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PUBLIC SPENDING, ECONOMIC GROWTH, AND JOB CREATION: A STUDY OF NIGERIA

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Abstract: This study empirically examined the effect of government expenditure on employment generation in Nigeria between 1988 and 2022. The study proxied employment generation by total employment while the proxies of government expenditure adopted are government expenditure on agriculture, government expenditure on education, government expenditure on health and government expenditure on construction. Time series data utilized were sourced from National Bureau of Statistics (NBS) report and Central Bank of Nigeria (CBN) statistical bulletin. The study adopted Autoregressive Distributed Lag (ARDL) technique as the main data analysis technique. The findings of this study revealed that there is long run relationship among total employment, government expenditure on agriculture, government expenditure on education, government expenditure on health and government expenditure on construction in Nigeria while government expenditure on agriculture, government expenditure on education, government expenditure on health and government expenditure on construction have positive and significant effect on total employment in Nigeria. Based on the findings, the study concluded that government expenditure plays a significant positive role in employment generation in Nigeria. The study recommended among others that government should expand government spending on construction projects, including infrastructure development such as roads, bridges, housing, and public buildings, to generate significant employment opportunities. This can absorb a large portion of the unemployed, particularly unskilled and semi-skilled workers, thereby reducing overall unemployment rates in the country.

Key words: Total Employment, Government Expenditure, Agriculture, Education, Health, Construction.

1. INTRODUCTION

Employment generation is a critical component of economic development, particularly in developing nations like Nigeria, where unemployment remains a pressing challenge. Governments worldwide play a pivotal role in fostering job creation through targeted expenditure on infrastructure, education, health and other key sectors. Public expenditure is often seen as a potent tool to stimulate economic activity, boost productivity, and address labour market inefficiencies (Al-Yusuf 2019, Onodugo, Obi, Anowor, Nwonye and Ofoegbu 2017). According

to Nazar and Tabar (2013) government expenditure is an aspect of public finance that deals with how government spends revenue generated in meeting the needs of the public at large. Generally, government expenditure in Nigeria can be categorized into two component parts, namely; capital expenditure and recurrent expenditure. Capital expenditure is incurred on the creation or acquisition of fixed assets (new or second-hand). In other words, expenses on capital projects like roads, airports, health, education, telecommunication, electricity generation etc. are referred to as capital expenditure while the recurrent expenditure are government expenses on administration such as wages, salaries, interest on loans, maintenance etc. (Oniore & Obumneke, 2014). Both capital expenditure and recurrent expenditure play a vital role in controlling unemployment in developed and developing economies, Nigerian inclusive. However, one of the greatest challenges of the Nigerian economy today is the high rate of unemployment that has maintained a tremendous rising trend over the years. The problem of unemployment has been of great concern to the economists and policy makers in Nigeria since early 1980s (Kemi & Dayo, 2014). Unemployment is a social and economic malady that has eaten deep into the Nigerian economy. The effect is very calamitous on the government and her citizens. It reduces the standard of living of members of the society. It has been evidenced that the insecurity, insurgency and terrorism ravaging the North East region of Nigeria as well as militancy, kidnapping, sea piracy and pipe line vandalism in the Niger Delta are as a result of the high rate of unemployment in the country (Egbulonu & Amadi, 2016). Employment generation refers to the process of creating new job opportunities and increasing the level of employment within an economy. This can be achieved through various means, including economic growth, investment in infrastructure and industries, entrepreneurship, skills development, and labour market policies. Employment generation is a crucial aspect of economic development as it contributes to poverty reduction, social stability, and inclusive growth. (Egbulonu & Amadi, 2016). According to Nnamdi (2019) government expenditure can directly lead to the creation of jobs in the public sector through hiring for various government agencies, departments, and projects. This includes positions in areas such as education, healthcare, infrastructure development, public administration, and defence. Also, Ndubueze, Okoli, Onwuka and Mba (2020) stated that government expenditure on infrastructure projects, such as road construction, bridge building, urban development, and public transportation, directly contributes to employment generation in the construction sector. These projects require a significant labour force, including engineers, architects, construction workers, and labourers, leading to job creation and reduction in unemployment. Unemployment remains a persistent socio-economic challenge in Nigeria, with far-reaching implications for poverty, inequality and social unrest. Despite substantial government expenditure aimed at fostering economic growth and development, the unemployment rate has continued to rise, particularly among the youth. This mismatch between government spending and the labour market outcomes raises questions about the ineffectiveness of fiscal policies in addressing the employment crises. Over the years, Nigeria has implemented various public spending programs, including investments in infrastructure, education and skill acquisition with the expectation that these initiatives would stimulate job creation. However, the anticipated improvements in employment levels have not been fully realized. According to recent data from the National Bureau of Statistics (NBS), unemployment and underemployment remain stubbornly high, signalling inefficiencies in translating public expenditure into meaningful employment opportunities. The challenge is further compounded by the lack of clarity on which categories of government expenditure have the most significant impact on employment generation. Without a proper understanding of the relationship between public spending and job creation, fiscal resources may be allocated inefficiently, exacerbating the unemployment problem. The scenario above requires further investigation into the relationship between government expenditure and employment generation in

