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EFFECT OF UNEMPLOYMENT ON ECONOMIC DEVLEOPMENT IN NIGERIA.

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ABSTRACT

This study examined the effect of unemployment on Nigeria's economic and human development, using Per Capita Income (PCI) and the Human Development Index (HDI) as key indicators. Secondary data covering the period 2013–2024 were sourced from the Central Bank of Nigeria (CBN), National Bureau of Statistics (NBS), and World Bank databases. The study employed an explanatory research design and utilized multiple regression analysis to investigate the relationship between unemployment, inflation (as a control variable), PCI, and HDI. The descriptive analysis revealed moderate variations in PCI and HDI, while unemployment and inflation exhibited higher fluctuations over the period. Empirical findings showed that unemployment had a statistically significant and negative impact on PCI, implying that rising joblessness reduces average income levels and weakens economic well-being. Conversely, unemployment demonstrated a statistically significant positive effect on HDI, suggesting that rising unemployment may trigger increased welfare spending, social interventions, or delayed human development responses. Inflation was found to have an insignificant effect on both PCI and HDI. The results indicate that unemployment plays a critical role in determining both income-based and welfare-based development outcomes in Nigeria. The study concludes that reducing unemployment is essential for enhancing economic prosperity and sustaining human development. It recommends the implementation

of employment-centered policies, promotion of human capital development, expansion of labor-intensive sectors, and improved private sector participation as strategic measures for strengthening economic and welfare outcomes.

KEYWORDS: Unemployment, Per Capita Income (PCI), Human Development Index (HDI), Inflation, Economic Development, Nigeria.

INTRODUCTION

1.1 Background to the study

Unemployment remains a critical issue across the globe. According to the International Labour Organization (ILO), more than 200 million individuals were unemployed globally as of recent estimates. Elevated unemployment levels undermine economic advancement by limiting consumer expenditure, increasing the burden on social welfare systems, and intensifying wealth disparities. These challenges are particularly pronounced in developing nations, where structural unemployment persists due to insufficient industrialization, inadequate infrastructure, and fragile governance frameworks (ILO, 2021). In the sub-Saharan African context, unemployment is further worsened by rapid population growth, widespread underemployment, and heavy reliance on informal economic sectors. Countries within the region, such as Nigeria and South Africa, face daunting obstacles in generating adequate employment opportunities for their burgeoning labor forces, thus exposing the deeper structural challenges that hinder economic progress and emphasizing the need for well-targeted policy responses (World Bank, 2022).

At the national level, unemployment continues to obstruct Nigeria’s economic transformation. Data from the National Bureau of Statistics (NBS) show that the unemployment rate reached a historic peak of 36% (NBS, 2024). This surge in joblessness has led to heightened poverty, social unrest, and insecurity, thereby hampering the country's developmental strides. Nigeria’s widespread unemployment has emerged as a core driver of poverty and a major constraint to achieving a decent standard of living.. Ajetomobi and Ayanwale define unemployment as the non-utilization or misapplication of productive factors. Unemployment may also manifest when employment vacancies exist, but there is a shortage of qualified individuals to fill them. In Nigeria, the unemployment rate rose significantly from 22.6% in 2018 to 27.1% in the second quarter of 2020, and further to 33.3% by the fourth quarter of the same year (Sasu, 2023). Projections for 2022 indicated a steady continuation of this trend at 33%, slightly above the 32.5% forecasted for the

preceding year. The issue of unemployment is intricately linked with macroeconomic indicators such as per capita income, gross domestic product (GDP) growth rate, and population growth. Per capita income (PCI) serves as a critical indicator of individual financial well-being within a country or region. A rise in PCI often signifies enhanced economic performance and improved wealth distribution, and can also reflect the success of national policy strategies aimed at economic growth (Ogini, 2022; Corporate Finance Institute, 2021). Odo *et al.*. (2017) describe GDP growth rate as the yearly change in a nation's economic output, measured at constant market prices. Increased GDP is generally associated with job creation and a reduction in unemployment (Banda, 2016). Population growth rate the annual increase in a nation's population can either support or constrain economic development. Jhingan (2011) posits that while population growth may spur economic activity by enlarging markets and labor forces, it may also strain resources and services, thus impeding progress.

In a broader sense, economic development refers to a sustained rise in standards of living, encompassing higher per capita income, better education, quality healthcare, and environmental sustainability (Osaseri and Osamwonyi, 2019). It involves not merely expanding economic output but improving the overall well-being and prosperity of a population (California Association for Local Economic Development, 2021). In this study, economic development is measured using the Human Development Index (HDI), which combines metrics of health, education, and standard of living. Nigeria currently ranks 163rd out of 191 countries on the HDI scale, placing it among the lowest globally (Bunmi, 2022). This ranking reflects a range of persistent challenges including income inequality, an overreliance on oil revenues, institutional corruption, poor public health, weak infrastructure, and political instability (Bunmi, 2022).

