
| EXR      | 1.0000    | 1.0000    | 1.0000           | 1.0000          | Non-Stationary at Level        | I(1)                 |
| D(EXR)   | 0.0000    | 0.0000    | 0.0000           | 0.0000          | Stationary at First Difference | I(1)                 |
| INF      | 0.0000    | 0.0000    | 0.0000           | 0.0000          | Stationary at Level            | I(0)                 |
| TRO      | 0.0126    | 0.0129    | 0.0097           | 0.0122          | Stationary at Level            | I(0)                 |

Source: Author's computation (2026)

The panel unit root test results in Table 5 reveal that some variables were stationary at level I(0), while others became stationary after first differencing I(1), indicating a mixed order of integration among the variables. However, none of the variables was integrated beyond first difference. This suggests that the panel estimation techniques adopted in the study are appropriate and unlikely to produce spurious regression results. Given the study's focus on short- to medium-term panel relationships, the use of the two-way fixed effects estimation technique remained suitable for the analysis.

## Hausman Test

**Table 6: Hausman Test Results**

| Test         | Chi-square Statistic | Prob.  | Decision                |
|--------------|----------------------|--------|-------------------------|
| Hausman Test | 60.44                | 0.0000 | Fixed Effects Preferred |

Source: Author's computation (2026)

The Hausman specification test in Table 6 was conducted to determine the most appropriate model between the fixed effects and random effects estimators. The result shows a probability value of 0.0000, which is less than the 5 percent significance level. This indicates that the null hypothesis of no systematic difference between the estimators is rejected, thereby confirming that the fixed effects model is more appropriate for the analysis.



## Regression Analysis

**Table 7: Two-Way Fixed Effects Estimation with White Cross-Section Robust Standard Errors**

Dependent Variable: GDPPC

| Variable | Coefficient | Std. Error | t-Statistic | Prob.  |
|----------|-------------|------------|-------------|--------|
| C        | 0.6394      | 1.6488     | 0.3878      | 0.7023 |
| COC      | 0.6700      | 1.3168     | 0.5088      | 0.6165 |
| ROL      | 1.0209      | 1.8966     | 0.5383      | 0.5963 |
| GOE      | 3.1752*     | 1.8101     | 1.7542      | 0.0947 |
| POS      | -0.0179     | 0.6995     | -0.0255     | 0.9799 |
| REQ      | -2.1422     | 1.4803     | -1.4471     | 0.1634 |
| VAA      | 3.8316***   | 1.2411     | 3.0873      | 0.0058 |
| GCF      | 0.0283      | 0.0425     | 0.6662      | 0.5129 |
| TRO      | 0.0708***   | 0.0243     | 2.9149      | 0.0086 |
| INF      | -0.0573     | 0.0382     | -1.5006     | 0.1491 |
| EXR      | 0.0001      | 0.0004     | 0.2857      | 0.7780 |

Source: Author's computation (2026).

R-squared 0.3154

Adjusted R-squared 0.2326

F-statistic 3.8093 (Prob = 0.0000)

Durbin-Watson 1.8964

Note: The model was estimated using cross-section and period fixed effects with White cross-section robust standard errors. \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.10$

The regression results are presented in Table 7. Based on the Hausman specification test, the two-way fixed effects model with White cross-section robust standard errors was adopted for interpretation to control for both country-specific and time-specific effects and to ensure reliable statistical inference. The results reveal that voice and accountability (VAA) and trade openness (TRO) exert positive and statistically significant effects on economic performance in Sub-Saharan Africa. Government effectiveness (GOE) also demonstrates a positive effect and remains weakly significant. Other governance indicators and control variables were not statistically significant. These findings suggest that specific dimensions of governance quality, particularly accountability and institutional effectiveness, play important roles in promoting economic performance within the region.

## DISCUSSION OF FINDINGS

The findings of this study provide empirical support for the argument that governance influences economic performance, although the effect is not uniform across all governance dimensions. The positive and significant impact of voice and accountability on economic performance is consistent with recent studies such as Musa et al. (2023), who find that governance-related factors such as transparency, civic participation, and accountability mechanisms contribute positively to economic outcomes in developing economies. This suggests that inclusive governance frameworks and participatory institutions play important roles in promoting economic performance in Sub-Saharan Africa.

Similarly, the positive and significant effect of trade openness aligns with the findings of Abbas et al. (2021), who emphasize that external integration enhances economic performance through improved resource allocation, technology transfer, and access to global markets. This implies that increased openness to international trade remains an important driver of economic performance within the region.

