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FEDERAL GOVERNMENT SPENDING AND ECONOMIC GROWTH IN NIGERIA

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ABSTRACT

This study determined the effect of federal government spending on economic growth in Nigeria, using federal government spending on economic infrastructure, federal government spending on agriculture and gross domestic product in Nigeria. Data were extracted from Central Bank of Nigeria (CBN) and National Bureau of Statistics (NBS) bulletin, Budget Office of the Federation from 2000 to 2023. Multiple regression analysis was employed to test the hypotheses. The study revealed that federal government spending on economic infrastructure has negative significant effect on gross domestic product in Nigeria. However, federal government spending on agriculture has positive significant effect on gross domestic product in Nigeria. Based on the results, the study recommended that there is need to diversify and develop economic infrastructure such as roads, social and community services, transport and communication to boost trade openness and economic growth in Nigeria.

Key words: *Economic Infrastructure, Federal Government Spending, Government Spending on Agriculture, Gross Domestic Product.*

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INTRODUCTION

Government expenditure is a fiscal tool used in regulating behaviour of the economy. This fiscal instrument can be used to achieve the country's macroeconomic goals. like sustainable economic growth, low unemployment, low inflation, stable exchange rate regime, equitable distribution of income and balance of payment equilibrium. To achieve these goals, the government spends money on the provision of public goods like health care, education, infrastructures, roads, security, power, etc. (Khan & Hassan, 2019). Aminadokiari Samuel and Etim (2016) established that government expenditure can be used as a fiscal tool in the control of high inflation, rising unemployment, disequilibrium in the balance of payments, and fluctuations in the foreign exchange rate. Furthermore, during periods of economic recession and rising unemployment, government spending can be used to raise aggregate demand, and hence, stimulating output and employment (Monacelli, Perotti, & Trigari, 2010). However, it is important to note that government's involvement in the economy does not

necessarily bring stability but rather, ameliorate the rate of instability in the economy. For instance, government involvement in economic activities could not avert the financial crisis of 2007, the 2016 Nigerian economic recession, the oil shock of the 1970s or the global economic recession caused by the ravaging COVID-19 , in 2020 (Iwuoha, 2022) .

The need to better the lots of citizens through government expenditure has raised questions on the impact of government expenditure on economic development and growth of nations. In Nigeria and other developing economies, over the years, there has been a steady increase in government spending without an appreciable increase in economic growth and development (Amadi & Alolote, 2020). These have led to several researches and interest on the role of government spending in the long term growth of national economics by economists. The interest in growth theories has also revived interest among researchers in verifying and understanding the link between government fiscal policies and economic growth (Echekoba & Amakor, 2020).

In Nigeria for instance, despite the huge amount of public expenditures, there is still an insignificant level of development witnessed. Public expenditure on all sectors of the Nigerian economy is expected to lead to economic growth in the sense that capital and recurrent expenditure will boost the productive base of the economy which in turn will lead to growth. The interest by economists in Nigeria and other jurisdictions on the role of government expenditure is still inconclusive (Mohammed & Ibrahim, 2019). Barro (2022), endogenize government spending in a growth model and analyze the relationship between size of government and rates of growth and saving. He concluded that an increase in resources devoted to non-productive services is associated with lower per capita growth. Therefore, government expenditure which enhances economic growth should be tailored towards productive services.

The traditional objective of government expenditure is to exercise it as an instrument of State policy to preserve a region by providing law, order and justice (Sobhan, Fulin, Hussein, Xavier, 2021). However, contemporary view on government expenditure provides a much broader objective. Nowadays, government expenditure includes matters like development in infrastructure, improvement and accessibility of health care and promotion of structural economic development. To which extent the superfluous objectives are fulfilled depends on the political course of the State (Taofik & Taiwo, 2023). Different indicators have shown that

the level of government spending on manufacturing, agriculture and economic infrastructure in Nigeria are abysmally low over the years.

