



Panelling the Impact of Unemployment on the Poverty Rates in Nigeria

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Abstract

Poverty and unemployment remain major socio-economic challenges affecting sustainable development in Nigeria. This study examined the impact of unemployment on the poverty rate in Nigeria using panel data from the 36 states and the Federal Capital Territory (FCT) covering the period 2015–2025, comprising 407 state-year observations. Descriptive statistics, Pearson Product Moment Correlation, Simple and Multiple Linear Regression, and Analysis of Variance (ANOVA) were employed for data analysis. The findings revealed that the average unemployment rate increased from 15.72% in 2015 to 19.19% in 2025, while the average poverty rate rose from 50.00% to 52.27% over the same period. Pearson correlation analysis showed a moderate positive and statistically significant relationship between unemployment and poverty ($r = 0.453$, $p < 0.001$). Multiple linear regression results indicated that unemployment had a significant positive effect on poverty ($\beta = 1.0778$, $p < 0.001$), whereas education had a significant negative effect ($\beta = -6.9066$, $p = 0.0366$). However, GDP per capita, inflation, and population did not significantly influence poverty ($p > 0.05$). The overall regression model was statistically significant ($F(5,401) = 22.16$, $p < 0.001$) and explained 21.65% of the variation in poverty rate ($R^2 = 0.2165$). Furthermore, Kogi recorded the highest average unemployment rate, Taraba the lowest, Kaduna the highest average poverty rate, and Ondo the lowest during the study period. The study concludes that unemployment is a significant driver of poverty in Nigeria and recommends policies aimed at employment creation and educational improvement as effective strategies for poverty reduction.

Keywords: Unemployment, Poverty Rate, Panel Data Analysis, Nigeria, Socio-economic Factors, GDP per Capita, Inflation Rate.

1. Introduction

Unemployment and poverty are among the most persistent socio-economic problems confronting developing countries, particularly Nigeria. These challenges have attracted considerable attention from governments, policymakers, economists, and development organisations because of their adverse effects on economic growth, political stability, social welfare, and national develop-

ment. In Nigeria, rising unemployment has become a major concern due to its close association with increasing poverty and declining living standards.

The International Labour Organisation (ILO, 2023) defines unemployment as a condition in which individuals who are willing, capable, and qualified to work are unable to obtain employment. Poverty, according to the World Bank (2022), refers to the inability of individuals or households to meet basic needs such as food, shelter, clothing, healthcare, and education. Since unemployment limits income generation and purchasing power, it significantly increases the likelihood of poverty.

Nigeria's labour market has experienced considerable fluctuations over the years. According to the National Bureau of Statistics (NBS, 2023), methodological revisions placed the unemployment rate at 5.3% in the first quarter of 2022, whereas previous estimates reported unemployment above 33.3% in 2020, reflecting a severe labour market crisis. The World Bank (2022) also estimated that more than 40% of Nigerians live below the national poverty line. These statistics suggest a strong relationship between unemployment and poverty, a position supported by Aiyedogbon and Ohwofasa (2012), who identified unemployment as a major driver of poverty and social instability in Nigeria. Similarly, Iyoha and Oriakhi (2018) observed that persistent unemployment contributes to declining welfare and traps individuals in cycles of poverty.

Although Nigeria possesses abundant natural and human resources, unemployment and poverty continue to persist due to rapid population growth, inadequate industrialisation, poor infrastructure, corruption, insecurity, inflation, weak investment opportunities, and ineffective economic policies. Between 2015 and 2025, these challenges were intensified by fluctuations in crude oil prices, economic recession, rising public debt, exchange rate instability, insecurity, and the COVID-19 pandemic, all of which adversely affected businesses, employment opportunities, and household welfare.

The magnitude of unemployment and poverty differs considerably across Nigerian states because of variations in economic activities, educational attainment, industrial development, government policies, and infrastructural facilities. While some states have relatively lower unemployment and poverty rates due to stronger economic performance, others continue to experience high levels of both indicators because of poor economic conditions and insecurity. This regional variation underscores the need for state-level analysis in understanding the unemployment–poverty relationship.

Previous empirical studies consistently show that unemployment contributes significantly to poverty because unemployed individuals often lack stable sources of income required to meet their basic needs. Conversely, poverty can also perpetuate unemployment through limited access to education, healthcare, vocational training, and employment opportunities. Consequently, understanding this relationship is essential for developing effective employment policies and poverty reduction strategies.

Although several studies have investigated unemployment and poverty in Nigeria, many relied on national-level data and paid limited attention to regional differences or the influence of other socio-economic variables. This study addresses these gaps by examining the impact of unemployment on poverty using state-level data from 2015 to 2025 while incorporating GDP per capita, inflation rate, population, and education index as explanatory variables.

Specifically, the study seeks to examine trends in unemployment and poverty, determine the relationship between the two variables, evaluate the influence of unemployment and selected socio-economic factors on poverty, and identify states with the highest and lowest unemployment and poverty rates. The findings are expected to provide evidence-based recommendations that will assist policymakers and development agencies in designing effective employment generation and poverty alleviation programmes.

