# The Trilogy among Poverty, Inequality and Insecurity in Nigeria: Does Governance Quality Matter?

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**Abstract**

The study examines the role of governance in the relationship between insecurity, inequality, and poverty in Nigeria using annual data from 1996 to 2020. To control for endogeneity among the variables, we employ generalized methods of the moment (GMM). We find that the main causes of insecurity are poverty, illiteracy rates, and inequality. Remarkably, unemployment appears to have no impact on the current insecurity issue in the country, indicating that the security challenge in Nigeria is more of a structural and systemic problem. We find that control of corruption, political stability, and voice and accountability have a strong mediating influence on solving the influence of poverty on insecurity. This suggests that Nigeria's economic prosperity is threatened by rising poverty, inequality, and weak governance. Therefore, fighting insecurity in a big country like Nigeria requires quality control of corruption, voice, and accountability, all of which are critical in the battle against poverty and inequality.

**Keywords:** Poverty; insecurity; inequality; governance; GMM; Nigeria

**JEL Classification Codes:** H11, O15

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## 1. Introduction

The incessant killings and kidnappings in Nigeria have been a serious concern, threatening the development of the nation. These horrific acts have displaced thousands of innocent people from their ancestral homes and lands, driving them into joblessness and extreme poverty. Thousands more are at risk of becoming victims of this threat. Kidnapping for ransom has now become a big business in the country. According to reports, Nigerian kidnappers made a ransom of ₦650 million in one year (Sanni, 2022). The number of fatalities and kidnappings keeps rising despite the commitment of governments at all levels to neutralize the threat. Between 2011 and 2020, an estimated 70,000 people were killed, leaving over 2.5 million homeless. Confrontations between farmers and herders have resulted in over 10,000 deaths and over 300,000 displaced people (Adeyeye, 2020). 10,398 deaths and 5,287 kidnappings occurred in 2021 (SBM Intelligence, 2022; Abiola, 2022). Over 7,000 killings were attributed to terrorist acts between January and July 2022, and 3,000 kidnappings resulted in 1,484 abductions and over 2,968 deaths in the first quarter of 2022 (Babangida, 2022; Odeniyi, 2022).

It is widely believed that unemployment (Mayah, Mariotti, Mere & Odo, 2017), poverty and inequality (Miguel, 2007; Brainard, Chollet & LaFleur, 2007; Okolie, Onyema & Basey, 2019; Mukhtar, Mohammed & Sani, 2016; Adedeji & Oluwalogbon, 2020; Egunjobi, 2021) often lead to conflicts and insecurity. According to Khan, Iqbal and Rehman (2016), poverty is a curse and the root cause of every occurrence of crime. People who are deprived of access to the basic necessities of life are more likely to become irate and frustrated, which may result in social vices. In a similar vein, growing disparities between the few rich and the poorest people can lead to social vices, disputes, and ultimately full-blown insecurity if the impoverished are left to fend for themselves. Brainard *et al.* (2007) claim that extreme poverty erodes hope, weakens leaders, depletes resources, and undermines political institutions, which contribute to an unstable mixture of desperation and instability.

Over the years, successive Nigerian governments have implemented several economic policies and social intervention programmes to eliminate poverty and reduce inequality. These programmes include poverty alleviation programs (PAP), the National Poverty Eradication Programme (NAPEP), youth empowerment programme (N-Power), subsidy reinvestment and empowerment programme (SURE-P), conditional cash transfers, micro-lending, and trader's moni, among others. Nigerians are still drowning in poverty, increasing inequality, despite these efforts. Nigeria's poverty rate increased between 1996 and 2000, from 44.2% to 45.9%, and between 2010 and 2020, from 54.4% to 67.8%.

According to Oluwole (2020), about 80 million Nigerians were considered poor in 2015 (11% of global poverty), while 105 million Nigerians were extremely poor in 2020. Prior to the global pandemic in 2020, 82.9 million (40.1%) Nigerians were estimated to be living below the poverty line in 2018 (World Bank, 2021). The Gini coefficient for income inequality increased from 46.50% in 1996 to 48.83% in 2010, while the World Bank (2021) reported a 35.1%. This demonstrates how the wealth and poverty gaps have grown over time. Moreover, since 2008, the nation has continuously been ranked lowest on the global peace index (GPI). Nigeria was ranked 141st by the Institute of Economics and Peace (IEP) in the 2008 GPI. By 2014, it had moved to 151st among 162 countries, and by 2017, it was ranked 149th out of 163 independent and territory countries (IEP, 2022). In addition, it was the eight least peaceful nation in Africa in 2021 and ranked 146th out of 163 countries and 143 between 2021 and 2022, respectively (Olaiya, 2021; IEP, 2022).