Nigeria. Consequently, the major questions that come to mind are: To what extent does government expenditure on agriculture affect employment generation in Nigeria? How does does government expenditure on education affect employment generation in Nigeria? Does government expenditure on health affect employment generation in Nigeria? What is the relationship between government expenditure on construction and employment generation in Nigeria? Hence, this study determined the effects of government expenditure on employment generation in Nigeria over the period 1988 to 2022, by identifying the key sectors and expenditure categories that drive job creation in Nigeria thereby providing evidence-based recommendations for enhancing the effectiveness of fiscal policy in reducing unemployment and fostering inclusive economic growth

2. LITERATURE REVIEW

Theoretical Framework

Wagner's Theory of Government Expenditure

This theory was postulated by Wagner in 1890. Wagner was the first to model a relationship between government expenditure and economic growth of a country. He argued that government spending is an endogenous factor, which is determined by the growth of national income. This view is what is popularly known as Wagner's Law in the empirical literature. This relationship he postulated between the government expenditure and national income in the late 19th century popularly known as Wagner's Law. Wagner's Law originally states that as population of a country rises, government activities expand both intensively and extensively calling for an increase in government spending. This implies that government expenditure is a function of population growth. There is a functional relationship between the growth of an economy and government activities with the result that the governmental sector grows faster than the economy (Adesoye, Oladele & Emmanuel, 2010). Ibok and Bassey (2014) quoting (Wagner, 1912) stated that, Wagner's Law suggests that during the process of economic development, the share of government spending in national income tends to expand. This implied that there is a long-run tendency for government activities to grow relative to economic activity. Specifically, the law states that, during the process of economic development, the share of government expenditures in total economic activities increases as the real income per capita of a nation increases. Thus, a higher level of economic growth requires higher levels of government expenditure. They further explained that, according to Wagner, three main reasons support this hypothesis. These are:

1. During industrialization, the administrative and regulatory functions of the state would substitute public for private activity.
2. Economic growth would result in increased need for cultural and welfare services, which are assumed to be income elastic.
3. State participation would be inevitable to provide the capital funds to finance large-scale projects made to satisfy the technological needs of an industrialized society, where private sector lacks the capacity.

Furthermore, Wagner's law state that government grows because there is an increasing demand for public goods and for the control of externalities. In effect, the law also suggests that causality runs from national income to government expenditure, indicating that government expenditure is considered endogenous to the growth of national income. Another rationale for Wagner's law can be found in public choice models, such as the one analyzed by Meltzer and Richard (1981). In their model government spending is undertaken to satisfy the median voter, which would generate a relationship between economic growth and government expenditure if the position of the decisive median voter in the income distribution shifts towards the lower end. For example, as economy

grows, incomes of skilled workers might increase faster than the incomes of unskilled workers, leading to increased inequality (Dada & Adewale, 2013).

