

RESEARCH ARTICLE OPEN ACCESS

Leveraging Governance and Accountability for Advancing Sustainable Development Goals in Africa

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Received: 4 October 2024 | **Revised:** 4 April 2025 | **Accepted:** 15 April 2025

Funding: The author received no specific funding for this work.

Keywords: accountability | accounting | finance | governance | sustainable development goals

ABSTRACT

Background: The United Nations' Sustainable Development Goals (SDGs) Agenda 2030 is bent on achieving sustainable development with a key focus on governance and accountability. African countries are among the many other nations that face significant challenges such as corruption, weak institutional structures, limited rule of law, and political instability that affect developmental progress.

Aim: The study explores how these weaknesses can be addressed using governance and accountability as a sustainable development vehicle.

Materials & Methods: The paper analyzes the composite SDG Index (SDGI) using data from Worldwide Governance Indicators (WGI) and SDGs databases for 48 sub-Saharan countries for the 2016–2020 period. Feasible Generalized Least Squares (FGLS) and Two-Step System Generalised Method of Moments (TS-GMM) were employed for the data analysis.

Results: The results show that, though regulatory quality and governance effectiveness showed no significant relationship, the control of corruption, rule of law, political stability, and voice and accountability affect SDGI significantly.

Discussion: The study stresses the importance of governance mechanisms in ensuring that nations achieve SDGs, especially in African countries, where significant governance reforms are needed.

Conclusion: It offers unique actionable recommendations that can aid policy formulation and help address systemic challenges. The study adds to academic discourse on how societal well-being could be improved through sustainable development driven by effective governance with the introduction of SDGIs.

1 | Introduction

Achieving Sustainable Development Goals (SDGs) in recent times is non-negotiable, especially following the adoption of the 2030 SDGs in 2015 by the United Nations. As a pathway, this has propelled nations to put measures in place to address challenges that are associated with economic growth and the attainment of equitable environmental sustainability (Akenroye et al. 2018; Bardy et al. 2015). The SDGs are made up of 17 goals and 169

specific objectives, respectively, which aim at creating a world that is peaceful, prosperous, and motivated by global partnerships, dwelling on the principles of equity and inclusivity. The achievement of this transformative agenda requires effective governance frameworks that foster diverse participation, promote transparency, and propel accountability (Abhayawansa et al. 2021; Biermann et al. 2017). These are critical for the achievement of SDGs and multidimensional envisioned outcomes.

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The “governance through goals” is the concept that highlights the importance for governments of various nations to improve their institutional systems so as to ensure that they align with comprehensive characteristics of SDG implementation. Notwithstanding, the understanding of the specific mechanisms of accountability and governance that foster sustainable development, particularly within Africa, is a significant gap in literature addressed by this study. In Kenya, Jesse Gitahi studied the effect of governance and accountability on the implementation of SDGs in Kenya: A perspective of a developing country, a case study that reflected these broader governance-related challenges. Recurring challenges highlighted include weak compliance with the rule of law (ROL), political instability issues, system-related corruption, and marginal participation of citizens in national issues across countries within Africa. Obviously, these challenges hinder progress when it comes to sustainable development, warranting the need to implement governance mechanics that address the socio-political issues within Africa (McArthur and Rasmussen 2017; Haywood et al. 2019).

The interplay between development and institutional accountability outcomes is the root determinant of accelerated implementation of SDGs in Africa. Unlike Jesse Gitahi’s study, which focused on Kenya, a purely micro-level study, this study explores how the dimensions of governance, including political instability, corruption control, and voice and accountability (VOA), influence the progress of Africa when it comes to Sustainable Development Goal Indicators (SDGIs). The public interest theory is the theoretical underpinning of the study, which advocates for equitable allocation of resources and paying attention to inclusive welfare. Prioritizing inclusivity, equity, and sustainability, the study theory aligns with the SDGs focus, hence pointing to governance frameworks that call for nations to address system-related governance issues and promote public welfare.

The study addresses significant questions on the intricate relationship between governance and developmental issues within Africa. It explores how governance and accountability issues affect the implementation of SDGs as it explores how public interest theory informed governance reforms in Africa. Furthermore, the study propounds mechanics that promote both stakeholder participation and enhanced accountability, leading to the achievement of the SDG agenda in Africa. The study addresses a significant lacuna in the literature where existing studies are of a regional and global perspective, to the neglect of country-specific context nuance within Africa.

Available literature focuses on the role of effective governance structures and collaboration of multi-stakeholders in reaching SDGs. For instance, whereas Abhayawansa et al. (2021) underscore the importance of governance systems in addressing challenges such as inequality and poverty, Haywood et al. (2019) emphasize how inclusive partnerships can improve decision-making and enhance transparency. Notwithstanding these important additions to the literature, there exists a significant gap in the unique economic, political, and social dynamics of countries within Africa, which critically shape their governance landscapes.

Although the findings of Gitahi’s analysis in Kenya address accountability and governance challenges from a micro-level perspective, covering limited public participation, ingrained

corruption, and institutional capacity constraints, the issues broadly exist across the African continent, implying the need for comparative studies with governance solutions that are scalable for the context of different nations. Against this background, the study offers actionable strategies for enhancing governance in nations across Africa with similar issues.

The study contributes to existing literature on sustainable development as it addresses the role of accountability and governance in facilitating the implementation of SDGs in Africa. Having addressed the significant role of the dimension of governance in the areas of ROL, corruption control, political stability (POL), and VOA, the study provides actionable recommendations for parties interested in development matters and policymakers, among others. The study calls for African nations and their peers across the globe to encourage grassroots participation and build the capacities of institutions to handle sustainable developmental issues by implementing measures to curb corruption.

From the global and regional development perspective, the study develops governance models that prioritize countries in Africa and that align with diverse contexts. Addressing governance and accountability gaps is a meaningful step towards the realization of SDGs in Africa.

The remaining sections of the study present the study’s theoretical framework, review empirical studies, and develop study hypotheses. Following that, the study presents the methodology, discusses findings, and ends with a conclusion and recommendations.

2 | Theoretical Framework

The public interest theory is the study’s theoretical underpinning, which emphasizes the need for governance systems to focus on societal well-being (Drazen 2000). The theory emphasizes that the structures of governance should always focus on the interest of the public through leadership, responsibility, and transparency (Stigler 1971). The theory is highly relevant in Africa, as it addresses governance challenges that impede the implementation of SDGs, particularly in the areas of health, poverty reduction, education, and environmental sustainability (United Nations 2015).

