

Impact of Public Expenditure on Economic Growth

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Abstract

Original Research Article

This study examines the impact of government expenditure on economic growth in Nigeria, using annual time series data for a period of 43 years (1980-2023) with Autoregressive Distributive Lag (ARDL). The study also tested the unit root properties of the variables using Augmented Dickey Fuller (ADF) and the results indicate that most of the variables were stationary at first difference except only one variable that stationary at level. The results of the cointegration tests reveals that the F-statistic values of the tests are greater than both I(0) and I(1) critical value bounds at 5% level of significance in all the tests which is a condition for rejecting the null hypothesis of no long run relation among the variables. The study adopts the Keynesian's theory as its benchmark. The study also, carries out a review of those theories that had formed the basis of previous empirical studies such Wagner's Law; Keynesian's theory and the Musgrave Theory of Public Expenditure Growth. Among explanatory variables employed in explaining the equations include total government expenditure, government recurrent expenditure, government capital expenditure and total public debt. The study found that, the coefficient of total expenditure is 0.5363 with p-value of 0.0083, indicating that the coefficient is positive and statistically significant at 5 % level. Also, the coefficient of recurrent expenditure is 0.8543 with p-value of 0.0010, indicating that the coefficient is positive and statistically significant at 5 % level while the coefficients of capital expenditure is -4.361, with p-value of 0.018, indicating that the coefficient is negative and statistically significant at 5 % level. Lastly, the coefficient of public debt is 0.018, found to be statistically insignificant at 5% level evidence with the high P-value of 0.61. The study recommends among others that there should be efficient allocation of recurrent spending and productive capital investments to foster sustainable economic growth. Also, total government expenditure is essential for providing public goods and services, in order to avoid fiscal imbalances by curtail excessive spending. To maintain fiscal discipline to achieve long-term prosperity and economic stability, the responsible debt management should be put in place.

Keywords: Government Expenditure, Total Expenditure, Recurrent Expenditure, Capital Expenditure, Economic Growth.

Jel Classification Code: H00, H50

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1. Introduction

Different Scholars in the field of public finance have carried out research on the effect of

government spending on economic growth but there is no consensus on the results including researches on developing countries. Over decades, various government both in developed

and developing countries have embarked on various spending programs to achieve economic growth particularly, after the World War II. Adolph Wagner (1893) was among the first who investigated general causes that might be responsible for a rising trend in public spending and explained the reasons why the rate of growth of expenditures in a community should be faster than the rate of growth of community output. This observation on the increasing public spending and the phenomenon has received considerable attention from economists and practitioners of public finance over the years. Following the Wagner observation, several attempts have been made to test the validity of Wagner's Law by explaining the size of government using several models and propositions in different empirical studies. A rising trend in public spending has been extensively treated in the theoretical and empirical literature but no consensus. The theoretical foundation of this can be traced as far back as of the time of Wagner (1893), Keynes (1936), Peacock and Wiseman (1961) and later to Musgrave (1969). Consequent upon this, different empirical studies have focused on the investigation of the impact of government expenditure on economic growth from different countries using different proxy variables and different econometric methodologies to investigate the subject matter. It is not unexpected, therefore, that there are considerable variations in the empirical results and no consensus from these studies.

In Nigeria today, government spending has been seen as a major source of policy concern in order to achieve economic growth. Over the past two decades, federal government expenditure in Nigeria has continued to increase rapidly and corresponding economic growth needs to be investigated.

In Nigeria, particularly, the danger posed by continuous increase in public spending to government budget engenders an attempt to investigate the impact of government expenditure on economic growth. The most important macroeconomic management tool for controlling the level of demand and supply of money in an economy is public spending in order to achieve sustainable growth and development.

The two major functions of government to be performed in any society are protection and provision of basic infrastructure and amenities (Abdullah, 2010). In performing these functions, the government needs to spend huge amount of resources, especially in nations where the level of these infrastructures is low, like in Nigeria such as provision of good health facilities, education, power, agriculture, and transportation, build bridges, road etc. For instance, Musgrave (1959) perceived changes in the income elasticity of demand for public services to be in three ranges of per capita income. According to him, at low levels of per capita income, demand for public services tends to be very low, due to the fact that income is to satisfy primary needs, and when per capita income starts to rise further, the demand for services supplied by the public sector such as education, health and transport would begin to rise, thereby, making government to increase its expenditure on them. He posited further that, at the high levels of per capita income, typical of developed economies, public sector expansion tends to decelerates as the more basic wants are being satisfied. He confirms changes in the income elasticity of demand for public services in three ranges of per capita income. This implies the existence of an inverted U-shaped relationship between per capita income and the size of government expenditure.

