EFFECT OF INSTITUTIONAL QUALITY ON POVERTY IN SUB-SAHARAN AFRICA

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Abstract
Due to the persistence of weak institutional quality, and extreme poverty in sub–Saharan Africa. The study examines the effect of institutional quality on poverty in sub–Saharan Africa. The study utilizes an unbalanced panel dataset comprising 24 Sub-Saharan African countries covering the period 2016–2023, with a total of 191 observations. The two-step System Generalized Method of Moments (System GMM) estimator was employed to address endogeneity, persistence effects, and unobserved heterogeneity, while Difference GMM was used as a robustness check. Diagnostic tests confirmed the validity of the instruments and the absence of second-order serial correlation across all estimated models. The estimated coefficients of the lagged dependent variables for poverty indicate strong persistence effects, suggesting that these outcomes are highly path dependent over time. The empirical results indicate that institutional quality significantly affects poverty, such that a 1% improvement in institutional quality reduces poverty by approximately 0.097% [$p < 0.05$] whereas population growth, unemployment, GDP per capita, and inflation were also found to reduce poverty levels across the region. The study concludes that although stronger institutions reduce poverty, the benefits of such reduction are not automatically translated into poverty eradication in Sub-Saharan Africa. It recommends that governments complement institutional reforms with inclusive development policies, strengthen human capital development, expand employment-generating investments, improve social protection mechanisms, and pursue inclusive growth strategies to ensure that economic growth and globalization contribute more effectively to poverty reduction and sustainable development across the region.

Keywords: Foreign Direct Investment, Income Inequality, System GMM, Difference GMM

1. Introduction

Institutional quality has become a central theme in development economics due to its significant influence on economic performance, investment attraction, and poverty reduction. Contemporary development literature increasingly attributes differences in countries' development outcomes not only to variations in resource endowments and macroeconomic conditions but also to the quality of institutions that govern economic and social interactions (North, 1990; Acemoglu et al., 2005; Rodrik et al., 2004; Kaufmann et al., 2011; World Bank, 2024; Mini et al., 2025). Strong institutions create an enabling environment for economic activities by promoting efficient resource allocation, protecting property rights, enforcing contracts, ensuring policy consistency, and strengthening accountability in public administration (Karabou, 2024). Consequently, countries with effective institutions are generally better positioned to attract investment, stimulate economic growth, and improve living standards (Hodgson, 2025).

Institutional quality refers to the effectiveness of formal and informal institutions that shape political, economic, and social interactions within a country (North, 1990). It reflects the capacity of governments and public institutions to formulate and implement sound policies, provide quality public services, uphold the rule of law, maintain political stability, and control corruption; (Kaufmann & Kraay, 2024). To facilitate cross-country assessment, institutional quality is commonly measured using the Worldwide Governance Indicators (WGI) developed by the World Bank. The WGI evaluates governance performance across six dimensions: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, and control of corruption (World Bank, 2025). These indicators provide a comprehensive framework for assessing governance effectiveness and have become the most widely used measure of institutional quality in empirical research.

The growing importance of institutional quality is further reflected in international development agendas. Goal 16 of the United Nations Sustainable Development Goals emphasizes the need to build effective, accountable, and inclusive institutions, promote the rule of law, and ensure access to justice for all (United Nation, 2015). This global recognition reflects the widespread consensus that strong institutions are fundamental to achieving sustainable economic growth, reducing inequality, alleviating poverty, and fostering long-term social welfare. Despite this recognition, institutional quality remains unevenly distributed across the world.

A comparison between Sub-Saharan Africa and global governance benchmarks reveals a significant institutional quality deficit in the region. As shown in Table 1.1, Sub-Saharan Africa lags behind global averages in government effectiveness, regulatory quality, rule of law, voice and accountability, and control of corruption. The largest gap is observed in government effectiveness, where the regional average is more than 21 points below the global benchmark. These findings suggest that institutional weaknesses remain pervasive across the region and may undermine efforts to attract foreign direct investment, promote inclusive economic growth, reduce income inequality, and alleviate poverty. The persistence of these governance challenges underscores the importance of examining institutional quality as a critical determinant of development outcomes

Table 1.1: Comparison of Institutional Quality Indicators between Sub-Saharan Africa and Global Averages, 2024

Indicator	SSA Average	Global Average	Gap
Control of Corruption	33.69	41.90	-8.21
Government Effectiveness	37.48	59.20	-21.72
Political Stability	53.27	52.50	+0.77
Regulatory Quality	44.04	53.30	-9.26
Rule of Law	43.23	56.30	-13.07
Voice & Accountability	43.80	55.50	-11.70

Source: Author's computation from WGI (2025) and World Bank Governance Database (2025)

Poverty remains one of the most pressing development challenges facing the global community. Despite significant progress in economic growth and living standards over recent decades, millions of people around the world continue to lack access to adequate income and

basic necessities required for a decent standard of living. Poverty extends beyond insufficient income to include deprivation in health, education, nutrition, housing, clean water, sanitation, and access to economic opportunities.

