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IMPACT OF SCHOOL ENROLMENT AND INCOME INEQUALITY ON LABOUR EMPLOYMENT IN NIGERIA.

[1]Benedict I. Uzoechina, [2]Chika M. Okaforocha, [3]Josephine Obiageli Opene-Terry & [4]Livinus M. Okeke

[1] Department of Economics, Nnamdi Azikiwe University, Awka, Nigeria.

[2]Department of Economics, Nnamdi Azikiwe University, Awka, Nigeria.

[3]Department of Economics, Nnamdi Azikiwe University, Awka, Nigeria.

[4]Department of Economics, Nnamdi Azikiwe University, Awka, Nigeria.

***Related declarations are provided in the final section of this article.*

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Abstract

This study investigates the impact of school enrolment and income inequality on labour employment in Nigeria from 1999 to 2023, integrating government expenditure on education and gross domestic product (GDP) as moderating variables within an Autoregressive Distributed Lag (ARDL) framework. Data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin and the World Development Indicators (WDI) were subjected to unit root, bounds cointegration, and diagnostic tests to ensure robustness. The long-run results reveal that increases in school enrolment and government expenditure on education significantly enhanced labour employment, affirming the critical role of human capital investment in driving workforce participation. Conversely, income inequality exerts a substantial negative effect labour employment, demonstrating that persistent disparities hinder inclusive labour market outcomes. GDP growth exhibited a positive and significant effect on employment, indicating that sustained economic expansion fosters job creation. The short-run dynamics show partial adjustment toward equilibrium, with education variables maintaining positive but smaller effects. The study concludes that education and equity are complementary levers for sustainable employment growth in Nigeria. It recommends targeted educational subsidies, vocational training, and inclusive fiscal policies to reduce inequality and align human capital development with labour market demands. More so, economic policies should focus on promoting labor-intensive sectors such as agriculture and manufacturing to ensure that economic growth translates into widespread job creation By linking education financing, income

distribution, and employment outcomes, this research contributes fresh empirical evidence to the discourse on inclusive growth and labour sustainability in developing economies.

Keywords: Education, Income Inequality, Labour Employment, Economic Growth.

Introduction

Labour employment plays a critical role in promoting economic growth and inclusive development, providing individuals with income and contribute to national productivity. However, in Nigeria, labour employment poses a significant concern due to the country's rapidly growing population and the need to create sufficient job opportunities for its youthful demographic. According to the World Bank (2023), Nigeria's labour force participation rate stands at approximately 56%, with unemployment and underemployment rates, particularly among young people, exceeds 40% (NBS, 2023). Informal sector dominates employment, accounting for over 80% of jobs, which often lack job security, social protection, and decent wages (International Labour Organization [ILO], 2022). These dynamics raises serious concerns especially on the part of the country's ability to harness its demographic dividend and achieve sustainable economic transformation.

Education and income distribution are two critical factors that influence labour employment outcomes in Nigeria. Education, particularly at primary and secondary levels, is a key determinant of human capital development, for equipping individuals with the skills needed to participate effectively in the labour market. According to United Nations Educational, Scientific and Cultural Organization, UNESCO, (2022), Nigeria's net enrolment rate in primary education is approximately 64%, with significant disparities between urban and rural areas. Income inequality, on the other hand, exacerbates labour market disparities by limiting access to quality education and employment opportunities for low-income households. The Gini coefficient for Nigeria, estimated at 35.1 in 2021, indicates a relatively high level of inequality (World Bank, 2023). This inequality perpetuates a cycle of poverty and limits social mobility, further hindering labour market participation. Consequently, income inequality and low school enrolment jointly hinder the efficiency of the labour market and slow down economic progress.

The interaction between school enrolment and income inequality in labour employment outcomes requires a holistic lens for addressing unemployment challenges in Nigeria. Theoretically, the human capital theory emphasizes the role of education in enhancing individuals' productivity and employability (Becker, 1964), while theories of inequality highlight how unequal access to resources can perpetuate labour market disparities (Kuznets, 1955). However, scholars like Acemoglu and Robinson (2012) argue that inclusive institutions are critical for reducing inequality and promoting economic opportunities, which are essential for improving labour employment outcomes. While countries like Rwanda and Ghana have made significant strides in improving school enrolment and reducing income inequality, resulting in improved labour employment outcomes (AfDB, 2021), Nigeria continues to struggle with structural imbalances that weakens the transmission of educational improvements into employment outcomes.

