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Government Sectorial Expenditure and Economic Growth in Nigeria

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Abstract
This work empirically investigated the effect of government sectorial expenditure on economic growth in Nigeria. The study portrayed the extent to which government sectorial expenditures influence Nigerian economic growth. In order to determine the influence of government sectorial expenditure on economic growth, some key proxy variables were used in the study, namely; government sectorial expenditure on health, government sectorial expenditure on education and government sectorial expenditure on agriculture while economic growth on the other hand was represented by real gross domestic product. Three hypotheses were formulated to guide the investigation. The research design used is Ex Post Facto design and data for the study were obtained from the Central Bank of Nigeria Statistical Bulletin and Statement of Accounts spanning from 2001-2023. The statistical test of parameter estimates was conducted using Panel least squares regression model. The findings generally indicate that government sectorial expenditures on health, education and agriculture had positive and significant effect on economic growth in Nigeria at 5% level of significance. Based on this, the study concluded that government sectorial expenditures ensured Nigerian economic growth. The study therefore suggests that the existence of a relationship between government sectorial expenditure on health, agriculture and economic growth necessitates the continued use of fiscal policy instruments to pursue macroeconomic objectives in Nigeria. Also government should pay special attention to improving the level of development of human capital in Nigeria. There should be an increase in the annual investments in the education sector to at least 10% to 15% of the total budget.

Keywords: *Government Sectorial Expenditure; Health; Education; Agriculture; Economic Growth.*

1. Introduction

Several government programmes and projects are specifically aimed at promoting sustainable and equitable economic growth of which public expenditure have played a very important role over time. Analysis of public expenditure in Nigeria indicated that the productive sectors of the economy such as agriculture, health and education have not been given the required and sufficient attention that will steer the country to the target economic growth (Yerima, Nymphas, Sani, Auta, Amos & Abwage, 2022).

The Federal Government of Nigeria at different times through its annual budget and other funding channels displayed its willingness and readiness to finance the productive sectors with infrastructural and quality human capital investment in mind which should translate to economic growth and eventually, development in the long run. This is because economic growth is fundamental for sustainable development as it relies on government sectorial expenditure to invest in key infrastructural systems like agriculture, health, education, transportation, etc (Jumare, Yusuf & Rafiat, 2021).

Ajayi and Nwogu (2023) noted that Nigerian economies have been grappling with upward review in the size of government operations, in terms of its effect on economic growth in many respects and therefore suggested the need for a provision of a law that can bring about increase in government spending for the overall benefits of citizenry. However, in spite of the upward adjustment in government spending in the present day in Nigeria, the spending has not yielded the necessary dividends as more than 65% of Nigerians are still living on less than USD$1 per day. Hence, this forms an empirical gap for the study to investigate empirically the relationship which exists between government sectorial expenditure and economic growth in Nigeria.

Several empirical findings in Nigeria have proven that the relationship between public expenditure and economic growth has continued to generate series of debate among scholars. For instance; (Bappahyaya, Abiah & Bello, 2019; Okere, Uzowuru & Amako, 2019; Onifade, Çevik, Erdoğan, Asongu & Bekun, 2020; Shafuda & De, 2020; Owui, Joseph, Olugbemi, Nkamare & Emefiele, 2020; Ebipre & Eniekezimene, 2020; Mohammed & AbdAllah, 2021; Adole, Abraham & Sunday 2021; Samuel & Lawrence, 2021; Ajayi & Nwogu, 2023; Useni, Vincent, Yakubu, David, Nzens & Jamilu, 2023 etc). A host of these studies are of the view that government expenditure may or may not bring about economic growth. No consensus has been established on the exact relationship between economic growth and government expenditures or the amount of government expenditure required to stimulate economic growth especially in this present regime in Nigeria where government spending has increased to 1,191.7 NGN Billion in the fourth quarter of 2023 from 1,119.3 NGN Billion (Nigeria Bureau of Statistics, 2024). Hence, the need for the present study to investigate if government expenditure is in direct proportion to acceleration of economic growth in Nigeria