Furthermore, government effectiveness demonstrates a positive but weakly significant effect on economic performance. This finding is broadly consistent with studies such as Alemu (2023) and Oppong (2023), which report that effective institutions and quality public service delivery contribute to improved economic outcomes. The weak significance, however, may reflect structural and institutional differences across Sub-Saharan African countries.

Nevertheless, the non-significant effects of control of corruption, rule of law, political stability, and regulatory quality are consistent with the findings of Manasseh et al. (2022), who argue that not all governance indicators exert direct or immediate effects on economic growth. This may be attributed to the interdependence among governance dimensions, implementation challenges, or the existence of indirect transmission channels through which institutional quality affects economic performance.

Overall, the findings support the view that governance affects economic performance in a dimension-specific manner, with accountability, institutional effectiveness, and trade openness exerting more prominent influences on economic performance in Sub-Saharan Africa.

## CONCLUSION

This study examined the relationship between governance quality and economic performance in Sub-Saharan Africa using panel data for selected countries over the period 2004–2024. By employing pooled ordinary least squares, random effects, and a two-way fixed effects model with White cross-section robust standard errors, the study accounted for both country-specific and time-specific heterogeneity that may influence economic outcomes.

The findings reveal that governance quality does not affect economic performance in a uniform manner. Rather, specific dimensions of governance exert more prominent influences than others. In particular, voice and accountability was found to have a positive and statistically significant effect on economic performance, indicating that inclusive governance structures, civic participation, and accountability mechanisms are important for promoting economic progress in the region. Trade openness also emerged as a significant determinant of economic performance, suggesting that integration into the global economy contributes positively to economic outcomes in Sub-Saharan Africa.

Furthermore, government effectiveness exhibited a positive but weakly significant effect on economic performance, implying that efficient public institutions and quality service delivery remain important for economic advancement. Conversely, variables such as control of corruption, rule of law, political stability, and regulatory quality did not exhibit statistical significance in the model. This suggests that while these dimensions of governance are important, their effects on economic performance may be indirect, long-term, or transmitted through other institutional channels. Similarly, most of the control variables, except trade openness, were not statistically significant, reflecting the structural and macroeconomic complexities associated with many Sub-Saharan African economies.

Overall, the study concludes that improving economic performance in Sub-Saharan Africa requires targeted institutional reforms rather than a generalized approach to governance. Policies aimed at strengthening accountability frameworks, enhancing institutional effectiveness, and promoting trade openness should therefore be prioritized to achieve sustainable economic performance in the region.

## Policy Implications

The results of this study provide important policy implications for governments and policymakers in Sub-

Saharan Africa, particularly regarding the design and prioritization of institutional reforms aimed at enhancing economic performance.

First, the positive and significant effect of voice and accountability suggests that inclusive governance and participatory institutions are essential for sustainable economic performance. Policymakers should therefore strengthen democratic institutions, promote transparency in public administration, and encourage greater citizen participation in governance processes. Enhancing accountability mechanisms through independent oversight institutions, free media, access to information, and transparent public sector practices can contribute significantly to improved economic outcomes.

Second, the positive influence of trade openness indicates that policies encouraging integration into the global economy can stimulate economic performance. Governments should continue efforts toward reducing unnecessary trade barriers, improving trade facilitation systems, and investing in infrastructure that supports international trade. At the same time, policymakers should implement strategies that enhance the competitiveness of domestic industries to ensure that countries fully benefit from increased openness.

Third, although government effectiveness was only weakly significant, its positive coefficient suggests that efficient public institutions and quality service delivery remain important for economic advancement. Consequently, governments should strengthen institutional capacity, improve policy implementation processes, reduce bureaucratic inefficiencies, and promote merit-based recruitment and professionalism within the public sector.

Furthermore, although control of corruption, rule of law, political stability, and regulatory quality were not statistically significant in the model, these governance dimensions should not be disregarded. Their lack of statistical significance may reflect indirect, delayed, or interconnected effects on economic performance rather than irrelevance. Continuous efforts toward strengthening legal systems, improving regulatory frameworks, and combating corruption therefore remain essential for fostering a stable and predictable economic environment.

Finally, the insignificance of most macroeconomic control variables suggests that macroeconomic policies alone may not be sufficient to drive sustainable economic performance in the absence of strong institutions. This underscores the importance of adopting a balanced policy framework that combines sound macroeconomic management with targeted institutional reforms across Sub-Saharan African countries.

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