1.2 Statement of the Problem

Unemployment remains one of the most pressing challenges facing Nigeria due to its profound economic and social implications. Consequently, addressing joblessness is a top priority in governmental policies and development agendas. Economists often argue that unemployment is largely avoidable and constitutes a significant misallocation of national resources. It undermines the societal aspiration for a decent standard of living and has both macroeconomic and socio-economic consequences. Unemployment has long been recognized as a critical barrier to sustainable development, as it not only reduces national output and income but also represents a considerable loss of human capital. In Nigeria, a high

unemployment rate has been shown to negatively impact economic progress by lowering the production of goods and services, stimulating rural-to-urban migration, increasing public debt, and leading to the inefficient use of resources. It also contributes to social instability, a high dependency ratio, demotivation among the youth, the rise of unethical practices, and widespread desperation. Countries grappling with high unemployment often experience inadequate funding for education, limited public transport and basic services, substandard housing, reduced recreational opportunities, and scarce employment prospects conditions that reflect the Nigerian reality.

Multiple factors have exacerbated Nigeria's unemployment crisis. These include a weak economic environment, declining business capacity to generate employment, job losses, and the persistence of "ghost workers" in public payrolls, and cases of falsified age declarations to prolong tenure in civil service. The situation was further worsened by the adverse effects of the COVID-19 pandemic, persistent farmer-herder conflicts, the fallout from the 2021 EndSARS protests, the Naira redesign policy of 2022–2023, and the abrupt removal of fuel subsidies in May 2023, which was implemented without sufficient mitigating measures. Together, these developments have deepened Nigeria's unemployment problem and intensified its socio-economic consequences.

1.3 Objectives of the study

The general objectives of this study is to evaluate the trend of unemployment on Economic development in Nigeria. The specific objectives of this research were to:

1. examine the effect of unemployment rate on human development index in Nigeria
2. investigate the effect of unemployment on Per Capita Income in Nigeria.

1.6 Scope of the Study

The research was carried out to examine the effect of Unemployment on Economic Devleopment in Nigeria. The study contextually center mainly on unemployment, human development index, Per Capita Income. The study would cover from 2013 to 2024 (11 years), the data for this study would be extracted from the Central Bank of Nigeria statistical bulletin of various years. This study is geographical restricted to Nigeria.

REVIEW OF RELATED LITERATURES

2.0 Conceptual Review

2.1.1 Unemployment

Unemployment reflects the underutilization of a country's productive capacity that would otherwise contribute to overall output. The widely accepted theory that employment and labor are essential drivers of economic growth has led numerous scholars to establish a strong linkage between unemployment levels and national development outcomes (Kolawole, 2022). Cown and Tabbarrok (2011) define an unemployed individual as someone who is willing and able to work but lacks the opportunity to do so. Similarly, Kenigheni (2020) emphasizes that unemployment is a central macroeconomic issue that directly affects economic expansion. It is characterized by individuals who are ready to offer their labor at prevailing wage rates but cannot secure employment. There are multiple types of unemployment such as structural, cyclical, seasonal, frictional, involuntary, technical, and hiddenwhich all have distinct causes and implications. The persistence of low employment has far-reaching socio-economic, political, and moral consequences (Kenigheni, 2020).

Unemployment is a widespread issue, particularly in developing countries, where a growing number of employable individuals are unable to find work. In Nigeria, the unemployment rate has seen a worrying upward trend in the past decade. This has been largely driven by the high number of annual graduates entering the labor force without a corresponding increase in job opportunities (Adebobola *et al.*., 2015). The resulting mismatch negatively impacts Nigeria's political, social, and moral fabric, as the economy fails to make optimal use of its human and material resources. This inefficiency translates into lower returns on both labor and capital, thereby perpetuating poverty. Addressing unemployment is essential for fostering social development, particularly in countries where it is a key obstacle to poverty reduction. Aiyedogbon and Ohwofasa (2012) stress that for developing nations, curbing unemployment is crucial for sustainable growth and improving living standards. According to Akinmulegun (2014), unemployment is considered the foremost contributor to poverty in Nigeria. He attributes the rise in unemployment especially among tertiary graduates to a surge in enrollment in higher education institutions without adequate labor market absorption.