Only few studies such like, Amadi and Alolote (2023) examined the effects of government infrastructural expenditure on economic development in Nigeria. Babatunde (2018) examined the connection between government spending on basic infrastructures and economic growth in Nigeria. Ishmael, Farouk and Idis (2018) explored the effect of government expenditure on agriculture and its impact on unemployment reduction in Nigeria from 1999 - 2015. Despite huge government annual revenue from petroleum, the performance of key sectors like economic infrastructure and agriculture has not been positively influenced. This present study therefore sought to validate and strength the prior studies hence, ascertain the extent federal government spending on economic infrastructure and agriculture affects economic growth in Nigeria.

Objectives

The broad objective of this research is to ascertain the extent federal government spending affects economic growth in Nigeria. Specifically, the study seeks to:

1. determine if Federal government spending on economic infrastructure significantly affects gross domestic product in Nigeria.
2. ascertain if Federal government spending on agriculture has significant effect on gross domestic product in Nigeria.

LITERATURE REVIEW

Government Expenditure

Government expenditure refers to the total amount of money spent by the government on goods, services, and transfers. It plays a vital role in shaping the economy, influencing various sectors, and impacting the lives of citizens. Government expenditure encompasses all outlays made by public authorities, including federal, state, and local governments. It is crucial for providing essential public services, promoting economic growth, and ensuring social welfare (Chiadikah & Egbon, 2024). Government expenditure enables the provision of public goods, such as national defense and infrastructure that are non-excludable and non-rivalrous. Through taxes and transfer payments, government expenditure aims to redistribute income and reduce inequality. Furthermore, government expenditure can be used to stabilize the economy by stimulating demand during recessions or controlling inflation (Chiadikah & Egbon, 2024).

A government spends money towards the supply of goods and services that are not provided by the private sector but are important for the nation's welfare (Okere, Uzowuru & Amako, 2019). Government spending goes to the nation's defense, infrastructure, education, health and welfare benefits. Government expenditure refers to the purchase of goods and services, which include public consumption and investment, and transfer payments consisting of income transfers (pensions, social benefits) and capital transfer. Meanwhile, the public sector is that portion of the society controlled by national or federal, state and local governments. The general view is that public expenditure either recurrent or capital expenditure, notably on social and economic infrastructure can be growth-enhancing (Olubokun, Ayooluwade & Fawehinmi, 2016). The public sector encompasses defence, homeland security, public protection, fire fighting, urban planning, taxation and various social programs.

The following hypotheses have envisaged in this regard towards substantiating the stand point of prior related studies:

H_{o1}: *Federal government spending on economic infrastructure has not significantly affect gross domestic product in Nigeria.*

H_{o2}: *Federal government spending on agriculture has no significant effect on gross domestic product in Nigeria.*

Economic Growth

The term economic growth is an increase in the production of goods and services over a specific period. Economic growth creates more profit for businesses. As a result, stock prices rise (Agbonkhese & Asekhome, 2014). Economic growth is best defined as a long term expansion of productive potential of the economy, the trend of growth could be expanded by raising capital investment spending as a share of national income as well as the size of capital inputs and labour supply, labour force and the technological advancement (Ogboru, Abdulmalik & Park, 2018). Economic growth is the increase of per capita Gross Domestic Product (GDP) or other measure of aggregate income. The International Monetary Fund (IMF) defines Economic growth as the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP, usually in per capita terms (Carreon, 2013).

That gives company's capital to invest and hire more employees. As more jobs are created, incomes rise. Consumers have more money to buy additional products and services. Purchases

drive higher economic growth (Wikipedia, 2019). For this reason, all countries want positive economic growth. This makes economic growth the most watched economic indicator. In simplest terms, economic growth refers to an increase in aggregate production in an economy (Ogbonna & Appah, 2012). Often, but not necessarily, aggregate gains in production correlate with increased average marginal productivity. That leads to an increase in incomes, inspiring consumers to open up their wallets and buy more, which means a higher material quality of life or standard of living (Loto, 2011).

"Economic growth is one of the objectives of macroeconomic policy of a country's economy. Economic growth is defined as "the process whereby the real per capital income of a country increases over a long period of time (Wkipedia, 2019). Economic growth is measured by the increase in the amount of goods and services produced in a country. A growing economy produces more goods and services in each successive time period. This growth occurs when an economy's productive capacity increases which, in turn, are used to produce more goods and services. In its wider aspect, economic growth implies raising the standard of living of the people, and reducing inequalities of income distribution (Wkipedia, 2019). All agree that economic growth is a desirable goal for a country. But there is no agreement over the magic number, viz., the annual growth rate which an economy should attain. Economic growth is a rise in the per capital income (Jelilov, Gylych; Muhammad Yakubu & Maimuna, 2015).

