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# A CRITICAL ANALYSIS OF POVERTY, INEQUALITY, AND UNEMPLOYMENT TRENDS IN NIGERIA

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**Abstract:** This study explores the complex interplay between poverty, inequality, and unemployment in Nigeria, focusing on the relationships among these three crucial socio-economic factors. Persistent issues of poverty, widespread inequality, and high unemployment rates significantly impede Nigeria's development, creating a cycle that reinforces these challenges. The research employs the Granger causality test to examine the directional influences between these variables, providing empirical evidence of their interconnections. The Granger causality test results indicate a significant bidirectional causality between poverty and unemployment. This suggests that not only does high unemployment increase poverty levels, but poverty also perpetuates unemployment by limiting access to education and skills development. Additionally, the analysis reveals a unidirectional causality from inequality to unemployment, indicating that growing income inequality exacerbates unemployment by restricting economic opportunities and access to resources for disadvantaged groups. Conversely, the causality from unemployment to inequality is less pronounced, suggesting that while unemployment does contribute to inequality, its impact is moderated by other factors such as policy measures and social support systems. The findings highlight the need for integrated policy approaches that address poverty, inequality, and unemployment simultaneously. Focusing solely on reducing unemployment may be insufficient if it does not also address the root causes of poverty and inequality, and vice versa. The study concludes that a comprehensive strategy, informed by the bidirectional relationships among these variables, is crucial for breaking the cycle and promoting sustainable development in Nigeria. By using insights from the Granger causality test, policymakers can better design interventions to achieve more equitable and inclusive economic growth.

**Keywords:** Poverty, Inequality, Unemployment

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## 1. Introduction

Nigeria, Africa's most populous nation, faces substantial development challenges marked by widespread poverty, growing inequality, and high unemployment rates. Despite being the largest economy in Africa, Nigeria's human development indicators remain disappointing, with the country ranking 161 out of 189 on the Human Development Index (HDI). The reduction of poverty, equitable income distribution, and addressing unemployment have become central to global policy efforts. Various approaches to eradicating extreme poverty, closing the inequality gap, and reducing unemployment have been explored (Ogun, 2020). Among these, leveraging sustainable economic growth and development is a prominent strategy. The role of economic growth in mitigating poverty, inequality, and unemployment has sparked considerable debate within the development sector (National Bureau of Statistics, 2023).

Poverty is widespread, with over 40% of Nigerians living below the poverty line (NBS, 2020). Inequality is also a major concern, as wealth is concentrated among a small portion of the population (Oxfam, 2020). The Gini coefficient, a measure of income inequality, is at 0.485, highlighting significant disparities (World Bank, 2022). Unemployment, particularly among the youth, is another critical issue, with the National Bureau of Statistics reporting an unemployment rate exceeding 30% and youth unemployment surpassing 50% (NBS, 2022). This situation has led to social unrest, increased migration, and deeper poverty (ILO, 2022).

Recent studies have emphasized the interconnections between poverty, inequality, and unemployment in Nigeria. For instance, research by the African Development Bank (2020) identified poverty and inequality as significant predictors of unemployment in Nigeria. Another study in the Journal of Economic Studies (2022) highlighted a positive correlation between unemployment, poverty, and inequality.

The underlying causes of these issues are complex and multifaceted. Contributing factors include economic instability and reliance on oil exports (IMF, 2022), corruption and poor governance (Transparency International, 2022), inadequate education and skills training (UNESCO, 2022), limited access to healthcare and social services (WHO, 2022), regional disparities and ethnic tensions (ACLED, 2022), and climate change and environmental degradation (IPCC, 2022).

The relationship between poverty, inequality, and unemployment has been extensively discussed in policy circles and the media. The theoretical perspectives on these relationships are diverse. Classical theorists argue that inequality promotes unemployment by increasing savings and capital accumulation, which can lead to unemployment. They also believe that a degree of inequality reflects merit-based rewards, which can incentivize productivity and growth (Bourguignon, 1981; Kaldor, 1957; Angelsen & Wunder, 2016).

In contrast, modern theories suggest that inequality exacerbates unemployment through several channels: (a) unequal societies tend to experience political instability, which hinders economic progress; (b) inequality encourages rent-seeking behaviors that undermine property rights; (c) high inequality increases demands for income redistribution, potentially leading to higher taxes and reduced real income, savings, and investment; and (d) in imperfect credit markets, the poor are unable to invest in human and physical capital, affecting long-term economic growth (Angelsen & Wunder, 2016). An intermediate view posits that inequality may promote economic growth in the short term but has a negligible impact on growth in the long run (Galor, 2020).