2. Literature Review

Unemployment and poverty remain among the most significant socio-economic challenges confronting Nigeria and many developing countries because of their adverse effects on economic growth, household welfare, and sustainable development. Unemployment refers to a situation where individuals who are willing and able to work are unable to secure gainful employment (International Labour Organisation [ILO], 2021). In Nigeria, unemployment and underemployment continue to reduce productivity, household income, and living standards (National Bureau of Statistics [NBS], 2023). The persistence of unemployment has been attributed to rapid population growth, inadequate industrialisation, corruption, insecurity, poor infrastructure, weak economic policies, and economic shocks such as the 2016 recession and the COVID-19 pandemic (World Bank, 2022). Consequently, unemployed individuals often lack stable sources of income required to meet their basic needs, making unemployment one of the principal drivers of poverty in developing countries (Adebayo, 2020).

Poverty is generally defined as the inability of individuals or households to meet necessities such as food, shelter, healthcare, education, and clothing (World Bank, 2022). According to the National Bureau of Statistics (2022), over 40% of Nigerians live below the national poverty line, with poverty being more prevalent in rural communities and northern Nigeria. The persistence of poverty has been linked to unemployment, inflation, corruption, poor governance, insecurity, inadequate infrastructure, and limited access to quality education and healthcare. These factors collectively reduce economic opportunities and worsen household welfare.

The relationship between unemployment and poverty has been widely documented in empirical literature. Rising unemployment reduces household income and purchasing power, thereby increasing poverty, dependency, and poor living standards. Adebayo (2020) found that unemployment has a positive and significant effect on poverty in Nigeria, while Okunmadewa (2014) reported that unemployment reduces household welfare and increases economic dependency. Similarly, Okafor (2019) observed that unemployment negatively affects economic productivity and living standards, whereas Eze and Musa (2021) concluded that both inflation and unemployment significantly increase poverty levels in Nigeria. Reports by the World Bank (2022), the International Labour Organisation (2021), and the National Bureau of Statistics (2023) further indicate that weak economic growth, inadequate employment opportunities, and persistent Labor market challenges continue to exacerbate poverty across the country.

Between 2015 and 2025, Nigeria experienced substantial fluctuations in unemployment and poverty due to declining oil prices, economic recession, exchange rate instability, insecurity, rising inflation, and the COVID-19 pandemic. The National Bureau of Statistics (2017) reported a sharp increase in unemployment following the 2016 economic recession, while the modest economic recovery between 2017 and 2019 failed to generate sufficient employment opportunities, particularly for youths (NBS, 2019). The COVID-19 pandemic further worsened the situation through business closures, movement restrictions, and widespread job losses, pushing millions of Nigerians into poverty (World Bank, 2021). Although several government intervention programmes were introduced, unemployment and poverty remained high, with more than 40% of Nigerians still living below the national poverty line by 2023 (World Bank, 2023).

The theoretical foundation of this study is supported by the Keynesian Theory of Employment, Human Capital Theory, and Structural Poverty Theory. The Keynesian Theory (Keynes, 1936) argues that inadequate aggregate demand leads to unemployment and recommends government intervention through increased public expenditure and investment to stimulate employment and economic growth. Human Capital Theory, developed by Schultz (1961) and Becker (1964), emphasises that investment in education and skills improves productivity, employability, and income, thereby reducing unemployment and poverty. Structural Poverty Theory, advanced by Lewis (1966) and Gans (1972), attributes persistent poverty to structural inequalities, poor governance, and unequal access to education, employment, healthcare, and economic resources.

Previous studies have predominantly employed regression techniques to investigate the relationship between unemployment and poverty. While simple and multiple regression models have been widely applied, panel regression models provide a more robust framework for analysing data that combine cross-sectional and time-series dimensions. Since this study utilises annual observations across the 36 states and the Federal Capital Territory from 2015 to 2025, panel regression analysis is considered appropriate because it accounts for both spatial and temporal variations while controlling for state-specific effects.

Although previous studies consistently reported a significant relationship between unemployment and poverty, many relied on national-level data and gave limited attention to regional disparities and the influence of additional socio-economic variables. This study addresses these limitations by employing state-level panel data and incorporating GDP per capita, inflation rate, population, and education index to provide a more comprehensive assessment of the impact of unemployment on poverty in Nigeria during the period 2015-2025.

3. Methodology

3.1 Data and Area of Study

The study covers the 36 states of Nigeria and the Federal Capital Territory (FCT) over 11 years ($t = 2015, \dots, 2025$), yielding a balanced panel of 407 observations. Data were compiled from the National Bureau of Statistics (NBS), Central Bank of Nigeria (CBN), World Bank Development Indicators (WDI), United Nations Development Programme (UNDP), and International Labour Organisation (ILO).

3.2 Pearson Product Moment Correlation (PPMC)

To measure the degree of direct linear association between the unemployment rate (X) and the poverty rate (Y), the Pearson correlation coefficient (r) is calculated as:

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^n (X_i - \bar{X})^2 \sum_{i=1}^n (Y_i - \bar{Y})^2}} \quad (1)$$

where $\bar{X}$ and $\bar{Y}$ represent the sample means of unemployment and poverty rates, respectively.

3.3 Panel Regression Model Specification

To evaluate the influence of unemployment alongside macro-level socio-economic controls, the baseline multiple panel regression model is specified as:

$$\text{Poverty}_{it} = \beta_0 + \beta_1 \text{Unemp}_{it} + \beta_2 \text{GDPpc}_{it} + \beta_3 \text{Inf}_{it} + \beta_4 \text{Pop}_{it} + \beta_5 \text{Edu}_{it} + \varepsilon_{it} \quad (2)$$

where Poverty_{it} = Poverty rate (%) of state i in year t , Unemp_{it} = Unemployment rate (%) of state i in year t , GDPpc_{it} = Real GDP per capita (USD) of state i in year t , Inf_{it} = Inflation rate (%) in year t , Pop_{it} = Total population (millions) of state i in year t , Edu_{it} = Education Index score of state i in year t , β_0 = Intercept term; $\beta_1, \dots, \beta_5$ = Parameter coefficients, ε_{it} = Idiosyncratic error term

3.4 Model Selection and Specification Diagnostics

To identify the most efficient estimator among Pooled OLS, Fixed Effects (FE), and Random Effects (RE):

Breusch-Pagan Lagrange Multiplier (LM) Test: Evaluates panel effects against Pooled OLS ($H_0: \sigma_u^2 = 0$). Rejection of $H_0 (p < 0.05)$ confirms the presence of panel effects.