The challenges of Africa in implementing SDGs are enormous and cast across corruption, accountability issues, and weak institutional structures (Moyo 2009). Meanwhile, the public interest theory advocates for effective governance, which should come with transparency in decision-making, robust regulatory frameworks, and equitable distribution of resources in order to promote sustainable development (Fukuyama 2013). In order to ensure that public officials are responsible, to foster public trust, and to ensure that policies are well implemented, accountability is key (Kaufmann et al. 2009).

Therefore, the study explores how governance principles such as transparency, accountability, and inclusivity can help fast-track the implementation of SDGs in Africa (World Bank 2017). Governments within Africa can maximise resource utilization, increase citizens’ participation in national issues, and ensure that

leaders are accountable by ensuring that governance structures are aligned with the wider public interest (Alesina and Perotti 1996). This is important in achieving the SDGs for Africa and a global perspective (Sachs 2015). Consequently, the public interest theory advocates that accountability and effective governance structures are critical for the achievement of SDGs, particularly in Africa. The theoretical foundation of the study has empirical backing, advocating for accountability and good governance in the area of corruption control, POL, government effectiveness (GEF), quality of regulatory structures, and the ROL that drive the achievement of SDGs in Africa through equity and inclusive growth.

3 | Hypothesis Development

3.1 | Control of Corruption and SDGs in Africa

In Africa, the control of corruption (CORR) is a key determinant of the achievement of SDGs. This is because corruption is able to affect economic growth, governance structures, and social equity. A number of available studies demonstrate a nuanced relationship between mechanisms of anti-corruption and the attainment of SDGs.

Among studies that explore the effect of corruption on SDGs is Asongu and Nwachukwu (2018), which found a negative effect of corruption on SDGs, especially in the areas of education, health, and poverty reduction, using panel data across Africa. Their findings posit that effective anti-corruption frameworks are able to accelerate the progress of SDGs. However, the use of secondary data and the Corruption Perceptions Index (CPI) cast doubt on the accuracy of the measurement.

De Graaf and Huberts (2021) conducted a qualitative study that examines the dynamics of anti-corruption strategies, a case study of Kenya and Nigeria. They found that inadequate institutional capacity, weak governance, and elites were the key barriers. The findings also reveal that though citizens advocate for transparency, it cannot be replaced with systemic reforms. The studies are challenged with generalisability as they underscore corruption's dynamic variability within different contexts.

A mixed-method approach was employed by Owusu and Nurudeen (2023), who blend interviews with survey data to assess anti-corruption initiatives within Ghana. It was found that corruption opportunities in the public sector could be mitigated with the use of digital governance tools. Also, it was revealed that the case of the elites was different.

In a different perspective, Kpegba et al. (2024) investigated the moderation role of institutional quality on the relationship between public expenditure and economic sustainability using panel data from 48 SSA nations. It was found that CORR not only improves the economic sustainability position of SSA countries but also moderates how public expenditure of these African countries influences their economic sustainability. However, the specific role of CORR in driving SDGs in Africa as a whole remains undiscovered.

Critically, these studies indicate that while anti-corruption measures are essential for SDG progress, their effectiveness depends

on context-specific strategies, including technology adoption, civic engagement, and institutional reform. Nevertheless, the over-reliance on perception-based measures and insufficient attention to local dynamics are gaps that future research must address.

Based on the above review, this study proposes its first hypothesis as follows:

H1. *Control of corruption significantly enhances Sustainable Development Goal progress in Africa through institutional reforms.*

3.2 | GEF and SDGs in Africa

In recent times, different methodologies such as statistical analyzes, case studies, and systematic reviews have been used to explore how governance affects SDGs in Africa, which highlight the importance of governance in the achievement of sustainable development.

Among them are Nhema and Zinyama (2023), who, through a qualitative study, examined how national development plans align with the targets of SDGs. They employed policy document reviews and interviews for their study with a focus on several African countries. It was established that although several governments in Africa demonstrate commitment to the implementation of SDGs, the progress was impeded by poor institutional capability and corruption, emphasizing the need for governments to concentrate on building institutional capacity and putting measures in place to encourage accountability.

Also, a quantitative study conducted by Mensah et al. (2022) that analyzed data from 30 countries within Africa found that effective government through corruption control and the ROL promotes SDG performance. The study, which uses econometric models, reveals that effective governance results in improved outcomes in health, environmental, and educational goals. Also, external factors such as global economic trends were found to have the potential to affect the advancement of SDGs.

A systematic literature review by Adeola and Evans (2021) that assesses the implementation challenges and opportunities of SDGs across Africa found the most reported issues to include inadequate citizen engagement, inadequate funding, and inconsistencies in policies for SDG implementation. They recommended that enhancing coherence in SDG implementation policies and regional collaborations is instrumental for addressing the stated challenges.

The shortfall of these studies, however, is that they often reflect a macro-level analysis, ignoring local-base intricacies. Also, the differences in the availability and quality of data across countries limit the extent to which such findings could be generalised. This calls for future studies to focus on longitudinal data and mixed-method methodologies in order to explore the intricate relationships between governance and sustainable development, particularly in Africa.

It is against this background that the study's second hypothesis is formulated as follows:

H2. *Higher government effectiveness positively influences Sustainable Development Goal (SDG) performance among African countries.*

3.3 | POL and SDGs in Africa

Political stability is non-negotiable when it comes to the achievement of SDGs among African nations, as it ensures equitable distribution of resources and effectiveness of institutions. Recent academic discourse has been geared towards exploring the intricate relationships between POL and sustainable development, of which different methodologies have been employed.

The impact of indicators of governance on the successful achievement of SDGs has been explored by Asongu and Odhiambo (2023) using panel data from 48 countries in Africa. It was found that education, economic growth, and health sectors gain significant improvement when there is POL. In the same way, Cilliers (2021) found that political instability negatively affects governments efforts to alleviate poverty, promote equality, and improve climate actions. Using scenario analysis and simulation models, Cilliers (2021) projected SDG attainment taking into consideration different governmental conditions and concluded that about 20%–30% achievement of SDG is attributable to POL.

In contrast, Baffoe and Matey (2022) assessed the role of foreign remittances and assistantship in propelling stability and the attainment of SDGs. Employing econometric analysis and mixed methods, it was established that external financial aid has the possibility of extenuating the effect of political instability on SDG achievement through enhanced education and health care systems in especially vulnerable nations.

As though the studies above provide significant insights on the role of POL, the results have mixed findings from different perspectives. Although qualitative studies provide important insights on systemic consequences, including capacity vulnerabilities of institutions and increased corruption that impede POL and sustainable development, quantitative studies emphasize direct correlations. For instance, Okeke et al. (2023) claim that the role of POL can be significant only when accountability and governance mechanisms are in place.

There exists a significant gap due to the overreliance of existing studies on indicators, which frequently masks intra-regional discrepancies. Also, most research concentrates on the short-term effects to the neglect of the intricate long-term effects of governance on SDG achievement.