Nigeria is currently undergoing a recession and there are calls from some citizens for increased government expenditure in order to end the recession and bring about positive turn-around of the economy. It is therefore believed that government expenditure has the potential to stimulate the economy and restore economic growth. The existing theoretical literature such as Wagner's theory of government expenditure also showed that government

expenditure enhances economic growth but this seems to be at variance with empirical findings in Nigeria. A crucial question that requires an urgent answer is whether the government sectorial expenditures impact positively on economic growth in Nigeria. It therefore becomes essential to examine the effect of government sectorial expenditures on the economic growth in Nigeria. To achieve this purpose, we formulated the following hypotheses:

H_{01}: Government Sectorial Expenditure on Health has no significant effect on Economic Growth in Nigeria

H_{02}: Government Sectorial Expenditure on Education does not significantly influence Economic Growth in Nigeria

H_{03}: Government Sectorial Expenditure on Agriculture has no significant effect on Economic Growth in Nigeria

2. Review of Related Literature

2.1. Government Expenditure

The function of government expenditures towards the promotion and implementation of government activities in an economy cannot be over emphasized. Government expenditure implies that the expenses incurred by the government for the maintenance and provision of public goods, services and works needed to enhance economic growth and improve the standard of living of the citizens. Generally, government expenditures can be differentiated into expenditures on administration, defence, internal securities, health, education, foreign affairs, etc. and have both capital and recurrent components (Adole, Abraham & Sunday, 2021).

Government expenditure is the money spent by the government out of its revenue to meet various needs of the economy (Useni, Vincent, Yakubu, David, Nzens & Jamilu, 2023). It expenditure emanates from the activities of government which includes paying for and providing goods and services, investment in material and human capital as well as transfers. Wanjiru (2019) explained that, government spending on education and health sectors leads to development and build-up of human capital that will be more resourceful and adequately creative to enhance economic growth.

For the purpose of this study, government sectorial expenditure was proxied using government sectorial expenditure on education, health and agriculture. This is discussed below as thus:

2.1.1 Government Sectorial Expenditure on Health

Health provision is seen as a major element of government's policy to promote broad economic growth. The issue of diseases such as HIV/AIDS is notable to retard economic growth of developing countries. Hence, every country commit large public fund to healthcare provision believing that it would enhance the health of the citizenry so that they can contribute meaningfully to the growth and development of the economy (Udo, Ekere &

inigeghe, 2022). According to Brukohwo (2022), it is an expense incur by the government in providing medic care and hospitals to the citizenry of Nigeria. The study notes that an ncrease in health expenditure will lead to increase in Gross Domestic Product of Nigeria since the people will be healthy to work and go about business activities.

2.1.2 Government Sectorial Expenditure on Education

Useni, Vincent, Yakubu, David, Nzens and Jamilu (2023) noted that government education expenditures have been given recognition as a key aspect of fiscal outlays in most developing countries of the world. According Ajayi and Nwogu (2023), government expenditure on education is an expense incur in maintaining the educational sector of the economy. The study notes that an increment in education expenditure will increase the human capital development which leads to an increase in the Gross Domestic Product.

2.1.3 Government Sectorial Expenditure on Agriculture

This is an outflow of resources from government to agricultural sectors of the economy (Nurudeen & Usman, 2020). The contribution of agricultural sector to the economy cannot be overemphasized when considering its roles for sustainable development, in terms of employment potentials, export and financial impacts on the economy.

Conceptually, agriculture is the production of food, feed, fiber and other goods by the systematic growing and harvesting of plants and animals. It is the science of making use of the land to raise plants and animals. It is the simplification of natures food webs and the rechanneling of energy for human planting and animal consumption ((Nduka & Nwankwo, 2023). Until the exploitation of oil reserves began in the 1980s, Nigeria's economy was largely dependent on agriculture (Omaliko, Anichebe & Okoli, 2016; Adofu, 2022).