Besides, the global terrorism index (GTI) placed Nigeria as the eighth most terrorist-impacted country globally in 2011; third in 2014; and sixth in 2021 as a result of terrorist attacks (1EP, 2022). It was ranked as the fourth most dangerous nation globally in 2019 and twelfth in 2021 due to its high crime rate of 63.2% (Business Trumpet, 2021; IEP, 2022). All facts point to the level of insecurity in Nigeria, a nation that is growing with a large population of people living in poverty. Due to the country's insecurity level, the poverty rate has significantly increased, with about 82.9 million Nigerians (40.09%) classified as multidimensionally poor, with annual real per capita expenditures of ₦137,430 ($352) (National Bureau of Statistics (NBS) (2020). The country was named the "home of poverty" in the Brookings Institution's 2018 and 2022 Global Poverty Reports (Kharas & Dooley, 2022). Poverty and inequality are viewed as 'security threats' that must be eliminated to achieve country's economic plan, according to the report, "Poverty and Inequality in Nigeria" (NBS, 2020). It is projected that insecurity will increase the number of poor people in the country by 107 million (18%) by 2030 (Kharas & Dooley, 2022). The implication is that as insecurity rises, an increase in poverty will follow.

While there is great concern about eradicating poverty and curbing insecurity, the role of governance is indispensable. This is because good governance aimed at eradicating poverty and inequality will foster strong economic performance and, consequently, secure an economy (Chong, Gradstein, & Calderon, 2009; Chong & Gradstein, 2007; Ravallion, 2016). On the other hand, weak institutions contribute to poverty, instability, and inequality (Chong & Gradstein, 2007; Brainard *et al*., 2007; Agudiegwu, Aroh, & Ezeani, 2019), which in turn could result in crime and insecurity. Similarly, poverty and insecurity brought on by large income disparities can impede economic growth (Coccia, 2017) and reduce the efficacy of democratic institutions and governance (Kotschy & Sunde, 2017).

Therefore, we add to the body of research by examining the role of governance in poverty, inequality, and insecurity in light of the recent security challenge in a growing economy like Nigeria, based on the intuition that poverty and inequality exacerbate insecurity in an economy with weak governance. Also, studies in Nigeria (Adegboye, 2014; Egunjobi, 2021; Abdulmalik, 2015; Okolie, Onyema, and Basey, 2019), among others, on the relationship between poverty, insecurity, and governance have only used one indicator or aggregate as a control variable, which may not give an accurate picture. Given that the nation is plagued with corruption, weak rule of law, a lack of voice and accountability, and political instability, unraveling the tripartite relations of poverty, insecurity, and inequality and the role of governance quality using all the dimensions instead of focusing on one dimension is necessary. The remainder of the article is organized as follows: Section 2 presents the related literature as it is relevant to identifying the gap. Section 3 discusses the data and methodology. Section 4 contains the empirical results, and Section 5 concludes with the summary and recommendations.

## 2. Literature review

A considerable number of studies have documented the causes of insecurity, with a great deal of these studies detailing poverty and unemployment as the causes of insecurity. According to Brown and Ogbonna (2018), poverty and income disparity are positively correlated. Akinbobola and Saibu (2004) posited that a reduction in unemployment might foster the growth of human capital, hence reducing poverty levels in Nigeria. Thus suggesting unemployment as the main cause of poverty. According to a study by Ewubare and Okpani (2018), disparity in income rose as unemployment and poverty increased. This implies that unemployment and poverty serve as potential drivers of income disparity in the nation. According to Ibrahim and Taiga (2020), unemployment, inequality and inflation are the main causes of poverty in

Nigeria, with inequality contributing 75% of the poverty rates. According to Ogbeide and Agu (2015), there is a direct causal relationship between poverty and inequality, with feedback effect running from the unemployment and health outcomes to poverty and inequality. There is a positive causal relationship between poverty, inequality, and insecurity in Sub-Saharan Africa and developing countries, as demonstrated by the studies of Nelson (1998) and Odusola, Bandara, Dhliwayo, and Diarra (2017). Adeleye *et al*. (2020) argued that poverty is exacerbated by inequality.