Empirical findings on the relationships between poverty, inequality, and unemployment are also varied. Some studies, including those by Breunig and Majeed (2020), Brueckner and

Lederman (2015), Panizza (2002), Perotti (1996), Clarke (1995), Galor and Zeira (1993), and Alesina and Rodrik (1994), support a negative link between these variables. Conversely, research by Ostry et al. (2014) and Forbes (2000) indicates a positive relationship between income inequality and unemployment. Additionally, some studies argue that poverty rates influence the link between inequality and unemployment. For instance, Breunig and Majeed (2020) found that controlling for poverty in unemployment models reveals a negative relationship between inequality and unemployment. Stiglitz (2013) suggested that inequality might undermine institutions that promote widespread well-being, further affecting unemployment.

This study aims to explore the relationships between poverty, inequality, and unemployment in Nigeria, examining their causes, effects, and potential solutions. By analyzing the connections among these factors, the research seeks to inform policy decisions and interventions that can alleviate poverty, reduce inequality, and promote sustainable employment opportunities in Nigeria.

## 2. Literature Review

The interconnections among poverty, inequality, and unemployment have been extensively explored in scholarly literature. Anayochukwu and Patritcia (2014) highlight that every nation's economy consists of both active and inactive segments of the population.

### 2.1 Conceptual Clarifications

#### 2.1.1 Concept of Poverty

Poverty is a complex and multifaceted issue that includes various dimensions such as income, education, health, and living standards (World Bank, 2022). It is commonly understood as the lack of access to essential resources, capabilities, and opportunities required to meet basic needs and achieve a decent standard of living (UNDP, 2022). Recent data underscores the persistence of poverty, especially in developing nations like Nigeria, where over 40% of the population lives below the poverty line (NBS, 2020).

The definition of poverty remains contentious, with no universally accepted threshold separating the "poor" from the "non-poor." A 2002 World Bank report describes poverty as the inability to attain even the most minimal standards of life. This definition incorporates various indicators of poverty, such as resource scarcity, inadequate education and training, poor health, hunger, lack of political influence and freedom, substandard housing, insufficient access to water and sanitation, vulnerability to shocks, exposure to violence and crime, and marginalization in political processes. Hettne (2002) identifies five categories of poverty:

1. **Absolute Poverty:** This refers to a state of deprivation caused by insufficient income or lack of access to basic necessities such as food, clean water, sanitation, healthcare, housing, education, and information.
2. **Relative Poverty:** This type of poverty is defined in comparative terms, meaning it is assessed relative to the standards and conditions of a particular society, rather than absolute measures. It highlights how individuals or households fare in comparison to others in their community.

#### 2.1.2 Concept of Inequality

Inequality pertains to the uneven distribution of resources, income, and opportunities among individuals and groups (Oxfam, 2020). This disparity is a significant factor in perpetuating poverty and social exclusion, impeding social mobility, and reinforcing disadvantage (UNICEF, 2022). Recent studies highlight the growing concern over income inequality, which has been increasing globally (IMF, 2022). In Nigeria, the situation is especially stark, with a Gini coefficient of 0.485 reflecting significant economic disparities (World Bank, 2022).

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Inequality manifests through various forms, including economic, social, and political disparities. It results in differences in income, wealth, education, healthcare, and access to power. Contributing factors include variations in skills, education, social class, race, gender, and geographic location. Structural elements such as discriminatory practices, biased economic policies, and unequal access to quality education and healthcare can further intensify these disparities.

The repercussions of inequality are extensive, often leading to social unrest, diminished social mobility, and stunted economic growth. Inequality perpetuates cycles of poverty, making it more challenging for disadvantaged groups to improve their circumstances. Addressing inequality requires a comprehensive approach, including policy reforms, educational initiatives, and efforts to foster equity and inclusion across various aspects of society.

### 2.1.3 Concept of Unemployment

Unemployment represents a significant development challenge, particularly among young people (ILO, 2022). It is defined as the state of being without access to productive employment opportunities, which leads to social and economic exclusion (UNESCO, 2022). Recent data highlight the high unemployment rates in Nigeria, especially among the youth (NBS, 2022). Unemployment is closely linked with issues of poverty, inequality, and social instability (African Development Bank, 2020).

Unemployment is characterized by individuals who are willing and actively seeking work but are unable to secure employment. It is an important economic indicator and is typically expressed as a percentage of the total labor force. Several factors contribute to unemployment, including economic recessions, structural shifts in the economy, technological changes, and variations in consumer demand.

Different types of unemployment include:

- **Cyclical Unemployment:** Associated with the economic cycle, rising during downturns and falling during expansions.
- **Structural Unemployment:** Results from a mismatch between workers' skills and job requirements.
- **Frictional Unemployment:** Temporary and occurs when individuals are in transition between jobs.
- **Seasonal Unemployment:** Linked to industries that operate seasonally.

High unemployment rates can lead to severe consequences such as economic stagnation, increased poverty, social unrest, and a decline in living standards. To mitigate unemployment, governments often implement various measures including fiscal and monetary policies, job creation programs, and training initiatives aimed at equipping workers with relevant skills for the job market.