Keynesian Theory of Income, Output, Employment and Interest

As postulated by Keynes (1939), public expenditures can contribute positively to economic growth by increasing government consumption through increase in employment, profitability and investment. The theory also holds that government can reverse economic downturns by borrowing money from the private sector and returning the money to private sector through various spending. This theory believes that active government intervention in the market place through government expenditure was the only method for ensuring full employment by ensuring efficiency in resources allocation and regulation of markets. Keynes posited that in the short run, economic growth through full employment is strongly influenced by total spending in the economy. This theory regards the economy as being inherently unstable and required active government intervention through spending to achieve full employment. Keynesian theory posits that our ability to understand what determines the level of spending will help us to know what determine the level of employment, production of output and income in the economy. Keynesian theory suggests that public expenditure stimulates the economy, reduces unemployment and make households feel wealthier on the basis of government spending (Ojong & Hycenth, 2013). This theory assumed that: (i) The real wage is equal to the marginal disutility of the existing employment; (ii) There is no such thing as involuntary unemployment in the strict sense; and (iii) Supply creates its own demand in the sense that the aggregate demand price is equal to the aggregate supply price for all levels of output and employment. There exits strong nexus between this study and the theories reviewed. Such nexus are elucidated thus; (i) empirical evidence reveals that government intervention in every economy around the world is inevitable as demonstrated during the recent recession which results in government stimulus funds to bail out some failed banks, in UK, USA and Nigeria; (ii) government intervention is very indispensable in providing critical social and economic infrastructural facilities (roads, power supply, schools, rail system, communication, hospitals, etc) which are required for economic growth and development; (iii) government expenditure results in investments in public projects and programmes, which enhances development of infrastructural amenities that can invariably improves productive sectors of the economy which provides employment opportunities for the populace; and above all, (iv) improved industrial production as a result of government expenditure on development of infrastructural amenities attracts foreign direct investment, and invariably provides job opportunities for the available labour force.

Empirical Literature

Okoroigwe (2024) examined the effect of govt expenditure on economic growth in Nigeria. The specific objectives were to examine the effect of government expenditure on agriculture, education, health and security on gross domestic product in Nigeria. The data covered a 7 -year period 2016 to 2022 sourced from the central bank of Nigeria CBN statistical bulletin. Multiple regression and Correlation analysis were applied in hypothesis testing. The study found that government expenditure on agriculture, education, health, and security all have a positive and significant effect on gross domestic product in Nigeria. Nnamdi (2023) established the relationship between government expenditure and employment generation of Nigeria, motivated this study. Secondary data sourced from the CBN Statistical bulletin were used to experiment on the disaggregated impact of government expenditure on administration, economic services, social community services and transfers have on the rate of unemployment in Nigeria. The Error Correction econometric model (ECM), the Johansen cointegration and the Granger causality tests were the central analytical tools used in the study. The stationary test showed that the variables were non-stationary at levels but all were stationary at first difference. In the short-run, a positive

relationship was observed. The short-run coefficient of economic services and unemployment was observed to be negative and the direction of causality was from government expenditure on economic services. Expenditure on social community service observed negative and statistically and observed a weak causal influence on unemployment. This highlights the unique case of underdeveloped nature of Nigerian economy. Interestingly, government expenditure on Administration were found to be positive and statistically significant and the direction of causality was from government expenditure on administrative expenses. However, there was no causal relationship between government expenditure on transfers and unemployment. There is, therefore, the need for policy makers to keep an eye on the trend and effects of changes in expenditure on administration and economic services, given that the result indicates that expenditure on them explains the employment behavior in Nigeria.