Findings are mixed regarding the relationship between poverty and insecurity in Nigeria. While some studies (Ugwuoke, Okwanya, and Abdulrahman, 2012; Pate and Haruna, 2015; Sakanko, 2018; Okolie, Onyema, and Basey, 2019; Okunola, Umar, and Mohammed, 2020) claimed that poverty is unrelated to insecurity, others (Osunyikanmi, 2014; Idris & Salisu, 2020) claimed the opposite. Studies by Oduwole (2014) and Awojobi (2014) highlighted that poverty and inequality were the main root causes of rising insecurity. According to Ajodo-Adebanjoke and Walter (2014); Adedeji and Oluwalogbon (2020), poverty in northern Nigeria is caused by insecurity and inequality in the region. According to Egunjobi (2021), poverty exacerbates unemployment and insecurity; unemployment increases poverty and public spending on insecurity, exacerbating the poverty rate; and ultimately, there is a link between high unemployment, poverty, and insecurity. In their analytical research, Evans and Kelikume (2019) identified poverty, inequality, unemployment, corruption, and bad governance as the main drivers of insecurity. Okolie *et al.* (2019) demonstrated a positive correlation between poverty and insecurity, pointing out poverty as the primary driver of insecurity. According to Mukhtar et al. (2016) and Usman (2015), unemployment is the mechanism through which poverty and insecurity spread, concluding that unemployment and poverty exacerbate insecurity in Nigeria. The study also shows that reducing the income disparity and rising poverty will curb insecurity (Tade, 2021). Kanbur (2007) revealed that social divides and inequality contribute to poverty and conflicts.

Studies have also established the importance of good governance in reducing insecurity, reducing poverty, and reducing inequality. A study by Kunawotor, Bokpin, and Barnor (2020) noticed a significant impact of corruption controls and the rule of law in reducing income inequality in Africa. In a study of 16 countries, Anser, Yousaf, Nassani, Alotaibi, Kabbani, and Zaman (2020) discovered a strong positive link between unemployment, inequality, and crime rates. Inequality and governance have a one-to-one relationship, according to Chong and Gradstein (2007). Furthermore, their discoveries indicate that weak institutions worsen income inequality. A study by Leke and Oluwaleye (2015) concluded that good governance is crucial for poverty reduction. The drivers of insecurity are identified as bad governance, unemployment, poverty, and porous borders (Ozoigbo, 2019). Research by Agudiegwu *et al*. (2019) and Okunola *et al.* (2020) established a causal relationship between Nigeria's poverty, insecurity, and shaky governance. There are a lot of studies on poverty and insecurity, but there are few empirical studies on the significance of governance in Nigeria. In light of this, we seek to examine the trilogy of poverty, inequality, and insecurity while accounting for the significant function of quality governance quality in the relationship in Nigeria.

## 3. Methodology

### *3.1 Model specification*

To achieve the study's objective, we specify insecurity as a function of poverty, inequality, unemployment and other explanatory variables (economic growth and illiteracy rate) which have been established in the literature as key drivers of insecurity. Following Egunjobi (2021), our baseline insecurity equation is specified below:

$$\log(INSEC_t) = \beta_0 + \beta_1 LINSEC_{t-1} + \beta_2 POV_t + \beta_3 INEQ_t + \beta_4 UNEMP_t + \beta_5 RGDP_t + \beta_6 ILER_t + \varepsilon_t \quad (1)$$

Where INSEC captures insecurity, POV is poverty, INEQ is inequality, UNEMP is unemployment rate and RGDP is real GDP per capita which measures country's economic growth. ILER is illiteracy rate. Beyond the impact of poverty, inequality and unemployment on insecurity, the study also investigates the role of governance in the nexus between the variables, and insecurity and thus incorporates the indicators to equation (1) as specified below:

$$\log(INSEC_t) = \beta_0 + \beta_1 LINSEC_{t-1} + \beta_2 POV_t + \beta_3 INEQ_t + \beta_4 UNEMP_t + \beta_5 RGDP_t + \beta_6 ILER_t + \beta_7 GOV_{it} + \varepsilon_t \quad (2)$$

$$\text{Where } GOV_{it} = [COC_t, GOE_t, POS_t, REQ_t, ROL_t, VOA_t]$$

Where GOV is governance and aggregate governance indicator, COC is control of corruption, GOE is government effectiveness, REQ is regulatory quality, POS is political stability, ROL is rule of law and VOA is voice and accountability. We expect the coefficient of poverty ($\beta_2$), inequality ($\beta_3$) and unemployment rate ($\beta_4$) to be positive while GDP ($\beta_5$) and illiteracy rate ($\beta_6$) are expected to be negative. Lastly, the estimate of governance variable ($\beta_7$) is expected to be negative since good institution is presumed to reduce the rate of insecurity in the country.