The term development until recently meant growth measured by Gross National Product (GNP), Gross Domestic Product (GDP) or rise in per capital income, but development is not growth. Development can be seen as growth coupled with social justice (Bassanini, Scarpetta & Hemmings, 2021). Liu, Hsu, and Younis (2018) suggested that economic development implies changes that lead to improvement or progress because it is believed that an economy that raises its per capita level of real income over time without transforming its social and economic structure in unlikely to be perceived as developing. Okolo, Edeme and Emmanuel (2018) defined economic developments as achieving a set of social goals, since goals are bound to change over time, economic development is, to some extent, a process. An economy in the process of economic development is likely to experience a combination of three sets of change; first, an advancement in utility which a major factor contributing to advance in well being in real income per capita.

Capital Expenditure in Nigeria and its Linkage with Economic Growth

Economic growth represents the expansion of a country's potential GDP or output. For instance, if the social rate of return on investment exceeds the private the return, then expenditure policies can raise the growth rate and levels utility (Bernanke & Olson, 2017). Economic growth has provided insight into why state growth at different rates over years; and this influence government in her choice of tax rates and expenditure levels that will influence the growth rates. One way in which public expenditure is expected to affect the pace of economic growth is the will or capacity of the people to work, save and invest (Cornelius, *et al*, 2016). In this connection, the exact effect depends largely upon the precise form and magnitude of public expenditure as seen in the context of accompanying circumstances. Now, when public expenditure is incurred, by itself it may be directed to particular investments or may be able to bring reallocation of the investible resources in the private sector of the economy. An important way in which public expenditure can accelerate the pace of economic growth is by narrowing down the difference between social and private marginal productivity of certain investments (Cornelius, et al,. 2016). Here public expenditures can be used to provide subsidies for those investments which are commercially non-viable but which are very helpful for economic growth (Bernanke & Olson, 2017).

Empirical Review

Chiadika and Egbon (2024) examined the effects of government expenditure on education, agriculture and manufacturing, on the growth performance of the Nigerian economy from 2000 to 2023, using the ARDL Bounds test approach. Annual data were sourced from the National Bureau of Statistics, Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank Indicators (various issues). The Augmented Dickey Fuller and Phillips Perron unit root tests were used to check the level of stationarity while the ARDL Bounds test to cointegration was used to justify the long-run relationship. It was discovered that a positive relationship exists between government expenditure and the growth performance of the Nigerian economy (proxy by GDP). Olatubosun (2024) ascertained the effect of government expenditure on economic growth in Nigeria. Data was collected from the CBN statistical bulletin which was available in the Nigerian exchange group. Using multiple regression analysis, the result of the analysis carried out it was observed that government expenditure on health was found to have a negative impact on economic growth. Government expenditure on environment was found to have a negative impact on economic growth. Government expenditures on education were found to have a positive impact on economic development. Government expenditures on agriculture were found to have a positive impact on economic development. Nzechukwu and

Onodi (2024) examined the effect of government expenditure on economic development in Nigeria. Data were used to generate data from CBN statistical bulletin from 1990 to 2021. Data were analyzed using error correction regression model. The study revealed that government expenditure (capital expenditure, recurrent expenditure) has no significant effect on gross domestic product in Nigeria but no significant effect on per capital income in Nigeria.

Goh and Mohd Aznan (2023) employed annual data to examine the direction of causality between government expenditure (GE) and national income (NI) in Nigeria from 1970 to 2005 and revealed that there was no correlation between national income and government spending. The study showed that government spending is a potent determinant influencing economic growth in Nigeria within the period of study. Onabote, Ohwofasa and Ogunjumo (2023) determined the effects of fiscal policy on economic growth in Nigeria, during the deregulation and regulation eras using annual data from 1975 to 2008. The study revealed a significant difference in the efficacy of fiscal policy during and after deregulation, in terms of stimulating economic growth. The Keynesian postulation that higher government spending enhances economic growth is supported by the fact that government spending drives economic growth at a bivariate level. Zamir, *et al* (2023) investigated the co-integration analysis of public spending on economic growth, education and primary school enrollment. The findings revealed that recurrent public spending on education and economic growth are directly related in both directions. There was no significant link between growth and capital investment in education.