Ugochukwu and Oruta (2021) examined the effect of various components of government expenditures on economic growth in Nigeria for periods between 1981 and 2020. The analysis was based on Secondary data. The study adopted the Error Correction model and Granger Causality Test. The short-run model revealed that the components of government expenditures like recurrent expenditures on agriculture, health and education have an insignificant negative impact on economic growth. Recurrent expenditure on debt servicing and road and construction indicated a positive and negligible impact on economic growth. Concerning capital expenditures, government capital expenditures on social services were shown to have a negative and significant impact on economic growth. In contrast, government capital expenditures on economic services indicated a positive and insignificant impact on economic growth in Nigeria. In the long run, all the components of government expenditures employed showed a significant effect on economic growth. The research finding establishes no clear conclusion about whether Keynesian or Adolf Wagner's law is operational in Nigeria. The study concluded that the Nigerian economy is on the wrong path to sustainable growth and development. The study recommended that the government should increase its allocations to priority sectors like health, education, agriculture and infrastructures. Furthermore, the government should stimulate investment and output using monetary and fiscal policies to increase internally generated revenue and reduce government borrowing. Lastly, the study emphasises the need to improve government spending efficiencies, transparency in budgetary processes, and strict monitoring of government projects. Ndubueze, Okoli, Onwuka and Mba (2020) examined the effect of government social expenditure on unemployment in Nigeria from 1981 to 2016. The study made use of secondary data and employed Ordinary Least Square (OLS) regression method. The results revealed that government recurrent expenditure does not have statistically significant impact on unemployment in Nigeria, whereas capital expenditure does. Also, the overall statistic showed that recurrent and capital expenditure on health and education has significant impact on unemployment in Nigeria. From the results, the study therefore concluded that government expenditure on health and education and other social and community activities on both recurrent and capital nature meant to contribute to unemployment reduction Nigeria failed to do so. Hence, the study recommended that Nigerian government should ensure that funds allocated to health, education and other social and community activities are properly utilized. Ebi and Ibe (2019) empirically examined the causal relationship between government expenditure and unemployment from 1981 to 2017. Data used was secondary and obtained from Central Bank of Nigeria (CBN) Statistical Bulletin of various years and other reports. Unemployment rate was the dependent variable. Government expenditure was decomposed into recurrent and capital expenditure (independent variables). Unit root test indicates the variables were integrated in order (I). Cointegration test results indicate a long-run equilibrium relationship between unemployment rate (UEMR), recurrent expenditure (REXR) and capital expenditure (CEXR). There is negative and significant relationship between unemployment rate (UEMR) and

recurrent expenditure (REXR). The negative relationship agrees with a priori expectations. On the other hand, relationship between unemployment rate (UNER) and capital expenditure (CEXR) is positive and significant. However, the positive relationship is contrary to our a priori expectation. This means that a change in government expenditure will impact unemployment rate. Increased government capital expenditure results in increased unemployment rate instead of a decrease. There is no causal relationship amongst all the variables of interest. As measures to reverse the above trend and reduce unemployment using government expenditure and borrowing as instruments, there should be re-allocation of capital expenditure so as to enhance employment opportunities for unemployed people. Onodugo, Obi, Anowor, Nwonye and Ofoegbu (2017) empirically determined the impact of public sector expenditures (CEXP and REXP) together with private sector investment (PINV) on unemployment (UNEMP) in Nigeria. The study made use of a regression model with annual data from 1980 to 2013. Capital expenditure and private sector investment both in the medium to longrun were found to serve as catalyst towards reduction of unemployment, while recurrent expenditure was not statistically strong enough to do same. The R-squared (0.84) showed that greater proportion of the total variations in UNEMP was brought about by variations in the regressors. The study recommended that the proportion of capital expenditure in Nigerian budget profile should be systematically increased while the recurrent expenditure should be reduced. Obayori (2016) investigated fiscal policy and unemployment in Nigeria. The study utilized aggregate annual data from 1980 to 2013. The data was analyzed with the co-integration and ECM methods. The findings are: the test for stationarity using Augmented Dickey Fuller (ADF) showed that all the variables were stationary at various levels. The Johansen-Juselius co-integration employed in testing for long run equilibrium relationship among the variables indicated that cointegrating relationship was found among the variables. The result further revealed that the two independent variables (Government Capital and Recurrent Expenditure) have both negative and significant relationship with unemployment in Nigeria. The result also reveals a long run relationship between fiscal policy and unemployment, as depicted by both the sign and the statistically significant of the coefficient of the ECM. From the result so far, it is obvious that fiscal policy is effective in reducing unemployment rate in Nigeria. Udoffia and Godson (2016) investigated the effect of federal government expenditure on the Nigerian economic growth. The main objective of the study was to ascertain whether there is a relationship between federal government expenditure and economic growth in Nigeria. The study adopted the Ordinary Least Square estimation technique to estimate the model specified using time series data for the period 1981-2014. The data used in the analysis were gotten from Central Bank of Nigeria (CBN) statistical bulletin. Real Gross Domestic Product was used as the dependent variable while federal government capital and recurrent expenditures were used as the independent variables. The result from the regression analysis shows that federal government capital and recurrent expenditures have positive effects on real GDP. The study recommended that federal government should direct more of its recurrent expenditure towards economic and community services as they accelerate economic growth.