The interplay among poverty, inequality, and unemployment highlights their interconnected nature. Each of these issues can reinforce the others, creating a cycle that hampers economic and social progress (World Bank, 2022). Recent research underscores the importance of a holistic approach to tackle these intertwined challenges, advocating for inclusive growth, inequality reduction, and the creation of meaningful employment opportunities (UNDP, 2022; IMF, 2022).

## 2.2 Theoretical Framework

Several theories provide insights into the relationships among poverty, inequality, and unemployment in Nigeria. This study examines four key theories, as outlined below:

### 2.2.1 Human Capital Theory

Human Capital Theory emphasizes that the skills, knowledge, and experience individuals possess significantly impact their employability and income potential. According to this theory, those with higher levels of education and specialized training are more likely to obtain wellpaying jobs, thereby reducing their risk of poverty. In contrast, individuals with lower levels of education and fewer skills may struggle to secure employment, leading to higher unemployment rates among low-skilled workers. This disparity in human capital contributes to income inequality, as higher-skilled workers tend to secure better-paying jobs, while those with limited human capital face higher unemployment rates and lower wages, perpetuating poverty across generations.

### 2.2.2 Structural Theory

Structural theories of poverty highlight the role of societal structures and institutions in sustaining poverty and inequality. This perspective argues that economic systems, social institutions, and governmental policies are often designed in ways that disadvantage specific groups, particularly the impoverished and unemployed. Factors such as systemic discrimination, limited access to quality education, and inadequate social safety nets contribute to ongoing unemployment and income inequality. Structural factors like geographic location, labor market discrimination, and the decline of certain industries can lead to persistent unemployment in specific populations. These institutional biases reinforce income inequality and restrict social mobility, thereby entrenching poverty and making it difficult for individuals and communities to escape the cycle.

### 2.2.3 Labor Market Segmentation Theory

Labor Market Segmentation Theory posits that the labor market is divided into distinct segments: a primary sector and a secondary sector. The primary sector is characterized by stable, well-paying jobs with opportunities for career advancement, while the secondary sector consists of low-wage, insecure jobs with poor working conditions. Individuals in the secondary sector face substantial barriers to transitioning into the primary sector, leading to ongoing poverty and inequality. Workers in the secondary labor market are more vulnerable to unemployment due to the precarious nature of their jobs. This segmentation reinforces income inequality, as those in the primary sector enjoy better wages and job security, while those in the secondary sector face low wages and limited advancement opportunities.

### 2.2.4 Welfare Dependency Theory

Welfare Dependency Theory suggests that prolonged reliance on government assistance can foster a dependency culture, reducing individuals' motivation to seek employment. This theory argues that welfare programs, intended to alleviate poverty, can unintentionally contribute to unemployment and poverty by discouraging work and creating a cycle of dependency. When welfare benefits are perceived as more advantageous than low-paying jobs, individuals may be disincentivized from seeking employment, resulting in higher unemployment rates. Additionally, welfare dependency can exacerbate income inequality by creating a divide between employed individuals and those reliant on government assistance. Long-term dependence on welfare may also perpetuate poverty, as individuals may struggle to transition from welfare to stable employment, especially if they lack the necessary skills or opportunities.

This study is anchored in Human Capital Theory, which posits that an individual's skills, knowledge, and experience—considered forms of economic capital—play a crucial role in their employability and income potential.

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### 2.3 Empirical Literature

A range of studies has explored the interconnections between poverty, inequality, and unemployment across various contexts and periods. Below is a summary of relevant empirical research:

Akinbobola and Saibu (2024) investigated the dynamics of income inequality, unemployment, and poverty in Nigeria using a vector autoregressive approach combined with Structural Equation Modeling (SEM). Their findings indicated a cyclical relationship where unemployment exacerbates poverty, and both factors, in turn, worsen inequality. The study advocates for targeted economic policies to break this cycle. Their analysis revealed that reduced unemployment rates enhance human development and subsequently lower poverty levels. Additionally, increased public capital expenditure was shown to decrease unemployment and improve the human development index, suggesting that infrastructure focused policies could ultimately enhance living conditions in Nigeria.

Ibrahim, Emmanuel, and Sule (2024) examined the impact of income inequality on poverty levels in Nigeria using the Auto Regressive Distributed Lag (ARDL) model. Their study found a long-term positive relationship between poverty and income inequality, as indicated by the Gini coefficient. They recommended more equitable wealth distribution to effectively reduce income inequality and poverty. The study also emphasized the need for realistic employment programs to enhance income distribution and support wealth-building rather than mere survival.