Onifade, *et al* (2023) examined the impact of public expenditures on economic development in Nigeria. They employed the use of Pesaran's ARDL approach to carry out the impact analysis using annual time-series data from 1981 to 2017. The recurrent expenditures of government were found to be significantly impacting on economic development in a negative way while the positive impacts of public capital expenditures were not significant to economic growth over the period of the study. Their results further reviewed that the Granger Causality Test shows that fiscal expansion of the government that is hinged on debt financing is strongly granger causing public expenditures and domestic investment with the latter also Granger causing real growth in the economy. Duruibe, *et al* (2023) explored the effect of government public expenditures on Nigeria's economic development using the sectorial economic function approach. They employed the real Gross Domestic Product (GDP) as a proxy for r economic development while government's expenditures on administrative services, economic services, social and community services, and transfers were used as the predictor

variables in the study. Surprisingly, the results from the cointegration test and Vector Error Correction Model estimate reveal that all the predictor variables, apart from expenditure on administration, have a positive relationship with economic growth. While expenditures on economic services and social and community services have positive and significant relationship with economic growth, government transfers has a positive but insignificant relationship with economic development.

Amadi and Alolote (2023) examined the effects of government infrastructural expenditure on economic development in Nigeria. Secondary data sourced from reported annual spending on selected infrastructure and annual Gross Domestic Products were statistically analyzed. The data treatment used for the secondary data was unit root and co- integration tests using Augmented Dickey–Fuller and Phillip–Perron model. Weighted least square was also used to test the sample of 37-year annual time series using vector error correction model. Data were analysis with descriptive statistics. Findings from the study revealed that, government spending on transport, communication, education, and health infrastructure has significant effects on economic growth; spending on agriculture and natural resources infrastructure recorded a significant inverse effect on economic growth in Nigeria.

Duramany-Lakkoh, Jalloh and Abu (2022) explained how public spending is employed as a proxy for public capital for different sectors. The study revealed that public spending does not have any effect on growth in the short run. However, the co-integration and VEC studies exhibited a long run relationship between public spending and economic growth. Okere, Uzowuru and Amako (2022) examined the relationship between government expenditure and economic development in Nigeria. Data were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin and covers the period of 1981-2016. The Granger Causality method of econometric and error correction model (ECM) technique are used. The result for stationarity shows that the series are integrated at first difference 1(1). Johansen Cointegration test was also employed and reveals the existence of long-run relationship among the variables. The result of Granger Causality revealed bi-directional causality between economic growth and government expenditure on administration and between economic growth and government expenditure on economic services.

Kim and Park (2022) highlighted the roles of government policies and activities on economic growth. They assumed that government spending on productive projects has more influence on growth, than on unproductive projects. The study revealed that one of the major factors influencing growth is the component and amount of government spending. Kutasi and Marton

(2020) conducted a study on 30 OECD countries to investigate the relationship between government spending and economic growth and found that a long-run relationship exist between economic growth and government spending. Further findings revealed that a unidirectional causality exist, for 16 of the OECD counties, from government spending to growth for 16 of the total countries exists which supports the Keynesian hypothesis; while in 10 of the countries, it was discovered that government spending was directly related to economic growth, validating Wagner's law.

Onifade, *et al* (2020) ascertained a linear relationship, using the OLS method, between government expenditure and economic growth. The study revealed that a positive long run relationship exist between government expenditure and the growth process. Lee, Won and Jei (2019) investigated the relationship between government spending, money supply and economic growth, in a trivariate framework. The findings revealed the existence of bidirectional causality between economic growth and government spending in South Korea. The study further established that money supply is a potent determinant of South Korea's economic growth process. The results corroborate the Wagnerian hypothesis, which stipulates that government expenditure is caused by national revenue and the traditional Keynesian paradigm, which stipulates that government expenditure is positively correlated to national income. Babatunde (2018) ascertained the connection between government spending on basic infrastructures and economic growth in Nigeria, and established a positive relationship between inflation rate, defense, transportation, communication spending, and defense spending and economic growth.