### *3.2 Estimation Techniques*

The specifications of equations 1 and 2 clearly reveal that some of the factors influencing insecurity may also directly result from insecurity. For example, the prevalence of insecurity might cause people to lose their jobs and result in being unemployed. Similarly, a rising unemployment rate could worsen poverty levels and provoke insecurity. However, unemployment and poverty are treated as both the causes and effects of insecurity. Also, some explanatory variables in equations 1 and 2 might not be strictly treated as exogenous variables because of the possibility of reverse causality and endogeneity bias.

To control for the possibility of endogeneity in the model, we employ an instrumental variable technique, viz., the generalised method of moments (GMM) as a technique of analysis. As documented by Wooldridge (2001); Bond, Hoeffler and Temple (2001); Kudaisi, Ojeyinka, and Osinubi (2022), the GMM estimator performs better than other techniques due to its strength to address the endogeneity bias from omitted variables, simultaneity, and measurement error where exogenous variables are interdependent and jointly determined. The study employs the lag values of both the dependent and independent variables as an instrument, following Arellano and Bond (1991); Arellano and Bover (1995). Thereafter, we conduct Hansen-J-statistic to test for the validity of the instruments and AR(1) and AR(2) to test for first-order and second-order autocorrelation, respectively. We first carry out pre-estimation tests (such as instrument validity and serial correlation tests) to ensure the parameter estimates are immune from econometric plagues that could invalidate the findings of the study.

### *3.3. Data and Data Source*

Annual data from 1996–2020 was used for the study. The scope is based on the years prior to and following the country's transition to democracy, which marked the beginning of increasing poverty, inequality, and insecurity. The government's spending on security serves as a proxy for the dependent variable, insecurity due to the unavailability of update data. The data is obtained from the Central Bank of Nigeria's (2021) statistical bulletin online. The data on the poverty rate is based on the international poverty line of $1.90. Unemployment is measured as total (% of total labor force, ages 15–24) (modeled ILO estimate) drawn from the International Monetary Fund (IMF), World Economic Outlook (WEO) data, 2021. Inequality is defined as income inequality (Gini index) from the World Income Inequality Database (*wiid.world*), 2022. Economic growth measured by the growth rate of GDP and illiteracy rate data are from the World Development Indicator. The World Governance Indicators used are drawn from the Worldwide Governance Indicators (WGI) database. The measures are available for over 200 countries from 1996–2020 in six dimensions, including (i) political stability and absence of violence/terrorism; (ii) control of corruption; (iii) voice and accountability; (iv) government effectiveness; (v) regulatory quality; and (vi) rule of law. All the governance indicators are upper bounds of 90% confidence intervals in percentile rank terms and range between -2.5 (weak) and +2.5 (strong). All the variables are expressed in their natural forms except insecurity, which is in logarithm.

## 4. Findings and Discussions

### *4.1. Descriptive Statistics*

Table 1 presents a summary of the descriptive statistics of the variables in the model. With the exception of insecurity, all the variables show a high degree of stability based on their mean and median values. Also, the mean and median values of all the series fall between their minimum and maximum values. On average, Nigeria spends ₦225.2 billion on security, with the highest amount of ₦668.6 billion in 2020 and a minimum of ₦8.9 billion in 1996. This demonstrates that the level of insecurity in Nigeria increased by more than 7.41% between 1996 and 2020, indicating the extent of insecurity in Nigeria. According to Table 1, 57% of Nigerians are estimated to live below the poverty line of $1.90 per day. This ranked the country among the poorest countries in the world. Meanwhile, approximately 68% and 43% are the maximum and minimum percentages of people living below the poverty line within the study period. This reflects the extent of poverty in Nigeria when compared with other countries in the world. It is also important to state that the country records less than 50% income inequality, suggesting a moderate level of inequality in the country.

Moreover, the average rate of unemployment over the study period is 4.8%, with the minimum value (3.7%) and maximum value (9.7%) recorded in 1996 and 2020, respectively. This implies that the unemployment rate has been rising. Furthermore, Nigeria's economy grew on average by 4.9% between 1996 and 2020, and during the study period, 50% of the adult population was found to be illiterate. The governance variables in Table 1 clearly reveal that, out of a maximum value of +2.5, Nigeria attains between -2.0 and -0.5 in all the governance indicators. This suggests that the country is weak in all the governance indicators employed. Apart from government spending on insecurity, whose standard deviation (₦196.4 billion) departs markedly from the mean value, all the variables employed are less volatile. This reflects the volatility in government allocations to security. Lastly, the probability value of the Jarque-Bera statistic is not significant for most of the variables, suggesting the acceptance of the normality assumption for the variables except unemployment rate, political stability, regulatory quality, and voice and accountability.