Nwagwu (2014) highlights a paradox: despite Nigeria's wealth in natural resources, substantial oil revenues, increased government income, and growing foreign reserves, the unemployment rate remains stubbornly high. This disconnect stems from poor infrastructure, high interest rates, and unfavorable exchange rates, which collectively stifle private sector job creation. Moreover, corruption and inefficient economic policies have further discouraged

investment and job expansion. Akwara *et al.*. (2013) identify several structural causes of unemployment in Nigeria, including unregulated population growth, a rapid rise in tertiary education graduates, ineffective manpower planning, and rural-to-urban migration leading individuals to seek jobs outside their training or skill set. Compounding the problem is the low quality of education, inadequate vocational training, and a general lack of employability skills among graduates. This has resulted in a private sector that is hesitant to recruit fresh graduates due to their limited practical experience.

The Nigerian government's insufficient investment in the educational sector, especially in research and human capital development, has contributed to the persistence of unemployment. Poor policy frameworks have hampered the creation of a skilled and productive labor force capable of driving the country's economic transformation (Nwagwu, 2014). In efforts to understand the quantitative relationship between unemployment and economic performance, economist Arthur Melvin Okun introduced a theory now widely known as Okun's Law. This economic principle seeks to demonstrate the level of output lost when unemployment exceeds its natural rate. According to Okun's Law, a 1% increase in cyclical unemployment typically results in a 2% reduction in real GDP, although the exact figures may vary depending on the country and time period. In essence, the law illustrates a positive correlation between employment and economic growth, and an inverse relationship between unemployment and output. This implies that for every 1% decline in unemployment, GDP tends to grow by approximately 2% per year (Okun, 1962, as cited in Jeke and Wanjuu, 2021)

2.1.2 Per Capita Income

Over time, income per capita was frequently used to characterise people's well-being within a certain time period. This was typically done without taking into account the intertemporal component, where income per capita level might potentially have an impact on sustainable development (Ogini, 2022). Through its impact on economic development, the amount of income per capita can have an indirect impact on sustainable development. This may be done by looking at how per capita income affects migration, health, education, and sanitation. People are less likely to have access to high levels of education and knowledge when their per capita income is low. Better nutrition is also denied to people, which has a detrimental impact on their productivity and general health. Additionally, it promotes migration out of the nation whenever environmental feasible conditions.

Additionally, including poor inadequate sanitation, high pollution levels, and limited access to clean water are linked to low income per capita. The literature is particularly rich in tracking the relationship between low levels of per capita income and pollution emissions, as demonstrated by the Environmental Kuznets Inverted U theory (Kolawole, 2022).

2.1.4 Human development index (HDI)

The United Nations Development Programme (UNDP), 2015, states that the Human Development Index evaluates long-term progress in the three fundamental areas of human development: access to education, a fair quality of living, and a safe and healthy existence. With the Human Development Index (HDI), the emphasis on per capita income has given way to a more comprehensive assessment of development. The UN created the Human Development Index (HDI), which uses three factors of the Standard of Living Index, the Education Index, and the Health Index, to provide a number to each nation's degree of social and economic advancement. The life expectancy (in years) of a certain area or nation under investigation is represented by the health index. It appropriately depicts the degree to which the life expectancy of the populace in the region or nation being examined exceeds the minimal life expectancy. The lowest and maximum life expectancies in the world are 25 and 85 years, respectively, according to the United Nations (UN) (UNDP, 2015).

The literacy and enrolment rates of the populace in a certain area or nation are represented by the education index. The percentage of individuals 16 years of age and older who are literate is known as the literacy rate (UNDP, 2015). These individuals need to be able to read, write, and comprehend a basic statement about their daily lives. The percentage of primary, intermediate, and tertiary school-age children who attend school is known as the enrolment rate. The per capita income of a country or area, calculated in US dollars at the purchasing power parity (PPP) rate, is denoted by the standard of living index. These consist of a nation's income, the currency exchange rate with the US dollar, and the index of that nation's prices in relation to the US price level (UNDP, 2015).

2.1.5 Economic Development

Improving the health of individuals and their standard of life is a crucial part of development in the economy. A country's economic development level is often determined by dividing its productivity index by its population size; nations with comparatively higher production per capita are considered more developed. Gross National Income per capita and Gross Domestic Product per capita are the metrics used to assess economic progress. Economic growth only

indicates an improvement in national productivity, thus governments prioritise economic development (Kolawole, 2022). Economic development, on the other hand, takes productivity per capita into account, recognising that increases in production and wealth must be accompanied by increases in productivity per person. A higher quality of life and improved human development metrics are frequently the outcomes of economic progress. On the other hand, as Nigeria has shown in recent years, economic progress may not necessarily result in such an improvement in economic well-being. It makes sense that the unemployment rate might affect a country's degree of economic growth as economic development is related to average economic production (Kolawole, 2022). Economic development describes as the practice of generating wealth for a society's advantage. It is an effort to promote economic growth rather than just an employment initiative, increased prosperity, and quality of life of in a given region (California Association for Local Economic Development, 2021).