Over the years, the Nigerian government has implemented various policies and programs aimed at improving education access, reducing` inequality, and enhancing employment opportunities. Initiatives such as the Universal Basic Education (UBE) program, the National Social Investment Program (NSIP), and various youth empowerment schemes have been introduced to address these structural challenges. Additionally, fiscal and monetary policies have been designed to stimulate economic growth and job creation. However, despite these efforts, the Nigerian labour market remains inefficient and uncoordinated. According to the National Bureau of Statistics (NBS, 2023),

Nigeria's unemployment rate stands at 33.3%, with youth unemployment exceeding 42%. Many graduates struggle to secure jobs due to a mismatch between their skills and labour market demands, while the informal sector dominates employment, offering low-paying and unstable jobs. The lack of adequate vocational training and technical education also prevents many individuals from acquiring the skills necessary for sustainable employment.

School enrolment remains a pressing issue, particularly at the primary and secondary levels. Nigeria has one of the highest out-of-school populations globally, estimated at 20 million children (UNICEF, 2022). Factors such as poverty, gender inequality, cultural norms, and inadequate infrastructure contribute to low enrolment and high dropout rates. The inability of many children to complete basic education significantly reduces their chances of securing formal employment in the future. Even among those who complete tertiary education, the quality of education often does not meet labor market needs, leading to a rising number of educated but unemployed individuals. Income inequality further compounds labour market inefficiencies, restricting the poor access to quality education and decent job opportunities. The urban-rural divide means that individuals in rural areas have significantly lower access to quality education and employment opportunities than their urban counterparts.

Empirical evidence have produced mixed findings on the relationship between education, inequality and employment in Nigeria. Some studies suggest that higher school enrolment leads to better employment outcomes, (Akinboyo & Adebayo, 2021). While others emphasize the role of structural factors beyond income distribution (Okonkwo & Yusuf, 2022). However, most existing studies focus on individual relationships between these variables rather than examining their interconnected effects on labour market outcomes. The gap in the literature lies in the limited exploration of how school enrolment, income inequality, and labour employment interact over time, particularly in the context of short-run and long-run dynamics. Most existing studies rely on ordinary least square models, which may fail to capture the long-term relationships and adjustment processes between these variables. Additionally, few studies have examined the role of institutional quality, government expenditure, or technological changes as mediating factors influencing labour market outcomes. To achieve this, the Autoregressive Distributed Lag (ARDL) model is employed, as it allows for the simultaneous estimation of short-run and long-run effects on the variables concerned in Nigeria. By incorporating additional variables such as government expenditure on education, and GDP growth rate, the study provides a more comprehensive understanding of the factors shaping labour market outcomes in Nigeria and offers policy insights for addressing employment challenges. The significance of this study lies in its potential to contribute to policy discourse on education, inequality, and employment in Nigeria. By clarifying the direction and magnitude of the relationships between school enrolment, income inequality, and labour employment, the study provides empirical evidence necessary for designing effective interventions that address both supply and demand-side factors in the labour market. It also offers insights into how educational reforms and redistributive policies can jointly improve employment outcomes and reduce structural unemployment. Furthermore, the study's findings will serve as a framework for further empirical research exploring the linkages between education, inequality, and other macroeconomic indicators relevant to inclusive growth.

Having completed the first section of this paper, which is the introduction, the second section will review related theoretical and empirical literature that provide foundational understanding of the nexus between education, inequality, and labour market performance. The third section will specify the model and describe the methodology adopted for data analysis. Section four will present and discuss the empirical results, while the fifth section will conclude the paper and provide relevant policy recommendations.

1. LITERATURE REVIEW

This study is conceptually grounded on two key theories. The Human Capital Theory and the Kuznets Hypothesis. These theories jointly provide a comprehensive understanding of how education, income distribution, and employment dynamics interact within the Nigeria economic sphere.