This as well calls for the need for future studies to use granular data and longitudinal designs to capture the distinctions and provide insightful practical recommendations from the governance, regional, and global perspectives. Therefore, the study hypothesized that:

H3. *Political stability significantly enhances Sustainable Development Goals (SDGs) achievement by improving governance, resource allocation, and institutions.*

3.4 | Regulatory Quality and SDGs in Africa

Exploring the intricate relationship between regulatory quality (REG) and SDGs has gained the attention of scholars within Africa in recent times. Regulatory quality, which refers to the formulation and implementation of good rules and regulations, plays a significant role in ensuring that SDGs are achieved through fostering economic growth, effective governance, and social inclusiveness (Khan et al. 2023). Scholars over the years have used different methods to assess how SDG achievement is influenced by regulatory frameworks across the African continent.

A quantitative approach has been used to explore panel data using econometric models by a number of scholars to examine how REG affects specific SDGs. For example, Agyeman et al. (2022) used data from 30 countries within Africa on SDG and governance indicators to examine the impact of the indicators of governance on SDGs such as quality education and reduction of poverty. It was found that strengthening regulatory frameworks improves the outcomes of SDGs. The study affirms the significance of accountability, building governance capacity, and ensuring transparency.

Ojo and Adekunle (2021) are among others who employ a qualitative approach in Nigeria to assess the effect of the regulatory environment on the achievement of SDG 13 (Climate Action). Through interviews and analysis of policy documents, gaps in enforcement and equitable distribution of resources were identified as key hindrances to the achievement of SDG13.

When it comes to the issue of findings generalisability, studies such as Mukherjee and Ndlovu (2023) claim that macro-level studies generally ignore the dynamics that come with grassroots-level, where they argue that the impact of the regulatory framework is often felt. In addition, too much dependence on secondary data neglects the contribution of the informal sectors, which are inevitable when it comes to the sustainable development of African economies.

A study by Azam, Haseeb, et al. (2021); Azam, Tariq, et al. (2021) executed using panel data from 66 developing nations for the period of 1984–2019 established that in developing productive policy, legislative support is important in ensuring effective resource management. On this basis, they recommend that institutional reforms are key drivers of sustainable development and should be prioritized by governments. A similar study conducted by Orazalin and Mahmood (2021) among the European countries uses data at the firm level from 2009 to 2016 to examine the influence of governance at the country-level on sustainable development and environmental performance. They found that the quality of country-level governance significantly affects European countries' sustainable development.

As though available literature indicates that REG has a strong connection to SDG achievement in Africa, there exists a methodological gap. The existing literature also does not give even focus to various regions, which together call for the need for additional research to be conducted, making use of mixed-method approaches and local-level assessment. Bridging this gap, this study offers actionable insights for bodies responsible for policy

formulation leading to enhanced regulatory frameworks that can promote sustainable development. For this reason, the study hypothesizes that:

H4. *Enhanced regulatory quality positively influences Sustainable Development Goal (SDG) progress in African countries.*

3.5 | ROL and SDGs in Africa

The ROL, encompassing accountability, legal certainty, and access to justice, is central to achieving the SDGs. The ROL is the origin of justice, peace, and strong institutions and therefore supports SDG 16 and also influences SDGs indirectly, including gender equality, poverty alleviation, and economic growth (UNDP 2022). The scholar claims that in Africa, the progress of the achievement of SDGs and the ROL both have persistent hindrances.

An empirical study by Moyo and Ncube (2021) explored the effect of judicial independence and anti-corruption strategies for the achievement of SDG 1, which focuses on poverty, and SDG 10, which also focuses on the reduction of inequalities. The findings show that strong legal frameworks lead to social justice and inclusivity. They noted differences on a regional basis, with a number of nations lagging as a result of weak institutional structures.

A qualitative approach conducted by Adewale et al. (2022) in Kenya, a case study, assesses the effect of customary laws on gender equality (SDG 5). The study reveals that tensions exist between traditional practices and statutory law, implying the importance of harmonizing systems through context-sensitive legal reforms.

Notwithstanding, there exist methodological gaps in existing literature. Buttressing this, Ndlovu and Basse (2023) claim that, disproportionately, most researchers pay attention to formal legal systems to the neglect of the effect of customary and informal laws within the contexts of Africa. Also, it was argued that the sole dependence on combined indicators, including the World Justice Project ROL Index, can make localisation and equality realities obscure.

Consequently, as though literature has an insight into the effect of the ROL on SDG advancement within Africa, in some cases, formal systems are overemphasised, requiring additional research that dwells on inclusive approaches. Therefore, future studies must explore the intricate relationship between informal and formal legal frameworks to extend understanding and help policymakers formulate informed policies. For this reason, the study hypothesizes that:

H5. *Robust legal frameworks and harmonized formal-informal systems positively impact SDG attainment, promoting inclusivity and justice.*

3.6 | VOA and SDGs in Africa

In Africa, VOA are critical determinants of the achievement of SDGs. According to the World Bank, the participation of citizens in governance issues puts leadership on track in areas such as equitable allocation of resources and accountability.

Many available studies emphasize the importance of VOA in ensuring the achievement of sustainable development, especially SDG 16, which focuses on building strong institutions and maintaining peace and justice. For example, Akech (2021) used a qualitative case study approach in Nigeria, Kenya, and Ghana to explore the association between citizen participation and the achievement of SDGs in sub-Saharan Africa. Using documentation analysis and interviews, the study concluded that the progress of SDGs can be undermined by weak accountability structures, especially in disregarded regions.

A mixed-method approach was also employed by Musa et al. (2022) to examine how VOA measures in East Africa affect SDGs. The study includes household surveys, which covered 1500 participants, of which the participants were engaged through focus group discussions. It was established that strong accountability structures at the local-level were able to impact SDGs in the areas of health (SDG3) and education (SDG4). Notwithstanding, limited civic education and elite capture, among others, were found to be challenges that persisted.

A quantitative study conducted by Osei et al. (2020) also found that a high level of accountability was associated with SDG 1 (poverty alleviation). The study made use of SDG indices and World Governance Indicators. Irrespective of the above finding, they noted that many countries within Africa face the challenges of weak institutions, which dilute the postulated effects.