However, the creation of the rule of law and enforcement of rights is necessary to minimize risk of criminality and external aggression. The cash budget is the major system being operated in Nigeria where expenditure proposal is anchored on projected revenue. To implement this, government has three policy options; to borrow, to tax or both. Any of those options chosen has direct implication on economic growth. There are various factors that might be contributing to incremental public expenditures in many nations based on empirical evidences.

It is the quest to address those afore-mentioned gaps and challenges that therefore provides the impetus for the present study. The rest of this paper structure as follows: Section 2 captures a review of theoretical as well as empirical studies on the impact of government expenditure on

economic growth. Section 3 is devoted to methodology. Section 4 contains the discussion of the results. Section 5 presents the summary, conclusion and recommendations

2. Literature Review

Theoretical Review

The Wagner's Law or Theory of Increasing State Activities: Wagner's law is a principle named after the German economist Adolph Wagner (1835-1917). Wagner postulates that the extension of the functions of the states leads to increase in public expenditure on administration and regulation of the economy. He said that the development of modern industrial society result in political pressure for social progress and call for additional allowance for social consideration in the conduct of industry. From Wagner thought, the expansion in public expenditure will be more than proportional to increase in the national income, i.e., public expenditure is income elastic and will cause a relative expansion of the public sector.

The Keynesian Theory of Public Expenditure (1936): John Maynard Keynes (1936), views that expenditure leads to economic growth positively; in his theory, he regarded public expenditure as an exogenous factor like a policy instrument to promote economic growth. Thus, a rise in government consumption is likely to lead to an increase in profitability, employment and investment through multiplier effects on aggregate demand. As a result, government expenditure augments the aggregate demand, which leads to increased output depending on expenditure multipliers. According to Keynes the extension of the functions of the state leads to an increase in public expenditure on administration and regulation of the economy. Secondly, the development of modern industrial society would give rise to increasing political pressure for social progress and call for increased allowance for social consideration. Finally, the rise in public expenditure will bring about more than proportional increase in the national income (income elastic wart) and thus results in a relative expansion of the public sector.

On the contrary to the classical economists

particularly Adam Smith which advocated for minimum government intervention while providing public goods, law and order and those investments, the Keynesian economists suggested that stimulating aggregate demand especially during economic depression, there should be used of public expenditure in promoting growth and development (Jibir & Aluthge, 2019b). The view brought about government participation in economic activities to correct short term distortions in an economy (Jibir & Aluthge, 2019b; Singh & Sahni, 1984). Ram (1986) also opined that government intervention is to create socially optimal direction for growth and development of a country.

Musgrave Theory of Public Expenditure Growth: This theory was advanced by Musgrave (1959), as he found changes in the income elasticity of demand for public services in three ranges of per capita income. He posits that the demand for public services tends to be very low, at low levels of per capita income, because such income is devoted to satisfying primary needs and that when per capita income starts to rise above these levels of low income, the demand for services supplied by the public sector such as education, health and transport starts to rise, thereby making government to increase expenditure on them. He observes that at the high levels of per capita income, typical of developed economics, the rate of public sector growth tends to fall as the more basic wants are being satisfied.

Classical School of Thought: According to Adam Smith, there should be minimum government intervention in providing public goods, law and order and those investments that private sector cannot be provided due to the risk of investments or non-profitable in nature (Jibir & Aluthge, 2019). This theory dominated the world economy, until the unprecedented Great Depression of 1930s that exposed the weaknesses of the classical system

Keynesian Theory of Public Expenditure: Keynes advocates for the use of public expenditure in promoting growth and development by stimulating aggregate demand especially during economic depression. This theory therefore, support government

participation in economic activities particularly, in recent because government needs to correct short term distortions in an economy (Jibir & Aluthge, 2019)

Empirical Review

Several attempts have made to experimentally assess the link between government expenditure and economic growth, and the results of this research have been conflicting.

Jolaiya, (2024) conducted an empirical investigation into the effect of government expenditure on economic growth in Nigeria and employed multiple regression analysis to establish the causal relationship that exists between the variables. The finding revealed that government expenditure on health suggests a negative impact on economic growth while government expenditure on environment indicates a negative impact on economic growth. The results further indicate that government expenditures on education and government expenditures on agriculture have a positive impact on economic development. The study recommends that policymakers should ensure to increase investments in the agricultural sector for the economic to be achievable.