3. METHODOLOGY

Research Design

The research design adopted for this study was ex-post facto research design. Ex-post facto design is deemed appropriate for the study because the study is quasi-experimental, and seeks to investigate causal relationship between the independent variable (government expenditure) and the dependent variable (employment generation) of the study, making use of already existing data. Time series data spanning from 1988 to 2022 covering a period

of thirty-five (35) years were obtained from National Bureau of Statistics (NBS) report and Central Bank of Nigeria (CBN) statistical bulletin.

Model Specification

The model was stated functionally as follows:

TEM = f (GEA, GEE, GEH, GEC) (3.1)

Equation (3.1) above was transformed into a mathematical model with the introduction of regression intercept and parameters as follows:

$TEM = \delta_0 + \delta_1 GEA + \delta_2 GEE + \delta_3 GEH + \delta_4 GEC$ (3.2)

Equation (3.2) above was transformed into an econometric model with the introduction of error term as follows:

$TEM = \delta_0 + \delta_1 GEA + \delta_2 GEE + \delta_3 GEH + \delta_4 GEC + \mu_t$ (3.3)

Where:

TEM = Total Employment, GEA = Government Expenditure on Agriculture, GEE = Government Expenditure on Education, GEH = Government Expenditure on Health, GEC = Government Expenditure on Construction, f = Functional Relationship, δ_0 = Slope of the Regression Line/intercept/constant variable, $\delta_1 - \delta_4$ = coefficients of independent (explanatory) variables, μ_t = error term

A Priori Expectation: $\delta_1 > 0, \delta_2 > 0, \delta_3 > 0, \delta_4 > 0$

Specifically, the ARDL model for this study based on the variables in equations (3.3) is provided below:

$$\Delta TEM_t = \alpha_0 + \sum_{i=1}^{p} \alpha_1 \Delta TEM_{t-1} + \sum_{i=1}^{q} \alpha_2 \Delta GEA_{t-1} + \sum_{i=1}^{q} a_3 \Delta GEE_{t-1} + \sum_{i=1}^{q} a_4 \Delta GEH_{t-1} + \sum_{i=1}^{q} a_5 \Delta GEC_{t-1} + \lambda_1 TEM_{t-1} + \lambda_2 GEA_{t-1} + \lambda_3 GEE_{t-1} + \lambda_4 GEH_{t-1} + \lambda_5 GEC_{t-1} + \varepsilon_{1t}$$

α_0 = constant parameter to be estimated; $\alpha_1 - \alpha_5$ = short run parameters; λ_1 - λ_5 = long-run multipliers; p = optimal lag for each of the dependent variables; q = optimal lag of the independent variables; □= first difference operator; $_{1t}$ = error term;

Data Analysis Techniques

The method of estimation employed was the Autoregressive Distributed Lag ARDL approach following the results of the pre-tests which showed that the variables have mixed stationarity, that is I(0) and I(1), and evidence of long-run relationship from the bound cointegration test results, using E-Views 12.0 statistical software.