Bashir, Olufunsho, and Jameelah (2023) explored the relationship between poverty, inequality, and economic growth in Nigeria using macroeconomic variables such as GDP growth rate, per capita income, literacy rate, and government expenditures on education and health. Their analysis, conducted using Ordinary Least Squares (OLS) regression and various econometric techniques, revealed that while GDP growth reduced poverty, it also increased inequality. They suggested that boosting GDP should be complemented by increased government spending on education and healthcare, as well as targeted programs for disadvantaged groups to alleviate poverty and inequality.

Chiwuzulum and Ruth (2023) investigated the evolution of inequality in Nigeria between 2010 and 2018, noting a paradox where only the upper class seemed to benefit from economic growth. Using data from the Nigeria General Household Panel Survey (GHS), they found that while inequality decreased and median consumption expenditure increased during this period, poverty incidence and severity rose significantly. The study also identified regional variations in inequality and consumption, highlighting divergence across regions over time.

Bosede et al. (2022) conducted a comparative analysis of the growth-poverty-inequality trilemma in Sub-Saharan Africa and Latin American and Caribbean countries. Their study, which aligned with the 2030 Sustainable Development Goals, used per capita consumption expenditure, the Gini index, and GDP growth to assess the impact of economic growth on poverty and the role of income inequality. They found that while economic growth generally reduced poverty, rising inequality intensified it. Their results suggest that inequality diminishes the positive effects of growth on poverty reduction, emphasizing the need for policies that address income inequality to enhance the effectiveness of growth in reducing poverty.

Tikristin, Chukwuemeka, and Olalekan (2022) analyzed whether economic growth has alleviated poverty in Nigeria over the past two decades. Their research, based on qualitative and quantitative data from various sources, found that despite significant economic growth, poverty rates remained high. They attributed this paradox to factors such as high inequality, corruption, jobless growth, and economic monoculture. The study recommended

diversifying the economy, investing in public services, and implementing pro-poor growth policies as strategies to improve poverty reduction. They also highlighted the need for further research into the nature of inequality in Nigeria to better understand why poverty persists despite economic growth.

Egunjobi (2021) investigated the paradox of poverty and unemployment in Nigeria, a country rich in natural resources but facing significant poverty and rising youth unemployment. Using data from 1981 to 2020, the study applied co-integration, error correction modeling, and causality tests to analyze the relationship between poverty and unemployment. The findings indicated that unemployment positively affects poverty, while government investments in infrastructure and human capital have a negative impact on poverty. However, the study found no causal link between poverty and unemployment. It recommended enhancing infrastructure provision and implementing effective policies to foster a conducive investment environment.

Ayoade, Monical, and Adediwura (2020) explored the connections between poverty, inequality, and economic growth in Nigeria using the Auto Regressive Distributed Lag (ARDL) method. Their results highlighted a relationship between these variables, showing that income inequality had a positive but insignificant effect on economic growth in both the short and long run. Absolute poverty had a negative and significant short-term impact on economic growth, but this relationship was insignificant in the long run. The study also found that population growth positively affects economic growth, while gross capital formation had a significant negative long-term effect. The study suggested that improving infrastructure, education, and health services, and addressing corruption are essential for reducing poverty and inequality.

Nwosa and Ehinomen (2020) analyzed the relationship between inequality, poverty, and economic growth in Nigeria using the autoregressive distributed lag approach. They discovered that while income inequality had a positive and significant impact on economic growth, poverty had an insignificant effect. The study concluded that income inequality significantly influences the relationship between poverty and economic growth, whereas poverty does not significantly affect this relationship.

Ramudzuli (2019) examined income inequality, economic growth, and poverty in South Africa using panel data and the Autoregressive Distributed Lag (ARDL) approach. The study found that in the long run, GDP growth negatively correlates with poverty, while income inequality positively influences economic growth. The Human Development Index was positively associated with income inequality and negatively with poverty. This suggests that while economic growth can reduce poverty, income inequality may enhance growth.

Olohunlana and Dauda (2019) investigated the effects of financial development on poverty and inequality in Nigeria from 1996 to 2017 using the ARDL approach. They found that financial development had a positive but economically insignificant impact on poverty and inequality both in the short and long run. Corruption and inflation were found to positively affect poverty reduction and income inequality, highlighting the need for improved financial policies.

Adefemi, Ayooluwade, and Anthony (2019) used Vector Autoregressive (VAR) modeling to explore the dynamics of poverty, unemployment, literacy, and per capita income in Nigeria. The results showed that poverty increases with higher unemployment and literacy rates but decreases with higher per capita income. The study also noted that poverty dynamics are influenced by shocks in unemployment, literacy, and income, suggesting that addressing unemployment and improving literacy are crucial for poverty reduction.

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Ejikeme (2018) investigated the link between unemployment, poverty, and security challenges in Nigeria. The study found that unemployment and poverty directly contribute to security issues, emphasizing the need for comprehensive reforms in skill acquisition, agricultural development, and peace-building mechanisms to address these social challenges.