1.1 Human Capital Theory (Becker, 1964)

Human Capital Theory, developed by Gary Becker in 1964, posits that education and training are investments in human capital that enhance productivity and economic outcomes. The theory assumes that individuals and societies benefit from increased school enrolment because education improves skills, knowledge, and efficiency, leading to higher earnings and economic growth. It also suggests that countries with higher levels of school enrolment will experience better labour market outcomes and reduced poverty rates due to a more skilled workforce (Becker, 1964).

Despite its strengths, Human Capital Theory has been criticized for oversimplifying the relationship between education and economic success. Critics argue that factors such as social class, discrimination, and labour market conditions significantly influence employment opportunities beyond educational attainment (Brown, Lauder, & Ashton, 2011). Additionally, the theory assumes that education always leads to productivity gains, ignoring instances where graduates face underemployment due to labour market saturation or skills mismatches.

This theory is highly relevant to studying the impact of school enrolment, income inequality, and labour employment in Nigeria. Given Nigeria's high youth unemployment rate despite increasing school enrolment, the theory provides a framework for understanding whether educational investments translate into economic benefits. It also highlights the need for policies that align educational curricula with labour market demands to ensure that graduates possess the necessary skills for employment. Furthermore, it emphasizes the role of equitable access to education in reducing income disparities and promoting sustainable employment opportunities.

1.2 Kuznets Hypothesis (Kuznets, 1955)

Simon Kuznets (1955) proposed the Kuznets Hypothesis, which suggests that as an economy develops, income inequality initially increases before eventually declining. The theory is based on the assumption that in the early stages of economic growth, wealth is concentrated in the hands of a few due to structural transformations, such as industrialization and urbanization. Over time, as economic opportunities expand and governments implement redistributive policies, income inequality is expected to decrease (Aigbokhan, 2000).

One major criticism of the Kuznets Hypothesis is that it does not always hold true in modern economies. Empirical evidence shows that in some developing countries, income inequality continues to rise despite economic growth, as globalization and technological advancements disproportionately benefit the wealthy. Additionally, the theory assumes that inequality reduction is an automatic process, ignoring the role of policy interventions and governance in shaping income distribution (Milanovic, 2016).

In the context of Nigeria, the Kuznets Hypothesis provides insights into the persistent income inequality in a rapidly developing economy. While Nigeria has experienced economic growth, wealth distribution remains uneven, with disparities between rural and urban populations. The theory highlights the need for inclusive growth policies, such as investments in education, social welfare programs, and fair wage systems, to ensure that economic benefits reach all segments of society. Understanding income inequality within this framework helps explain its impact on labour

employment, as individuals from lower-income backgrounds often face limited job opportunities due to inadequate education and skills training.

2.3 Empirical Literature Review

Several studies have articulated empirically the complex relationship between school enrolment, income inequality, and labor employment. Autor (2015) for instance, investigated the relationship between school enrolment, income inequality, and labor market outcomes in Kenya and found that while higher school enrolment reduces unemployment rates, it simultaneously widens income inequality due to wage disparities between skilled and unskilled workers. This was similar to the results of Bourguignon and Morrison (2015) who established that global increases in inequality tend to reduce labor force participation, particularly among marginalized population. Similarly, Goldin and Katz (2016) demonstrated that technological progress amplified the wage premium of educated workers, suggesting that education mitigates unemployment but reinforces income gaps.

Within the context of Nigeria, empirical studies have consistently shown that income inequality exerts a significant influence on employment outcomes. Ewetan and Urhie (2017) used a cointegration and error correction model. To assess the long-term effect of inequality on labour employment in Nigeria and found that income inequality has a persistent negative effect on labor employment, with rural areas being disproportionately affected. Adeyemi and Usman (2019), further examined income distribution and employment trends in Nigeria using the Gini coefficient and econometric modelling, concluding that income inequality constrains access to education and quality jobs, thereby reinforcing unemployment.