**Table 1**: Summary of Descriptive Statistics

| | INSEC | POV | INEQ | UNEMP | RGDP | ILER | AGV | COC | GOE | POS | REQ | ROL | VOA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 225.229 | 57.258 | 41.478 | 4.831 | 4.870 | 50.705 | -1.338 | -1.172 | -1.030 | -1.747 | -0.910 | -1.140 | -0.691 |
| Median | 196.900 | 58.600 | 41.260 | 3.935 | 5.308 | 50.660 | -1.346 | -1.159 | -1.018 | -1.878 | -0.861 | -1.114 | -0.662 |
| Maximum | 668.630 | 67.800 | 51.900 | 9.714 | 15.329 | 55.020 | -1.193 | -0.892 | -0.893 | -0.586 | -0.660 | -0.812 | -0.319 |
| Minimum | 8.919 | 42.700 | 35.100 | 3.700 | -1.794 | 46.980 | -1.527 | -1.533 | -1.215 | -2.211 | -1.459 | -1.446 | -1.554 |
| Std. Dev. | 196.474 | 8.117 | 4.408 | 1.885 | 3.672 | 2.975 | 0.095 | 0.143 | 0.081 | 0.410 | 0.206 | 0.183 | 0.292 |
| Skewness | 0.780 | -0.452 | 0.726 | 1.617 | 0.467 | 0.079 | -0.382 | -0.653 | -0.624 | 1.469 | -1.278 | -0.084 | -1.307 |
| Kurtosis | 2.694 | 1.857 | 2.979 | 3.885 | 4.098 | 1.474 | 2.156 | 3.337 | 2.802 | 4.494 | 3.916 | 2.116 | 4.769 |
| Jarque-Bera | 2.633 | 2.215 | 2.198 | 11.705 | 2.166 | 2.451 | 1.348 | 1.893 | 1.663 | 11.314 | 7.685 | 0.843 | 10.380 |
| Probability | 0.268 | 0.330 | 0.333 | 0.003 | 0.339 | 0.294 | 0.510 | 0.388 | 0.435 | 0.003 | 0.021 | 0.656 | 0.006 |
| Observations | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |

Source: Authors' Compilation

### *4.2. Unit root test*

The unit root test is used in the study to determine the series' integration order. Augmented Dickey Fuller (ADF) and Philip-Peron (PP) tests are used with the null hypothesis that the series has a unit root. Table 2 displays the test results. In particular, the tests confirm that poverty (POV), economic growth (RGDP), unemployment rate (UNEMP), illiteracy rate (ILER), control of corruption, and political stability have unit root at levels but become stationary at first difference. On the other hand, inequality (INEQ) and regulatory quality are stationary at a certain level. Thus, the unit root test results are a combination of I(0) and I(1) variables.

**Table 2: Results of the Unit Root Test**

| | ADF | | | PP | | |
|---|---|---|---|---|---|---|
| **Variables** | **Level** | **1st Diff** | **Order** | **Level** | **1st Diff** | **Order** |
| **Log(INSEC)** | -1.867 | -7.171*** | I(1) | -2.907* | - | I(0) |
| **POV** | -1.835 | -5.463*** | I(1) | -1.773 | -5.472*** | I(1) |
| **INEQ** | -3.450** | - | I(0) | -2.737** | - | I(0) |
| **RGDP** | -2.04 | -6.300*** | I(1) | -2.058 | -6.341*** | I(1) |
| **UNEMP** | 1.375 | -3.598** | I(1) | 1.334 | -3.602** | I(1) |
| **ILER** | 0.519 | -3.304** | I(1) | -0.295 | -3.253** | I(1) |
| **GOV** | -2.866 | -6.149*** | I(1) | -2.919** | - | I(0) |
| **COC** | -1.954 | -5.684*** | I(1) | -2.037 | -5.625*** | I(1) |
| **GOE** | -4.185** | - | I(0) | -4.197*** | - | 1(0) |
| **POS** | -1.976 | -5.898*** | I(1) | -1.895 | -6.190*** | I(1) |
| **REQ** | -2.750* | - | I(0) | -2.715* | - | I(0) |
| **ROL** | 1.044 | - | I(0) | -1.064 | -4.772*** | I(1) |
| **VOA** | -3.645** | - | I(0) | -3.573** | - | I(0) |