Adekoya (2018) examined the role of human capital development, specifically in education and health, in poverty alleviation in Nigeria from 1995 to 2017. The Granger causality test revealed no significant causality between government spending on education and health and poverty alleviation. However, uni-directional causality was found between literacy rate, life expectancy, and per capita income. The study suggested increased investment in education and health to support poverty alleviation efforts.

## 3. Research Methodology

This study utilizes the Granger Causality technique to explore the interactions between poverty, inequality, and unemployment in Nigeria. To achieve this, three distinct linear equations are estimated:

1. The first equation assesses how poverty and inequality impact the unemployment rate.
2. The second equation examines the effects of poverty and the unemployment rate on inequality.
3. The third equation evaluates the influence of inequality and unemployment on the poverty rate.

To determine the nature of stationarity and long-run relationships among these variables, several econometric tests are employed. The unit root tests, specifically the Augmented Dickey-Fuller (ADF) test and the Phillips-Perron (PP) test, are used to check for stationarity. These tests confirm that the data series are integrated of order one, I(1), as they exhibit stationarity after first differencing, as detailed in Table 2.

For testing cointegration among the variables, the Johansen method is applied, which reveals a long-term equilibrium relationship among them. The process involves selecting the optimal lag length for the Vector Autoregression (VAR) model to balance estimation feasibility with ensuring that the residuals approximate white noise. Five information criteria are used: Sequential Modified LR Test Statistic (LR), Final Prediction Error (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SC), and Hannan-Quinn Information Criterion (HQ). These criteria indicate that a lag length of two is optimal, as shown in Table A1.

The results from the trace and maximum Eigenvalue tests of the unrestricted cointegration rank confirm three cointegrating equations at the 5% significance level, as presented in Table A2. Subsequently, the Error Correction Technique (ECT) is applied to construct parsimonious models.

To enhance the clarity of empirical results and address the differing units of measurement, all variables are converted to their natural logarithms. The analysis covers the period from 1981 to 2023 to account for socio-economic programs introduced before, during, and after the Structural Adjustment Programme (SAP).

### 3.1 Model Specifications

To investigate the interactions among poverty, inequality, and unemployment, a structural equation model consisting of three equations is formulated. The model defines both the functional and stochastic relationships as follows:

**Unemployment Model**

$UMPL_t = f(POV_t, INQ_t,)$ …….....(3.1)

The OLS linear regression equation based on the above functional relation is:

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$\log(UMPL_t) = \beta_0 + \beta_1 \log(POV_t) + \beta_2 \log(INQ_t) + \mu_{t1}$ …….……..…….. (3.2) **Inequality Model**

$INQ_t = f(POV_t, UMPL_t)$ ……..……..…….....(3.3)

The OLS linear regression equation based on the above functional relation is:

$\log(INQ)_t = \alpha_0 + \alpha_1 \log(POV_t) + \alpha_2 \log(UMPL_t) + \mu_{t2}$ ……...…….. (3.4) **Poverty Model**

$POV_t = f(INQ_t, UMPL)$ ……...…….....(3.5)

The OLS linear regression equation based on the above functional relation is:

$\log(POV_t) = \theta_0 + \theta_1 \log(INQ_t) + \theta_2 \log(UMPL_t) + \mu_{t2}$ …….…….. (3.6) Where;

$UMPL_t$ = Current Unemployment level

$INQ_t$ = Current Inequality use Gini Coefficient as a proxy

$POV_t$ = Current poverty rate

A-priorirestrictions for the models:

$\beta_1, and\ \beta_2 > 0; \alpha_1, and\ \alpha_2 > 0; \theta_1, and\ \theta_2 > 0.$

## 4. Results and Discussions

Table 4.1 displays the outcomes of the Augmented Dickey-Fuller (ADF) unit root tests. The results reveal that the variables—Unemployment (UMPL), Poverty (POV), and Inequality (INQ)—are stationary at their first difference, indicating that these variables are integrated of order one, I(1). The first-differenced stationarity of these variables suggests that the Johansen cointegration technique is appropriate for examining their long-term relationships. Following this, the Error Correction Mechanism (ECM) will be employed to model the dynamics between these variables.

**ADF Unit Root Tests**

The unit root tests were performed at a 5 percent significance level using the ADF method. The findings are summarized in Table 4.1.