A consistent rise in the level of living is referred to as economic development including higher per-capita income, improved education, better health care, in addition environmental protection (Al-Faki. 2009). It is an exhaustive procedure that leads to the abolition of all forms of poverty as well as a more efficient, significant, and equal standard of life (Osaseri and Osamwonyi, 2019). Its distinguishing characteristic is a fundamentally upside-down transition in the socio-economic system's capacity to manufacture, sell, and deliver the commodities required by a growing market or a society with shifting inclinations. It is crucial to emphasise that the problem of economic expansion must be addressed in order for the topic of economic advancement to be properly covered. Economic growth, in the opinion of Todaro and Smith (2009), involves raising the per capita income and, if not yet accomplished, achieving a standard of life that is comparable to that of industrialised nations. The objective of economic development, in the contrary, is to increase individual's economic and social well-being through collaborative planning. Numerous criteria have been used to gauge the economy's development. The real GDP serves as a proxy for economic development in this study. According to Myint and Krueger (2016), Economic development is the process of converting underdeveloped, economically disadvantaged countries into advanced industrialised nations. In its yearly Human Development Reports, the United Nations Development Programme (UNDP) regularly releases the Human Development Index (HDI), a composite measure that rates countries based on how they are doing in the following three categories: education, longevity, and GDP per capita in PPP (Purchasing Power Parity) dollars. The HDI is perhaps the most widely utilised measure of growth (UNDP, 2011).

2.2 Theoretical framework

2.2.1 New Keynesian theory of unemployment

In February 1936, English economist John Maynard Keynes released The General Theory of Employment, Interest, and Money. With the publication of After Keynesian Economics in 1978, that started to gradually alter. The basis for Keynes' theory of employment was the short-term outlook. He used the short-term premise that the components of production, including capital goods, labour supply, technology, and labour efficiency, would remain constant for determining the number of employment. Keynes believed that a lack of general demand could lead to protracted periods of high unemployment.

The production of products and services from an economy is a result of consumption, investment, government purchases, and net exports, which are the difference between what a country purchases and trades to other countries. Keynesian economics places a strong focus on the need for proactive government action to combat unemployment and contends that fiscal policy initiatives like tax cuts and expenditure increases may boost demand and lower unemployment. According to the new Keynesian school of thinking, unemployment occurs unintentionally and suggests explanations for why pay rates may not react swiftly to changes in the labour market's supply and demand. They contend that it may take a long time for the labour market to reach equilibrium, which might lead to unemployment, particularly during recessions like the one Nigeria has suffered. According to Jhigan (2004), involuntary unemployment happens when there are more workers looking for work at the going pay rate than there are open positions.

2.2.2 Cyclical Interdependence Theory

Myrdal's (1957) work, which proposed a notion of interlocking circular interconnectedness and the concept was based on multiplication impacts amongst the several indicators of underdevelopment. Economic development and in his view, the well-being of the individual and the community are intertwined in a series of detrimental outcomes. A country's lack of employment possibilities, for example, can lead to emigration, the closing of retail establishments, a decline in local tax revenues, deteriorating schools, undertrained workers, businesses' inability to adopt modern technology, and a lack of incentives to attract new businesses. All of these causes can lead to an unending cycle of poverty and higher joblessness (Danaan, 2018). In his view, the well-being of the individual and the community are intertwined in a series of detrimental outcomes. Lack of possibilities for employment, for example, can lead to emigration, the closing of retail establishments, a decline in local tax

income, becoming worse schools, inadequately trained workers, businesses' unwillingness to adopt modern technology, and a lack of motivation to attract new businesses, all of which exacerbate unemployment and perpetuate a cycle of poverty.

Among the Nigeria's primary reasons of poverty is unemployment. For her population, the ongoing rise in unemployment and poverty portends disaster (Danaan, 2018). More than thirty-three percent of workers were unemployed in the 4th quarter of 2020 (Sasu, 2023), and the Nigerian Economic Summit Group (NESG) forecast that the unemployment rate might rise to 37 percent in 2023 (Izuaka, 2023). This suggests a high dependence ratio, which puts pressure on the wealthy few to conform to social vices and unethical activities in order to satisfy their families and society. The wealthy few typically provide subpar services and have a low sense of accountability. Low income earners, on the other hand, may experience frustration and depression, it exposes individuals to social vices including insurgency, conflict, armed burglary, fraud, abduction, vulnerability and inadequate service delivery, and low performance. Eventually, these factors contribute to systemic failures and exacerbate poverty in the nation. Thus, a number of causes come together, with one issue causing another and finally engulfing the entire nation, impacting everyone either directly or indirectly.