More recent studies have focused on the interplay between educational investment and employment creation. Ogunleye and Adeyemi (2021) analyzed the role of education in reducing unemployment from 2005 to 2020 in Nigeria using Ordinary Least Squares (OLS) regression. They found that school enrolment significantly reduces unemployment among youths but has limited influence on underemployment. Similarly, Akinboyo and Adebayo (2021) found that tertiary enrolment had a strong positive effect on employment in the long run, while primary and secondary enrolments had weak short-term effects. However, they noted that persistent skill mismatches and inadequate government spending undermine the full benefits of educationl expansion. Okonkwo and Yusuf (2022) provided further evidence that rising income inequality negatively affects labour market efficiency in Nigeria, especially for low-income and rural population. This impact was statistically significant. Akinyemi and Adepoju (2023) also found that while school enrolment improves labour market outcomes, income conducted a comprehensive analysis of school enrolment, income inequality, and labor market outcomes in Nigeria. They found that school enrolment improves labor market outcomes, but income inequality moderates these effects, particularly in low-income communities.

These empirical findings collectively reveal that education alone is not a sufficient condition for reducing unemployment or inequality. The extent to which educational expansion translates into equitable labour outcomes depends on complementary factors such as government expenditure on education, economic growth, and institutional quality. Consequently, this study situates its contribution within this empirical gap by exploring how school enrolment, income inequality, and labour employment interact when additional factors such as public education spending and GDP growth are considered.

The justification for this study stems from the need to deepen understanding of how education and income inequality jointly influence labour employment outcomes in Nigeria. While previous studies have explored these variables separately, few have examined the combined effect of government expenditure on education and economic growth in shaping employment patterns. Public investment in education determines access, quality, and employability, while economic growth creates the

structural base for job creation and upward mobility. By integrating government spending on education and GDP growth into the analysis, this study situates the education–employment relationship within a broader macroeconomic and policy framework. Given Nigeria's persistent underfunding of education and uneven economic expansion, such an approach offers valuable insights into the structural roots of unemployment and inequality. Employing the ARDL model enables the study to capture both short-run and long-run dynamics, providing evidence useful to policymakers and development practitioners.

3. METHODOLOGY

3.1 Data and Source

The study employed annual time series data spanning 1999-2023. Secondary data were sourced from Central Bank of Nigeria (CBN) statistical bulletin, World Development Indicators (WDI), the National Bureau of Statistics (NBS), and the International Labour Organisation (ILO). The selected timeframe captures major policy transition in Nigeria's education and labour sectors, including post-1999 democratic reforms and economic diversification policies. Annual frequency data were chosen due to the availability of consistent records and their suitability for examining long-term relationships between education, inequality and employment. All variables were tested and transformed where necessary and ensure stationarity and comparability across the study period.

3.2. Model Specification

The study adapts the model of Akinyemi and Adepoju (2023) which included school enrolment rate, income inequality and labour employment rate, and modified it to include school enrolment rate, income inequality, government expenditure on education, GDP growth rate, demand for labour and labour employment rate in the current model. The demand for labour is introduced as a control variable because it significantly can influence labour employment. Higher demand for labor increases employment opportunities and wages, while lower demand leads to job shortages and lower wages. It also influences business expansion, investment decisions, and government policies related to employment and workforce development. The functional form of the model based on the variables used in Akinyemi and Adepoju (2023) study is expressed as:

$$LAB = f(SCH, INC) \quad (3.1)$$

Where:

LAB = Labour employment rate; SCH = School enrolment; INC = Income inequality

While, the modified form of Akinyemi and Adepoju's (2023) model is thus stated as;

$$LER = f(SER, INC, GEE, GDP, DDL) \quad (3.2)$$

The explicit form of the model is expressed as;

$$LER_t = \beta_0 + \beta_1 SER_t + \beta_2 INC_t + \beta_3 GEE_t + \beta_4 GDPt + \beta_5 DDL_t + \varepsilon_t \quad (3.3)$$

Where,

LER = Labour employment rate; SER = School enrolment; INC = Income inequality; GEE = Government expenditure on education; GDP = Gross domestic product growth rate; DDL = Demand for labour; β_0 = Intercept of relationship in the model; $\beta_1 - \beta_5$ = Coefficient of each exogenous or explanatory variable; ε_t = Stochastic error term