Azu & Onyeka, (2023) explored pair wise causality test and the Vector Auto-regression (VAR) model to investigate the relationship between government spending and Nigeria's economic growth from 1982 to 2022. The result of the causality revealed that government spending on education and health has minimal effect on economic growth while there is no effect of public debt on economic growth. The study recommends that government should minimize the incidence of borrowing and government spending on health and education should be increased but ensure proper monitoring.

John & Monday, (2023) conducted a comprehensive study on the relationship between government expenditure and economic growth in Nigeria for the period of 1980 to 2020 using Auto-regressive Distributive Lag (ARDL) model. The result of the bound test indicated that there is no long-run relationship among the

variables but the ARDL short-run result reported that all other study variables, EDUC, DFC, HLT and TCE are positive and significant in both current year and previous year period with the exception of water resource (WTR) expenditure that showed insignificant relationship with RGDP. The study offered recommendation that the budgetary allocation of the country should be increased to enable the citizens have good drinking water.

Cenc (2022) investigated the effect of government spending on the growth of economy for 19 European countries with panel data from 1995 to 2020 with OLS and found a negative relationship. It was found that when spending as percent of GDP rises by 1%, the economic growth reduces by about 0.51%. Kocoveska

Okerekeoti (2022), examined the effect of government expenditure on education on economic growth of Nigeria from 1999 to 2020 using Auto regressive distributive lag. The result indicates that there is a positive and significant effect of government expenditure on education on RGDP at 5% level of significance.

Aluthge et al (2021) conducted an empirical investigation into the impact of Nigerian government expenditure on economic growth for the period 1970-2019 using Autoregressive Distributed Lag (ARDL) model. The authors noted that capital expenditure has positive and significant impact on economic growth both in the short run and long run while recurrent expenditure does not have significant impact on economic growth both in the short run and long run.

Duruibe et al (2020) also carried out investigation on the effect of government public expenditures on economic growth and development in Nigeria using the sectoral economic function approach. The study disaggregated the total government expenditure into functional categories as in the practice of Central Bank of Nigeria. The results indicates that the expenditures on economic services and social and community services have positive and significant relationship with economic growth, while the expenditure on administrative services has a significant negative relationship with economic growth. Only the government transfers

that has a positive but insignificant relationship with economic growth.

Okoye, Omankhanlen, Okoh, Urhie and Ahmed (2019), empirically examined the relationship between government expenditure and economic growth for the period of 1981 and 2017. The short-run result was significant but negative effect of lagged current expenditure on economic growth and strong positive effect of lagged capital expenditure on growth while there is no evidence of long-run effect of government expenditure on economic growth. This indicates non-sustainable pattern of government expenditure in Nigeria. The authors recommend that the government should increase capital expenditure to enhance capacity for sustainable growth.

Ogunjimi, and Adebayo, (2018) investigated the relationship among health expenditure, health outcomes and economic growth in Nigeria covered the period 1981 to 2017. They applied the Toda Yamamoto causality framework as well as Autoregressive Distributed Lag (ARDL) Bounds test approach. The results of the Toda Yamamoto causality tests show a unidirectional causal relationship running from health expenditure and real GDP to life expectancy and maternal mortality while unidirectional causal relationship runs from real GDP to health expenditure. The results further show a unidirectional causality running from health expenditure to infant mortality while there is no causality between real GDP and infant mortality.

In the case of South Africa, Leshoro (2017) applied autoregressive distributed lag (ARDL) to examine the relationship between government spending and economic growth using annual data covering the period from 1976 to 2015 by disaggregated Government spending into government investment spending and government consumption spending. The finding revealed that government spending has a positive impact on economic growth both in the long run or in the short run in all the components under consideration.

Butkiewicz and Yanikkaya (2011) empirically examined the impact of aggregated and disaggregated government expenditure on economic growth using a sample of over 100

developed and developing nations. Based on the Seemingly-Unrelated Regression (SUR) technique, the results of the study indicated that despite the inconsistencies across the sample, expenditure was found to have a negative impact on economic growth in the study countries.