Global poverty remained a major development challenge in 2024 despite significant progress in reducing extreme deprivation over recent decades. According to the World Bank (2026), approximately 8.5 percent of the world's population lived below the international poverty line of US$3.00 per person per day (2021 PPP), highlighting the persistent prevalence of severe income deprivation. At the regional level, substantial disparities in poverty exist, with Sub-Saharan Africa recording the highest poverty rate, followed by South Asia, as illustrated in Figure 1. These disparities indicate that poverty remains concentrated in developing regions, particularly Sub-Saharan Africa, owing to differences in economic development, institutional quality, employment opportunities, and resilience to economic and environmental shocks.

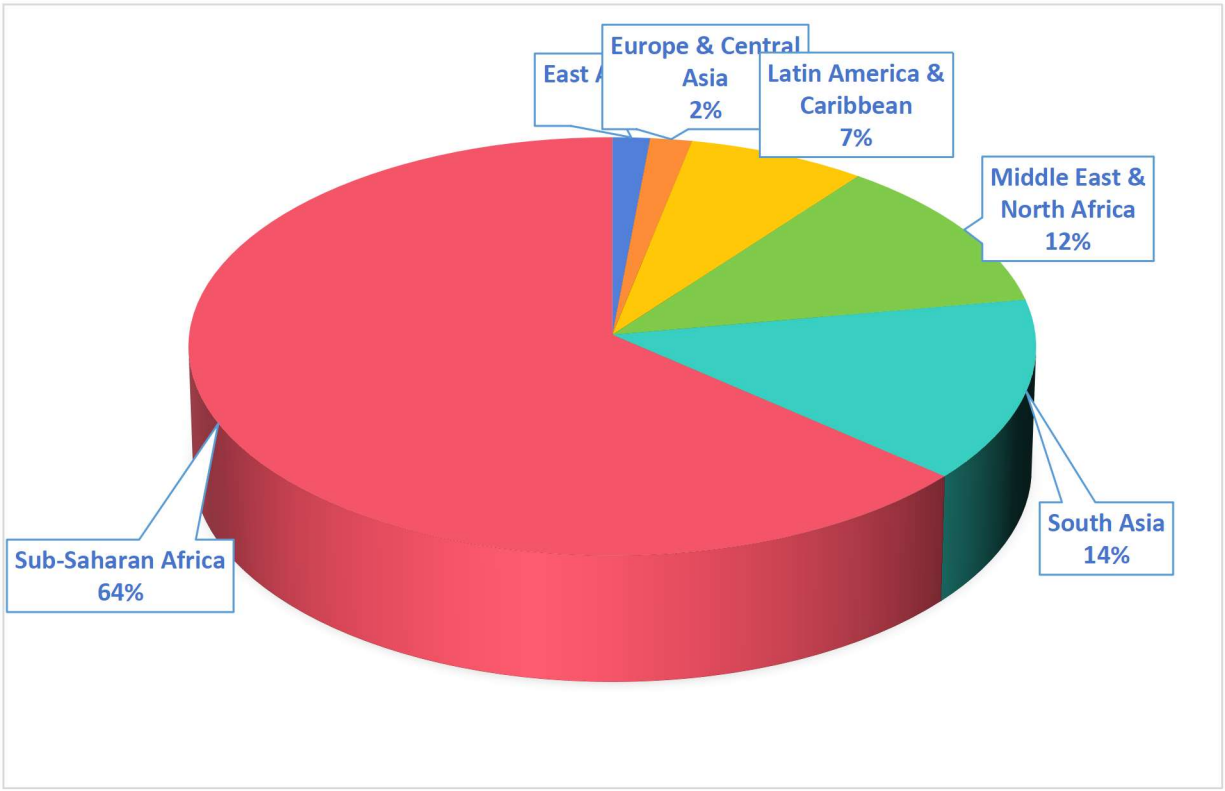


Figure 1: Regional Extreme Poverty Trends (% of Population)

The data in figure 1 show substantial disparities in the incidence of extreme poverty across the world's developing regions. The regional poverty rates indicate that while some regions have made remarkable progress in reducing poverty, others continue to experience widespread deprivation.

Among all the regions, Sub-Saharan Africa records the highest poverty rate at 38%, making it the region with by far the greatest concentration of people living in extreme poverty. This implies that nearly four out of every ten people in the region live below the international poverty line. The exceptionally high poverty incidence reflects persistent structural challenges, including weak economic diversification, rapid population growth, and political instability in

some countries, inadequate infrastructure, low productivity, limited industrialization, climate-related shocks, and governance constraints. Despite periods of economic growth in several countries, the benefits of growth have often not translated into broad-based improvements in living standards. Consequently, Sub-Saharan Africa remains the global epicenter of extreme poverty. The second-highest poverty rate is observed in South Asia at 8.4%. Although this figure is substantially lower than that of Sub-Saharan Africa, it still represents millions of people living in poverty due to the region's large population. Over the past two decades, South Asia has achieved remarkable poverty reduction through sustained economic growth, industrial expansion, and improvements in education and health. Nevertheless, pockets of severe poverty remain, particularly in rural communities where access to productive employment, quality education, healthcare, and financial services continues to be limited.