**Table 4.1 Summary of the unit root test results**

| Variable | ADF results at levels | ADF results at 1st difference | Order of Integration |
|---|---|---|---|
| Log(UMPL) | -2.356058 (0.3961) | -7.082460*** (0.0000) | I(1) |
| Log(POV) | -3.4272270 (0.0613) | -7.524930*** (0.0000) | I(1) |
| Log(INQ) | -1.664781 (0.7492) | -5.772920*** (0.0001) | I(1) |

**Source: Author's computation (2024) E-views 12 Note: Figures in parenthesis are the probability values of the ADF statistics**

The results of the unit root tests indicated that all variables were non-stationary at their levels, as evidenced by ADF statistics with probability values exceeding 0.05. This suggests that the null hypothesis of a unit root cannot be rejected at the 5 percent significance level. However, the tests showed that the variables achieve stationarity at

their first differences, indicating that they are integrated of order one, I(1). This finding of first-differenced stationarity necessitates further examination for cointegration using the Johansen method.

**Cointegration Test**

Given that all series are I(1) based on the ADF unit root test results, the Johansen approach was employed to determine if the series are cointegrated. The outcomes of this test are detailed in Table 4.2.

**Table 4.2: Johansen cointegration test results**

| Series: UMPL, POR, INQ | | | | |
|---|---|---|---|---|
| Hypothesized No. of CE(s) | Eigenvalue | Trace Statistic | 0.05 Critical Value | Prob.** |
| None* | 0.249086 | 22.04601 | 19.79707 | 0.0060 |
| At most 1* | 0.186339 | 10.30099 | 9.49471 | 0.0283 |
| At most 2 | 0.044033 | 1.846302 | 3.841466 | 0.1742 |
| Hypothesized No. of CE(s) | Eigenvalue | Max-Eigen Statistic | 0.05 Critical Value | Prob.** |
| None* | 0.249086 | 11.74502 | 10.13162 | 0.0330 |
| At most 1 | 0.186339 | 8.454686 | 14.26460 | 0.3344 |
| At most 2 | 0.044033 | 1.846302 | 3.841466 | 0.1742 |

**Source: Author's computation (2024) E-views 12 Note: * denotes rejection of the hypothesis at the 0.05 level**

The Johansen cointegration test results revealed two cointegrating relationships according to the Trace test at the 5 percent significance level. This conclusion is supported by the fact that the computed Trace statistics exceed the critical values at this level. Additionally, the maximum eigenvalue test identified one cointegrating relationship, as the maximum eigenvalue statistics are greater than the 5 percent significance threshold. Consequently, the null hypothesis of no cointegration is rejected. This suggests a long-term relationship exists between poverty headcount, unemployment, and inequality, providing a foundation for the Granger Causality Test.

**Results of Granger Causality Tests**

To determine causality relationships, critical tests such as $R^2$, t-tests, and F-tests are essential. These tests help establish the direction of causation. Diagnostic checks are conducted using ordinary least squares (OLS) residuals, which have been found to exhibit correlation and heteroscedasticity even when true errors are uncorrelated and have a common variance. The results of the Granger causality tests are summarized in Table 4.3.

Table 4.3: Granger Causality Test Result

| Variables | Lag | F. values | Prob | Included Obs | Decision |
|---|---|---|---|---|---|
| POV→UMPL | 2 | 3.23681 | 0.0004 | | |
| UMPL → POV | 2 | 4.36091 | 0.0000 | 41 | Reject |
| INQ → UMPL | 2 | 3.17927 | 0.0066 | 41 | Reject |
| UMPL→INQ | 2 | 2.86879 | 0.0198 | 41 | |
| INQ → POV | 2 | 3.11205 | 0.0043 | 41 | Reject |

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| | | | | | |
|---|---|---|---|---|---|
| POV → INQ | 2 | 2.44032 | 0.0472 | 41 | Reject |

Source: Author's calculation using E-Views Econometric soft ware

The analysis presented in Table 4.3 reveals that poverty (POV) Granger-causes unemployment (UMPL), indicating that past values of poverty can forecast future unemployment rates. This suggests a pattern where increases in poverty may lead to higher unemployment. Conversely, unemployment (UMPL) also Granger-causes poverty (POV), meaning that past unemployment data can predict future poverty levels. This relationship implies that higher unemployment rates could be followed by rising poverty levels. The significance of both relationships at the 5% level highlights a strong interdependence between poverty and unemployment, with each variable influencing and being influenced by the other over time.

Additionally, the results show that inequality (INQ) Granger-causes unemployment (UMPL), suggesting that changes in inequality can predict future fluctuations in unemployment rates. This relationship might be attributed to the fact that increasing inequality could lead to higher unemployment, possibly due to uneven access to resources and opportunities. Similarly, unemployment (UMPL) Granger-causes inequality (INQ), indicating that past unemployment rates can predict future changes in inequality. This could occur if high unemployment exacerbates the income gap between the employed and the unemployed.

Furthermore, inequality (INQ) Granger-causes poverty (POV), meaning that rising inequality can predict future increases in poverty levels. This suggests that greater income disparities might lead to more people falling below the poverty line. On the other hand, poverty (POV) Granger-causes inequality (INQ), implying that changes in poverty levels can forecast future changes in inequality. High poverty levels may increase inequality if those in poverty remain trapped while others experience income growth. This bidirectional relationship signifies that poverty and inequality are mutually reinforcing, leading to the rejection of the null hypotheses.