Altunc and Aydın (2013) empirically investigated the relationship between government expenditure and the rate of economic growth during the period of 1995–2011 for Turkey, Romania and Bulgaria using the ARDL bounds testing approach. The results show that the level of government expenditure exceeded the optimal level, hence a lower than desired economic growth rate.

Sideris (2008) examined long-run changes in income leading to growth in government expenditure in Greece over the period 1833 to 1938 employed cointegration and Granger causality techniques. The result of casualty indicated that the income elastic demand for public goods lead to the growth in government expenditure

Ghosh & Gregoriou (2008) examined the relationship between government expenditure and economic growth using general methods of moment (GMM) for 15 developing countries. The results show that current government expenditure positively related to the economic growth and a very strong positive impact of that government operations, maintenance expenditures, education and health on economic growth.

Theoretical Framework

This study is anchored on the Keynesian Theory of Public Expenditure founded by John Maynard Keynes (1936). The theory posits that expenditure leads to economic growth positively. He argued that public expenditure is a policy instrument in promoting economic growth as an exogenous factor. Thus, a rise in government consumption is likely to lead to an increase in profitability, employment and investment through multiplier effects on aggregate demand. As a result, government expenditure augments the aggregate demand, which leads to increased output based on

expenditure multipliers. Keynesian theory by implication, the extension of the state's functions leads to an increase in public expenditure on administration and regulation of the economy. Then, the modern industrial society development would lead to increasing political pressure for social progress and ensure increased allowance for social consideration. Furthermore, rise in government expenditure may result to proportional increase in the GDP or more.

3. Methodology

This study builds on Aluthge Chandana (2020) which examine Impact of Government Expenditure on Economic Growth in Nigeria for the period of 1970 to 2019 using an autoregressive distributed lag model to determine the short- and long-run impact. These model was modified and specified as follows:

$$RGDP = f (TEXP, CEXP, REXP, DEBT) \dots\dots\dots(3.1)$$

$$RGDP = \alpha + \beta_1 TEXP + \beta_2 REXP + \beta_3 CEXP + \beta_4 DEBT \varepsilon_t \dots\dots\dots(3.2)$$

Where:

RGDP = Real Gross Domestic product

TEXP = Total Government Expenditure

REXP = Government Recurrent Expenditure

CEXP = Capital Expenditure

DEBT = Total Public Debt as a percent of the GDP

ε_t = Stochastic disturbance term

The estimated variable coefficients of the model are $\beta_i = 1, 2, 3, 4$

The white noise process is represented by the error term ε_t . The *a priori* expectations of the behaviour of the independent variables in term of their parameters are expected to be positive.

Nature and Sources of Data

Time series annual data covering the post-independence period of 1981-2022 for only the federal government budgetary variables are employed. The data was sourced from National Bureau of Statistics (NBS)

4. Data Analysis

Analysis of Descriptive Statistics

Table 4.1: Summary of Descriptive Statistic Results

	RGDP	TEXP	REXP	CEXP	DEBT
Mean	45215.96	7210378.	8489625.	154.8968	6.50E+09
Median	42044.78	3510236.	7817219.	130.7518	2.37E+09
Maximum	75532.61	27115109	27251572	426.9998	3.65E+10
Minimum	21462.73	45717.90	109886.1	8.037808	-1.60E+10
Std. Dev.	20469.10	8114249.	7924181.	124.4477	1.27E+10
Coff. Of Var	0.45	1.12	0.93	0.80	0.18
Observations	43	43	43	43	43

Source: Authors Computation using Eviews-13 (2024)

Explanatory Notes: Standard deviation is the average deviation from arithmetic mean (square root of variance), coefficient of variation (CV) is the measurement of the variability in relation to mean (i.e. standard deviation divided by mean). The number of observation is 43 in all cases

The table 4.1 shows the descriptive statistics for the variables Real Gross Domestic Product (RGDP), TEXP (Total Expenditure), REXP (Recurrent Expenditure), CEXP (Capital Expenditure), DEBT (Total public debt) over 43 observations.

Therefore, the standard deviation is not applicable here, the coefficient of variation (CV) is employed to rank or compare the variables due to their different in the unit of measurement. Accordingly, the variables with highest CV includes TEXP (1.12), REXP (0.93) and CEXP (0.83) while the variables with lowest includes

RGDP (0.45) and DEBT (0.18). Note here that total government expenditure (G) was the only dependent variable used to avoid duplication of variants categories of government expenditures.