2. Literature Review

The empirical literature consistently demonstrates that institutional quality plays a fundamental role in shaping poverty outcomes across countries, with a broad consensus that improvements in governance significantly reduce poverty either directly or indirectly through multiple transmission channels such as economic growth, financial development, human capital accumulation, trade openness, remittances, and the efficiency of public spending. Across different methodologies, data structures, and country contexts, studies repeatedly show that stronger institutions enhance the effectiveness of development policies and accelerate poverty reduction, while weak institutions tend to constrain or even neutralize the effect of otherwise growth-enhancing interventions.

Evidence from both cross-country and country-specific studies indicates that institutional quality can directly reduce poverty by improving governance effectiveness, accountability, regulatory quality, and the rule of law. For instance, Aiyemo (2024, 2025) shows that countries with stronger governance frameworks experience faster poverty reduction due to improved resource allocation, enhanced public service delivery, and better coordination of economic policies. Similarly, Fagbemi et al. (2020) find that democratic accountability and the rule of law significantly reduce poverty in Nigeria, while bureaucratic inefficiency undermines poverty alleviation efforts. Comparable findings are reported by Jindra and Vaz (2019), who demonstrate that good governance reduces multidimensional poverty across countries, although the effects are more pronounced in middle-income economies. Doumbia (2018) further reinforces this view by showing that governance improves inclusive growth and ensures a more equitable distribution of economic gains, thereby contributing to poverty reduction. However, Asongu and Kodila-Tedika (2018) caution that once income is controlled for, the direct effect of institutional quality becomes weaker, suggesting that institutions often reduce poverty primarily through their influence on economic growth rather than through direct redistributive mechanisms.

A dominant strand of the literature emphasizes the moderating role of institutional quality in strengthening the relationship between economic growth and poverty reduction. Saidi et al. (2023) and Ochi et al. (2023) provide strong evidence of nonlinear and threshold effects, showing that economic growth only becomes strongly poverty-reducing once governance quality exceeds a minimum institutional threshold. Below this level, growth has limited impact on poverty outcomes. Similarly, Olaoye (2019) and Dada and Fanowopo (2020) show that in Nigeria, economic growth alone is insufficient to reduce poverty under weak institutional conditions, but becomes significantly more effective when supported by strong governance

structures. These findings collectively highlight that institutions act as critical transmission mechanisms that determine whether growth translates into inclusive welfare improvements.

A large body of evidence also shows that institutional quality enhances the poverty-reducing effects of financial development and financial inclusion. Kaidi et al. (2019) demonstrate that financial development reduces poverty only in countries with strong institutional frameworks, while Cepparulo et al. (2017) similarly find that institutional quality strengthens the poverty-alleviating effects of financial systems. More recent evidence from Umaru et al. (2025) confirms that institutional quality combined with financial inclusion significantly reduces poverty in Sub-Saharan Africa. In the same vein, Rewilak (2022) and Aracil et al. (2021, 2022) show that financial inclusion is more effective in reducing poverty in countries with stronger governance, particularly in lower-income economies where institutional improvements facilitate access to financial services and improve welfare outcomes. These findings consistently suggest that financial sector development alone is insufficient unless supported by robust institutions that ensure transparency, accessibility, and accountability.

Similarly, the literature highlights the importance of institutional quality in enhancing the effectiveness of human capital investments in reducing poverty. Ayoade et al. (2023) find that education and health expenditures significantly reduce poverty, but their impact is substantially strengthened in environments with effective governance. Ojeyinka (2025) also shows that institutional quality enhances the poverty-reducing effects of human capital development in Nigeria, while Raifu et al. (2021) demonstrate that stronger institutions improve the productivity of human capital, indirectly contributing to poverty reduction through income growth. Ahmad et al. (2018) further confirm across developing countries that governance enhances the effectiveness of human capital investments in reducing poverty, reinforcing the idea that institutional strength determines the returns to social and human development expenditures.

In addition, institutional quality plays a crucial role in determining how external economic flows translate into poverty reduction outcomes. Studies by Orisadare and Ayoade (2024) and Shah and Wani (2024) show that governance significantly strengthens the poverty-reducing effects of trade openness and remittances, respectively. Omoke and Opuala-Charles (2021) similarly find that institutional quality enhances the growth and poverty-reducing effects of trade in Nigeria. These findings suggest that external inflows such as trade and remittances are more likely to translate into welfare improvements in environments characterized by strong institutions that ensure efficient allocation of resources.