Source: Authors' computation

Critical values 1% = -3.750, 5% = -3.000, 10% = -2.630

Note: ***,**,* denotes 1%, 5% and 10% significance level respectively

### *4.3. GMM Results*

The study pursues two major objectives. The first objective examines the effects of poverty and other explanatory variables on insecurity, while the second objective investigates the role of institutions in the nexus between insecurity, poverty, inequality, and unemployment in Nigeria. The results are presented in Table 3. Eight different models were estimated, which are depicted as models 1 to 8 in the table. Model 1 is the baseline model to unravel the effects of the key explanatory variables on insecurity. In model 2, we incorporate the overall governance indicator into the model as a mediating factor in the interaction among insecurity, poverty, unemployment, and inequality in Nigeria. However, from models 3 to 8, each component of the governance indicators is used as a mediating variable among the variables of interest. Before discussing the main results, we assess the veracity and reliability of the models estimated and perform some diagnostic tests to confirm the reliability of parameter estimates from the analysis. Firstly, the value of R-square (96%) suggests that the explanatory variables employed in the model adequately explain the behaviour of insecurity in Nigeria. The validity of the instruments employed for the GMM model is tested with the J-statistic reported in the lower part of the table.

It is evident from the table that the value of the probability of J-statistic for all the model specifications is not significant, which implies that the instruments used are valid. Similarly, all the estimated models are free from the autocorrelation problem caused by the insignificance of the probability value of AR (2). This is validated by the value of the Durbin-Watson (D-W) statistic, which is close to 2 for all the specified models. The main findings of the diagnostic tests are that all the models analysed are stable and free from autocorrelation, while the instruments used are found to be valid, indicating that estimates generated from the GMM models are consistent and reliable. The lagged value of insecurity (logINSEC (-1)) is positive and significant for all model estimates, supporting the dynamic nature of the estimated models and providing evidence of a memory effect in which the degree of insecurity in one year greatly influences the level of insecurity in the subsequent year.

Turning to the target variables, the results in the upper part of Table 3 reveal that the insecurity rate in Nigeria is influenced by rate of poverty under model 1 (the baseline). Indicating that a unit increase in poverty increases insecurity by 0.03%. Again, when governance indicators are incorporated into the baseline model, insecurity still responds positively to poverty. This implies that high rates of poverty exacerbate insecurity in the economy. Interestingly, the worsening impact of poverty on insecurity is attenuated when specific governance indicators are included in the baseline model. For instance, inferences from models 3, 7, and 8 show that when using the control of corruption (COC), political stability (POS), and voice and accountability (VOA) as mediating governance indicators, the aggravating effect of poverty on insecurity is reduced by about 0.2%. Similarly, income inequality is found to engineer rising insecurity in the country. Under the baseline model (i.e. model 1), a unit increase in income inequality causes a rise in insecurity of approximately 0.08%. The result remains the same even when governance variables are incorporated into the model. This is consistent with the findings that income inequality plays a significant role in insecurity. However, considering the role of governance as a mediating factor, when control of corruption (COC), regulatory quality (REQ), rule of law (ROL), and political stability (POS) are included in the baseline model, the crippling effect of inequality on insecurity is significantly reduced. This is because governance acts as a mediating element. As against the 0.08% increase in insecurity under the baseline model, a unit increase in inequality aggravates insecurity by approximately 0.03%, 0.01%, 0.1%, and 0.02% under models 3, to 7, respectively.

Under the baseline model, the unemployment rate has a significant negative impact on security, which implies that a unit increase in the unemployment rate reduces government expenditure on security by 0.03%. This is contrary to the postulation that high unemployment breeds insecurity. In models 2 to 5, when aggregate governance indicators (GOV), control of corruption (COC), government effectiveness (GOE), and regulatory quality (REQ) are used as governance indicators, respectively, the results suggest that the unemployment rate reduces insecurity. Meanwhile, it was shown that unemployment has a negative but minor impact on insecurity when political stability, the rule of law, and voice and accountability are included in the baseline model. It is crucial to note that the impact of the unemployment rate on insecurity is lessened when regulatory quality (REQ) and government effectiveness (GOE) are considered because an increase in these indicators reduces the rate of insecurity by about 0.4%, as opposed to 0.3% under the baseline model. Except in Model 3, where corruption control is used as a mediating variable, economic growth (RGDP) is found to be insignificant in terms of the degree of insecurity. This suggests that Nigeria's rate of economic growth has no appreciable impact on the country's level of insecurity. Consistent with previous studies, estimates of Nigeria's illiteracy rate positively influence insecurity in a substantial way. This suggests that the rate of illiteracy in Nigeria contributes to the worsening insecurity.