4. RESULTS ANALYSIS AND DISCUSSION FO FINDINGS

Unit Root Test

The Augmented Dickey-Fuller (ADF) unit root test results are summarized in the table below:

Table 1: Augmented Dickey-Fuller (ADF) Test Results

	At Levels		At First Difference			
Variables	**ADF**	**Mackinnon Critical Value @ 5%**	**ADF**	**Mackinnon Critical Value @ 5%**	**Remark**	**Order of Integration**
$InTEM_t$	-	-2.951125	-	-2.954021	Stationary at 1st	I(1)

	1.343645		5.964647		Difference		
$InGEA_t$	-2.483818	-2.957110	-8.314491	-2.954021	Stationary Difference	at 1st	I(1)
$InGEE_t$	-4.507529	-2.967767			Stationary at Level		I(0)
$InGEH_t$	-2.341125	-2.976263	-8.207725	-2.971853	Stationary Difference	at 1st	I(1)
$InGEC_t$	-1.661394	-2.960411	-6.044309	-2.960411	Stationary Difference	at 1st	I(1)

Source: Author's Computation, 2024.

The results of the ADF Unit Root Test as shown in Table 1 indicates that at 5% level of significance, the Augmented Dickey Fuller (ADF) test statistics for government expenditure on education (GEE) is greater in absolute value than the individual critical values. This therefore indicates that government expenditure on education (GEE) was stationary at level and was therefore integrated at order zero [that is, I (0)]. On the other hand, the Augmented Dickey Fuller (ADF) test statistic for total employment (TEM), government expenditure on agriculture (GEA), government expenditure on health (GEH) and government expenditure on construction (GEC) are greater in absolute value than the critical value. This therefore indicates that total employment (TEM), government expenditure on agriculture (GEA), government expenditure on health (GEH) and government expenditure on construction (GEC) were stationary at first difference and were therefore integrated at order one [that is, I(1)]. This implies that variables are mixed integrated. We therefore proceed to establish or ascertain the existence or nonexistence of long-run cointegrating relationship among the variables in the equation using bound cointegration test.

Bounds Cointegration Test

The results of the Bound cointegration test are presented in Table 2 below:

Table 2: Bounds Cointegration Test

Null Hypothesis: No LongRun Relati		**onships Exist**		
Critical Value Bounds				
T-statistic	**Value**	**Significance**	**I(0)**	**I(1)**
F-statistic	8.570410	10%	2.2	3.09
K 4		5%	2.56	3.49
		2.5%	2.88	3.87
		1%	3.29	4.37

Source: Author's Computation, 2024.

Since the computed F-statistic (8.570410) is greater than upper bound critical value (3.49) at 5% significant level, there is sufficient statistical evidence to conclude that there exists a long run relationship or cointegration among total employment (TEM), government expenditure on agriculture (GEA), government expenditure on education (GEE), government expenditure on health (GEH) and government expenditure on construction (GEC). Hence, the study employed the ARDL estimation technique for the analysis of the model.

Estimation of Autoregressive Distributive Lag (ARDL) Model

Long-Run Autoregressive Distributed Lag (ARDL) Analysis

The long run Autoregressive Distributed Lag (ARDL) estimation results are presented in Table 3:

Table 3: Result of Long-Run ARDL Coefficients

Dependen Variable= $InTEM_t$				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
$InGEA_t$	0.995359	0.218926	4.546552	0.0014
$InGEE_t$	0.600041	0.176971	3.390623	0.0080
$InGEH_t$	0.818445	0.498440	1.642012	0.1350
$InGEC_t$	0.601573	0.146786	4.098307	0.0027
C	5.245655	0.776448	6.755967	0.0001

Source: Author's Computation, 2024.