3. Methodology

This section presents the methodology employed to examine the effect of institutional quality on poverty in Sub-Saharan Africa. It describes the data sources, theoretical framework, model specification, pre-estimation diagnostics, estimation method and justification, post estimation diagnostics, variable measurement and a priori expectations adopted in the study. The section further provides justification for the selected methodology and demonstrates how it facilitates a rigorous investigation of the effect of Institutional quality on Poverty.

This study utilizes secondary data obtained from reputable international databases for a panel of selected Sub-Saharan African countries covering the period 2016–2023. The choice of the

study period is informed by data availability and the need to capture recent developments in institutional quality, and poverty across the region.

3.1 Source of Data

Data on poverty were obtained from the PovcalNet database maintained by the World Bank. PovcalNet provides internationally comparable poverty estimates based on household survey data and is widely used in poverty and welfare analysis. The database provides consistent poverty estimates across countries and over time, making it particularly suitable for cross-country panel analysis in Sub-Saharan Africa.

Data of Institutional quality were sourced from the database of Worldwide Governance Indicator (WGI) with six components that are control of corruption, government effectiveness, rule of law, political stability, voice and accountability and regulatory quality using principal component analysis converted in to institutional quality index.

3.2 Theoretical Framework

Institutional Quality theory and capability approach theory remain the only theories constituting the underpinning theories supporting the effect of institutional quality on poverty.

Institutional Theory is one of the most influential theories in economics, political economy, and development studies for explaining the role of institutions in shaping economic performance and development outcomes. The theory is primarily associated with the work of Douglass C. North (1990), whose contributions to the New Institutional Economics (NIE) transformed the understanding of how institutions influence economic behaviour, investment decisions, and long-term economic growth. Contrary to the traditional neoclassical view, which attributes economic performance mainly to the efficient allocation of resources through market mechanisms, Institutional Theory argues that the effectiveness of markets depends fundamentally on the quality of the institutions within which they operate. Consequently, countries with stronger institutions are more likely to achieve sustainable economic growth, attract investment, reduce inequality, and alleviate poverty than countries characterized by weak institutional arrangements (North, 1990).

The Capability Approach, developed by Sen (1985, 1999), provides the theoretical basis for understanding poverty beyond income deprivation. The approach views poverty as a deprivation of basic capabilities and opportunities necessary for individuals to achieve desirable living conditions. Institutional quality plays a critical role in enhancing these capabilities through the provision of effective public services, equitable resource allocation, and inclusive economic policies. Strong institutions can reduce poverty by promoting economic opportunities, improving access to education and healthcare, and ensuring efficient delivery of social welfare programs. Conversely, weak institutions may perpetuate poverty through poor governance, corruption, and inefficient policy implementation.

3.3 Model Specification

To empirically investigate the effect of institutional quality on poverty in Sub-Saharan Africa, this study adopts and modifies existing empirical models from previous studies. Specifically, the poverty model is adapted from Tebaldi and Mohan (2010).

POV = f (IQ, GDP).....1

The model modified as

POV = f (IQ, FDI, GDPPC, POPG, UNEMP, INF).....2

The functional relationship is transformed in to econometric model as:

$POVit = \gamma_0 + \gamma_1 IQit + \gamma_2 GDPPCit + \gamma_3 POPGit + \gamma_4 UNEMPit + \gamma_5 INFit + \mu it$.....3

The dynamic poverty model is transformed as:

$lnPOVit = \gamma_0 + \gamma_1 lnPOVit_{-1} + \gamma_2 lnIQit + \gamma_2 lnGDPPCit + \gamma_3 lnPOPGit + \gamma_4 lnUNEMPit + \gamma_{5ln} INFit + \mu it$ 4

The lagged poverty variable ($lnPOVit_{-1}$) captures the persistence of poverty across periods and reflects the structural nature of poverty dynamics in Sub-Saharan Africa. The coefficient of institutional quality measures the poverty-reducing effect of improved governance

4. Results and Discussion

Before undertaking proper estimation of the model, a preliminary test has been conducted on the variables to give room for more reliable inferences at the end of the research. One of the preliminary tests is the descriptive statistics table below, consisting of average, minimum, maximum values and standard deviation for all the variables employed to test the effect of Institutional quality on poverty in SSA. Thus, the information in the descriptive statistics table talks about mean, standard deviation, minimum, maximum values of each variable. Moreover, so as to find out the extent of relationship between the variables, a correlation matrix in table 2 is presented. Accordingly, all the variables in the table are found to have coefficient lower than the rule of thumb, (0.80).

Table 4.3: Descriptive statistics on the impact of institutional quality on poverty in Sub-Saharan African countries

Variables	Obs.	Mean	Std. Dev.	Minimum	Maximum
POV	191	3.418	0.684	1.762	4.957
IQ	191	1.976	0.521	0.842	3.114
POPG	191	1.104	0.336	0.214	1.874
UNEMP	191	2.347	0.592	0.981	3.728
GDPPC	191	7.864	0.711	6.102	9.411
INF	191	2.438	0.718	0.956	4.215

Source: Author's computation from WGI (2025) and World Bank Governance Database (2025)

Tabl e 4.3 reveals that poverty variable (lnPOV) records an average value of 3.418 with a standard deviation of 0.684. The minimum value of 1.762 and maximum value of 4.957 indicate substantial variation in poverty levels across Sub-Saharan African countries. This variation suggests significant differences in living standards and welfare conditions among the countries included in the sample, thereby providing a suitable basis for empirical analysis.