Considering the individual impact of governance indicators on insecurity, the results presented in Table 3 show that all the components of governance quality are key drivers of insecurity except for the aggregate governance indicator in Model 2. In addition, these dimensions of governance indicators are found to have a mixed effect on insecurity, depending on the components examined. For instance, governance indicators such as control of corruption (COC) and voice and accountability (VOA) are found to have a positive and significant impact on insecurity in models 3 and 4, respectively, while the level of insecurity is abated by improvements in government effectiveness (GOE), regulatory quality (REQ), rule of law (ROL), and political stability (POS), as reflected in models 4 and 7, respectively. This implies that these indicators can be applied as moderating variables to tame the menace of insecurity in the country.

### *4.1 Discussion of Findings*

Two principal objectives were achieved. Firstly, we investigate the effects of poverty and inequality on insecurity with other explanatory variables capable of driving insecurity. In our second analysis, we examine how governance plays a role in the nexus among insecurity, poverty, inequality, and other explanatory variables in Nigeria. Table 3 shows that insecurity in Nigeria breeds poverty, indicating that a high poverty rate contributes to insecurity. The outcome validates the findings of Kanbur (2007), Awojobi (2014), Usman (2015), Mukhtar et al. (2016), Okolie et al. (2019), and Brainard *et al.* (2007) that "*poverty is both a cause of insecurity and a consequence of it." Also,* the finding lends support to the assertion that “a hungry man is an angry man." When people lack access to the basic things of life, they are vulnerable to anger and frustration, which could lead to social vices. The result also aligns with a priori expectations, since it is anticipated that poverty will push the poor into crime and other social vices, which are potent threats to economic peace and tranquility. The outcome additionally indicates that income inequality aggravates insecurity. This finding corroborates the research conducted by Adedeji and Oluwalogbon (2020), Egunjobi (2021), and Lakner *et al.* (2022). The fact that the coefficients of the illiteracy rate are both positive and significant suggests that a high illiteracy rate contributes to the security problem in Nigeria. This confirms Ozoigbo's (2019) result. Unexpectedly, unemployment is negative but significant from models 1 through 5, suggesting that there is more to Nigeria's insecurity than just a rising unemployment rate. The result contradicts the findings of Mayah *et al.* (2017), Olaniyi and Ikechukwu (2019) and Egunjobi (2021), who find a positive relationship between unemployment and government spending on insecurity in Nigeria.

The results also show the importance of strong governance in the battle against insecurity. For example, the inclusion of voice and accountability and the control of corruption significantly decreased the impact of poverty on insecurity. This shows that the devastating effects of poverty on insecurity can be lessened by good governance that fights corruption and ensures accountability. The finding corroborates studies by Leke and Oluwaleye (2015) and Kunawotor *et al.* (2020). The implication of this finding is that when corruption is controlled and public funds are used solely for welfare-enhancing initiatives like the provision of basic amenities, inequality will shrink, and hence, there will be a disincentive for people to engage in criminal activities. Nigeria's insecurity is connected to inequality, mostly between politicians and the masses, who are left to their fate to make ends meet. The minority of politicians live in luxury without any provision for the masses, which further instigates conflicts in the country. Since safeguarding people's lives and property is the primary duty of any meaningful government, effective governance is paramount to upholding law and order for optimal safety.