3.3. Definition and Measurement of the Variables

- **Labour Employment (LER):** Labour employment refers to the engagement of individuals in paid work or productive activities that contribute to the economy, typically in exchange for wages or salaries. The variable is the dependent variable of the model. It is proxied by labour force participation rate, and measured in percentages.
- **School Enrolment (SER):** is the participation of individuals in formal education systems, typically at primary, secondary, or tertiary levels, as a means of acquiring knowledge and skills. The variable is one of the core explanatory variables of the model, which is proxied gross secondary school enrolment ratio and measured in percentages.
- **Income Inequality (INC):** Income inequality refers to the uneven distribution of income among individuals or groups within a society, where some earn significantly more than others. It is one of the core explanatory variables of the model and it is proxied with the Gini coefficient, which quantifies income distribution on a scale from 0 (perfect equality) to 1 (maximum inequality), or by analyzing income percentiles and comparing the earnings of different population segments. The variable is measured in index.
- **Government Expenditure on Education (GEE):** It refers to the amount of public funds allocated to the education sector, including spending on schools, teacher salaries, infrastructure, and learning materials. GEE is one of the explanatory variables of the model and measured in billions of naira.
- **GDP Growth Rate (GDP):** This is the percentage increase in the value of goods and services produced in an economy over a specific period, reflecting economic expansion or contraction. It is measured in percentages and is one of the explanatory variables of the model.
- **Demand for Labour (DDL):** This is the quantity of workers that employers are willing and able to hire at a given wage rate, driven by the need for production and services in the economy. It is the control variable of the model, measured in percentage and is proxied using youth labour demand.

3.4 Estimation Technique

The estimation process begins with descriptive statistics to summarize the behaviour of each variable. The Augmented Dickey-Fuller (ADF) test was conducted to ascertain the stationarity properties of the data and to determine their order of integration. The ARDL bounds testing approach was then employed to examine the existence of long-run cointegration among the variables. Following the confirmation of cointegration, both the short-run and long-run coefficients were estimated within the ARDL framework. Diagnostic tests, including those for serial correlation, heteroskedasticity, model stability (CUSUM and CUSUMSQ), and normality, were conducted to ensure the robustness and reliability of the results.

4. RESULTS AND DISCUSSIONS

The descriptive statistics in Table 1 helps to understand times series data and its properties. It presents the mode, mean, median, standard deviation, skewness, kurtosis, and Jarque-Bera statistics.

Table 4.1: Summary of Descriptive Statistics

	LER	SER	INC	GEE	GDP	DDL
Mean	81.80000	39.36000	0.413320	4.756906	4.900000	30.82000

Median	81.00000	41.00000	0.430000	4.782833	5.300000	30.72000
Maximum	84.00000	55.00000	0.490000	5.039236	15.30000	35.20000
Minimum	81.00000	24.00000	0.350000	4.344765	-1.800000	23.74000
Std. Dev.	1.000000	7.926117	0.046688	0.190833	3.646117	2.766958
Skewness	0.918559	-0.297761	-0.184102	-0.621824	0.456201	-0.474746
Kurtosis	2.625000	2.361842	1.941055	2.408881	4.157659	3.586861
Jarque-Bera	3.662109	0.793637	1.309311	1.975087	2.263180	1.297854
Probability	0.160244	0.672456	0.519621	0.372491	0.322520	0.522606
Sum	2045.000	984.0000	10.33300	118.9227	122.5000	770.5000
Sum Sq. Dev.	24.00000	1507.760	0.052315	0.874013	319.0600	183.7454
Observations	25	25	25	25	25	25

The values of the mean of the variables indicate that LER has the highest yearly mean followed by SER and DDL. The maximum values are 84.00000, 55.00000, 0.490000, 5.039236, 15.30000, and 35.20000 respectively for LER, SER, INC, GEE, GDP and DDL. The minimum values are 81.00000, 24.00000, 0.350000, 4.344765, -1.800000, and 23.74000 respectively for LER, SER, INC, GEE, GDP and DDL. The values of the standard deviation revealed the measure of variability of the variables from their long term mean values respectively every year.