Hausman Specification Test: Compares Fixed Effects and Random Effects estimators (H_0 : RE is consistent and efficient). If $p < 0.05$, H_0 is rejected in favour of the Fixed Effects model.

Multicollinearity Diagnostic: Assessed using the Variance Inflation Factor (VIF):

$$\text{VIF}_j = \frac{1}{1 - R_j^2} \quad (3)$$

Values of $VIF < 5$ confirm the absence of severe multicollinearity among the explanatory variables.

4. Results

The analysis was performed using panel data comprising the 36 states of Nigeria and the Federal Capital Territory (FCT), covering the period 2015-2025, resulting in a balanced panel of 407 state-year observations. Descriptive statistics, trend analysis, Pearson Product Moment Correlation, Multiple Linear Regression, and Analysis of Variance (ANOVA) were employed to examine the relationship between unemployment and poverty and to determine the influence of unemployment and selected socio-economic variables on poverty in Nigeria. The results are presented sequentially according to the study objectives, while the findings are interpreted in relation to the research questions and existing empirical literature.

4.1 Descriptive Statistics of the Study Variables

Descriptive statistics were computed to summarise the characteristics of all variables included in the study. The statistics provide information on the distribution, central tendency and variability of the unemployment rate, poverty rate, GDP per capita, inflation rate, population and education index across the study period.

Table 1. Summary Descriptive Statistics of the Study Variables (2015-2025)

Variable	n	Mean	SD	Median	Min	Max	Skewness	Kurtosis
Unemployment (%)	407	17.45	4.39	17.46	6.36	28.59	-0.04	-0.51
Poverty (%)	407	51.40	10.00	51.27	26.03	74.57	-0.03	-0.77
GDP per capital	407	9526	3895	9610	2351	16645	0.08	-1.18
Inflation (%)	407	13.47	3.22	13.31	6.82	20.70	0.08	-1.18
Population (million)	407	9.57	5.22	9.12	1.26	19.75	0.28	-1.04
Education Index	407	0.61	0.14	0.62	0.30	0.91	-0.15	-0.73

Table 1 presents the descriptive statistics for the six variables included in the study based on 407 observations. The findings indicate that the average unemployment rate across the Nigerian states and the Federal Capital Territory during the study period was 17.45% with a standard deviation of 4.39, indicating moderate variation in unemployment levels among the states. Similarly, the average poverty rate was 51.40%, with a standard deviation of 10.00, suggesting considerable differences in poverty levels across the country.

The mean GDP per capita was 9,526, while the average inflation rate stood at 13.47%. The average state population was approximately 9.57 million, whereas the mean education index was 0.61, indicating a moderate level of educational attainment across the study area.

The skewness values for all variables were relatively close to zero, indicating approximately symmetric distributions. Likewise, the negative kurtosis values suggest that the variables exhibit flatter distributions than the normal distribution. Overall, the descriptive statistics indicate moderate variability among the study variables and provide an adequate basis for subsequent inferential analyses.

4.2 Trend in Unemployment and Poverty Rate in Nigeria

To examine the yearly average unemployment and poverty rates across the 36 states and the Federal Capital Territory, the trend for the period 2015–2025 is presented below.