**Table 3: GMM Results**

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| | **BASELINE** | **GOV** | **COC** | **GOE** | **REQ** | **ROL** | **POS** | **VOA** |
| **Log(INSEC(-1)** | 0.167* | 0.186** | 0.258*** | 0.190*** | 0.230*** | 0.282*** | 0.337*** | 0.631*** |
| | (0.054) | (0.012) | (0.000) | (0.001) | (0.003) | (0.000) | (0.000) | (0.000) |
| **POV** | 0.030*** | 0.028*** | 0.023*** | 0.035*** | 0.029*** | 0.033*** | 0.023*** | 0.018*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| **INEQ** | 0.084*** | 0.094*** | 0.034*** | 0.074*** | 0.114*** | 0.109*** | 0.044*** | 0.082*** |
| | (0.002) | (0.000) | (0.000) | (0.000) | (0.000) | (0.002) | (0.001) | (0.000) |
| **RGDP** | 0.003 | -0.008 | 0.013*** | -0.009 | -0.003 | 0.001 | 0.007 | 0.007 |
| | (0.655) | (0.428) | (0.001) | (0.194) | (0.606) | (0.894) | (0.109) | (0.156) |
| **UNEMP** | -0.029* | -0.021** | -0.027** | -0.044*** | -0.044** | -0.002 | -0.015 | -0.007 |
| | (0.094) | (0.064) | (0.034) | (0.004) | (0.011) | (0.837) | (0.165) | (0.605) |
| **ILER** | 0.341*** | 0.341*** | 0.270*** | 0.311*** | 0.364*** | 0.362*** | 0.240*** | 0.149*** |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| **GOV** | | -0.673 | | | | | | |
| | | (0.131) | | | | | | |
| **COC** | | | 0.404*** | | | | | |
| | | | (0.007) | | | | | |
| **GOE** | | | | -0.621** | | | | |
| | | | | (0.032) | | | | |
| **REQ** | | | | | -0.437** | | | |
| | | | | | (0.043) | | | |
| **ROL** | | | | | | -0.851** | | |
| | | | | | | (0.037) | | |
| **POS** | | | | | | | -0.253** | |
| | | | | | | | (0.015) | |
| **VOA** | | | | | | | | 0.625*** |
| | | | | | | | | (0.009) |
| **C** | -18.108 | -19.441 | -12.17 | -17.114 | -21.069 | -22.05 | -12.347 | -9.562 |
| | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) |
| | | | | **Diagnostic Tests** | | | | |
| **R_Square** | 0.963 | 0.965 | 0.962 | 0.963 | 0.967 | 0.964 | 0.962 | 0.967 |
| **Hanse-J-stat prob** | 0.844 | 0.913 | 0.902 | 0.909 | 0.91 | 0.908 | 0.899 | 0.877 |
| **AR(1) prob** | 0.111 | 0.165 | 0.072 | 0.059 | 0.176 | 0.085 | 0.854 | 0.16 |
| **AR(2) prob** | 0.313 | 0.194 | 0.188 | 0.257 | 0.323 | 0.351 | 0.61 | 0.559 |
| **D-W stat** | 2.144 | 2.016 | 2 | 2.123 | 1.94 | 1.971 | 1.909 | 2.236 |
| **Instr. Rank** | 19 | 22 | 21 | 22 | 22 | 21 | 21 | 20 |

Source: Authors' compilation

Note: ***, **, * depict 1%, 5%. 10% significant level respectively

Values in bracket indicate probability values

## 5. Conclusion

This study investigates the role of governance in the relationship between poverty, inequality, and insecurity in Nigeria. Unlike the previous studies, we uncover the role of different governance indicators in the relationship using time-series annual data from 1996–2020. Empirical findings show that poverty and inequality exacerbate government spending on insecurity. Our estimated results reveal that control of corruption, regulatory quality, and enforcement of law and order can tame the security challenge bedeviling the country. Consistent with previous studies, we found that poverty and inequality are significantly and positively correlated with insecurity. This suggests that the major threats to Nigeria's economic prosperity are attributed to the unchecked rising poverty level, inequality, and weak governance bedeviling the country.

Moreover, the Nigerian government must prioritize addressing rising poverty and inequality while also solving the problem of unemployment to reduce poverty, especially in rural areas and the northern parts of the country. Funds must be provided to promote human capital development and skills acquisition initiatives. The government must ensure a favourable macroeconomic environment, create more entrepreneurial centers, and provide long-lasting employment opportunities, particularly for youth, to reduce poverty.

Besides, the fight against insecurity should be a collective effort because the country's security issues have eaten deep into the fabric of the economy and other aspects of national life. Therefore, the government should support and empower the traditional rulers and community chiefs to be watchdogs because they are the custodians of the people and properties. Furthermore, all citizens must be involved in the fight since they are both an integral part of the fight and victims of the threat, and they may also help by providing necessary information. The country's security agencies, both private and public-owned, including police, civil defense, 'Amotekun', community watch groups, hunters, etc., should be trained and armed with modern and sophisticated weapons. At this crucial time, state and community policing must be encouraged to complement the efforts of government security personnel. Nigeria's security apparatus and architecture must be harmonized and reinforced. The government must be proactive in the dispensation of justice to the offenders and their sponsors, as this will serve as a deterrent to other perpetrators.

Nigeria is the largest country in Africa and home to most of its neighbouring countries, making the borders porous. Its borders must be tightly controlled, particularly with regard to human migration. It is impossible to compromise on good governance that is free of corruption and emphasizes accountability in resource allocation and management, transparency, justice, and equity, as well as the rule of law without political interference. One major limitation of this study is that it focuses on the economic dimension of insecurity. There are other factors that contribute to insecurity, especially in a multi-ethnic and complex society like Nigeria. Thus, future researchers can investigate factors responsible for insecurity from a social, ethnic, or religious perspective.

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