Ishmael, Farouk and Idis (2018) explored the effect of government expenditure on agriculture and its impact on unemployment reduction in Nigeria from 1999 - 2015. Time series data were gathered from secondary sources on Unemployment rate, Government Recurrent/Capital Expenditure on agriculture, the result revealed that the relationship between government expenditure and unemployment did not have a significant effect, that is, has no reducing effect on unemployment in Nigeria. Kairo, *et al* (2017) analyzed the association between human capital development and government expenditure. Data for the study were collected over the period 1990-2014. ARDL and impulse response function were adopted for the estimation. The Bound Test was used to determine that a long run relationship exists between HDI and GOVEXP. The results demonstrated that both in the long and short run, government spending has remained positive but to a very large extent insignificant to human capital development in Nigeria.

Inimino, Tubotamuno and Shaibu (2017) investigated the effect of public education expenditure on economic growth in Nigeria from 1980 to 2015. Co-integration/Error Correction Mechanism and Granger Causality test were employed to analyze the data. The study revealed that there is a long-run relationship among the variables. The result also revealed that government capital education expenditure and government recurrent education expenditure have significant relationship with economic growth. Cantu (2017) ascertained the long run association between economic and public expenditure and discovered that a change in the expenditure composition triggered a higher strategy-state growth rate. The study further revealed that a rise in share capital spending positively and statistically influence the growth process.

MATERIALS AND METHOD

This study assessed the effect of public expenditure and economic growth of Nigeria. Consequent upon this, longitudinal research design (*Ex-post Facto* research design) was employed. An ex-post facto investigation seeks to indicate the possible association on existing condition or state of affairs and searching back in time for plausible contributing factors.

The entire Federal Republic of Nigeria including the Federal Capital Territory, Abuja, constituted the population of this study. Time series data were extracted from the publications of Central Bank of Nigeria (CBN) Annual Reports and Statement of Accounts and Statistical Bulletins of various issues, National Bureau of Statistics (NBS) bulletin, Budget Office of the Federation, International Monetary Fund (IMF) for twenty four (24) years spanning from 2000 to 2023.

The independent variable in this study is Public Expenditure, which was captured with:

i. Infrastructure Development Expenditure: was sourced from the Budget Office of the Federation, World Economic data base, United Nations statistical bulletin, International Monetary Fund (IMF) (various issues).
ii. Agricultural Expenditure: was sourced from the Budget Office of the Federation, World Economic data base, United Nations statistical bulletin, International Monetary Fund (IMF) (various issues).

The dependent variable is economic growth, which is proxied by:

i. Real Gross Domestic Product: was sourced from Central Bank of Nigeria Statistical Bulletin, World Bank Statistical Bulletin and National Bureau of Statistics (several issues).

In an attempt to capture the essence of this study, this study adapted and modified the model of Yusuf, Babalola, Aninkan and Salako (2015):

$GDP = \beta o + \beta_1 CEA + \beta_2 CER + \beta_2 CEE + \mu$

CEA = Capital Expenditure on Agriculture

CEI = Capital Expenditure on Roads

CEE = Capital Expenditure on Education

Thus, the Modified Model used for the study is represented in a functional form as shown as:

RGDP = *f*(IDEX, AGEX\) ....…… .. equ (1)

In a linear function, the following models were constructed in line with the study objectives:

$RGDP_t = \beta o + \beta_1 IDEX_t + \mu_t$ ……. Eqn 1.

$RGDP_t = \beta o + \beta_1 AGEX_t + \mu_t$ …… Eqn 2.