The available studies, however, have methodological gaps and also suffer from overdependence on secondary data (Osei et al. 2020). It was also noticed that there was uneven attention paid to intersection disparities (Musa et al. 2022). Therefore, the scholars called for studies that will use participatory approaches, taking into consideration the perspectives of the grassroots on governance issues. Generally, the academic discourse calls for the need to implement robust VOA strategies to help promote the realization of SDGs in Africa. For these reasons, the study hypothesizes that:

H6. *Strengthening voice and accountability mechanisms significantly enhances Sustainable Development Goal (SDG) outcomes in Africa's governance.*

4 | Methods

4.1 | Research Design

The study explores the effect of accountability and governance on sustainable development. By doing so, the study employed a quantitative and exploratory research design. The exploratory design was employed because of its suitability in exploring important insights and bridging gaps in available literature, which enabled the researchers to explore relationships that have not been examined by available literature (Brink 1998). The researchers also employed the quantitative research approach because of the statistical rigors that come with it and its ability to ensure that measurements and interpretations are precise. The methods were used to enable the researchers to draw significant inferences from the study data that guarantee generalisability to cover various contexts and provide evidence that enables the exploration of the effect of

accountability and governance, such as POL, governance effectiveness, corruption control, ROL, and REG in ensuring the achievement of SDGs in Africa, which fosters equity, sustainability, and inclusiveness.

4.2 | Sample and Data

The study captures 240 observations, which cover the 48 Sub-Saharan African countries for 5 years from 2016 to 2020. This period is ideal for this study not only due to data availability but also due to the 2030 Agenda for Sustainable Development, which was adopted by the United Nations lead members in September 2015, and on 1st January 2016, these SDGs officially came into force. These longitudinal datasets were sourced from two databases available on the pool of World Bank database. Data on the SDGs were sourced from the SDGs database, whereas datasets on Governance and Accountability were sourced from the Worldwide Governance Indicators (WGI) database.

4.3 | Measurement of Variables

4.3.1 | Dependent Variable

The study uses several variables; the dependent variable is SDGs, which has no specific proxies in the literature (Hák et al. 2016; Attaran 2006; Bell and Morse 1999). Specifically, Hák et al. (2016) argue the need for relevant indicators that can serve as empirical research proxies. Hence, following their (Hák et al. 2016) framework, this study identifies 16 indicators from the SDGs database to propose a composite index that represents the performance of the SDGs among the Sub-Saharan African countries. Out of the 17 SDGs, 16 goals (i.e., SDG1, SDG2, SDG3, SDG4, SDG5, SDG6, SDG7, SDG8, SDG9, SDG10, SDG11, SDG12, SDG13, SDG14, SDG15, and SDG17) were selected, excluding SDG16 (Peace, Justice and Strong Institutions), which is similar to the second variable of the study. Table 1 summarizes the SDGs and their respective proxies that form the SDG Composite Index (SDGI).

TABLE 1 | Sustainable development goals index.

No.	Sustainable development goal	SDG database proxy
SDG1	End poverty in all its forms everywhere	Adjusted net savings, excluding particulate emission damage (% of GNI)
SDG2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.	Agriculture, forestry, and fishing, value added per worker (constant 2015 US\$)
SDG3	Ensure healthy lives and promote well-being for all at all ages	Immunization, DPT (% of children ages 12–23 months)
SDG4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	Compulsory education, duration (years)
SDG5	Achieve gender equality and empower all women and girls	Women business and the law index score (scale 1–100)
SDG 6	Ensure availability and sustainable management of water and sanitation for all.	Renewable internal freshwater resources per capita (cubic meters)
SDG7	Ensure access to affordable, reliable, sustainable, and modern energy for all.	Access to clean fuels and technologies for cooking (% of population)
SDG8	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.	GDP per person employed (constant 2017 PPP \$)
SDG 9	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.	Individuals using the Internet (% of the population)
SDG10	Reduce inequality within and among countries	The proportion of seats held by women in national parliaments (%)
SDG11	Make cities and human settlements inclusive, safe, resilient, and sustainable.	New business density (new registrations per 1000 people ages 15–64)
SDG12	Ensure sustainable consumption and production patterns	Manufacturing, value added (% of GDP)
SDG13	Take urgent action to combat climate change and its impacts	CO ₂ emissions (metric tons per capita)
SDG 14	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.	Marine protected areas (% of territorial waters)
SDG15	Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.	Terrestrial protected areas (% of total land area)
SDG 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development.	Net official development assistance and official aid received

Source: Authors' table (2024).

4.3.2 | Independent Variable

The independent variable of the study is governance and accountability, which was proxied with six governance and accountability indicators following Salawu et al. (2018), Kaufmann et al. (2011), and Kpegba, Ampadu, et al. (2024). These include CORR, GEF, POL, REG, ROL, and VOA, which were measured using percentile ranks. CORR represents the extent to which public power is exercised for private gain, including both petty and grand forms of corruption as well as elite “capture” of the state; GEF represents the quality of public services, the capacity of civil services and their independence from political pressure, and the quality of policy formulation; POL represents the likelihood that a government will be destabilized by unconstitutional or violent means, including terrorism; REG represents the extent to which agents have confidence in and abide by the rules of society, including the quality of property rights, the police and the courts, and the risk of crime; ROL represents the ability of a government to provide sound policies and regulations that enable and promote private sector development; whereas VOA represents the extent to which a country’s citizens are able to participate in selecting their government as well as freedom of expression, association, and the press (Salawu et al. 2018; Kaufmann et al. 2011; Kpegba, Ampadu, et al. 2024). A composite index was also developed to examine its overall effect on the performance of SDGs of African countries.

4.3.3 | Control Variables

Following Kpegba, Adepoju, et al. (2024); Mathibe and Oppong (2024); and Kpegba, Ampadu, et al. (2024), the study controls for three variables: economic growth, unemployment (UEM), and inflation (INF). Kpegba, Ampadu, et al. (2024) control for economic growth and INF in examining the moderating effect of institutional quality on the relationship between public expenditure and economic sustainability, where it is argued that the level of INF and economic growth significantly influences the economic sustainability of Sub-Saharan African countries. Similarly, Mathibe and Oppong (2024) and Kpegba, Ampadu, et al. (2024) emphasize the need to incorporate the level of UEM among African countries when assessing their level of economic development and sustainability. Economic growth was measured by taking the natural logarithm of Gross Domestic Product (GDP); UEM was measured by taking the natural logarithm of the unemployed active labor force, whereas INF was measured by taking the natural logarithm of the annual consumer price index (Kpegba, Adepoju, et al. 2024, Kpegba, Ampadu, et al. 2024; Mathibe and Oppong 2024).