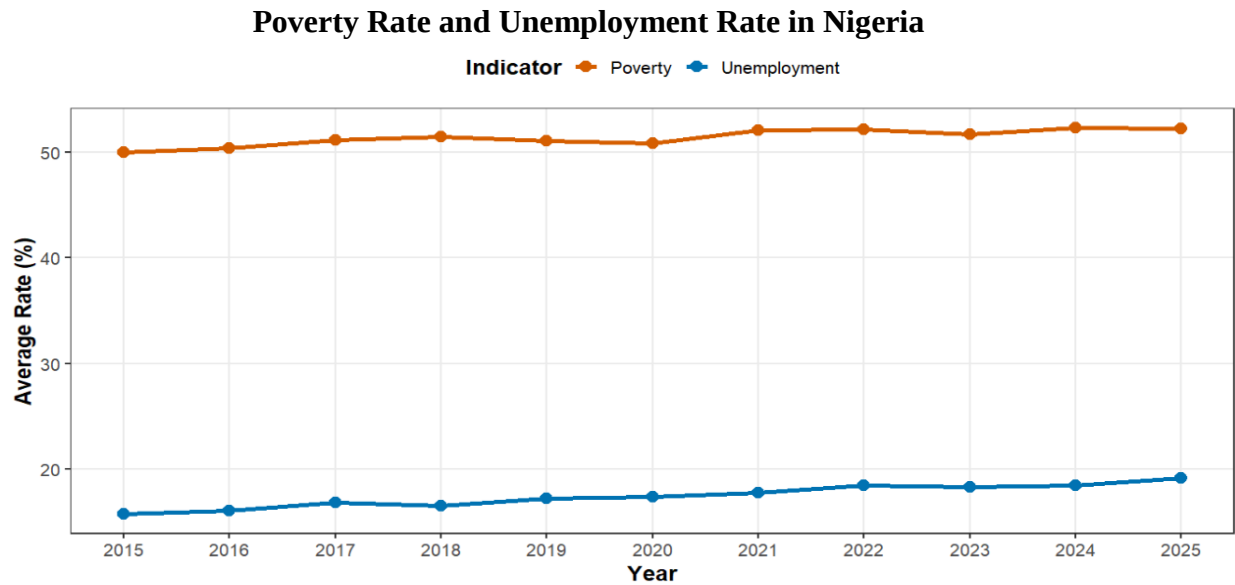


Figure 1. Trend of Average Unemployment and Poverty Rates in Nigeria (2015–2025)

Figure 1 shows that the average poverty rate remained consistently higher than the average unemployment rate throughout the study period. The unemployment rate increased gradually from 15.72% in 2015 to 19.19% in 2025, although slight declines were observed in 2018 and 2023. Similarly, the average poverty rate increased from 50.00% in 2015 to 52.27% in 2025, with only minor fluctuations during the period.

The simultaneous increase in unemployment and poverty suggests that socio-economic conditions in Nigeria worsened during the period under review. The upward movement of both indicators further provides preliminary evidence of a positive relationship between unemployment and poverty, which is statistically examined in the subsequent sections using correlation and regression analyses.

4.3 Pearson Product Moment Correlation Analysis

To determine the relationship between unemployment and poverty rate in Nigeria, Pearson Product Moment Correlation analysis was conducted as follows:

Table 2. Pearson Product Moment Correlation between Unemployment Rate and Poverty Rate

Correlation	Statistics	DF	P-value	Lower CI	Upper CI
0.453	10.226	405	0.0000	0.372	0.527

Table 2 presents the Pearson Product Moment Correlation results between unemployment rate and poverty rate in Nigeria. The correlation coefficient ($r = 0.453$) indicates a moderate positive relationship between unemployment and poverty. This implies that states with higher unemployment rates generally tend to be associated with higher poverty rates.

The relationship was statistically significant ($t = 10.226$, $df = 405$, $p < 0.001$), indicating that the observed association did not occur by chance. Furthermore, the 95% confidence interval (0.372-0.527) does not include zero, providing additional evidence of a significant positive relationship between unemployment and poverty in Nigeria during the study period.

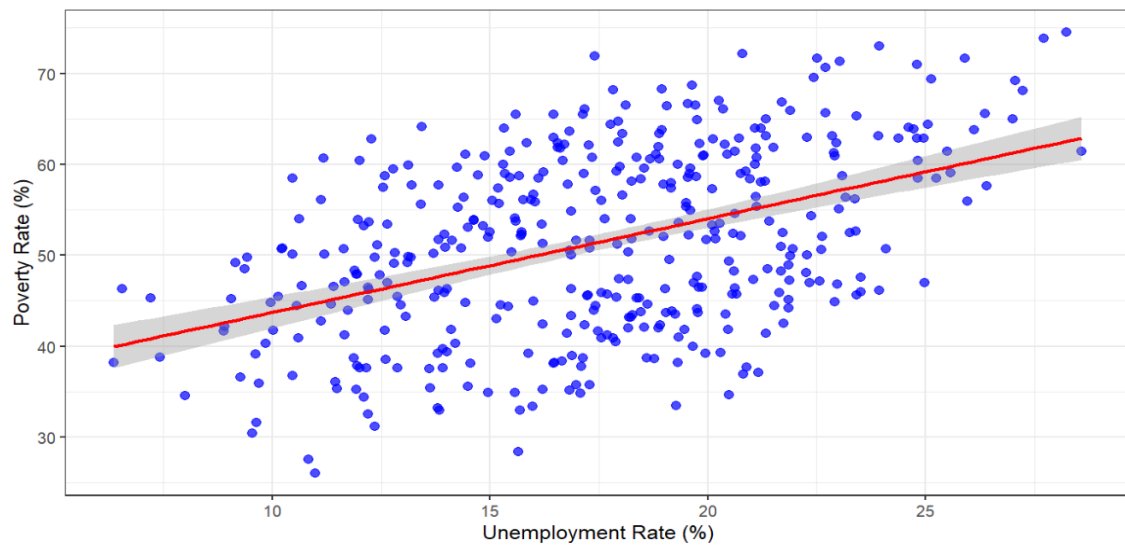


Figure 2. Scatter Plot Showing the Relationship between Unemployment Rate and Poverty Rate

Figure 2 illustrates the relationship between unemployment rate and poverty rate in Nigeria using a scatter plot with a fitted regression line. The upward slope of the regression line indicates a positive linear relationship between the two variables, suggesting that higher unemployment rates are associated with higher poverty rates. Although the data points exhibit some variability around the regression line, the overall pattern supports a moderate positive association between unemployment and poverty. This visual finding is consistent with the Pearson correlation analysis, indicating that increases in unemployment tend to be accompanied by increases in poverty during the study period.

4.4 Multiple Linear Regression Analysis

Multiple linear regression analysis was conducted to determine the effects of unemployment and selected socio-economic factors on the poverty rate in Nigeria. The explanatory variables included unemployment rate, GDP per capita, inflation rate, population and education index.