Where:

βo = Constant term

β_1= Regression coefficient of the independent variables

μ_t = Error Term for period t

$EIEXP_t$ = Economic Infrastructure Expenditure for period t (Independent variable)

$AGEXP_t$ = Agricultural Expenditure for period t (Independent variable)

Descriptive and Inferential statistics of the data to be used in this study were conducted via the aid of E-View 9.0 statistical software, using:

i. Descriptive statistics: is a good measure of central tendency that provides information on the mean, standard deviation, skewness, kurtosis, minimum and maximum values of the variables observed during the period under investigation.
ii. Co-efficient of correlation: is appropriate to measure association between two variables, tells us about the strength of relationship and the direction of relationship as well.
iii. Regression analysis: predicts the value of a variable based on the value of the other variable and explains the effect of changes in the values of variable on the values of the other variables. Ordinary Least Square regression analysis would be used for this study.

The decision will be based on 5% (0.05) level of significance. The null hypothesis (H_o) will be accepted, if probability value ($P\text{-}_{value}$) calculated is greater than (>) than the stated 5% level of significance, otherwise reject.

RESU.T AND DISCUSSIONS

Table 1: Descriptive Statistics

	RGDP	EIEXP	AGEXP
Mean	334.3865	268478.1	10189.04
Median	386.4700	61706.00	10261.50
Maximum	546.6800	3530000.	22892.00
Minimum	69.45000	22237.00	1707.000
Std. Dev.	150.0229	731451.8	6486.105
Skewness	-0.552896	3.869760	0.414842
Kurtosis	1.937452	17.11466	1.993098
Jarque-Bera	7.055357	777.3711	5.106681
Probability	0.029373	0.000000	0.077821
Sum	24075.83	19330425	733611.0
Sum Sq. Dev.	1597987.	3.80E+13	2.99E+09
Observations	72	72	72

Source: E-Views 9.0 Descriptive Output, 2025

Table 1 indicates the descriptive statistics for the dependent variable, real gross domestic product (RGDP) and the independent variables government spending on economic infrastructure (EIEXP), and government spending on agriculture (AGEXP). The mean serves as a tool for setting benchmark. The median re-ranks and takes the central tendency. While the maximum and minimum values help in detecting problem in a data. The standard deviation revealed the variation from the mean. It is a measure of risk, the higher the standard deviation, the higher the risk. The standard deviation is a measure that summarizes the amount by which every value within a dataset varies from the mean. It is the most robust and widely used measure of dispersion. The standard deviation in the firms various sectors for the period 2000-2023 is 731451.80 and 6486.11 for EIEXP. Skewness and Kurtosis are contained in Jarque-Bera. Positively skewed is an indication of a rise and AGEXP respectively. in profit while negatively skewed is an indication of loss or backwardness. Jarque-bera is used to test for normality; to know whether the data normally distributed. Table 1 reveals that many of these variables are with probability values less than 5%. So invariably, they are significantly normally distributed. While the probability values are significantly normally distributed because their probability values of are less than 5%.

Correlation Analysis

In examining the association among the variables, we employed the Pearson correlation coefficient (correlation matrix) and the results are presented in table 2:

	RGDP	EIEXP	AGEXP
RGDP	1	0.29459	0.81163
EIEXP	0.29459	1	0.53509
AGEXP	0.81163	0.53509	1

The use of correlation matrix in most regression analysis is to check for multi-colinearity and to explore the relationship between the explanatory variables (EIEXP and AGEXP) and the dependent variable (RGDP). Finding from the correlation matrix table shows that all our independent variables, (EIEXP= 0.295 and AGEXP = 0.812) were observed to be positively associated with real gross domestic product. In checking for multi-colinearity, we notice that no two explanatory variables were perfectly correlated. This means that there is no problem of multi-colinearity between the explanatory variables. Multi-colinearity may result to wrong signs or implausible magnitudes in the estimated model coefficients, and the bias of the standard errors of the coefficients.

Test of Hypotheses

Table 3: Pool Regression Analysis between RGDP, EIEXP and AGEXP

Dependent Variable: RGDP
Method: Panel Least Squares
Date: 04/28/25 Time: 07:48
Sample: 2000 2023
Periods included: 24
Cross-sections included: 3
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	129.2031	19.64247	6.577740	0.0000
EIEXP	-4.01E-05	1.64E-05	-2.451744	0.0168
AGEXP	0.021196	0.001847	11.47735	0.0000