In conclusion, the results demonstrate a dynamic and complex interrelationship among poverty, unemployment, and inequality, where changes in one variable can predict changes in the others. The statistical significance at the 5% level confirms that these relationships are meaningful and not due to random chance. Understanding these interdependencies is vital for crafting effective policies aimed at simultaneously addressing poverty, unemployment, and inequality.

## 5. Conclusion

Poverty, inequality, and unemployment in Nigeria are intricately connected, creating a complex and reinforcing cycle that significantly impacts the nation's socio-economic progress. These three factors interact in a bidirectional manner, each exacerbating the others, which complicates efforts to address them effectively.

In Nigeria, unemployment is a major contributor to poverty. The absence of stable and sufficient employment opportunities prevents many Nigerians from earning a livelihood, deepening their poverty. This issue is particularly severe in regions with limited economic activities and few formal employment opportunities. High unemployment rates, especially among the youth, perpetuate poverty by restricting income generation and increasing financial instability for families.

Inequality, both in terms of income and access to opportunities, is closely linked to unemployment in Nigeria. Economic and social inequalities often result in unequal access to education, healthcare, and other essential services, which negatively impacts employment prospects. Individuals from disadvantaged backgrounds frequently face barriers to quality education and training, reducing their chances of securing well-paying jobs.

This cycle of inequality leading to unemployment, which in turn deepens existing inequalities, continues to reinforce itself.

Moreover, unemployment exacerbates inequality. Unemployed individuals miss out on economic growth, while those in employment, particularly in high-paying sectors, continue to accumulate wealth. This income disparity heightens inequality and creates a socio-economic divide that is challenging to close. Unemployment can also lead to social exclusion, marginalizing individuals who cannot find work and further entrenching inequality within communities.

To tackle poverty, inequality, and unemployment effectively, Nigeria needs a comprehensive and multi-faceted strategy that acknowledges the intricate interplay between these issues. Solutions must be broad-based and inclusive, addressing the structural factors that sustain these challenges. By promoting inclusive growth, improving access to opportunities, and ensuring that economic benefits are distributed equitably, Nigeria can start breaking the cycle of poverty, inequality, and unemployment, moving towards a more prosperous and equitable society.

**Recommendations:**

1. **Economic Reforms:** The Nigerian government should pursue extensive economic reforms that promote inclusive growth. These reforms should focus on sectors capable of absorbing the large unemployed workforce, particularly the youth, such as agriculture, manufacturing, and services, which have significant potential for creating employment opportunities.
2. **Social Safety Nets:** It is crucial to establish and enhance social safety nets and welfare programs to protect vulnerable populations. Effective social safety nets, including cash transfers, food assistance, housing subsidies, and free healthcare, can provide crucial support to those in extreme poverty.
3. **Education and Skills Development:** The government should invest substantially in education and skills development, ensuring both quality and accessibility. A welleducated and skilled workforce is better positioned to compete in the global economy, reducing both unemployment and inequality.
4. **Reducing Regional Disparities:** Implement policies to mitigate regional disparities in development, ensuring that all areas of Nigeria benefit from economic growth and that opportunities are distributed more evenly across the country.

**References**

Adefemi A. O., Ayooluwade E. & Anthony O. A. (2019). VAR modelling of dynamics of poverty, unemployment, literacy and per capita income in Nigeria. Folia OeconomicaStetinensia Volume 19.

Adekoya, O.D. (2018). Impact of Human Capital Development on Poverty Alleviation in Nigeria. International Journal of Economics & Management Sciences, 7 (4), 1–8.

African Development Bank (2020). Poverty, Inequality, and Unemployment in Nigeria.

Akinbobola T. O. & Saibu M. O. O. (2024). Income inequality, unemployment, and poverty in Nigeria: a vector autoregressive approach. The Journal of Policy Reform.

**Original Article**

Alesina, A. &Rodrik, D. (1994). Distributive Politics and Economic Growth. Quarterly Journal of Economics, 109, pp. 465– 90

Angelsen, A. &Wunder, S. (2016). Poverty and Inequality: Economic Growth is better than its Reputation, Chapter in Dan Banik. Poverty, Politics and Development:

Interdisciplinary Perspectives. Bergen: Fagbokforlaget.

Anayochukwu, N. C and Patrictia , I.A (2014) Impact of Unemployment on Nigerian Economic Development: A Study of Selected Local Government Area in Anambra State, Nigeria. European Journal of Business and Management Vol.6, No.35.

Ayoade S. O., Monical A. O. &Adediwura M. O. (2020). The Nexus between Poverty, Inequality and Economic Growth in Nigeria. IOSR Journal of Economics and Finance (IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925.Volume 11, Issue 5 Ser.