Table 3. Multiple Linear Regression Coefficients for the Effects of Unemployment and Selected Socio-economic Factors on Poverty Rate

Term	Estimate	Std. error	Statistic	P.value	Conf. low	Conf. high
(Intercept)	32.8284	3.5095	9.3541	0.0000	25.9290	39.7277
Unemployment	1.0778	0.1038	10.3822	0.0000	0.8737	1.2818
GDP	0.0002	0.0001	1.2737	0.2035	-0.0001	0.0004
Inflation	0.1637	0.1483	1.1039	0.2703	-0.1278	0.4551
Population	0.0363	0.0914	0.3966	0.6919	-0.1435	0.2160
Education	-6.9066	3.2928	-2.0975	0.0366	-13.3800	-0.4333

Table 3 presents the estimated coefficients of the multiple linear regression model assessing the influence of unemployment, GDP, inflation, population, and education on the poverty rate in Nigeria. The results indicate that unemployment had a positive and statistically significant effect on poverty ($\beta = 1.0778$, $p < 0.001$), implying that a one-unit increase in the unemployment rate was as-

sociated with an average increase of 1.08 percentage points in the poverty rate, holding the other variables constant. Education had a negative and statistically significant effect on poverty ($\beta = -6.9066$, $p = 0.0366$), suggesting that improvements in the education index were associated with reductions in the poverty rate. In contrast, GDP ($\beta = 0.0002$, $p = 0.2035$), inflation ($\beta = 0.1637$, $p = 0.2703$), and population ($\beta = 0.0363$, $p = 0.6919$) did not have statistically significant effects on poverty since their p-values exceeded the 0.05 significance level. Overall, the findings suggest that unemployment and education were the key determinants of poverty among the variables considered in the model.

4.5 Analysis of Variance (ANOVA)

To evaluate the statistical significance of the overall regression model and the individual contribution of each explanatory variable, Analysis of Variance (ANOVA) was conducted.

Table 4. Analysis of Variance (ANOVA) for the Multiple Linear Regression Model

Source	D.f	Sum Sq	Mean Sq	F-value	Pr(>F)
Unemployment	1.0000	8337.3615	8337.3615	105.0179	0.0000
GDP per capita	1.0000	62.2143	62.2143	0.7837	0.3766
Inflation	1.0000	29.2899	29.2899	0.3689	0.5439
Population	1.0000	16.4103	16.4103	0.2067	0.6496
Education	1.0000	349.2703	349.2703	4.3994	0.0366
Residual	401.0000	31835.3432	79.3899	NA	NA

Table 4 presents the Analysis of Variance (ANOVA) results for the multiple linear regression model. The results show that unemployment had a statistically significant effect on the poverty rate ($F = 105.02$, $p < 0.001$), indicating that it was the most influential predictor in the model. Similarly, education had a significant effect on poverty ($F = 4.40$, $p = 0.0366$). However, GDP ($F = 0.78$, $p = 0.3766$), inflation ($F = 0.37$, $p = 0.5439$), and population ($F = 0.21$, $p = 0.6496$) did not significantly explain variations in poverty rate, as their p-values exceeded the 0.05 level of significance. Overall, the ANOVA results indicate that unemployment and education were the only variables that made statistically significant contributions to explaining poverty rate in Nigeria during the study period.

4.6 Model Summary

To evaluate the overall performance and explanatory power of the multiple linear regression model, model summary statistics were examined. These statistics provide information on the proportion of variation in poverty rate explained by the explanatory variables and the overall significance of the fitted regression model.

Table 5: Model Summary Statistics for the Multiple Linear Regression Model of Poverty Rate

R-Squared	Adjusted-R ²	Residual-SE	F-Statistics	DF1	DF2	P-Value
0.2165	0.2067	8.9101	22.1553	5.0000	401.0000	0.0000

Table 5 presents the summary statistics of the multiple linear regression model. The results show that the model explained approximately 21.65% of the variation in poverty rate ($R^2 = 0.2165$), while the Adjusted $R^2 = 0.2067$ indicates that about 20.67% of the variation remained unexplained after adjusting for the number of predictors in the model. The overall regression model was statistically significant ($F(5, 401) = 22.16$, $p < 0.001$), indicating that the explanatory variables jointly had a significant effect on poverty rate. The residual standard error (8.91) suggests that the model predictions deviated from the observed poverty rates by an average of approximately 8.91 percentage

points. Overall, the model provides a statistically significant, though moderate, explanation of variations in poverty rate across the Nigerian states during the study period.

4.7 State-Level Analysis of Unemployment and Poverty

To identify disparities in unemployment and poverty across Nigeria, the average unemployment and poverty rates for each state over the study period were examined. The analysis highlights the states with the highest and lowest average unemployment and poverty rates.