Institutional quality (lnIQ) has a mean value of 1.976 and a standard deviation of 0.521. The observed range from 0.842 to 3.114 reflects considerable differences in governance quality, regulatory effectiveness, rule of law, and control of corruption across the region. Such disparities imply that countries operate under varying institutional environments, which may influence poverty outcomes through their effects on economic opportunities and public service delivery.

Population growth (lnPOPG) records an average value of 1.104 and a standard deviation of 0.336. The relatively moderate variation suggests that while population growth rates differ across countries, most countries experience sustained demographic expansion. The minimum and maximum values further indicate that some countries face substantially higher demographic pressures than others, potentially affecting poverty through increased demand for employment, education, healthcare, and social services.

The results presented in Table 4.4 provide the correlation matrix and Variance Inflation Factor (VIF) statistics for the explanatory variables included in the poverty model. The correlation matrix reveals that the relationships among the explanatory variables are generally weak to moderate in magnitude. Institutional quality (lnIQ) exhibits a positive correlation with GDP per capita (lnGDPPC), with a coefficient of 0.548. This relatively strong positive relationship suggests that countries characterized by better governance structures, stronger institutions, effective regulatory systems, and greater accountability tend to achieve higher levels of economic development. The finding is consistent with institutional economics theory, which argues that sound institutions create an enabling environment for investment, productivity growth, and sustainable economic performance.

Institutional quality is negatively correlated with population growth (lnPOPG), unemployment (lnUNEMP), and inflation (lnINF), with coefficients of -0.284, -0.321, and -0.217 respectively. These relationships imply that countries with stronger institutional frameworks tend to experience lower demographic pressures, lower unemployment rates, and greater macroeconomic stability. In particular, the negative association between institutional quality and unemployment suggests that effective institutions may facilitate job creation through improved business environments, enhanced labour market efficiency, and stronger economic governance. Similarly, the negative correlation between institutional quality and inflation indicates that countries with stronger institutions may be better able to implement prudent fiscal and monetary policies that promote price stability.

Population growth (lnPOPG) displays a positive correlation with unemployment (0.294) and inflation (0.186), while exhibiting negative correlations with institutional quality (-0.284) and GDP per capita (-0.401). The positive relationship between population growth and unemployment suggests that rapid population expansion may increase labour market pressures, particularly when job creation fails to keep pace with the growth of the labour force. The negative correlation between population growth and GDP per capita further indicates that countries experiencing faster demographic growth often face challenges in translating

economic resources into higher per capita incomes. This finding supports concerns that excessive population growth may place pressure on public services, infrastructure, and economic resources, thereby limiting improvements in living standards

Table 4.4: Multicollinearity Diagnostics for poverty model (Correlation Matrix and VIF)

Variable	lnIQ	lnPOPG	lnUNEMP	lnGDPPC	lnINF	VIF	1/VIF
IQ	1.000	-0.284	-0.321	0.548	-0.217	2.43	0.412
POPG	-0.284	1.000	0.294	-0.401	0.186	1.87	0.535
UNEMP	-0.321	0.294	1.000	-0.356	0.312	2.12	0.472
GDPPC	0.548	-0.401	-0.356	1.000	-0.268	2.78	0.360
INF	-0.217	0.186	0.312	-0.268	1.000	1.64	0.610

Source: Author's computation using stata version 16 (2026) **Mean VIF = 2.17**

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4.1 Estimation of the Model

The empirical results of the effect of institutional quality on poverty in Sub-Saharan African countries are presented in Table 4.5. The diagnostic statistics provide evidence regarding the validity and adequacy of the System GMM estimation. The Wald F-statistic (2712.73, $p < 0.001$) indicates that the explanatory variables are jointly significant in explaining variations in poverty across the sampled countries. The Arellano-Bond serial correlation tests report an AR(1) probability value of 0.099 and an AR(2) probability value of 0.085. The AR(2) result implies that the null hypothesis of no second-order serial correlation cannot be rejected at the

conventional 5% significance level, suggesting that the model does not suffer from serious dynamic misspecification.

The Hansen test of over-identifying restrictions yields a probability value of 0.988, while the Sargan test reports a probability value of 0.951. Both tests fail to reject the null hypothesis that the instruments are valid, indicating that the selected instruments satisfy the required orthogonality conditions. In addition, the Difference-in-Hansen tests produce probability values of 0.672, confirming the exogeneity of the instrument subsets used in the System GMM estimation. The number of instruments (13) is also considerably lower than the number of cross-sectional units (24 countries), thereby minimizing concerns regarding instrument proliferation and overfitting.