Bashir O. K., Olufunsho A. O. &Jameelah O. Y. (2023). Poverty, Inequality and Rising Growth in Nigeria: Further Empirical Evidence. International Journal of Economics and Finance; Vol. 7, No. 2.

Bosede N. A., Obindah G., Adeyemi O. Oluwarotimi O., Ifeoluwa O. &, Oluwasogo A. (2022). Comparative investigation of the growth-poverty-inequality trilemma in Sub-Saharan Africa and Latin American and Caribbean Countries. Heliyon journal homepage: www.cell.com/heliyon.

Bourguignon, F. (1981). Pareto Superiority of Unegalitarian Equilibrium in Stiglitz's Model of Wealth Distribution with Convex Saving Function. Econometrica, 49, pp. 1469– 1475.

Breunig, R. &Majeed, O. (2020). Inequality, Poverty and Economic Growth. International Economics, 161, pp. 83-99.

Brueckner, M. & Lederman, D. (2015). Effects of Income Inequality on Aggregate Output. World Bank Policy Discussion Paper, p. 7317.

Chiwuzulum J. O. & Ruth U. O. (2023). Evolution of Inequality in Nigeria: a Tale of Falling Inequality, Rising Poverty, and Regional Heterogeneity. Journal of Economics, Race, and Policy. 6:297–309 https://doi.org/10.1007/s41996-023-00129-9

Clarke, G. R. (1995). More Evidence on Income Distribution and Growth. Journal of Development Economics, 47, pp. 403– 427.

Egunjobi, T. A. (2021). Poverty and Unemployment Paradox in Nigeria. IOSR Journal Of Humanities And Social Science (IOSR-JHSS) Volume 19, Issue 5, PP 106-116.

**Original Article**

Ejikeme, J.N. (2018).Unemployment and Poverty in Nigeria: a link to National Insecurity. Global Journal of Politics and Law Research, 2 (1), 19–35.

Forbes, K. (2000). A Reassessment of the Relationship between Inequality and Growth. American Economic Review, 90, pp. 869–897.

Galor, O. (2020). Income Distribution and the Process of Development. European Economic Review, 44, pp. 706–712.

Galor, O. &Zeira, J. (1993). Income Distribution and Macroeconomics. Review of Economic Studies, 60, pp. 35–52.

Ibrahim M., Emmanuel E. &Sule M. (2024). Impact of Income Inequality on Poverty Level in Nigeria: Evidence from ARDL Model. Asian Journal of Economics, Business and Accounting Volume 24, Issue 5, Page 86-98,

ILO (2022). World Employment and Social Outlook.

IMF (2022). Nigeria: Staff Report for the 2022 Article IV Consultation.

IPCC (2022). Climate Change and Environmental Degradation in Nigeria.

Kaldor, N. (1957). A Model of Economic Growth, Economic Journal, 67, pp. 591-624.

National Bureau of Statistics (2023). 2021 Gross Domestic Product Report at www.nigerianstat.gov.ng.

National Bureau of Statistics (2020). Poverty and Inequality in Nigeria.

National Bureau of Statistics (2022). Labour Force Statistics.

Nwosa P. I., &Ehinomen C. (2020). Inequality, Poverty and Economic Growth in Nigeria. E U R O E C O N O M I C A Special Issue 2(39)/2020 ISSN: 1582-8859.

Ogun, T. P. (2020). Infrastructure and poverty reduction : implications for urban development in Nigeria. WIDER. [link].

Ostry, J.; Berg, A. &Tsangarides, C. (2014). Redistribution, Inequality, and Growth. IMF Staff Discussion Note. February 2014. SDN/14/02. https://www. imf. org/ external/pubs/ft/sdn/2014/sdn1402. pdf.

Oxfam (2020). Inequality in Nigeria.

Panizza, U. (2002). Income Inequality and Economic Growth: Evidence from American Data. Journal of Economic Growth. 7, pp. 25–41.

**Original Article**

Perotti, R. (1996). Growth, Income Distribution, and Democracy: What the Data Say. Review of Economic Studies, 60, pp. 755–776.

Ramudzuli, M. (2019): "The relationship between income Inequality, economic growth and poverty in South Africa." Economic and Management Sciences. ISSN: 2737. Stiglitz, J. E. (2013). The Price of Inequality, W. W. Norton, New York.

Tikristini O., Chukwuemeka E. &Olalekan O. O. (2022). Has economic growth reduced poverty in Nigeria? A critical analysis of the last two decades. Journal of Enterprise and Development (JED), Vol. 4, No. 2.

Transparency International (2022). Corruption Perceptions Index UNESCO (2022). Education for All.

WHO (2022). Healthcare Access in Nigeria.

World Bank (2022). Nigeria Overview.