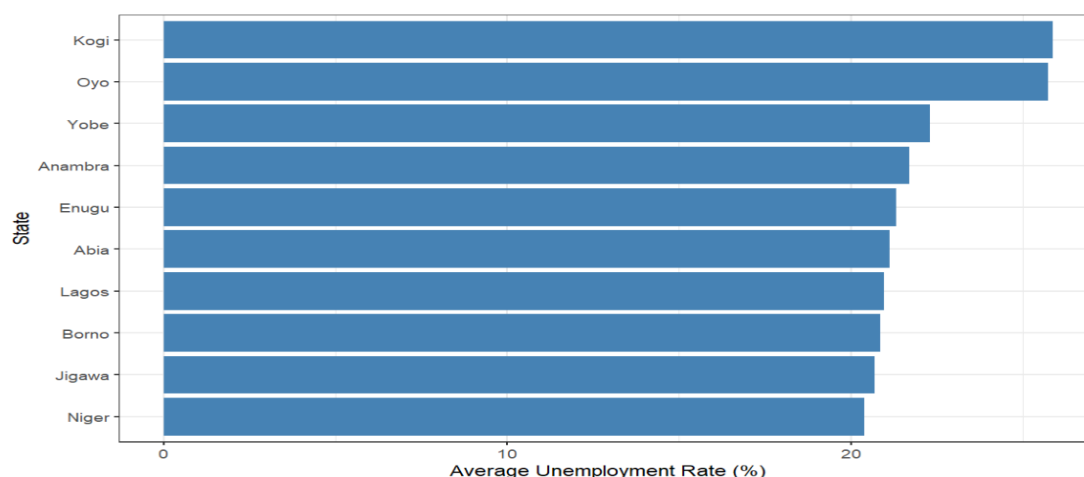


Figure 3. States with the Highest and Lowest Average Unemployment and Poverty Rates (2015–2025)

Figure 3 presents the top 10 states with the highest average unemployment rates during the period 2015 - 2025. The results show that Kogi recorded the highest average unemployment rate, followed closely by Oyo and Yobe. Anambra, Enugu, Abia, Lagos, Borno, Jigawa, and Niger also ranked among the states with relatively high average unemployment rates. The figure indicates noticeable disparities in unemployment levels across states, with Kogi experiencing the highest unemployment burden during the study period.

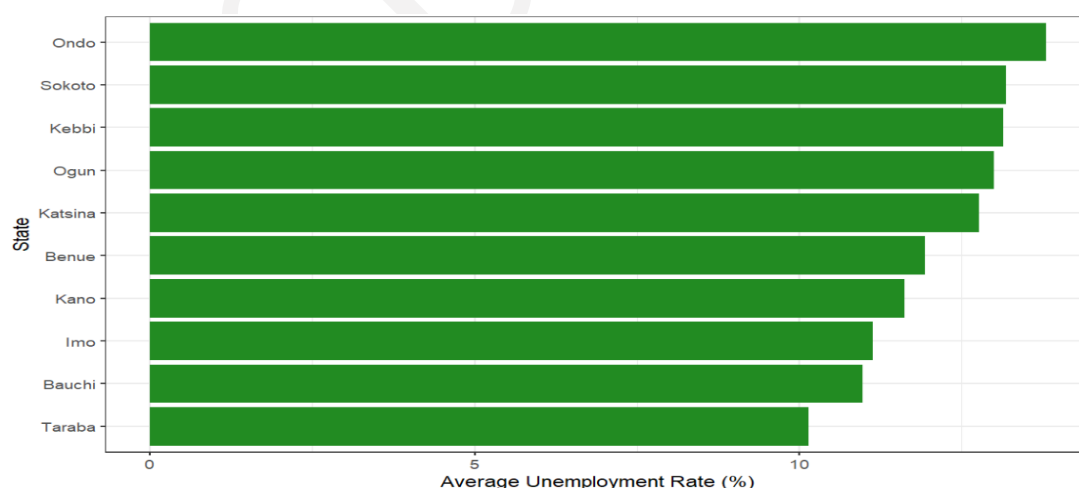


Figure 4. Top 10 States with Lowest Average Unemployment Rate

Figure 4 presents the top 10 states with the lowest average unemployment rates during the period 2015-2025. The results show that Taraba recorded the lowest average unemployment rate, followed by Bauchi, Imo, Kano, Benue, Katsina, Ogun, Kebbi, Sokoto, and Ondo. These states consistently experienced relatively lower unemployment levels compared with the other states during the study period, with Taraba exhibiting the lowest unemployment burden.

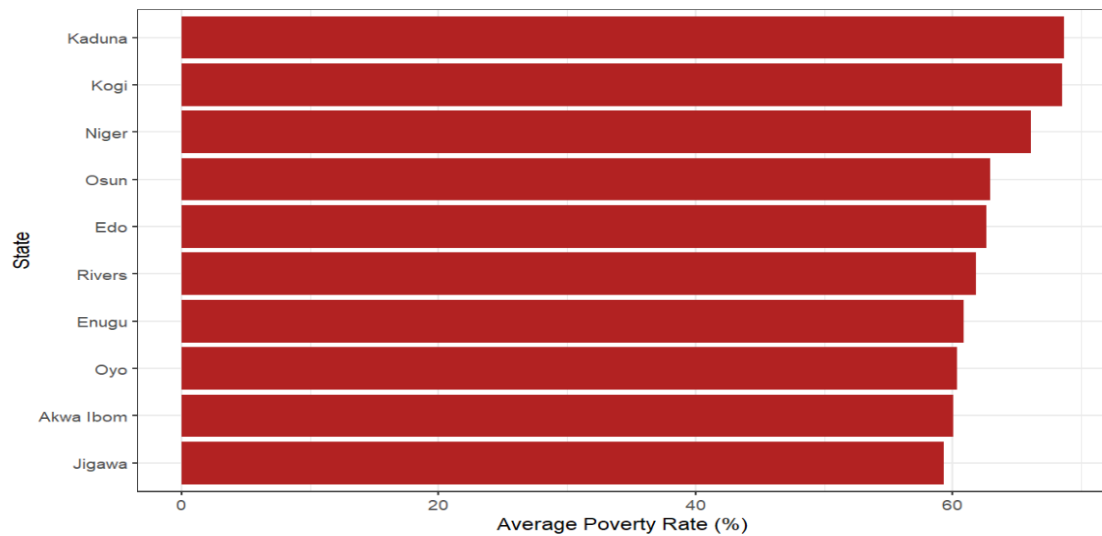


Figure 5. Top 10 States with Highest Average Poverty Rate

Figure 5 presents the top 10 states with the highest average poverty rates during the period 2015–2025. The results show that Kaduna and Kogi recorded the highest average poverty rates, followed by Niger, Osun, Edo, Rivers, Enugu, Oyo, Akwa Ibom, and Jigawa. These states experienced relatively higher levels of poverty compared with the other states during the study period, with Kaduna and Kogi exhibiting the highest poverty burden.