2.1.4 Economic Growth

Economic growth is the sustained increase in an economy's output followed by other factors that influence growth such as infrastructural development, technological advancement as well as human capital development. Economic growth is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is therefore measured as the percentage rate of increase in the real gross domestic product (Umeh, Ezudike & Anyaegbunam, 2022). Economic growth is seen as an 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 (Nduka & Nwankwo, 2023).

According to Olatubosun (2024), 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.

2.2 Theoretical Framework

2.2.1 Wagner's Law Theory

This study is anchored on Wagner's Law Theory**.** This theory is traceable to the German political economist, Adolph Wagner (1985–1997). The law is known as the law of increasing state activities. Wagner is of the opinion that the growth of any economy is facilitated or enhanced by increased industrialization process; he opined that as gross domestic product increases, so also public expenditure increases. The Wagner's School holds that the growth of an economy is accompanied by an increase in the share of public expenditure.

Thus, this study is anchored on Wagner's Law Theory. The justification for using this theory to underpin the study stem from the fact that literature review has demonstrated the existence of relationship between the government expenditure and economic growth.

2.3 Empirical Review

Useni, Vincent, Yakubu, David, Nzens and Jamilu (2023) assessed the impact of government expenditure on economic growth in Nigeria using time series data of 2006-2020. Structural Vector Auto-regression (SVAR) model and the pair-wise causality test were adopted. The study found that government expenditure in health and education had an insignificant impact on economic growth. The result also showed that public debt has an insignificant impact on economic growth.

Nduka and Nwankwo (2023) investigated the effect of government expenditure on the performance of small and medium scale enterprises in Nigeria. The data was analyzed with econometric techniques involving descriptive statistics, Augmented Dickey Fuller and Philip Perron Tests for Unit Roots test, Granger Causality Test and the Ordinary Least Square (OLS). The result of the study indicates that capital expenditure on roads, agriculture, education, recurrent expenditure have positive and significant effect on gross domestic product while government borrowing has negative and insignificant effect on small and medium scale enterprises in Nigeria. The study concludes that government expenditure have positive effect on medium scale enterprises in Nigeria in Nigeria and has helped to improve economic growth and development in Nigeria within the period covered by the study.

Ajayi and Nwogu (2023) investigated the link between government expenditure and economic growth in Nigeria with particular emphasis on government recurrent expenditure, government capital expenditure, inflation rate and economic growth from1985-2020. Data that are time series in nature obtained from the Central Bank of Nigeria Statistical Bulletin was used for the study. The results of the study showed an insignificant relationship between government capital expenditure and real gross domestic product and an inverse and insignificant relationship between government recurrent expenditure and inflation rate in the long run whereas the short run effect shows that all the variables have positive and insignificant effect on gross domestic product.

Nworji, Okwu, Obiwuru and Nworji (2022) examined the effect of public expenditure on economic growth in Nigeria for the period 1970–2009. The tool of analysis was the OLS multiple regression model specified on perceived causal relationship between government

expenditure and economic growth. The results of the analysis showed that capital and recurrent expenditure on economic services had insignificant negative effect on economic growth during the study period. Also, capital expenditure on transfers had insignificant positive effect on growth.

Samuel and Lawrence (2021) examined the effect of various components of Government Expenditures on Economic Growth in Nigeria for periods between 2011 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.

Chandsna, Adamu and Musa (2021) investigated the impact of Nigerian government expenditure (disaggregated into capital and recurrent) on economic growth using time series data for the period 1970-2019. The study employed Autoregressive Distributed Lag (ARDL) model. To ensure robustness of results, the study accounts for structural breaks in the unit root test and the co-integration analysis. The key findings of the study are 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.

Adole, Abraham and Sunday (2021) examined the impact of government expenditure on economic growth in Nigeria for the period, 1984-2015 with view to re-assess the Keynesian and Endogenous Growth Models proposition that public expenditure stimulates economic growth. The study employed Johansen co-integration and Error Correction Model. The empirical results showed that public (recurrent and capital) expenditure has significant positive impact on the growth of the economy in the long run and an insignificant negative impact on the Nigerian economy in the short run, reinforcing the Keynesian and Endogenous Growth Models that public expenditure stimulates economic growth in Nigeria when seen in the long run.