The New Keynesian theory of unemployment served as a framework for the investigation since unemployment is a significant factor that hinders Nigeria's economic development. Employers and even the government are unable to pay the minimum wage, which leads to worker layoffs and exacerbates the unemployment crisis. This is due to the fact that wage rates are usually not able to be lowered and are mostly set by institutional factors, such as pressure from trade unions, legally mandated government pay scales, and multinational firms' hiring practices.

2.3 Empirical review

Makinde and Adegbami (2019) investigated the causes of unemployment and its impact on youth and national development in Nigeria. The results showed that a high unemployment rate has contributed to societal vices such drug addiction and sales, armed robbery, hired assassination, thuggery, and prostitutes. According to the study's findings, the country may not achieve peace and stability unless aggressive measures are made to counter the threat, which would impede its advancement.

Ojima (2019) used the ordinary least technique employing time series data from 1980 to 2017 to investigate the empirical relationship between unemployment and Nigeria's economic

progress. The result indicates that unemployment negatively affects Nigeria's economic growth.

Ogini (2022) assessed how certain macroeconomic factors affected Nigeria's per capita income. The study included econometric methods such as the Autoregressive Distributive Lag (ARDL), Augmented Dickey Fuller for unit root, and descriptive statistics. The results showed that the ordinary Nigerian's quality of living is significantly impacted by the money supply, exchange rate, interest rate, inflation rate, and unemployment rate (65% over the long term and 73% over the short term). According to the research's findings, some macroeconomic factors have shown to be useful both in the short and long term as policy tools that may significantly affect the typical Nigerian citizen's level of life.

Ekwe (2018) assessed the relationship between unemployment and monetary policy using the regression approach of analysis. The stationarity of the variables was assessed using the unit root (Augmented Dickey Fuller) test. The findings of the study's error correction model (ECM) and co-integration analysis demonstrate a favourable relationship between Nigeria's unemployment rate and the money supply and treasury bill rates, but negatively correlated with the exchange rate as well as monetary policy rate. The research concluded that Nigerian unemployment was significantly impacted negatively by monetary policies.

Attan *et al.*. (2019) studied the effects of monetary policy as a useful tool for resolving Nigeria's unemployment problem. Time series data from 1981 to 2017 were used in the research, which was conducted using the ordinary least squares (OLS) technique. The stationarity property of the series was evaluated using the Augmented Dickey-Fuller unit root test, and the outcomes demonstrated that all of the factors studied were stationary at first difference. The results of the research demonstrated that during the research period, unemployment in Nigeria was significantly impacted negatively by the monetary policy rate, money supply, GDP, and private sector credit.

Adelowokan *et al.* (2019) use a number of methods, such as the Augment Dickey Fuller test for unit root testing to analyse the relationships between unemployment, poverty, and economic growth in Nigeria between 1985 and 2015. The findings suggest there is no causal relationship between underemployment, poverty, and growth in Nigeria.

Kenigheni (2020) investigated the impact of unemployment on the economic development of Nigeria. This research examined panel data for the years 1985 2015. The ordinary least square method was used to investigate how unemployment affected Nigeria's development. Given that the GDP-based development coefficient was discovered to be significant and adverse, the results implied that unemployment would decrease economic development.

Consequently, this research concludes that unemployment has a major impact on Nigeria's economic development.

METHODOLOGY

3.1 Research Design

Explanatory research design was employed in obtaining, analyzing and interpreting the relevant data for hypotheses testing. This research design was justified because it supported the use and application of existing data sourced from reliable and verifiable sources. Explanatory research design also supports the use of quantitative approach of analysis which is acceptable in this study

3.2 Nature and Sources of Data

The data collected for this study will be wholly secondary data. The data will be sourced from Central Bank of Nigeria Annual Statistical Bulletin from 2010-2022 (12 years) as well as from the 2024 database of the World Bank, and National Bureau of Statistics (NBS) Socio-economic Statistics of various.