R-squared	0.686085	Mean dependent var	334.3865
Adjusted R-squared	0.676987	S.D. dependent var	150.0229
S.E. of regression	85.26441	Akaike info criterion	11.77016
Sum squared resid	501631.3	Schwarz criterion	11.86503
Log likelihood	-420.7259	Hannan-Quinn criter.	11.80793
F-statistic	75.40253	Durbin-Watson stat	0.400770
Prob(F-statistic)	0.000000		

Source: E-Views 9.0 correlation output, 2025

In table 3, a panel least square regression analysis was conducted to test the effect between real government spending on economic infrastructure (EIEXP), government spending on agriculture (AGEXP) and gross domestic product (RGDP). Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 3, the value of adjusted R squared was 0.68, an indication that there was variation of 68% on RGDP due to changes in EIEXP and AGEXP. This implies that only 68% changes in RGDP could be accounted for by EIEXP and AGEXP, while 32% was explained by unknown variables that were not included in the model. The Durbin-Watson Statistic of 0.400 suggests that the model does not contain serial correlation. The F-statistic of the economic infrastructure regression is equal to 75.402 and the associated F-statistic probability is equal to 0.000, so the alternative hypotheses were accepted and the null hypotheses was rejected.

Hypothesis One

H_{o1}: Federal government spending on economic infrastructure has not significantly affect gross domestic product in Nigeria.

H_{i1}: Federal government spending on economic infrastructure has significantly affect gross domestic product in Nigeria.

The probability of the slope coefficients indicate that; P(= 0.017). The co-efficient value of; β_1= -4.010, implies that spending on economic infrastructure is negatively related to real gross domestic product though statistically significant at 5%. Since the P-value of 0.017 is less than the critical value of 5% (0.05), then, it would be upheld that there is a significant effect between federal government spending on economic infrastructure has significantly affect gross domestic product in Nigeria at 5% level of significance.

Hypothesis Two

H_{o2}: Federal government spending on agriculture has no significant effect on gross domestic product in Nigeria.

H_{o2}: Federal government spending on agriculture has significant effect on gross domestic product in Nigeria.

The probability of the slope coefficients indicate that; P(= 0.000). The co-efficient value of; β_1= 0.021, implies that agriculture is positively related to real gross domestic product and also statistically significant at 5%. Since the P-value of 0.000 is less than the critical value of 5% (0.05), then, it would be upheld that there is a significant effect between federal government

spending on agriculture has significantly affect gross domestic product in Nigeria at 5% level of significance.

The results revealed that there is a significant effect between federal governments spending on economic infrastructure has significantly affect gross domestic product in Nigeria at 5% level of significance. Also, that there is a significant effect between federal governments spending on agriculture has significantly affect gross domestic product in Nigeria at 5% level of significance.

This results are in line with Olatubosun (2024) who observed that government expenditures on agriculture were found to have a positive impact on economic development. Duruibe, Chigbu, Ejezube, and Nwauwa, (2023) found that expenditures on economic services and social and community services have positive and significant relationship with economic growth, government transfers has a positive but insignificant relationship with economic development. Amadi and Alolote (2023) revealed that, government spending on transport, communication, education, and health infrastructure has significant effects on economic growth; spending on agriculture and natural resources infrastructure recorded a significant inverse effect on economic growth in Nigeria. This implies that government investment on social amenities and agriculture attracts lots of development in economy, which in turn improved on the living standard of the society.

CONCLUSION AND RECOMMENDATIONS

This study determined the effect of federal government spending on economic growth in Nigeria, using federal government spending on economic infrastructure, federal government spending on agriculture and gross domestic product in Nigeria. Multiple regression analysis was employed to test the hypotheses. The study revealed that federal government spending on economic infrastructure has negative significant effect on gross domestic product in Nigeria. However, federal government spending on agriculture has positive significant effect on gross domestic product in Nigeria. The increased investment in agriculture and economic infrastructure leads to quality output from the agricultural sector can be used as quality inputs for the manufacturing sector.

Based on the results, the study recommended that:

1. There is need to diversify and develop economic infrastructure such as roads, social and community services, transport and communication to boost trade openness and economic growth in Nigeria.

2. A business-like approach and controls on expenditures on agriculture should be embraced, also efficiency and equity should be incorporated within public governance to exert increase in economic output thus increase in economic growth.

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