3. Methodology

An *ex post facto* research design was used in the study based on the fact that the data for the study was secondary which already existed and cannot be controlled. The study examined the effect of government sectorial expenditures on economic growth of Nigeria for the period of 2001-2023. The data were sourced from Central Bank of Nigeria Statistical Bulletin and Statement of Accounts. Panel least square regression model was used to examine the relationship between government sectorial expenditure and economic growth in Nigeria.

3.1 Measurement and Operationalization of Variables

The independent variable for the study is government sectorial expenditure and was proxied using government sectorial expenditures on health, education and agriculture while the dependent variable (economic growth) was measured using real gross domestic product.

This is shown on table 1 as thus:

Table 1: Measurements of Variable

Variable	Measurement	Source	A Priori Expectations
Independent			
Government Sectorial Expenditure on Health (GSEH)	Log of Government Expenditure on Health	Samuel and Lawrence (2021), Yerima, Nymphas, Sani, Auta, Amos and Abwage (2022)	It is expected to have a positive effect.
Government Sectorial Expenditure on Education (GSEE)	Log of Government Expenditure on Education	Samuel and Lawrence (2021), Yerima, Nymphas, Sani, Auta, Amos and Abwage (2022)	It is expected to have a positive effect.
Government Sectorial Expenditure on Agriculture (GSEA)	Log of Government Expenditure on Agriculture	Samuel and Lawrence (2021), Udo, Ekere and Inibeghe (2022)	It is expected to have a positive effect.
Dependent			
Economic Growth	Log of Real Gross Domestic Product	Ibrahim and Ashiru (2019), Ajayi and Nwogu (2023)	.

Source: Empirical Survey (2024).

3.2 Model Specification and Justification

In line with the previous researches, the present study adopted and modified the model of Garry and James (2015) in determining the effect of government sectorial expenditures on economic growth in Nigeria. This is shown below as thus:

Garry and James (2015) **SME = F(CER, CEA, RCE)**

The functional model modified for the study is shown below as thus: RGDP = F(LGSEH, LGSEE, LGSEA)

The explicit form of the regression designed for the study is expressed as thus:

$$\mathbf{RGDP_t = \beta_0 + \beta_1 LGSEH_t + \beta_2 LGSEE_t + \beta_3 LGSEA_t + \mu}$$

Where:

RGDP = Real Gross Domestic Product
LGSEH= Log of Government Sectorial Expenditure on Health
LGSEE= Log of Government Sectorial Expenditure Education
LGSEA = Log of Government Sectorial Expenditure Agriculture
μ = Stochastic Term
$\beta_1 - \beta_3$ = Coefficient of Regression Equation
β_0 = Constant coefficient (intercept) of the model

'*A Priori*' is given as: $\beta_0, \beta_1 > 0$
Decision Rule: accept Ho if P-value > 1%-5% significant level otherwise reject Ho

4. Data Analysis and Results

Table 2: Descriptive Statistics

	RGDP	LGSEH	LGSEE	LGSEA
Mean	11.48174	10.04913	9.392609	9.205217
Median	11.57000	10.14000	9.510000	9.270000
Maximum	11.76000	10.32000	9.650000	9.650000
Minimum	10.87000	9.370000	8.770000	8.760000
Std. Dev.	0.256845	0.261289	0.262336	0.265550
Skewness	2.928731	0.207876	1.573001	1.470922
Kurtosis	2.480987	5.928465	2.893309	2.122595
Jarque-Bera	310.3093	21.73244	33.61280	28.93490
Probability	0.345426	0.679833	0.880832	0.201093
Sum	264.0800	231.1300	216.0300	211.7200
Sum Sq. Dev.	1.451330	1.501983	1.514043	1.551374
Observations	**23**	**23**	**23**	**23**

Source: E-View 12 Computational Results (2024)