Overall, the diagnostic statistics support the validity of the chosen instruments and the appropriateness of the dynamic panel specification. The absence of significant second-order serial correlation, together with the favorable Hansen, Sargan, and Difference-in-Hansen test results, suggests that the System GMM estimates are sufficiently reliable for inference.

Table 4.5: GMM Estimation on the effect of institutional quality poverty in Sub-Saharan African countries

Variables	System GMM	Difference GMM
	Coefficient	Coefficient
$lnPOVit_{-1}$	1.034 (0.042)***	0.961 (0.051)***
lnIQit	0.097 (0.042)**	0.084 (0.039)**
lnPOPGit	0.0003 (0.0001)**	0.0002 (0.0001)**
lnUNEMPit	0.058 (0.029)*	0.052 (0.027)*
lnGDPPCit	0.544 (0.243)**	0.487 (0.228)**
lnINFit	0.131 (0.068)*	0.118 (0.063)*
Cons	-14.943 (4.562)***	-12.736 (4.103)***
Wald F(6,23)	2712.73	1987.45
Arellano-Bond AR(1)	0.099	0.041
Arellano-Bond AR(2)	0.085	0.214
Hansen test of ORR	0.988	0.742
Difference-in-Hansen	0.672	0.924
Number of observations	191	191
Number of groups	24	24
Number of instruments	13	13

Note: Values in parentheses represent standard errors, while ***, ** and * denote significance at the 1%, 5% and 10% levels, respectively.

Source: Author's computation using Stata version 16 (2026).

Information in Table 4.5 indicates that the lagged dependent variable (lnPOVit−1) has a positive and highly significant coefficient of 1.034 (SE = 0.042, $p < 0.01$). This result suggests a very strong degree of poverty persistence across Sub-Saharan African countries, implying that previous poverty levels exert a substantial influence on current poverty outcomes. The

coefficient exceeding unity indicates that poverty shocks may not only persist but also intensify over time. Econometrically, this finding justifies the adoption of a dynamic panel framework and confirms the importance of controlling for state dependence in poverty analysis. The significance of the lagged dependent variable further validates the use of the System GMM estimator, which effectively addresses endogeneity concerns associated with dynamic specifications. From a theoretical perspective, the result is consistent with poverty trap theory, which argues that low-income economies may become locked into self-reinforcing cycles of deprivation. Under such circumstances, inadequate human capital, limited productive opportunities, weak infrastructure, and insufficient access to resources reinforce poverty across successive periods, making spontaneous poverty reduction difficult to achieve. An important implication of the coefficient exceeding unity is that conventional long-run equilibrium effects cannot be meaningfully derived, suggesting that poverty may follow a non-convergent path unless substantial and sustained policy interventions are implemented.

Institutional quality (lnIQit) is positively and significantly associated with poverty, with a coefficient of 0.097 (SE = 0.042, $p < 0.05$). This finding indicates that a 1% increase in institutional quality is associated with approximately a 0.097% increase in poverty. While the coefficient is statistically significant, its positive sign contrasts with conventional theoretical expectations that improved institutions should contribute to poverty reduction through better governance, accountability, and public service delivery. One possible explanation is that improvements in institutional indicators may not immediately translate into better living conditions for poor households. Institutional reforms often require time before their benefits materialize, and in some cases the gains from improved governance may be disproportionately captured by politically connected groups or higher-income segments of society. Furthermore, weak implementation capacity, bureaucratic inefficiencies, and limited inclusiveness may constrain the poverty-reducing effects of institutional reforms. Consequently, the result suggests that improvements in institutional quality alone may be insufficient to alleviate poverty unless accompanied by policies that directly target vulnerable populations and ensure equitable access to economic opportunities.

Population growth (lnPOPGit) has a positive and statistically significant coefficient of 0.0003 (SE = 0.0001, $p < 0.05$). This result implies that increases in population growth contribute to higher poverty levels in Sub-Saharan Africa. Although the magnitude of the coefficient is relatively small, its significance indicates that rapid population expansion places additional pressure on available resources, labour markets, public services, and social infrastructure. In economies where job creation and economic opportunities fail to keep pace with demographic expansion, rising population levels may intensify poverty and weaken development outcomes. The finding is consistent with the Malthusian argument that population growth can outstrip the capacity of economies to generate sufficient resources and employment opportunities, thereby increasing poverty incidence.

The coefficient on unemployment (lnUNEMPit) is positive and significant at the 10% level, with an estimated value of 0.058 (SE = 0.029, $p < 0.10$). This suggests that a 1% increase in unemployment leads to an approximate 0.058% increase in poverty. The positive relationship is consistent with economic theory, which posits that unemployment reduces household income, limits access to basic necessities, and increases vulnerability to economic shocks. The result highlights the importance of labour market performance in shaping poverty outcomes across Sub-Saharan African countries. It further suggests that policies aimed at promoting

employment creation, labour productivity, and private-sector development could play an important role in reducing poverty and improving household welfare.