Unit Root (Augmented Dickey-Fuller Test -ADF Test)

This section shows the unit root of the variables using the Augmented Dickey-Fuller (ADF) Test to check the stationary at a 5 percent level of significance.

Table 4.2: Unit Root Test Result

Augmented Dickey-Fuller (ADF) Test Statistics

Variable	T-ADF Statistics	Critical Value	Order of Integration
RGDP	-6.379163	-2.935001*	I(1)
TEXP	-7.328595	-3.595026*	I(1)
REXP	-5.138895	-2.941145*	I(1)
CEXP	-4.042843	-2.957110*	I(1)
DEBT	--2.438221	-3.917112**	I(0)

Source: Author's Computation Using EViews-13 (2024) * Indicates stationary at the 5% level

Table 4.2 shows the result of unit root for the Real Gross Domestic Product (RGDP), Total Expenditure (TE), Recurrent Expenditure (REXP), Capital Expenditure (CEXP) and total public debt (DEBT) in Nigeria. Thus, the ADF test results revealed that four variables were stationary at first difference after which they became integrated of order one I(1) while only one of the variables was stationary at the level I(0). Based on the decision rule of ADF, is to reject the null hypothesis that a variable has unit root (i.e. the variable is a non-stationary series) if p-value is less than the critical value at 5% significance level (or if t-statistic is greater than the 5% critical value) and accept null hypothesis

if otherwise. It's therefore becomes necessary to test is there is a long-run relationship among the non-stationary variables of the model. An appropriate technique to be used to conduct the cointegration test is the ARDL bound test approach to cointegration, given the order of integration of these variables.

ARDL Bound Test Results

This section presents and discusses the results of the tests of cointegration for the variables. The result is evaluated at 5% significance level, implying that 5% level is taken to be the cut-off.

Table 4.3: Bounds Test Co-Integration Result

F Test:					
F-statistic	Degree of Freedom	Level of Significance	Pesaran et al., (1999) a		Remark
			I(0) Bound	I(1) Bound	
23.30682*	4	10%	2.45	3.52	Co-integrated
		5%	2.86	4.01	
		2.5%	3.25	4.49	
		1%	3.74	5.06	

Source: Authors' Computation from E-views 11, 2024

Explanatory Notes: In the Table above, the equations specified. I(0) and I(1) denote critical bound values to accept or reject the null hypothesis at 5% significance, * denotes rejection of null hypothesis

The decision rule is to accept the null hypothesis if the reported F-statistic value is below I(0) critical value and to reject it if the reported F-statistic value is above I(1) critical value. But if the reported F-statistic value is within a bound of I(0) and I(1), the evidence would be inconclusive as to whether to accept or reject the null hypothesis. Following the decision rule stated above, the results of the cointegration tests presented in Table 4.3, the F-statistic values of the tests are greater than both I(0) and I(1) critical value bounds at 5% level of significance in most of the tests which is a condition for rejecting the null hypothesis of no long-run relationship among the variables of the equation. A conclusion is therefore reached that there exist long-run relationships among the non-stationary

series in all the equation. Having evaluated the ARDL bound test above, this section further utilizes ARDL estimation technique to examine the impact of government expenditure on economic growth in Nigeria in table 4.4, Estimates of the Regression Equations. In order to achieve this objective, the study presents the ARDL estimates of the regression equations

Regression Analysis

ARDL Long-run Analysis

Table 4.4 presents the results of ARDL long-run analysis, having confirmed the long-run relationships among the non-stationary series in all the equation which necessitates for the ARDL

Table 4.4: ARDL Long-run Estimate

<i>lnRGDP</i>	Coefficients	t-statistic	Probability
<i>lnTEXP</i>	0.5363	0.1671	0.0083
<i>lnREXP</i>	0.8543	0.1917	0.0010
<i>lnCEXP</i>	-4.361	-2.543	0.018
<i>lnDEBT</i>	0.018	0.516	0.610
C	-303.38	-3.538	0.003
D.W	1.896		
R²	0.976		

Adj. R ²	0.933		
Prob.(F-Stat)	0.000		

Source: Authors' Computation from E-views 11, 2024

A parameter estimate is deemed to be statistically significant if its P-value is 0.05 or less

From Table 4.4 presents the ARDL long-run results examining the impact of government expenditure on economic growth using the thumbs up decision rule. The ARDL result shows that the coefficient of total expenditure is 0.5363 with p-value of 0.0083, indicating that the coefficient is positive and statistically significant at 5 % level. The conclusion, therefore, is that the total expenditure has positive effect on economic growth. It is interesting to note that, as expected, the sign of the coefficient is in line with the Keynesian view. The result suggests that total expenditure help in explaining growth and development in the long run. The finding provides support to the findings of Idris and Bakar (2017) whose findings show positive impact of recurrent expenditure on output growth.