3.3 Model Specification

This model is adapted in this study with modifications as specified in the functional equation as below:

PCI, HDI = f (UNEMP, INFR) 1

Where,

PCI = Per Capita Income

HDI = Human Dimensional Index

INFR = Inflation Rate

UNEMP = Unemployment

The functional equation is hereby linearized as;

$$Y_t = a_0 + b_1X_{1t} + b_2X_{2t} + b_3X_{3t} + \ldots + b_nX_{nt} + e_1 \quad 2$$

Where:

Y = dependent variable

$X_1, X_2 \ldots X_n$ = independent variables

a_0 = intercept or regression constant

$b_1, b_2, \ldots, b_n$ = slope or regression coefficients

e_1 = error or stochastic term

t = period or time covered

The functional equation is therefore presented in a linear form as follows:

Hypothesis One

PCI = f(UNEMP INFR) 3

$PCI_t = a_0 + b_1 UNEMP_t + b_2 INFR_t + e_{it}$ 4

Hypothesis Two

HDI = f(UNEMP INFR) 5

$HDI_t = a_0 + b_1 UNEMP_t + b_2 INFR_t + e_{it}$ 6

DATA ANALYSIS, SUMMARY OF FINDINGS, CONCLUSION AND RECOMMEDATIONS

4.1 Data Presentation

YEAR	UNEMP	INFR	HDI	PCI
2013	157.312	4.96475	0.482	2,977
2014	158.553	4.66262	0.482	3,201
2015	192.44	2.86367	0.516	2680
2016	253.492	9.54367	0.516	2,145
2017	305.79	11.1189	0.516	1,942
2018	306.084	10.2285	0.531	2,126
2019	306.921	10.3848	0.538	2,334
2020	358.811	7.84914	0.535	2,075
2021	401.152	10.131	0.535	2,066
2022	425.979	21.3113	0.535	2,184
2023	523.978	34.23	0.56	1,597

Source: CBN Statistical Bulletin 2024

4.2 Data Analysis

4.2.1 Descriptive Statistic

	HDI	PCI	UNEMP	INFR
Mean	0.522364	2302.455	308.2284	11.57167
Median	0.531000	2145.000	306.0840	10.13100
Maximum	0.560000	3201.000	523.9780	34.23000
Minimum	0.482000	1597.000	157.3120	2.863670
Std. Dev.	0.023653	470.2266	115.4124	8.938340
Skewness	-0.542637	0.657977	0.279745	1.646541
Kurtosis	2.622499	2.590447	2.262579	4.872347
Jarque-Bera	0.605149	0.870589	0.392709	6.577117
Probability	0.738913	0.647074	0.821721	0.037308
Sum	5.746000	25327.00	3390.512	127.2884
Sum Sq. Dev.	0.005595	2211131.	133200.3	798.9392
Observations	11	11	11	11

Source: Researcher's Computation using E-views 10.0 (2025)

The descriptive statistics presented in provide an overview of the central tendencies, dispersion, and distributional characteristics of the variables used in this study, where Human Development Index (HDI) and Per Capita Income (PCI) serve as the dependent variables, unemployment (UNEMP) represents the independent variable, and inflation rate (INFR) is included as a control variable. The Human Development Index (HDI) has a mean value of 0.522**,** with its values ranging between 0.482 and 0.560**,** indicating moderate human development performance within the observed period. The standard deviation of 0.0237 shows minimal variation in HDI over time. The negative skewness value of -0.543 suggests a slight leftward skew, implying that higher HDI values were more frequent. The Jarque-Bera probability (0.7389) exceeds the 5% significance level, suggesting that HDI is normally distributed. Per Capita Income (PCI), another proxy of economic well-being, has an average value of 2302.46**,** with a minimum and maximum of 1597.00 and 3201.00**,** respectively. This reflects moderate dispersion, which is further supported by a standard deviation of 470.23. With a skewness of 0.658**,** the distribution is mildly right-skewed, indicating that higher income observations slightly dominate. The Jarque-Bera probability of 0.6471 confirms that PCI follows a normal distribution. The independent variable, unemployment (UNEMP), records a mean of 308.23, suggesting that unemployment remained relatively high throughout the study period. The minimum (157.31) and maximum (523.98) values indicate substantial fluctuations, supported by a standard deviation of 115.41. The positive skewness of 0.280 indicates a right-skewed distribution, and the Jarque-Bera probability of 0.8217 confirms normality. The control variable, inflation rate (INFR), has a mean of 11.57, indicating a generally high inflationary environment in the economy. It shows significant variability, with a minimum of 2.86 and a maximum of 34.23, and a standard deviation of 8.94. Unlike the other variables, inflation exhibits a strong positive skew (1.6465) and a leptokurtic distribution (kurtosis = 4.8723), indicating the presence of extreme values associated with inflation spikes. This is further confirmed by the Jarque-Bera probability value of 0.0373, which is below the 5% threshold, implying that inflation does not follow a normal distribution.