The results long-run ARDL in Table 3 revealed that government expenditure on agriculture has a positive and significant relationship with the total employment in Nigeria. This is evidenced by the positive coefficient value (0.995359) of government expenditure on agriculture and its p-value (0.0014) which is less than 0.05. Furthermore, government expenditure on education has positive and significant impact on total employment in Nigeria. This is evidenced by the positive coefficient value (0.600041) of government expenditure on education and its p-value (0.0080) which is less than 0.05. Moreover, government expenditure on health has positive and non-significant effect on total employment in Nigeria. This is evidenced by the positive coefficient value (0.818445) of government expenditure on health and its p-value (0.1350) which is greater than 0.05. Lastly, government expenditure on construction has positive and significant effect on total employment in Nigeria. This is evidenced by the positive coefficient value (0.601573) of government expenditure on construction and its p-value (0.0027) which is less than 0.05.

Short-Run Autoregressive Distributed Lag (ARDL) Analysis

The short run dynamic Autoregressive Distributed Lag (ARDL) error correction method results are presented in Table 4:

Table 4: Result of Short-Run ARDL Coefficients

Dependent Variable = $InTEM_t$				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.***
$DIn(TEM_{t-1})$	0.432469	0.068365	6.325919	0.0001
$DIn(GEA_t)$	0.227919	0.028477	8.003648	0.0000
$DIn(GEA_{t-1})$	0.100148	0.029383	3.408385	0.0078
$DIn(GEE_t)$	0.356114	0.074870	4.756432	0.0010
$DIn(GEH_t)$	0.038278	0.052418	0.730249	0.4838
$DIn(GEC_t)$	0.357792	0.033811	10.58227	0.0000
CointEqM(-1)*	-0.437111	0.048873	-8.943741	0.0000
Adjusted R-squared = 0.829546; Durbin-Watson stat = 2.295951				

Source: Author's Computation, 2024.

The results of short-run ARDL in Table 4 revealed that government expenditure on agriculture has a positive and significant relationship with the total employment in Nigeria. This is evidenced by the positive coefficient value (0.227919) of government expenditure on agriculture and its p-value (0.0000) which is less than 0.05. Additionally, government expenditure on education has positive and significant effect on total employment in Nigeria. This is evidenced by the positive coefficient value (0.356114) of government expenditure on education and its p-value (0.0010) which is less than 0.05. Similarly, government expenditure on construction has positive and significant effect on total employment in Nigeria. This is evidenced by the positive coefficient value (0.357792) of government expenditure on construction and its p-value (0.0000) which is less than 0.05. Lastly, government expenditure on health has a positive and insignificant effect on total employment in Nigeria. This is evidenced by the positive coefficient value (0.3827) of government expenditure on construction and its p-value (0.4838) which is greater than 0.05. Moreover, the Adjusted R-squared (Adj. R^2) value of 0.829546 indicates that 83 percent of the systematic variation in total employment is explained by government expenditure on agriculture, government expenditure on education, government expenditure on health and government expenditure on construction in the short-run while the remaining 17 percent of the variation in the model is captured by the error term (unknown factors/variables outside the model). Lastly, the coefficient of the CointEq(-1)* at -0.437111 indicates that the speed of adjustment to long run equilibrium is 44% when any past deviation will be corrected in the present period. This means that total employment adjusts to changes in the independent variables at a speed of 44%.

Post-Estimation Tests

The results of the diagnostic tests are presented and discussed below:

Table 5: ARDL Model Diagnostic Tests

Test	Statistics	P-Value	Null Hypothesis	Decision
A. Serial Correlation	1.224176	0.3500	**H_0:** No serial correlation	Do not Reject H_0
B. Functional Form	0.050185	0.8284	**H_0:** Correctly specified	Do not Reject H_0
C. Normality	2.389911	0.302717	**H_0:** Normally Distributed	Do not Reject H_0
D. Heteroskedasticity	1.415350	0.3033	**H_0:** Homoscedasticity	Do not Reject H_0

Source: Author's Computation, 2024.