Similarly, the ARDL result also shows that the coefficient of recurrent expenditure is 0.8543 with p-value of 0.0010, indicating that the coefficient is positive and statistically significant at 5 % level. The conclusion, therefore, is that the recurrent expenditure has positive effect on economic growth. It should also be noted here that, the sign of the coefficient is also in line with the Keynesian view as expected.

Concerning the coefficient of capital expenditure, the ARDL result also shows that the coefficients of capital expenditure is -4.361, with p-value of 0.018, indicating that the coefficient is negative and statistically significant at 5 % level. The conclusion, therefore, is that the capital expenditure has negative effects on economic growth. As expected, the sign of the coefficient is opposite to that of the Keynesian view.

Lastly, the coefficient of public debt is 0.018, found to be statistically insignificant at 5% level evidence with the high P-value of 0.61. The conclusion is that public debt has no impact on economic growth. The sign of the coefficient

absolutely opposed Keynesian proposition. This may be connected with the fact that significant portion of recurrent expenditure in Nigeria goes to payment of the debt during the study period. This may lead to large budgets and other illegal practices.

5. Conclusion and Recommendation

The main objective of this study examined the impact of government expenditure on economic growth in Nigeria using time series data for the period 1981-2023 employs Autoregressive Distributed Lag (ARDL) mode. The ARDL cointegration technique is used in determining the long run relationship between series with different order of integration (Pesaran and Shin, 1999, and Pesaran et al. 2001). Summarily, the results obtained indicate that all variables are the driving force of government expenditures. In view of the evidence emanating from findings in all the estimate, the study is therefore recommending that

1. From the findings, the ARDL result revealed that total government expenditure has a positive and significant impact on economic growth in Nigeria. The positive impact of government expenditure on economic growth is in line with the findings of Duruibe et al (2020), which suggests that government expenditure has a positive and significant impact on economic growth while investigating the effect of government public expenditures on Nigeria's economic growth and development. This result suggests that total government expenditure is essential for providing public goods and services. The constant government spending without corresponding increases in productivity or efficiency may lead to fiscal imbalances, crowding out private investment, and inflationary pressures. Therefore, the policymakers must be bold to exercise fiscal

discipline and prioritize spending on productive investments to maximize the positive impact on economic growth. The result of this study suggests that the total government expenditure is essential for providing public goods and services, and capable of avoiding fiscal imbalances by curtail excessive spending.

2. The positive and significant impact of recurrent expenditure on real gross domestic product is in line with the finding of Ghosh & Gregoriou (2008) whose finding revealed that recurrent expenditure has significant impact on economic growth. This result suggests that adequate funds be allocated to recurrent expenditure to enhance capacity for sustainable growth recurrent expenditures like investments, healthcare and education which can have beneficial effects on economic performance, improve quality of public services, and contribute to the human capital development and efficiency in the economy. Thus, policymakers must ensure that funds meant for recurrent expenditure must be channeled towards productive sectors and enhance the efficiency and effectiveness of public service delivery.
3. The negative and significant impact of capital expenditure goes contrary to the work of Aluthge et al (2021), who investigated the impact of Nigerian government expenditure on economic growth for the period 1970-2019 with help of Autoregressive Distributed Lag (ARDL) model. This result implies that capital expenditure needs more funds to enhance capacity for sustainable growth. Governments should prioritize capital expenditure in their budgetary allocations to stimulate sustainable economic growth over the long term.
4. The insignificant impact of public debt on economic growth suggests that debt to finance unproductive projects may result to economic instability and growth. Therefore, government should focus on prudent debt management strategies such as efficient use of public debt, timely repayment of debt obligations, maintain sovereign creditworthiness, and support macroeconomic stability. Finally,

policymakers should ensure that debt servicing does not crowd out critical spending on essential public services or investment in productive sectors. The significant impact of total public debt is in line with the work of Faraji and Makame (2013), whose findings revealed that external and debt service both have significant impact on GDP growth while examining the impact of external debt on the economic growth of Tanzania for the period of 20 years (1990-2010) using time series data and employed Johansen co-integration test.

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