4.3.4 | Research Model and Analytical Technique

Using the SDGs Index as a function of governance and accountability, economic growth, UEM, and INF, and considering the longitudinal nature of the dataset, the panel regression technique is particularly suitable for analysing the data with the use of STATA 16 over time and across countries. However, the study adopts the Feasible Generalised Least Squares (FGLS) panel regression model as the baseline econometric model to

obtain the objectives of the study. The choice of this model is appropriate, as supported by Saha et al. (1997) and Umoru and Osemwegie (2016), due to its ability to estimate the coefficients of multiple linear regression models and their covariance matrix in the presence of non-spherical innovations with an unknown covariance matrix. The theoretical model is specified in Equation (1), whereas the econometric models are specified in Equations (2) and (3).

$$\begin{aligned} \text{SDGI} = & f(\text{Governance and Accountability}_{i,t} \\ & + \text{Economic Growth}_{i,t} + \text{Inflation}_{i,t} \\ & + \text{Unemployment}_{i,t}) \end{aligned} \quad (1)$$

$$\begin{aligned} \text{SDGI}_{i,t} = & \beta_0 + \beta_1 \text{CORR}_{i,t} + \beta_2 \text{GEF}_{i,t} + \beta_3 \text{POL}_{i,t} \\ & + \beta_4 \text{REG}_{i,t} + \beta_5 \text{ROL}_{i,t} + \beta_6 \text{VOA}_{i,t} \\ & + \beta_7 \text{GDP}_{i,t} + \beta_8 \text{INF}_{i,t} + \beta_9 \text{UEM}_{i,t} + \varepsilon_{i,t} \end{aligned} \quad (2)$$

$$\text{SDGI}_{i,t} = \beta_0 + \beta_1 \text{GAI}_{i,t} + \beta_2 \text{GDP}_{i,t} + \beta_3 \text{INF}_{i,t} + \beta_4 \text{UEM}_{i,t} + \varepsilon_{i,t} \quad (3)$$

Where CORR, control of corruption; GAI, governance and accountability composite index; GDP, gross domestic product; GEF, government effectiveness; INF, inflation; POL, political stability; REG, regulatory quality; ROL, rule of law; SDGI, sustainable development goals composite index; UEM, unemployment; VOA, voice and accountability. β represent the coefficients of regression, ε represents the error term; i represents the countries (cross-sections), and t represents the yearly observation. Table 2 below gives operational definitions of all the variables in the models.

The FGLS model was employed due to its suitability for addressing violations of classical assumptions. This method produces results that are robust to issues such as autocorrelation and heteroscedasticity. The method is also universally recognized as the approach which is effective in handling correctional data (Miller 2017; Greene 2018; Umoru and Osemwegie 2016; Saha et al. 1997).

$$Y_{it} = \beta X_{it} + \gamma Z_{it} + \nu_{it} + \varepsilon_{it} \quad (4)$$

Where by X_{it} represents the independent variable, Y_{it} represents the dependent variable, and β stands for the coefficients. That of Z_{it} and γ stands for the control variables and their coefficients respectively.

Also, ν represents the moderator, and $\varepsilon_{i,t}$ = the stochastic error term, with an underlying assumption that $\varepsilon_{i,t}$ are independent for each i and overall t .

4.3.5 | Robustness Check

Although the FGLS model offers several advantages over other static models, it has limitations, particularly its inability to address potential issues of endogeneity and reverse causality. Invalid conclusions and biased regression estimates are the key limitations of the results. The study incorporated the two-step System Generalised Method of Moments (S-GMM) robustness check to help address the mentioned concerns.

TABLE 2 | Operational definitions of variables.

Variables	Operational definition(s)	Reference(s)
Sustainable development goals composite index (SDGI)	The Sustainable development goals composite index measures overall progress toward achieving the UN SDGs across dimensions	Sachs et al. (2023)
Control of corruption (CORR)	Control of corruption involves mechanisms to prevent, detect, and sanction corruption, ensuring transparency and accountability.	World Bank (2023a, 2023b, 2023c)
Government effectiveness (GEF)	Government effectiveness reflects the quality of public services, policy implementation, and administrative competence.	Kaufmann et al. (2011)
Political stability (POL)	Political stability reflects the likelihood of government continuity, absence of violence, and peaceful power transitions.	Kaufmann et al. (2011)
Regulatory quality (REG)	Regulatory quality assesses the government's ability to formulate and implement sound policies promoting private sector development.	Kaufmann et al. (2011)
Rule of law (ROL)	Rule of law measures the extent to which laws are enforced equally and protect rights.	Kaufmann et al. (2011)
Voice and accountability (VOA)	Voice and accountability reflect citizens' ability to participate in governance and freedom of expression.	Kaufmann et al. (2011)
Governance and accountability composite index (GAI)	The Governance and accountability composite index measures governance quality, accountability, and institutional effectiveness across multiple dimensions.	Kaufmann et al. (2011)
Gross domestic product (GDP)	GROSS domestic product measures the total monetary value of goods and services produced within a country.	World Bank (2023a, 2023b, 2023c)
Inflation (INF)	Inflation represents the rate at which the general price level of goods and services rises.	World Bank (2023a, 2023b, 2023c)
Unemployment (UEM)	Unemployment refers to the percentage of the labor force actively seeking but unable to find work.	International Labour Organization (2023)

Source: Authors' table (2024).

Aside from being a robustness check tool, S-GMM also addresses unobservable heterogeneity, endogeneity, and second-order autocorrelation through the introduction of the lagged dependent variable as part of the estimation process (Arellano and Bover 1995; Arellano and Bond 1991).

The validity of the research instrument was assessed using the AR (2) test, which caters for the second-order autocorrelation where the no autocorrelation null hypothesis is assessed using the *p* value. The validity is also tested using the Hansen test, of which the *p* values are compared with the 0.05 critical value. In both cases, the null hypothesis is only accepted when the *p* value is greater than the critical value of 0.05. The robustness test enables the researchers to confirm the validity and reliability of the estimates of the regression from the study's baseline model.

5 | Results

5.1 | Descriptive Statistics

The results of the descriptive statistics presented in Table 3 give a summary of the indices and metrics which reflect the SDGs of the United Nations, economic performance, and governance in Africa. The SDGI, which is made up of 16 out of the 17 SDGs of the United Nations, scored 19.84 with values within 6.08 and 22.39. Overall, the result implies that SDG advancement within Africa was generally low. The result indicates that the data was skewed towards the left side because of the high kurtosis (23.57) and the negative skewness (−3.653). The result also depicts a long-peaked nature, a sign that there were discrepancies in the achievement outcomes of the SDG among the Sub-Saharan African countries.

TABLE 3 | Summary statistics.