From Table 2 above, the mean (average), maximum values, minimum values, standard deviation and Jarque-Bera Statistics (Normality Test) were shown. The results provide some insight into the nature of government expenditures within the period under review. First, it can be observed that on the average, in a 23-year period (2001-2023), economic growth (RGDP) was characterized by a positive value of 11.48. This implies that economic growth of Nigeria is determined by government sectorial expenditures (GSEH, GSEE & GSEA). The distribution is platykurtic since the kurtosis (2.48) is less than 3, implying that the outliers are few. The Jarque-Bera probability of 0.35 is greater than 0.05, which means that the distribution of gross domestic product comes from a normal distribution.

The average government sectorial expenditure on health (GSEH) was 10.04 with a standard deviation value of 0.261. This means that a nation with GSEH value of 10.04 and above has a sustainable economic growth. There is also a high variation in maximum and minimum values of GSEH which stood at 10.3 and 9.37 respectively. This wide variation in GSEH values justifies the need for this study that government sectorial expenditures on health determine economic growth in Nigeria. The distribution is leptokurtic since the kurtosis (5.92) is more than 3, implying that the outliers are many. The Jarque-Bera probability of 0.68 is greater than 0.05, which means that the distribution of government sectorial expenditure on health does not deviate from a normal distribution.

The mean value of government sectorial expenditure on education (GSEE) for the study was 9.39. This means that a nation with GSEE value of 9.39 and above is economically sustainable. Thus, government sectorial expenditure on education determines Nigerian Economic growth. There is also a variation in maximum and minimum values of GSGE which stood at 9.65 and 8.77 respectively. This high variation in GSEE values justifies the need for this study that government sectorial expenditures on education boost economic

growth in Nigeria through manpower development at a degree risk of 0.262%. The distribution is platykurtic since the kurtosis (2.89) is less than 3, implying that the outliers are few. The Jarque-Bera probability of 0.88 is greater than 0.05, which means that the distribution of government sectorial expenditure on education is not different from a normal distribution.

The average government sectorial expenditure on agriculture (GSEA) for the study was 9.21. This means that a nation with GSEA value of 9.21 and above has a sustainable economic growth. There is also a high variation in maximum and minimum values of GSEA which stood at 9.65 and 8.76 respectively. This wide variation in GSEA values justifies the need for this study that government sectorial expenditure on agriculture ensures economic growth in Nigeria. The distribution is platykurtic since the kurtosis (2.12) is less than 3, implying that the outliers are few The Jarque-Bera probability of 0.20 is greater than 0.05, which means that the distribution of government sectorial expenditure on agriculture does not deviate from normal distribution.

4.2 Model Diagnostics

Diagnostic tests were computed to assess how well the linear model performed in estimating the parameters used in hypothesis testing. The Unit root test was employed as augmenting analysis since the data is a time series. Breusch-Pagan-Godfrey HT Test, Breusch-Godfrey Serial Correlation LM Test, Ramsey RESET Test, and Variance Inflation Factors were explored for the test of autocorrelation, linearity and multi-collinearity existence.

4.2.1. Unit Root Test

In order to obtain plausible numerical estimates of the parameters given, the data were subjected to unit root test using ADF test as shown in **Table 3**

Table 3: Stationarity Test

Variable	ADF Lags	t-stat	p-value
RGDP	4	-3.004861	0.0030
LGSEH	4	-3.052169	0.0004
LGSEE	4	-3.029970	0.0000
LGSEA	4	-3.587263	0.0001

Source: E-Views 12 Computational Results (2024)

The decision rule for stationarity is that the P-value of ADF Test Statistic must be less than the level of significance adopted in the study. Therefore, the result of the ADF unit root test shows that all the independent variables were stationary at 1% level of significance. Thus, there is no unit root in the series. Therefore Johansen Co-Integration Test is not required since the variables of the series attained stationarity at level

4.2.2 Heteroskedasticity Test

Heteroskedasticity was assessed using B-P-G test to ascertain whether the residuals have a constant variance. The opposite of heteroskedasticity is homoscedasticity which refers to a

situation where the variance of the residuals is equal over a range of measured values.