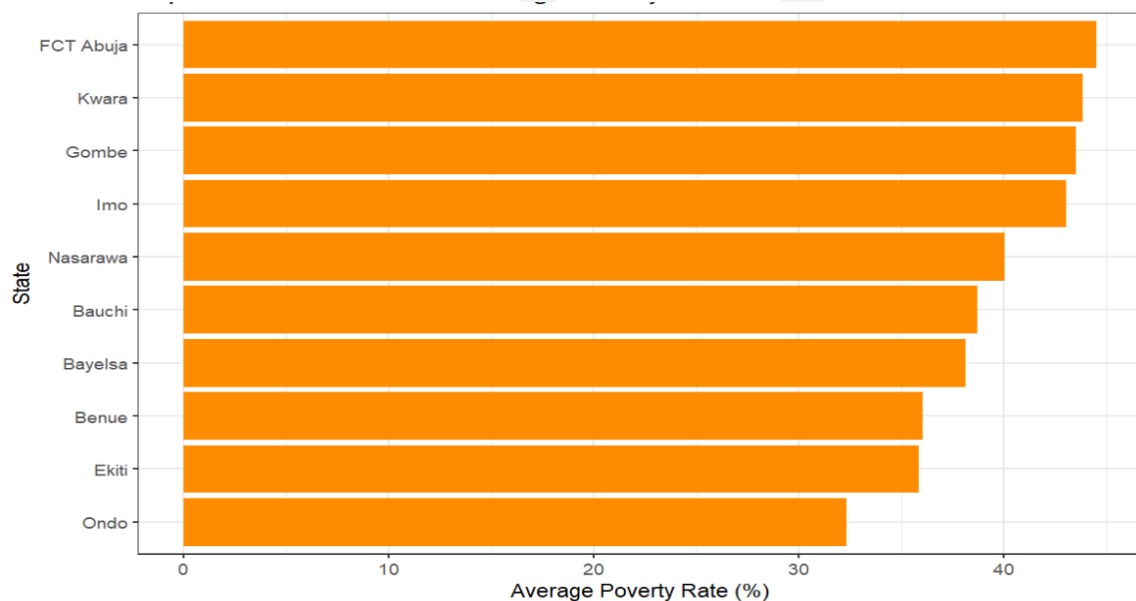


Figure 6. Top 10 States with Lowest Average Poverty Rate

Figure 6 presents the top 10 states with the lowest average poverty rates during the period 2015–2025. The results show that Ondo recorded the lowest average poverty rate, followed by Ekiti, Benue, Bayelsa, Bauchi, Nasarawa, Imo, Gombe, Kwara, and the Federal Capital Territory (FCT), Abuja. These states experienced relatively lower poverty levels compared with the other states during the study period, with Ondo exhibiting the lowest poverty burden.

4.8 Discussion

This study examined the impact of unemployment on the poverty rate in Nigeria using state-level panel data covering the 36 states and the Federal Capital Territory from 2015 to 2025. The findings revealed that unemployment and poverty increased steadily throughout the study period, indicating a deterioration in socio-economic conditions across the country. This upward trend re-

flects the combined effects of economic recession, insecurity, exchange rate instability, inflationary pressures, and the COVID-19 pandemic, all of which adversely affected employment opportunities and household welfare. These findings are consistent with reports by the World Bank (2022, 2023) and the National Bureau of Statistics (2023), which documented increasing poverty and labour market challenges in Nigeria during the same period.

The Pearson Product Moment Correlation analysis revealed a moderate positive and statistically significant relationship between unemployment and poverty ($r = 0.453$, $p < 0.001$), indicating that states with higher unemployment rates generally experienced higher poverty rates. This finding agrees with the work of Aiyedogbon and Ohwofasa (2012), who reported that unemployment contributes significantly to poverty and social instability in Nigeria. Similarly, Iyoha and Oriakhi (2018) observed that persistent unemployment reduces household income and traps individuals in cycles of poverty. The result therefore provides empirical evidence that unemployment remains one of the major factors responsible for increasing poverty across Nigerian states.

The multiple linear regression analysis further demonstrated that unemployment had a positive and statistically significant effect on the poverty rate, implying that increases in unemployment significantly increase poverty. This finding supports the Keynesian Theory of Employment, which argues that inadequate employment opportunities reduce aggregate income and worsen household welfare. The result also agrees with Adebayo (2020), who found that unemployment significantly increases poverty in Nigeria, and Eze and Musa (2021), who concluded that unemployment remains a major determinant of poverty in developing economies.

Education was found to have a significant negative effect on poverty, indicating that improvements in educational attainment reduce poverty levels. This finding supports the Human Capital Theory proposed by Schultz (1961) and Becker (1964), which emphasises that investment in education improves productivity, employability and income-earning opportunities. The result suggests that expanding access to quality education and vocational skills development can significantly contribute to poverty reduction in Nigeria.