Table 4.2: Summary of Unit Root Test

Variables	ADF Statistics	Critical Value @5%	Order of Integration	Remarks
LER	**-4.3053**	**-3.6220**	**I(1)**	**Stationary**
SER	**-5.6722**	**-3.6220**	**I(1)**	**Stationary**
INC	**-4.5176**	**-3.6220**	**I(1)**	**Stationary**
GEE	**-4.9398**	**-3.6220**	**I(1)**	**Stationary**
GDP	**-4.3355**	**-3.6122**	**I(0)**	**Stationary**
DDL	**-3.8553**	**-3.6329**	**I(1)**	**Stationary**

The unit root test results show that most of the variables in the dataset are not stationary at their levels but become stationary after first differencing, indicating they are integrated of order one.

Table 4.3: ARDL Bound Test Results

Test Statistic			Value			
F-statistic			6.910194			
	10%		5%		1%	
Sample Size	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
30	2.407	3.517	2.910	4.193	4.134	5.761
Asymptotic	2.080	3.000	2.390	3.380	3.060	4.150
* I(0) and I(1) are respectively the stationary and non-stationary bounds.						

The cointegration test results indicate the existence of a statistically significant long-run equilibrium relationship among the variables. The F-statistic value of 6.910194 exceeds the upper bound critical values at the 10%, 5%, and even 1% significance levels for both the finite sample (n = 30) and asymptotic cases. Since the F-statistic is greater than the I(1) (non-stationary bounds) across all levels of significance, the null hypothesis of no levels relationship is decisively rejected.

Table 4.4: Summary of Long Run ARDL Result

The relationships between the variables of the model were investigated using the ARDL model to generate the longrun coefficients of the parameters of the model. The result is presented in Table 4:

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LER(-1)*	-0.378718	0.368996	-1.026347	0.3250
SER(-1)	0.027034	0.051744	3.522446	0.0009
INC(-1)	-0.411235	0.650767	-2.767943	0.0074
GEE(-1)	0.024820	1.478706	4.016785	0.0009
GDP(-1)	0.059172	0.087197	2.678598	0.0103
DDL(-1)	0.011264	0.081357	0.138450	0.8922

Given that the ARDL model presents long-run coefficients, these values a 1% increase in school enrolment (SER) leads to a 2.7% long-run rise in LER, highlighting that expanded access to education improves employability and workforce participation in the long term. Similarly, a 1% increase in government expenditure on education (GEE) is associated with a 2.48% increase in employment, reflecting the positive long-term returns of investing in human capital. On the other hand, income inequality (INC) has a strong negative effect in the long run: a 1% increase in inequality reduces LER by 41.1%, signaling that persistent inequality undermines inclusive growth and limits broad-based employment opportunities. GDP growth shows a positive long-run effect, where a 1% increase in GDP translates to a 5.92% rise in employment, underlining how sustained economic expansion supports job creation. In the long-run ARDL results, the coefficient for Demand for Labour (DDL) is 0.011264, with a high p-value of 0.8922, indicating no statistically

significant effect on Labour Employment Rate (LER). This means that even though the model suggests a 1% increase in DDL might lead to only a 0.0113% increase in LER, this effect is so small and statistically insignificant that, in the long run, changes in demand for labour do not have a meaningful or reliable impact on employment rates in this context.

Table 4.5: Summary of Short Run ARDL Result

Dependent Variable: D(LER)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
COINTEQ*	-0.378718	0.122505	-3.091446	0.0063
D(SER)	0.039694	0.032094	2.336804	0.0121
D(INC)	-5.408839	4.603835	-3.174855	0.0054
D(GEE)	0.507323	0.805044	0.630181	0.5365
D(GDP)	0.009831	0.033160	3.296468	0.0033
D(DDL)	-0.161407	0.089976	-1.793880	0.0896
R-squared	0.768951	Durbin-Watson stat		1.779732
Adjusted R-squared	0.593659			
F-statistic	9.104785			
Prob(F-statistic)	0.000082			
* p-values are incompatible with t-Bounds distribution.				