Hypothesis One

The regression analysis examined the impact of unemployment (UNEMP) on per capita income (PCI), with inflation rate (INFR) introduced as a control variable. The estimated equation is expressed as:

$PCI_t = a_0 + b_1 UNEMP_t + b_2 INFR_t + e_{it}$

$PCI_t = 3478.109 - 4.185516UNEMP + 9.889658INFR + e_{it}$

Table: Summary of Result for PCI, UNEMP and INFR.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	3478.109	281.6280	12.35001	0.0000
UNEMP	-4.185516	1.385845	-3.020190	0.0166
INFR	9.889658	17.89412	0.552676	0.5956

Model Summary:

- Number of observations (n) = 11
- R-squared = 0.758598
- Adjusted R-squared = 0.698248
- F-statistic = 12.56990
- Durbin-Watson = 0.959751

Source: Researcher's computation (2025)

Unemployment (UNEMP) has a negative and statistically significant effect on per capita income, with a coefficient of -4.185516 and a p-value of 0.0166. This implies that a one-unit increase in unemployment reduces per capita income by approximately 4.19 units, holding inflation constant. This finding aligns with economic theory, which suggests that rising unemployment diminishes household earnings and purchasing power, consequently lowering income per capita. Conversely, inflation (INFR) exhibits a positive but statistically insignificant relationship with PCI, as indicated by its coefficient of 9.889658 and a p-value of 0.5956. This suggests that inflation does not exert a meaningful influence on per capita income within the study period. The absence of statistical significance may reflect the possibility that inflationary pressures were counteracted by other macroeconomic forces such as wage rigidities, government interventions, or adaptive consumption patterns. The model's explanatory power is strong, as evidenced by an R-squared value of 0.758598 and an adjusted R-squared of 0.698248, indicating that approximately 69.8% of the variation in per capita income is explained by unemployment and inflation. The Durbin-Watson statistic of 0.959751 suggests the potential presence of positive autocorrelation in the residuals, which may require further diagnostic testing and possible model refinement.

Hypothesis two

The regression analysis examined the impact of unemployment (UNEMP) on Human Dimensional Index (HDI), with inflation rate (INFR) introduced as a control variable. The estimated equation is expressed as:

$HDI_t = a_0 + b_1 UNEMP_t + b_2 INFR_t + e_{it}$

$HDI_t = 0.459306 + 0.000230UNEMP - 0.000681INFR + e_{it}$

Table: Summary of Result for HDI, UNEMP and INFR.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Constant	0.459306	0.011874	38.68311	0.0000
UNEMP	0.000230	5.84E-05	3.938893	0.0043
INFR	-0.000681	0.000754	-0.902502	0.3932

Model Summary:

- Number of observations (n) = 11
- R-squared = 0.830410
- Adjusted R-squared = 0.788012
- F-statistic = 19.58629
- Durbin-Watson = 1.646863

Source: Researcher's computation (2025)

The constant term (0.459306) is statistically significant at the 1% level (p = 0.0000), implying that in the absence of unemployment and inflation, the Human Development Index (HDI) remains at a baseline level of approximately 0.4593, indicating moderate development. Unemployment (UNEMP) has a positive and statistically significant effect on HDI, with a coefficient of 0.000230 and a p-value of 0.0043. This suggests that a one-unit increase in unemployment leads to a 0.00023 increase in HDI, holding inflation constant. Although this finding may appear counterintuitive, it may reflect structural conditions in which periods of rising unemployment coincide with increased social spending, donor-driven human development interventions, or delayed effects of employment volatility on human capital indicators such as education and health, which are components of HDI. In contrast, inflation (INFR) has a negative but statistically insignificant effect on HDI, with a coefficient of -0.000681 and a p-value of 0.3932. This indicates that inflation does not have a significant

direct influence on human development within the period examined, possibly due to compensatory government interventions, subsidies, or household coping mechanisms that limit the short-run effects of inflation on human welfare indicators. The explanatory power of the model is high, as indicated by an R-squared value of 0.830410 and an adjusted R-squared of 0.788012, showing that approximately 78.8% of the variation in HDI is explained by unemployment and inflation. The F-statistic of 19.58629 confirms that the model is statistically significant as a whole at the 1% significance level. Additionally, the Durbin-Watson statistic of 1.646863 suggests that there is no serious autocorrelation problem in the residuals.

4.3 TEST OF HYPOTHESES

This study formulated two hypotheses to determine the effect of unemployment on per capita income (PCI) and the Human Development Index (HDI), with inflation serving as a control variable. The hypotheses were tested using regression estimates previously presented.

H_{01}: Unemployment has no significant effect on Per Capita Income (PCI).

From the regression results for the PCI model, unemployment (UNEMP) recorded a coefficient of -4.185516 with a p-value of 0.0166, which is below the 5% significance threshold ($p < 0.05$). This indicates that unemployment has a statistically significant and negative impact on PCI.