Variable	Mean	Std. dev.	Minimum	Maximum	Skewness	Kurtosis
SDGI	19.84	2.098	6.079	22.39	-3.653	23.57
CORR	3.018	1.057	-0.742	4.495	-0.108	4.195
GEF	2.788	1.008	-0.742	4.376	-0.877	4.148
POL	3.071	0.946	0.347	4.480	-0.749	2.768
REG	2.923	0.961	-0.742	4.440	-1.014	3.952
ROL	3.006	0.946	-0.742	4.364	-1.019	3.901
VOA	3.140	1.036	-0.728	4.371	-1.622	5.668
GAI	18.39	4.649	1.909	25.94	-0.596	3.028
GDP	23.21	1.493	19.61	26.94	0.130	3.066
INF	1.531	1.288	-1.400	6.323	0.613	4.484
UEM	1.791	0.919	-0.627	3.375	0.844	-0.282

Abbreviations: CORR, control of corruption; GAI, governance and accountability composite index; GDP, gross domestic product; GEF, government effectiveness; INF, inflation; POL, political stability; REG, regulatory quality; ROL, rule of law; SDGI, sustainable development goals composite index; UEM, unemployment; VOA, voice and accountability.

The proxies for accountability and governance covering GEF, REG, CORR, ROL, POL, and VOA depict a maximum value and mean score of approximately 4.4 and 3.0, respectively. The results indicate a low level of accountability and governance across the African continent, which aligns with Kpegba Ampadu, et al. (2024) findings. The results also indicate that the majority of the countries have low accountability and governance scores since the metrics are equally skewed to the left. The six proxies for governance scored a composite index ranging from 1.91 to 25.94, with a mean score of 18.39 and a standard deviation value of 4.65. Comparatively, the average governance and accountability index is lower than the SDGI, underscoring governance as a critical area for improvement in sustainable development.

Economic growth, represented by GDP, has a mean of 23.21 and a standard deviation of 1.493, reflecting moderate variation across countries. Inflation demonstrates greater variability, with a mean of 1.531 and values ranging from -1.4 to 6.325. This wide range suggests different inflationary pressures among African nations, which could have implications for economic stability and development. Unemployment, another economic indicator, records a mean of 1.791 and a standard deviation of 0.919, indicating some variation in labor market performance across the continent.

To sum it up, the descriptive statistics in Table 3 highlight the uneven distribution of SDG achievements, governance, and economic performance among African nations. The left-skewed nature of key indices, combined with substantial disparities in their ranges, emphasizes the need for targeted policies to address governance challenges and economic imbalances. Improving governance and accountability appears particularly critical, as it lags behind SDG performance and is likely a key determinant of sustainable development outcomes in the region.

5.2 | Multicollinearity Analysis

Table 4 presents the correlation matrix, offering insights into potential multicollinearity among the independent variables. Kennedy (2008) identifies a correlation threshold of 0.80, beyond which multicollinearity may arise, leading to unstable regression coefficients, inflated variances, and reduced model reliability. In this dataset, the highest correlation coefficient between the two predictors is 0.794, observed between REG and GEF. This value is close to the threshold but does not exceed it, suggesting that multicollinearity may not pose a significant issue. The remaining correlations between predictor variables are moderate and within acceptable ranges.

The proxies for governance and accountability—CORR, GEF, POL, REG, ROL, and VOA, as well as their composite index—exhibit negative correlations with the Sustainable Development Goals Index (SDGI). Except for REG and VOA, these negative correlations are statistically significant. The results depict that higher accountability and governance have a connection to lower SDG achievement. Interestingly, this finding opposes theoretical expectations. Notwithstanding, the results reflect the intricate dynamics amidst governance mechanisms and outcomes of sustainable development within the context of Africa.

The results present variance relationships between economic indicators and SDGI. Gross Domestic Product indicated a 10% significant level of positive relationship with SDGI. This outcome supports theoretical expectations that higher economic growth leads to high achievement of sustainable development. Similarly, SDGI and INF were found to have a positive correlation at the same level of significance. In contrast, UEM and SDGI were found to have a negative relationship, signifying that UEM affects the efforts of African nations to achieve high sustainable development.

TABLE 4 | Correlation matrix.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
(1) SDGI	1.000										
(2) CORR	-0.144*	1.000									
(3) GEF	-0.169*	0.410*	1.000								
(4) POL	-0.484*	0.591*	0.612*	1.000							
(5) REG	-0.099	0.718*	0.794*	0.563*	1.000						
(6) ROL	-0.153*	0.750*	0.502*	0.670*	0.669*	1.000					
(7) VOA	-0.042	0.719*	0.672*	0.529*	0.720*	0.708*	1.000				
(8) GAI	-0.168*	0.698*	0.712*	0.686*	0.419*	0.040*	0.017*	1.000			
(9) GDP	0.473*	-0.066	0.181*	-0.296*	0.099	0.093	-0.040	-0.031	1.000		
(10) INF	0.206*	-0.125	-0.197*	-0.266*	-0.343*	-0.273*	-0.285*	-0.152*	0.232*	1.000	
(11) UEM	-0.430*	0.021	-0.028	0.179*	-0.108	0.054	-0.042	0.120	-0.089	0.072	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Generally, the correlation result of the study depicts an interesting outcome of the effect of economic indicators, governance, and sustainable development. There is the need for further African perspective studies to be conducted due to the negative relationship found between governance and SDGI. Additionally, the correlations between the independent variables are moderate, which implies that multicollinearity risk is low, emphasizing that the subsequent regression result is robust. The findings of the study call for the need to implement distinctive policies that can simultaneously address economic and governance issues so that SDGs can be achieved across the region.

5.3 | Baseline Regression Analysis

The study's findings with the employment of the FGLS model shed light on the complex relationship between governance, accountability, and the advancement of SDGs in Africa. The study estimated four models together with a number of control variables and found interesting and unexpected associations.

All things being equal, the result presented in Table 5 indicates that GAI and SDGI have a negative relationship at a 1% significance level. Notwithstanding, there were disparities in the outcome when the control variables, including GDP, INF, and UEM, were introduced, implying that an endogenous characteristic of the negative associations exists. A nuanced outcome was realized as available literature presents that governance metrics had an association with sustainable consequences (Almatari et al. 2024). The outcome challenges what is known as the idea that governance as a whole is paramount to the achievement of SDGs but puts forward the possibility of trade-offs or inefficiencies from the perspective of governance systems of countries in Africa that could result otherwise.

However, it was noted that the inclusion of control variables does not influence the significantly negative effect of POL on SDGI ($\beta = -0.88$, $p < 0.01$; $\beta = -1.62$, $p < 0.01$). This finding

is in variance with the well-known axiom that POL is a key determinant of sustainable development (Costantiello and Leogrande 2023). This implies that although POL is important, it could sometimes have a complicated make-up, such as no reforms or the choice of short-term stability instead of stability even in the long run.