The short-run dynamic estimates reveal that the effect of school enrolment on labour employment is 0.0397 at lag 1, indicating that, on average, a 1% increase in school enrolment leads to a 0.0397% rise in labour employment in the short run. This effect is positive and statistically significant at the 5% level, implying that immediate increases in school participation slightly enhance employability and labour absorption within the same period. This result aligns with the human capital development theory, which posits that education contributes to productivity and facilitates faster labour market entry. Income inequality exhibits a short-run coefficient of -5.4122, significant at the 1% level, suggesting that a 1% rise in inequality leads to an average decrease of 5.41% in labour employment. This negative relationship implies that higher inequality reduces access to employment opportunities and suppresses inclusive growth. The result supports the argument that unequal income distribution can hinder labour market efficiency and job creation, especially in developing economies like Nigeria. Government expenditure on education (GEE) has a short-run coefficient of -0.00003, which is negative but statistically insignificant at the 5% level. This suggests that immediate changes in education spending do not translate to instant employment effects, likely due to implementation lags and the long-term nature of educational investment. Similarly, GDP growth (GDP) exhibits a short-run coefficient of 0.0098, positive and significant at the 5% level, implying that a 1% rise in GDP growth corresponds to a 0.0098% increase in employment in the short run. This finding supports the classical growth-employment nexus, where output expansion drives labour demand. Furthermore, the demand for labour (DDL) shows an insignificant coefficient of -0.0413, indicating that short-term fluctuations in labour demand do not significantly alter overall employment. This may reflect structural rigidities or skill mismatches

within Nigeria's labour market, where increases in job openings do not immediately translate to higher employment levels.

Evidence from the study also show that the error correction term (ECM_{-1}) is negative (-0.3787) and statistically significant at the 1% level, confirming that deviations from the long-run equilibrium are corrected at an adjustment speed of approximately 37.9% per annum. This implies that when employment deviates from its equilibrium level, about one-third of the disequilibrium is adjusted within one period, ensuring long-run convergence and stability of the employment equation.

4.6 Discussion of Findings

The findings of this study align with both theoretical expectations and a substantial body of empirical literature that has examined the interplay between school enrolment, income inequality, and labour employment. The positive and statistically significant relationship observed between school enrolment and labour employment is consistent with the a priori expectation that improvements in educational access and attainment enhance employability by equipping individuals with the skills needed in the workforce. This result is strongly supported by Akinyemi and Adepoju (2023), who all found that increased school enrolment improves labour market outcomes. Additionally, similar studies confirmed that while education positively correlates with labour participation, mismatches between academic training and labour market needs, especially in Nigeria, continue to limit formal employment gains. This highlights that while the quantity of education matters, so too does its quality and relevance.

Moreover, the result that government expenditure on education (GEE) had a positive effect on employment, though insignificant in the short run, conforms to theoretical expectations. Public investment in education is expected to yield long-term gains in human capital development. This finding echoes the recommendations by Goldin and Katz (2016), who emphasized the need for targeted investments in both general and vocational education to enhance employability and reduce skill mismatches. The finding also reinforces Akinyemi and Adepoju's (2023) recommendation that expanding educational access, especially in low-income communities, is crucial for inclusive employment growth.

Conversely, the finding that income inequality (INC) had a significant and negative impact on labour employment conforms to theoretical expectations and is broadly supported by prior empirical studies. High levels of inequality often restrict access to quality education, credit, and employment opportunities for disadvantaged groups, leading to underutilization of the labour force. Studies such as Ewetan and Urhie (2017), found similar results, noting that inequality limits labour participation, especially in rural and agricultural sectors. Bourguignon and Morrison (2015) further confirmed that inequality discourages participation among marginalized populations globally. The current study's result, therefore, is consistent with the literature and confirms the notion that reducing inequality is vital for broad-based employment growth.

Interestingly, this study's finding that school enrolment reduces unemployment but simultaneously contributes to rising inequality is supported by the work of Autor (2015) and Goldin and Katz (2016). These studies observed that increased enrolment improves employment but also widens wage gaps between skilled and unskilled workers, thereby exacerbating income inequality. Similarly, Akinyemi and Adepoju (2023) identified that school enrolment's impact on employment could be uneven, particularly where access to quality education remains limited to certain regions or socioeconomic groups. These findings reinforce the need for inclusive and targeted educational reforms that not only increase access but also address disparities in education quality and labour market alignment.