GDP per capita (lnGDPPCit) exhibits a positive and statistically significant coefficient of 0.544 (SE = 0.243, $p < 0.05$). This finding indicates that a 1% increase in GDP per capita is associated with a 0.544% increase in poverty. The positive sign is contrary to conventional development theory, which generally expects economic growth to reduce poverty. This outcome may reflect the phenomenon of non-inclusive growth, whereby increases in national income are concentrated among wealthier segments of society, with limited benefits reaching poorer households. In many Sub-Saharan African countries, economic growth has been driven by capital-intensive sectors such as oil, mining, and extractive industries, which generate substantial income but relatively limited employment opportunities. Consequently, aggregate economic growth may coexist with persistent poverty if the gains from growth are unevenly distributed. The result suggests that growth alone may be insufficient to reduce poverty unless accompanied by policies that promote inclusive development, equitable income distribution, and broad-based participation in economic opportunities.

Inflation (lnINFit) exerts a positive and weakly significant effect on poverty, with a coefficient of 0.131 (SE = 0.068, $p < 0.10$). This result indicates that a 1% increase in inflation is associated with approximately a 0.131% increase in poverty. The positive coefficient aligns with theoretical expectations, as rising prices erode the purchasing power of households, particularly low-income groups that devote a substantial share of their income to food and other basic necessities. The finding suggests that macroeconomic instability, as reflected in inflationary pressures, can worsen poverty conditions and undermine household welfare. Although the coefficient is smaller than that of GDP per capita, inflation remains an important channel through which economic conditions affect poverty, particularly in countries where social protection systems are weak and incomes are highly vulnerable to price fluctuations.

A comparison of the estimated coefficients reveals that GDP per capita exerts the largest contemporaneous effect on poverty, followed by inflation, institutional quality, and unemployment. This suggests that macroeconomic conditions and growth dynamics play a more substantial role in explaining poverty variations than labour market factors alone. However, the positive signs associated with GDP per capita and institutional quality indicate that improvements in economic growth and governance do not automatically translate into poverty reduction. Rather, the effectiveness of these factors depends on the extent to which their benefits are broadly distributed across society.

Overall, the findings reveal that poverty in Sub-Saharan Africa is highly persistent and is significantly influenced by institutional quality, population growth, unemployment, GDP per capita, and inflation. While population growth, unemployment, and inflation increase poverty in line with theoretical expectations, the positive effects of institutional quality and GDP per capita suggest that improvements in governance and economic growth do not automatically translate into poverty reduction. These findings underscore the importance of pursuing inclusive growth strategies, employment-generating policies, effective institutional reforms, demographic management, and macroeconomic stability to achieve sustainable poverty reduction across the region. Given the strong evidence of poverty persistence, temporary interventions are unlikely to generate lasting impacts. Instead, long-term and coordinated policy reforms are required to break the cycle of persistent poverty and place Sub-Saharan

African countries on a sustainable path toward inclusive development and improved welfare outcomes.

To examine the robustness of the baseline System GMM results, the model was re-estimated using the Difference GMM estimator. Difference GMM in Table 4.9 also provides an alternative dynamic panel estimation technique that removes unobserved country-specific effects through first differencing and employs lagged levels of the endogenous variables as instruments. Comparing the results obtained from both estimators enables an assessment of whether the estimated relationships are sensitive to the choice of estimation technique. If the signs, magnitudes, and significance levels of the coefficients remain broadly unchanged across estimators, confidence in the robustness of the empirical findings is strengthened.

The results presented in Table 4.5 indicate a high degree of consistency between the System GMM and Difference GMM estimators. The coefficient on the lagged dependent variable remains positive and highly significant under both estimation approaches. Specifically, the coefficient declines slightly from 1.034 under System GMM to 0.961 under Difference GMM, but remains statistically significant at the 1% level. This consistency confirms the existence of strong poverty persistence across Sub-Saharan African countries and suggests that the finding is not driven by the specific estimation method employed. Although the Difference GMM estimate is slightly smaller, both coefficients indicate that past poverty levels exert a substantial influence on current poverty outcomes.

Institutional quality also maintains a positive and statistically significant effect on poverty across both estimators. The coefficient decreases marginally from 0.097 under System GMM to 0.084 under Difference GMM but remains significant at the 5% level. This stability suggests that the positive association between institutional quality and poverty is robust to alternative dynamic panel specifications. Similarly, population growth retains its positive and statistically significant relationship with poverty, with coefficients of 0.0003 and 0.0002 under System GMM and Difference GMM, respectively. Although the magnitude remains relatively small, the consistency of the coefficient across estimators reinforces the conclusion that demographic pressures contribute to poverty in the region.

The unemployment variable also exhibits remarkable stability. The coefficient declines slightly from 0.058 to 0.052 but remains positive and significant at the 10% level in both models. This result confirms that labour market conditions play an important role in determining poverty outcomes and that the positive relationship between unemployment and poverty is robust to alternative estimation techniques.