Decision: Reject the null hypothesis (H_{01}).

Unemployment significantly reduces per capita income, implying that rising unemployment translates to a decline in average income levels, thereby weakening economic welfare.

H_{02}: Unemployment has no significant effect on Human Development Index (HDI).

In the HDI model, unemployment (UNEMP) has a positive coefficient of **0.000230** with a p-value of 0.0043, which is lower than the 5% significance level ($p < 0.05$). This indicates that unemployment significantly influences HDI within the study period.

Decision: Reject the null hypothesis (H_{02}).

Unemployment exerts a statistically significant effect on HDI. Although the direction is positive, which may appear counterintuitive, it may reflect delayed or policy-driven responses where increases in unemployment trigger government welfare, educational interventions, or development-focused programs that indirectly improve HDI.

4.4 Summary of Findings

This study investigated the effect of unemployment on economic and human development in Nigeria using Per Capita Income (PCI) and the Human Development Index (HDI) as dependent variables, while inflation (INFR) served as a control variable. The findings are summarized as follows:

Descriptive analysis showed that both PCI and HDI exhibited moderate variation during the study period, while unemployment and inflation displayed relatively higher fluctuations. HDI, PCI, and unemployment were normally distributed, whereas inflation showed signs of volatility and departure from normality.

Regression results for PCI revealed that unemployment has a statistically significant negative impact on per capita income ($p < 0.05$). This indicates that an increase in unemployment leads to a decline in average income levels, highlighting unemployment as a key driver of declining welfare and income inequality.

Inflation had an insignificant effect on PCI, suggesting that changes in price levels did not meaningfully influence income per capita during the period under review.

Regression results for HDI indicated that unemployment has a statistically significant effect on human development ($p < 0.05$). Although the effect is positive, this may be attributed to government social intervention programs or increased development-oriented investments in response to rising unemployment.

Inflation exhibited an insignificant negative impact on HDI, implying that inflationary pressure did not directly translate into significant deterioration in human development indicators within the study timeframe.

4.5 CONCLUION

This study examined the effect of unemployment on Nigeria's economic and human development, using Per Capita Income (PCI) and the Human Development Index (HDI) as dependent variables, with inflation serving as a control variable. Based on the empirical evidence, unemployment was found to significantly influence both PCI and HDI, although in different directions. Specifically, the negative and significant effect of unemployment on PCI confirms that rising joblessness reduces average income levels, thereby weakening household welfare and overall economic well-being. This aligns with classical labor market theories, which posit that high unemployment diminishes income generation capacity and constrains growth in per capita output. Conversely, unemployment was observed to have a statistically significant, though positive, effect on HDI. While this may appear counterintuitive, it may

reflect government responses to rising unemployment through increased social investment, stimulus-driven human capital development, or donor-supported welfare and educational programs, which positively affect HDI indicators such as life expectancy and literacy. However, this outcome may also suggest a short-term lag between macroeconomic distress and its eventual implications for long-term human development outcomes.

Inflation was insignificant in both models, indicating that price fluctuations did not directly contribute to measurable changes in either PCI or HDI within the study period. This suggests that inflationary shocks may have been partially neutralized by wage rigidities, policy interventions, or adaptive consumer behavior. Overall, the results underscore unemployment as a critical macroeconomic variable with far-reaching implications for both income distribution and developmental progress. The findings highlight the necessity of employment-driven policies as a catalyst for improving economic welfare and sustaining human development. To achieve meaningful progress, Nigeria must prioritize inclusive job creation, enhance labor market efficiency, and foster a productive economic environment capable of generating employment-driven growth and human welfare improvements.

4.6 RECOMMENDATIONS

Based on the findings of the study, the following recommendations are proposed to policymakers, development planners, and relevant stakeholders:

1. **Promote Employment-Centered Economic Policies:** Given the significant negative effect of unemployment on per capita income, the government should adopt inclusive job creation strategies focused on labor-intensive sectors such as agriculture, manufacturing, and small-scale enterprises. This will boost household income levels and reduce economic vulnerability.
2. **Strengthen Human Capital Development as a Buffer Against Job Insecurity:** Since unemployment showed a significant influence on HDI, policies that promote skill acquisition, vocational training, and educational empowerment should be prioritized. Empowering the workforce with competitive skills will improve employability and enhance long-term human development.
3. **Encourage Private Sector Participation in Job Creation:** The government should provide tax incentives, subsidized credit facilities, and business-friendly regulations to stimulate private sector investments, particularly in industries with high employment elasticity. Strengthening small and medium enterprises (SMEs) can serve as a major driver of productive employment.

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