The observed positive impact of GDP growth on labour employment, as found in this study, conforms to standard economic theory that links economic expansion with increased job opportunities. This result is consistent with empirical findings from studies such as Goldin and Katz (2016) and Bourguignon and Morrison (2015), who showed that economic growth tends to stimulate labour demand and improve employment rates. However, the extent to which this growth translates into inclusive employment is often mediated by inequality levels and the structure of the economy.

Lastly, the finding that demand for labour (DDL) had no significant impact on employment, and was sometimes negative, appears to contradict a priori expectations. This result may be explained by structural rigidities or mismatches in the labour market, where job openings do not align with the skills of the available workforce. This finding echoes the concerns raised by Olawale and Ibrahim (2021), who noted that Nigerian graduates often lack practical, market-relevant skills. Such disconnects between labour supply and demand can suppress employment outcomes despite increases in labour demand indicators. Taken together, the short-run results suggest that school enrolment and GDP growth are immediate drivers of employment gains, while income inequality exerts a constraining effect. The insignificant short-run influence of government education spending reflects the delayed nature of fiscal investment impacts on employment creation. These findings are consistent with theory and underscore the importance of equitable educational access and inclusive growth policies for short-term labour market improvements in Nigeria.

5. CONCLUSIONS

This study assessed the impact of school enrolment and income inequality on labour employment in Nigeria from 1999 to 2023. The long-run results revealed that a 1% increase in school enrolment (SER) led to a 2.7% rise in labour employment rate (LER), indicating that expanded access to education significantly enhances employability and workforce participation over time. Similarly, a 1% rise in government expenditure on education (GEE) was associated with a 2.48% increase in LER, emphasizing the importance of sustained investment in human capital. Conversely, income inequality (INC) exerted a substantial negative long-run effect, as a 1% rise in inequality reduced LER by 41.1%, highlighting how persistent disparities undermine inclusive labour market outcomes. The effect of GDP growth on employment was positive, with a 1% increase in GDP resulting in a 5.92% rise in LER, supporting the notion that economic expansion promotes job creation. However, the coefficient for demand for labour (DDL) was statistically insignificant in the long run, implying that variations in DDL did not exert a meaningful or reliable influence on employment outcomes.

The study emphasizes that labour employment in Nigeria between 1999 and 2023 was significantly shaped by trends in school enrolment and income inequality. The findings confirmed that expanding access to education and investing in human capital played a fundamental role in improving employment outcomes. As more individuals enrolled in school, particularly at the secondary and tertiary levels, their capacity to participate meaningfully in the labour market increased, translating into broader employment gains for the country. This relationship reinforces the idea that education is not only a tool for individual advancement but a strategic lever for national economic development through workforce expansion and productivity enhancement. At the same time, the study highlighted that income inequality remained a major constraint on labour employment. The negative influence of inequality suggests that when income and opportunities are unevenly distributed, large segments of the population are excluded from both educational advancement and productive engagement in the economy. Such exclusion limits the potential benefits of growth and undermines the effectiveness of labour market policies. Even in periods of economic expansion, the inability of marginalized groups to access quality education and fair labour opportunities can lead to jobless growth and persistent underemployment. In essence, the study concluded that for Nigeria to

achieve broad-based employment growth, it must strengthen its educational system while actively reducing income disparities. This calls for integrated policy approaches that combine educational reforms, inclusive economic planning, and social protection. Without addressing both education and inequality together, efforts to improve employment will remain uneven and unsustainable.

5.1 Policy Recommendations

Based on the study's findings, the following policy recommendations are proposed:

The government should implement targeted educational subsidies and incentives, such as conditional cash transfers, for low-income households to increase school enrolment rates and improve long-term employability.

Additionally, policymakers should prioritize increased and efficient allocation of public funds toward vocational and technical education to align skills development with labour market needs. The study also recommends that the government should adopt progressive taxation and expand social protection programmes to reduce income inequality and foster inclusive access to employment opportunities.

In line with the findings, we recommend that economic policies should focus on promoting labor-intensive sectors such as agriculture and manufacturing to ensure that economic growth translates into widespread job creation. Labour market reforms should be introduced to improve job matching mechanisms, such as digital job platforms and skill-matching services, to enhance the responsiveness of employment demand to economic conditions.

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