Table 4: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.922296	Prob. F(3,19)	0.4490
Obs*R-squared	2.923635	Prob. Chi-Square(3)	0.4035
Scaled explained SS	1.715772	Prob. Chi-Square(3)	0.6334

Source: E-Views 12 Computational Results (2024)

The null hypothesis of the test is that the model is homoscedastic. Thus the null hypothesis was accepted at 5% significant level since the p-value of 0.4490 is more than 5% level of significance adopted. Thus, implies that the model is free from heteroskedasticity.

4.2.3 Test for Auto-Correlation

Autocorrelation refers to a condition whereby the residuals in a regression model have a strong association among themselves. This condition was examined in Table 5 below.

Table 5: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	1.316199	Prob. F(2,17)	0.2941
Obs*R-squared	3.083941	Prob. Chi-Square(2)	0.2140

Source: E-Views 12 Computational Results (2024)

The null hypothesis is that the residuals are not strongly correlated. However, the alternative hypothesis of auto correlated error terms was rejected since the Prob. F (2, 17) = 0.2941 is more than 0.05.

4.2.4 Linearity Test

Ramsey RESET test was carried out to test whether the functional form of the regression is appropriate.

Table 6: Ramsey RESET Test
Equation: UNTITLED
Omitted Variable: Squares of fitted values
Specification: RGDP LGSEH LGSEE LGSEA C

	Value	Df	Probability
t-statistic	0.570197	18	0.0001
F-statistic	0.325124	(1, 18)	0.0001
Likelihood ratio	0.764724	1	0.3819

Source: Authors' Computation, E-Views 12.

From the result in Table 6, the alternate hypothesis that there is a linear relationship between the variables was accepted since the Prob (F-stat) = 0.0001 is less than 0.05. Thus, panel lest

square can be accurately deployed in explaining the relationship between government sectorial expenditure and economic growth in Nigeria

4.2.5 Multi-Collinearity Test

Multi-collinearity is a condition in which the independent variables are highly correlated such that the effects of the independents on the outcome variable cannot be separated. It reduces the validity of the regression estimates since the independent variables become extremely the same when there is a strong collinearity in the predictors. Multi-collinearity practically inflates unnecessarily the standard errors of the coefficients. By overinflating the standard errors, multi-collinearity makes some variables statistically insignificant when they should be significant. To assess the strength of the collinearity subsisting among the predictors, the study deployed Variance Inflation Factors as shown in Table 7.

Table 7: Variance Inflation Factors
Date: 08/31/24 Time: 14:59
Sample: 2001-2023
Included observations: 23

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LGSEH	0.032065	11.23932	1.013012
LGSEE	6.368756	1.370334	1.032835
LGSEA	0.048832	1.620648	1.030654
C	0.733461	11.71351	NA

Source: Authors' Computation, E-Views 12.

From the table above, the centered VIF ranges from 1.013 to 1.031 which suggests non multi-collinearity feature. Multi-collinearity feature according to Sabo, Rabi, Usman, Fatima, and Tjjani (2015) exists when the centered VIF exceeds 10 i.e VIF>10

4.1: Test of Hypothesis

Table 8: Result on Effect of Government Sectorial Expenditures on Economic Growth in Nigeria

Dependent Variable: RGDP
Method: Least Squares
Date: 08/31/24 Time: 14:57
Sample: 2001 2023
Included observations: 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LGSEH	0.146127	0.058683	2.490128	0.0222
LGSEE	1.215941	0.070238	17.31176	0.0000

LGSEA	0.114333	0.032320	3.537538	0.0022
C	2.581797	0.163426	15.79799	0.0000

R-squared	0.995221	Mean dependent var	11.48174
Adjusted R-squared	0.994466	S.D. dependent var	0.256845
S.E. of regression	0.019107	Akaike info criterion	11.920805
Sum squared resid	0.006936	Schwarz criterion	10.723328
Log likelihood	60.58926	Hannan-Quinn criter.	10.871140
F-statistic	1318.870	Durbin-Watson stat	2.045379
Prob(F-statistic)	0.000000		

Source: E-View 12 Computational Results (2024).