However, the outcome of the Lagrange multiplier test of residual serial correlation, Ramsey's RESET test, Jarque Bera normality test and Heteroscedasticity test as presented in Table 5 indicates the model passed all the tests. This further implies that it has a correct functional form, its residuals are serially uncorrelated, normally distributed and homoscedastic.

Discussion of Findings

This study empirically examined the effect of government expenditure on employment generation in Nigeria. The findings that emerged from this study indicated that government expenditure on agriculture has a positive and significant effect on total employment in Nigeria. We therefore reject the null hypothesis. This finding is in line with the a priori theoretical expectation. This result conforms to the result of Nnamdi (2023) which stated that

government expenditure on administration was found to be positive and statistically significant and the direction of causality was from government expenditure on administrative expenses to employment generation of Nigeria. Also, the results of the study indicated that government expenditure on education has a positive and significant effect on total employment in Nigeria. We therefore reject the null hypothesis. This finding is consistent with the a priori theoretical expectation. This finding relates with that of Ndubueze, Okoli, Onwuka and Mba (2020) who found government expenditure on education and other social and community activities on both recurrent and capital nature contribute significantly to unemployment reduction Nigeria. Moreover, the finding emanating from this study showed that government expenditure on health has a positive and non-significant effect on total employment in Nigeria. We therefore accept the null hypothesis. This result is consistent the a priori theoretical expectation. This finding is related to the finding of Okoroigwe (2024) who found evidence of a positive and significant relationship between government expenditure and gross domestic product in Nigeria. Lastly, evidences emerged from the results of this study that government expenditure on construction has a positive and significant effect on total employment in Nigeria. We therefore reject the null hypothesis. The result is consistent with the a priori theoretical expectation. This finding is in line with the finding of Ebi and Ibe (2019) who established that government expenditure on construction positively and significantly contributes to total employment in the Nigerian economy.

5. CONCLUSION AND RECOMMENDATIONS

Concluding Remarks

This study empirically determined the effect of government expenditure on employment generation in Nigeria between 1988 and 2022 using Autoregressive Distributed Lag (ARDL) technique. From the analysis above, the study found that government expenditure variables such as government expenditure on agriculture, government expenditure on education and government expenditure on construction have positive and significant effect on total employment in Nigeria. The study therefore concluded that government expenditure plays a significant positive role in employment generation in Nigeria.

Recommendations

Based on the findings and conclusion drawn from this study, the following recommendations are made:

i Government should allocate more resources to the agricultural sector, focusing on modernizing agricultural practices, providing subsidies for inputs like seeds and fertilizers, and improving rural infrastructure such as roads and irrigation systems. This increased expenditure can create jobs directly in farming and indirectly in agricultural - processing, transportation, and related industries, significantly reducing unemployment, especially in rural areas.

ii Government should increase investment in education, particularly in vocational and technical training, can equip the Nigerian workforce with the skills needed in the modern economy. The government, by aligning educational programs with market demands, can ensure that graduates are employable in various sectors, including emerging industries. This approach will not only reduce youth unemployment but also improve overall productivity and economic competitiveness.

iii Government should allocate more funds to the health sector to expand healthcare facilities, improve working conditions, and provide continuous training for healthcare professionals. Investing in health infrastructure and services can create numerous jobs in the healthcare sector, from medical professionals to support staff.

iv Government should expand government spending on construction projects, including infrastructure development such as roads, bridges, housing, and public buildings, can generate significant employment opportunities. This can absorb a large portion of the unemployed, particularly unskilled and semi-skilled workers, thereby reducing overall unemployment rates in the country.

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