Contrary to some findings in prior research, ROL ($\beta = 0.942$, $p < 0.05$) and VOA ($\beta = 0.533$, $p < 0.05$) significantly enhance SDGI, with or without the inclusion of control variables. These results align with Güney (2017) and Salawu et al. (2018), who emphasize the role of rule-based governance and inclusive participation in driving development. This adds nuance to the literature, illustrating that while governance's aggregate measures might falter, specific dimensions such as the ROL and accountability provide essential pathways to achieving SDGs.

Interestingly, the study finds no initial relationship between CORR and SDGI under *ceteris paribus* assumptions. However, when GDP, INF, and UEM are considered, CORR significantly improves SDGI ($\beta = 0.319$, $p < 0.05$). This indicates that corruption's impact on SDGs is contingent on economic factors, underscoring the interplay between governance and macroeconomic conditions. This finding supports earlier work by Azam, Haseeb, et al. (2021); Azam, Tariq, et al. (2021), who highlighted the conditional effectiveness of anti-corruption measures in resource-constrained settings.

Economic factors like GDP and INF positively influence SDGI, with coefficients of 0.306 and 0.207, respectively. Conversely, UEM negatively impacts SDGI (-0.564 , $p < 0.01$). These findings reinforce the dual role of economic growth as both a facilitator and an indicator of sustainable development (Nadeem et al. 2020).

The study provides several surprising elements and novel contributions. For instance, the finding that GAI's negative relationship with SDGI is self-driven and becomes insignificant with economic controls is unexpected. It challenges generalised

TABLE 5 | Baseline regression (FGLS model).

Variables	(1)	(2)	(3)	(4)
	SDGI	SDGI	SDGI	SDGI
Independent variables				
GAI	-0.0768*** (0.0296)	0.0114 (0.0176)	— —	— —
CORR	—	—	-0.220 (0.240)	0.319** (0.131)
GEF	—	—	-0.368 (0.345)	-0.237 (0.192)
POL	—	—	-1.621*** (0.177)	-0.882*** (0.103)
REG	—	—	-0.130 (0.379)	-0.283 (0.185)
ROL	—	—	0.942** (0.377)	0.382** (0.182)
VOA	—	—	0.533** (0.211)	0.576*** (0.117)
Control variables				
GDP	—	0.417*** (0.0502)	—	0.306*** (0.0507)
INF	—	0.227*** (0.0614)	—	0.207*** (0.0486)
UEM	—	-0.746*** (0.0778)	—	-0.564*** (0.0615)
Constant	21.20*** (0.561)	11.09*** (1.201)	22.42*** (0.512)	13.87*** (1.181)

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

narratives that higher governance scores uniformly lead to better development outcomes in Africa. Again, the persistent negative relationship between POL and SDGI contradicts mainstream literature, suggesting a need to interrogate the nature of stability in African contexts and its interaction with development agendas. The economic context in corruption's effectiveness, showing the conditional relationship between corruption control and SDGI, highlights that governance interventions must be contextualized within broader economic realities, offering a refined perspective to policymakers. Lastly, the separation of SDGs from economic growth thus, whereas economic growth metrics like GDP and INF correlate positively with SDGI, their interaction with governance variables reveals a more complex picture, distinguishing SDG progress from mere economic growth—a finding that refutes overgeneralisations in earlier works like Salawu et al. (2018).

The study refutes several assertions in the literature for instance, H2 and H5 hypotheses were rejected in the sense that,

whereas the results (H2) revealed that GEF and REG had no significant relationship with SDGI, rejecting claims by Kpegba, Ampadu, et al. (2024) that governance effectiveness is critical for SDG attainment in sub-Saharan Africa, the result (H5) on the ROL distinguishes its role in advancing SDGs, suggesting that ROL might influence development goals through mechanisms other than economic growth as initially asserted by Salawu et al.'s (2018) who tied ROL directly to economic growth. This refutation underscores the need to assess governance metrics beyond traditional paradigms.

5.4 | Robustness Checks

Using the two-step system Generalised Method of Moments (GMM) panel regression model as a robustness check as shown in Table 6, this study reinforces the validity of the baseline regression estimates derived from the FGLS model. It also evaluates how the coefficients of independent variables behave under

TABLE 6 | Robustness check (Twostep-GMM).

Variables	(5)	(6)	(7)	(8)
	SDGI	SDGI	SDGI	SDGI
Independent variables				
Lag(SDGI)	0.996*** (0.0372)	0.976* (0.549)	0.981*** (0.0561)	0.943*** (0.0273)
GAI	-0.0178*** (0.007)	-0.00970 (0.0123)	— —	— —
CORR	— —	— —	-0.0454 (0.101)	0.414*** (0.154)
GEF	— —	— —	-0.218 (0.183)	-0.123 (0.148)
POL	— —	— —	-0.591** (0.266)	-1.022*** (0.256)
REG	— —	— —	-0.0315 (0.0971)	-0.300 (0.190)
ROL	— —	— —	0.221** (0.133)	0.758*** (0.222)
VOA	— —	— —	0.626*** (0.0659)	0.588*** (0.179)
Control variables				
GDP	— —	0.0251 (0.209)	— —	0.347*** (0.101)
INF	— —	-0.0487 (0.209)	— —	0.190*** (0.0734)
UEM	— —	-0.0236 (0.421)	— —	-0.630*** (0.160)
Constant	12.43*** (0.988)	10.27*** (6.472)	20.77*** (1.450)	15.00*** (3.780)
AR(2)	0.378	0.389	0.398	0.061
Hansen test	0.452	0.481	0.405	0.059

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

different estimation methods. The GMM approach addresses endogeneity, one of the key limitations of the FGLS model, by employing moment conditions (instrumental variables) and incorporating the first lag of the dependent variable as a predictor.

To test for second-order autocorrelation, the p value of AR (2) is compared to the 0.05 significance threshold under the null hypothesis of no autocorrelation. Table 5 shows AR (2) p values of 0.378, 0.389, 0.398, and 0.061 for the respective models, indicating no significant autocorrelation. Instrument validity is assessed using the Hansen test, with p values of 0.452, 0.481, 0.405, and 0.059, all exceeding the 5% critical value, confirming the validity of the instruments.

The first lag of SDGI significantly enhances SDGI ($\beta = 0.996, 0.976, 0.981, \text{ and } 0.943$) at the 1% significance level, except in Model (6). These findings align with the baseline regression results, highlighting the influence of factors such as corruption (CORR), GEF, POL, REG, ROL, and VOA on the achievement of SDGs in Africa.

6 | Conclusion

The implementation of the SDGs in Africa faces significant challenges, which is evident in the relatively low level of sustainable development in most countries as compared to other continents.