4.2: Discussion of Findings.

The coefficient of determination R^2 shows 0.99 indicating that the overall model explained 99 percent of the total variations in the dependent variable (GDP). Thus shows that these variables (GSEH, GSEE & GSEA) can only explain 99 percent of change in Nigerian Economic Growth (GDP) leaving 1 percent unexplained. This is to say that there are other factors that could led to Nigerian Economic Growth other than government sectorial expenditures. The sig. (or p-value) is .0000 which is below the .01 level; hence, we conclude that the overall model is statistically significant, or that the variables have a significant combined or joint effect on the dependent variable. With this, the researcher affirms the validity of the regression model adopted in this study.

The results of the regression are therefore slated below as follows:

H_{01}: Government Sectorial Expenditure on Health has no significant effect on Economic Growth in Nigeria

This hypothesis was tested and the result of this regression as exposited on table 8 indicates that the relationship between GSEH and GDP is positive and significant; this can be justified with the P-value (significance) of 0.0222 which is less than the 5% level of significance adopted. Likewise the result of positive coefficient of 0.146 indicates that an increase in government sectorial expenditure on health increases economic growth of Nigeria by 0.146%. Thus implies that government expenditure on health ensures Nigerian economic growth. We therefore accepted the alternate hypothesis which contends that government sectorial expenditure on health has significant effect on economic growth in Nigeria.

H_{02}: Government Sectorial Expenditure on Education does not significantly influence the Economic Growth in Nigeria

This hypothesis was tested and the result of this regression as exposited on table 8 indicates that the relationship between GSEE and GDP is positive and significant; this can be justified with the P-value (significance) of 0.0000 which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 1.22 indicates that an increases in government sectorial expenditure on education increases economic growth in Nigeria

thorough manpower sustainability. We consequently accepted the alternate hypothesis which contends that government sectorial expenditure on education significantly influences the economic growth in Nigeria.

H_{03}: Government Sectorial Expenditure on Agriculture has no significant effect on Economic Growth in Nigeria

This hypothesis was tested and the result of this regression as exposited on table 8 indicates that the relationship between GSEA and GDP is positive and significant; this can be justified with the P-value (significance) of 0.0022 which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.114 indicates that an increase in government expenditure on agriculture increases Nigerian economic growth by 0.114%. Hence, government sectorial expenditure on agriculture determines the economic growth in Nigeria. We therefore accepted the alternate hypothesis which contends that government sectorial expenditure on agriculture has significant effect on economic growth in Nigeria.

5. Conclusion and Recommendation

The study from the statistical analysis notes that government sectorial expenditures have positive and significant effect on economic growth in Nigeria. Hence, the study concludes that government sectorial expenditure ensures the sustainability of economic growth in Nigeria. The study therefore recommends as follows:

1. The existence of a relationship between government sectorial expenditure on health and economic growth necessitates the continued use of fiscal policy instruments to pursue macroeconomic objectives in Nigeria.

2. Government should pay special attention to improving the level of development of human capital in Nigeria. There should be an increase in the annual investments in the education sector to at least 10% to 15% of the total budget.

3. A poorly financed and unmanaged agricultural industry would not perform or achieve its purpose. It is therefore advised that the government should increase her allocation to the agricultural sector and monitor such allocated funds. It is a well-known fact that the problem in Nigeria today is corruption; this is a virus that has deeply eaten Nigeria to its root and has rendered the nation underdeveloped. Therefore, strict monitoring of the use of the fund and adequate punishment for convicted looters should be applied.