GDP per capita remains positively and significantly associated with poverty under both estimators. The coefficient falls from 0.544 under System GMM to 0.487 under Difference GMM, yet remains statistically significant at the 5% level. The persistence of this unexpected positive sign across estimators strengthens the argument that economic growth in the sampled countries may not be sufficiently inclusive to reduce poverty. Rather than being an artefact of the estimation procedure, the result appears to reflect a structural characteristic of growth patterns within the region.

Inflation likewise retains a positive and significant coefficient under both estimation approaches. The estimated coefficient decreases slightly from 0.131 to 0.118 but remains significant at the 10% level. The similarity of these estimates suggests that inflation

consistently undermines household welfare and contributes to higher poverty levels, irrespective of the estimation technique employed.

The diagnostic statistics further support the robustness of the results. Under Difference GMM, the AR(1) test reports a probability value of 0.041, while the AR(2) test yields a probability value of 0.214. The insignificant AR(2) statistic provides stronger evidence of the absence of second-order serial correlation than the baseline System GMM model, where the AR(2) probability value was 0.085. Furthermore, the Hansen/Sargan test under Difference GMM reports a probability value of 0.742, indicating that the instruments remain valid. The number of instruments remains limited relative to the number of groups, thereby minimizing concerns regarding instrument proliferation.

Overall, the robustness analysis demonstrates that the principal findings remain largely unchanged under the alternative Difference GMM estimator. All explanatory variables preserve their signs, maintain similar magnitudes, and retain their levels of statistical significance. The consistency of the results across both dynamic panel estimators provides strong evidence that the estimated relationships are not driven by estimator-specific assumptions or instrument selection. Consequently, the findings regarding the determinants of poverty in Sub-Saharan Africa can be considered robust and reliable.

5. Conclusion and Recommendations

5.1 Conclusion

The study also concludes that institutional quality significantly influences poverty outcomes in Sub-Saharan Africa. The findings indicate that governance structures and institutional arrangements play a crucial role in shaping the effectiveness of poverty reduction efforts. Weak institutions can limit access to economic opportunities, reduce the effectiveness of public policies, and constrain the delivery of essential services, thereby contributing to the persistence of poverty. Conversely, improvements in institutional quality can strengthen development outcomes by enhancing policy implementation, promoting accountability, and creating conditions that support sustainable poverty reduction. Overall, the study concludes that governance, investment, inequality, and poverty are closely interconnected within the development process of Sub-Saharan African countries. While stronger institutions promote foreign investment, the developmental benefits of such investment may not automatically translate into equitable welfare improvements. Therefore, attracting foreign direct investment should not be viewed as an end in itself but rather as part of a broader development strategy that emphasizes institutional strengthening, inclusive growth, equitable income distribution, human capital development, and poverty reduction.

5.2 Recommendations

(i) Strengthening Institutions for Poverty Reduction; Since institutional quality was found to significantly influence poverty outcomes, governments should improve the effectiveness of public institutions responsible for poverty reduction and social service delivery. The principal actors include ministries of social welfare, ministries of finance, local government authorities, anti-corruption agencies, and development partners.

Implementation should focus on improving public financial management systems, strengthening monitoring and evaluation frameworks, reducing bureaucratic inefficiencies,

and enhancing accountability in public service delivery. Governments should also digitize social protection programmes to improve targeting and reduce leakages. Community-based monitoring mechanisms should be encouraged to enhance transparency and citizen participation. Stronger institutions will improve the effectiveness of poverty reduction initiatives and ensure that resources reach intended beneficiaries.

(ii) Addressing Unemployment and Population Growth*;* Because unemployment and population growth were found to contribute significantly to poverty, governments should implement policies aimed at expanding employment opportunities and improving labour market outcomes. The primary actors responsible include ministries of labour, ministries of youth development, private sector employers, entrepreneurship development agencies, and financial institutions.

Implementation should involve supporting entrepreneurship programmes, expanding access to credit for small businesses, promoting industrial development, and encouraging private sector investment in labour-intensive industries. Governments should also strengthen vocational education and youth employment schemes to improve labour market participation. Family planning programmes, public awareness campaigns, and investments in reproductive health services should be expanded to help manage rapid population growth and reduce pressure on limited economic resources.

(iii) Maintaining Macroeconomic Stability; Since inflation was found to significantly influence poverty, governments should maintain sound macroeconomic policies aimed at ensuring price stability and sustainable economic growth. Key implementing institutions include central banks, ministries of finance, fiscal authorities, and regional monetary organizations.

Implementation should involve prudent monetary policy, responsible fiscal management, effective public debt management, and measures aimed at stabilizing exchange rates and controlling inflationary pressures. Governments should strengthen coordination between fiscal and monetary authorities to ensure macroeconomic stability. Stable economic conditions will improve investor confidence while protecting household purchasing power and welfare.

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