In contrast, GDP per capita, inflation and population did not have statistically significant effects on poverty during the study period. Although these variables are generally associated with poverty in economic literature, their non-significance suggests that improvements in macroeconomic indicators alone may not necessarily translate into improved household welfare unless accompanied by employment generation and increased access to education. This finding also indicates that the benefits of economic growth may not be evenly distributed across states.

The state-level analysis further revealed substantial regional disparities in unemployment and poverty. Kogi recorded the highest average unemployment rate, while Kaduna recorded the highest poverty rate. Conversely, Taraba and Ondo recorded the lowest unemployment and poverty rates, respectively. These differences may be attributed to variations in industrial development, educational opportunities, infrastructure, government policies, and investment across the states. The findings suggest that poverty reduction programmes should be tailored to the specific socio-economic conditions of individual states rather than adopting a uniform national approach.

Although the regression model was statistically significant, it explained approximately **21.65%** of the variation in poverty rate, indicating that other important factors not included in the study also influence poverty. Variables such as insecurity, governance quality, access to healthcare, infrastructure development, and social protection programmes may account for the remaining unexplained variation. Future studies should therefore incorporate these variables and employ Fixed Effects or Random Effects panel regression models to provide more robust estimates of the determinants of poverty in Nigeria.

Overall, the findings of this study demonstrate that unemployment remains one of the most important determinants of poverty in Nigeria, while education serves as an important mechanism for reducing poverty. Consequently, government policies aimed at creating employment opportunities and improving access to quality education are likely to produce substantial reductions in poverty across the country.

5. Conclusion

This study examined the impact of unemployment on the poverty rate in Nigeria using state-level panel data covering the period 2015-2025. The study employed descriptive statistics, Pearson Product Moment Correlation, Multiple Linear Regression and Analysis of Variance (ANOVA) to investigate the relationship between unemployment and poverty and to determine the influence of selected socio-economic variables on poverty.

The findings revealed that both unemployment and poverty increased gradually during the study period, indicating a worsening socio-economic situation across Nigeria. A moderate positive and statistically significant relationship was found between unemployment and poverty, while the regression analysis showed that unemployment significantly increased poverty. Education was found to reduce poverty significantly, whereas GDP per capita, inflation and population did not exert statistically significant effects on poverty.

The study also revealed considerable disparities among Nigerian states, with Kogi recording the highest average unemployment rate, Kaduna the highest poverty rate, Taraba the lowest unemployment rate and Ondo the lowest poverty rate. These findings demonstrate that unemployment and poverty vary considerably across the country and require location-specific policy interventions.

The study therefore concludes that unemployment remains a significant driver of poverty in Nigeria. Consequently, the government should prioritise employment creation through industrial development, entrepreneurship support, vocational training, and increased investment in labour-intensive sectors of the economy. Furthermore, expanding access to quality education and skills acquisition programmes will improve employability and contribute significantly to poverty reduction. Finally, future studies should incorporate additional socio-economic variables and panel-specific estimation techniques to provide a more comprehensive understanding of the determinants of poverty in Nigeria.

References

- Aiyedogbon, J. O., & Ohwofasa, B. O. (2012). Poverty and youth unemployment in Nigeria, 1987-2011. *International Journal of Business and Social Science*, 3(20), 269-279.
- Baltagi, B. H. (2005). *Econometric analysis of panel data* (3rd ed.). John Wiley and Sons.
- Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches* (4th ed.). Sage Publications.
- Eze, C. O., & Musa, A. B. (2021). Inflation, unemployment and poverty in Nigeria.
- Becker, G. S. (1964). *Human capital: A theoretical and empirical analysis, with special reference to education*. University of Chicago Press.
- Gans, H. J. (1972). The positive functions of poverty. *American Journal of Sociology*, 78(2), 275-289.
- Gujarati, D. N., & Porter, D. C. (2009). *Basic Econometrics* (5th ed.). McGraw-Hill Education.
- Hausman, J. A. (1978). Specification Tests in Econometrics. *Econometrica*, 46(6), 1251-1271.
- Iyoha, M. A., & Oriakhi, D. E. (2018). Unemployment and economic welfare in Nigeria. *Journal of Economic Research*, 9(2), 31-48.
- International Labour Organisation. (2021). *ILO Monitor: COVID-19 and the world of work* (7th ed.). International Labour Organisation.
- International Labour Organisation. (2023). *Nigeria Labour Force Survey 2023*. International Labour Organisation.
- Keynes, J. M. (1936). *The general theory of employment, interest and money*. Macmillan.
- Lewis, O. (1966). The culture of poverty. *Scientific American*, 214(4), 19-25.
- National Bureau of Statistics. (2021). *Labour force statistics*. National Bureau of Statistics.
- National Bureau of Statistics. (2022). *Nigeria Multidimensional Poverty Index Survey*. National Bureau of Statistics.

- National Bureau of Statistics. (2023). Nigeria Labour Force Survey (NLFS) Q2 2023. National Bureau of Statistics.
- Schultz, T. W. (1961). Investment in human capital. *American Economic Review*, 51(1), 1-17
- Wooldridge, J. M. (2013). *Introductory Econometrics: A modern approach* (5th ed.). South-Western Cengage Learning.
- World Bank (2022). *A better future for all Nigerians: Nigeria poverty assessment 2022*. World Bank.
- World Bank (2022). *Poverty and shared prosperity 2022: Correcting course*. World Bank.

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