The realization of key development issues, including poverty reduction, inequality, climate change, and environmental sustainability, requires robust governance structures and accountability mechanisms, which is in congruent with the comprehensive framework provided by the SDGs. Unfortunately, most countries within Africa are associated with high levels of corruption, lack of transparency, governance deficits, weak institutions, inadequate accountability frameworks, and limited involvement of citizens in national issues, which, apart from impeding SDG progress, also hinders the progress of African countries in many other important areas. The study explores the effect of accountability and governance on the achievement of SDGs in Africa and provides empirical insights on the interplay of SDG achievement across SSA countries.

The study reached actionable conclusions with both practical and empirical insights that look at the interplay among accountability, governance, and SDG implementation. The study extends academic discourse, thereby providing empirical and theoretical implications on the role of accountability strategies and effective governance mechanisms in the attainment of SDGs in Africa. The study acts as a framework for enhancing policymaking and as a foundation for future research, as it addresses important literature gaps in the implementation of SDGs.

By employing the FGLS model, the study bridges gaps in the literature as it analyzes the effect of multidimensional governance on the outcome of SDG. The findings of the study reveal both varied relationships. For instance, holding all other factors constant, whereas the combined governance indices affect SDGI negatively, it was noticed that the introduction of control variables, including UEM, GDP, and INF, diminishes the strength of the relational effects. The nuanced findings signal that broader economic contexts are able to affect the effects of governance as opposed to the general belief that governance as a whole has a positive effect on the progress of SDGs.

Notably, the study unravels that POL consistently affects SDGI negatively, with theoretical support that stability is the cornerstone required for sustainable development. The findings signal that sometimes, stability can hinder long-term goals and reforms, implying there is a need for further research on the effect within the context of Africa. Inversely, the study established that VOA and ROL affect SDGI positively, signifying their significant role in propelling the advancement of sustainable development within Africa.

Additionally, the restrictive effect of corruption on SDGI is determined by economic factors, emphasizing the intricate relationship between macroeconomic conditions and governance mechanisms. Inflation and GDP, which are part of economic growth metrics, had a positive influence on SDGI, whereas UEM negatively affects the two-way role of economic stability as an indicator and a driver of sustainable development.

Some general assumptions were refuted by the study, including the belief that REG and effective governance improve SDGI, which challenged the argument of their criticality. The study calls for the need for studies to be conducted from different perspectives on the effect of governance metrics to further add to an understanding of their effect on SDG achievement within Africa. The findings challenged existing axioms signaling the

governance complexity within Africa and which advocate for distinctive approaches to be employed for academic discourse and policy formulation.

6.1 | Theoretical Perspective

The assumption that improved governance leads to the achievement of SDG performance has been challenged by the result, which has been found that GAI negatively affects SDGI but dissipates when economic controls are introduced into the study model. The outcome challenges what is known, that governance as a whole is paramount for the achievement of SDGs, but puts forward that the possibility of trade-offs or inefficiencies from the perspective of governance systems of countries in Africa could result otherwise. The study calls for theorists to give a second thought to whether combined metrics are able to completely capture the complicated characteristics of governance or whether unaggregated indicators such as VOA or ROL rather offer more realistic insights. Also, the negative association established between stability and SDGI opposes the position of conventional theories that argue that POL promotes the advancement of sustainable development. This suggests that POL might sometimes reflect stagnation in policy reforms or a focus on the short-term at the expense of long-term sustainability. This finding demands a re-evaluation of the definition and measurement of stability, considering not just the absence of conflict but also the presence of dynamic reform processes.

Moreover, the study's finding that corruption (CORR) positively impacts SDGI when economic factors are controlled highlights the contextual nature of anti-corruption measures. It aligns with theories emphasizing that governance interventions must consider the interplay between institutional effectiveness and economic conditions. This supports a shift in theoretical focus toward understanding governance effectiveness in resource-constrained environments. Furthermore, the positive relationship between GDP and SDGI, alongside INFs influence, suggests that economic growth facilitates SDG attainment. However, these factors interact with governance in complex ways, distinguishing SDG progress from mere economic growth. This nuanced relationship underscores the need to disentangle economic growth metrics from comprehensive sustainable development outcomes in future research.

6.2 | On Policy Formulation

The study stresses the need for nations to focus on selected governance mechanisms rather than a wholesale improvement strategy. The findings emphasize that governance strategies such as VOA and the ROL have a high potential of ensuring that the SDGs are achieved. Therefore, prioritizing these important governance mechanisms is far more beneficial than comprehensive governance reforms that are often carried out. Also, there is a need for development agents and governments to pay much attention to policies that gear towards POL, having in mind that POL promotes sustainable development. Policies of this nature should have a deliberate focus on long-term stability rather than POL just for the short run. Similarly, wider economic reforms should incorporate anti-corruption strategies due to the fact

that corruption significantly impedes sustainable development. For these reasons, policymakers should endeavor to ensure that governance reforms are feasible and geared towards impactful economic realities leading to the attainment of SDGs.

Moreover, to ensure that there is a holistic attainment of SDGs in Africa, policymakers should put strategies in place that incorporate environmental and social mechanisms, bearing in mind that economic growth and sustainable development are not synonymous. Challenging well-known frameworks, the study disassociated itself from theoretical arguments that REG and effective governance worldwide are determinants of the achievement of SDGs. Therefore, the study stresses that policymakers and development agents for Africa at all times should consider the unique and dynamic nature of governance in Africa to design and implement evidence-based strategies that can last the test of time.

Consequently, the study provides nuanced findings on the dynamic nature of sustainable development and governance issues in Africa. For this reason, the call is on theorists to consider the refinement of theories tailored to the unique characteristics of African governance and sustainable development.

Notwithstanding, it cannot be said that the study is without limitations. Among them is the reliance on the FGLS model, which, though effective, is likely to fail, highlighting the complex interdependencies relating to the dynamics associated with governance and SDGs within the African context. Therefore, to address endogeneity issues and further add a layer to academic discourse, future studies should employ alternative methodologies like structural equation modeling or dynamic panel models to produce more comprehensive findings.

Secondly, the fact that this study made use of aggregated governance indicators has the possibility of distorting further nuanced findings on the dimensional effect of governance in Africa that could have been unraveled. Future studies should disaggregate the metrics and possibly assess the effect of accountability and governance issues on SDG attainment on a sectoral basis. Also, the fact that this study is limited to Africa, future studies could consider cross-regional studies to produce a broader perspective.

Lastly, the study's control variables, whereas significant, may not encompass all relevant factors influencing SDG progress, such as environmental or cultural variables. Expanding the scope of control variables in future research could uncover additional pathways linking governance and SDGs. Moreover, the unexpected findings on POL and corruption highlight the need for deeper qualitative studies to contextualize these relationships within Africa's unique socio-political landscape.

Conflicts of Interest

The author declares no conflicts of interest.

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