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Appendix 1
Log of Nigerian Government Expenditures on Health, Education and Agriculture from 2001-2023

YEARS	RGDP	LGSEH	LGSEE	LGSEA
2001	10.87	9.37	8.77	8.76
2002	10.98	9.37	8.88	8.95
2003	11.02	9.72	8.92	8.77
2004	11.13	9.80	9.03	8.81
2005	11.24	9.90	9.14	8.83
2006	11.38	10.01	9.29	8.89
2007	11.44	10.04	9.35	8.99
2008	11.53	10.10	9.44	9.21
2009	11.47	10.03	9.37	9.18
2010	11.56	10.08	9.46	9.30
2011	11.62	10.14	9.51	9.38
2012	11.67	10.19	9.57	9.37
2013	11.72	10.25	9.61	9.38
2014	11.76	10.28	9.65	9.37
2015	11.69	10.25	9.61	9.32
2016	11.61	10.17	9.53	9.24
2017	11.57	10.15	9.49	9.21
2018	11.63	10.12	9.51	9.31
2019	11.68	10.15	9.57	9.27
2020	11.64	10.16	9.59	9.41
2021	11.64	10.25	9.59	9.65
2022	11.67	10.28	9.60	9.49
2023	11.56	10.32	9.55	9.63

Source: Compiled from Central Bank of Nigeria Statistical Bulletin and Statement of Accounts.
See Appendix 2

Appendix 2

Nigerian Government Expenditures on Health, Education and Agriculture from 2001-2023

YEARS	REAL GROSS DOMESTIC PRODUCT ($)	HEALTH EXPENDITURE ($)	EDUCATION EXPENDITURE ($)	AGRICULTURAL EXPENDITURE ($)
2001	73,560,000,000.00	2,346,564,000.00	594,448,800.00	570,000,000.00
2002	95,050,000,000.00	2,366,745,000.00	758,951,000.00	900,000,000.00
2003	104,740,000,000.00	5,289,370,000.00	826,644,000.00	590,000,000.00
2004	135,760,000,000.00	6,285,688,000.00	1,075,488,000.00	640,000,000.00
2005	175,670,000,000.00	7,852,449,000.00	1,383,519,000.00	670,000,000.00
2006	238,450,000,000.00	10,157,970,000.00	1,967,418,000.00	780,000,000.00
2007	278,260,000,000.00	10,879,966,000.00	2,242,105,000.00	970,000,000.00
2008	339,480,000,000.00	12,560,760,000.00	2,735,988,000.00	1,620,000,000.00
2009	295,010,000,000.00	10,620,360,000.00	2,357,194,000.00	1,500,000,000.00
2010	366,990,000,000.00	12,110,670,000.00	2,907,374,000.00	1,990,000,000.00
2011	414,470,000,000.00	13,760,404,000.00	3,251,301,000.00	2,380,000,000.00
2012	463,970,000,000.00	15,589,392,000.00	3,685,626,000.00	2,320,000,000.00
2013	520,120,000,000.00	17,788,104,000.00	4,109,605,000.00	2,420,000,000.00
2014	574,180,000,000.00	19,235,030,000.00	4,491,689,000.00	2,360,000,000.00
2015	493,030,000,000.00	17,650,474,000.00	4,028,966,000.00	2,070,000,000.00
2016	404,650,000,000.00	14,769,725,000.00	3,365,584,000.00	1,720,000,000.00
2017	375,750,000,000.00	14,090,625,000.00	3,096,159,000.00	1,620,000,000.00
2018	421,740,000,000.00	13,031,766,000.00	3,220,369,000.00	2,040,000,000.00
2019	474,520,000,000.00	14,188,148,000.00	3,684,316,000.00	1,860,000,000.00
2020	432,200,000,000.00	14,608,360,000.00	3,896,755,300.00	2,570,000,000.00
2021	440,840,000,000.00	17,986,272,000.00	3,909,765,000.00	4,470,000,000.00
2022	472,620,000,000.00	19,097,400,000.00	4,019,870,000.00	3,110,000,000.00
2023	362,810,000,000.00	20,986,000,000.00	3,562,310,000.00	4,278,000,000.00

Source: Compiled from Central Bank of Nigeria Statistical Bulletin and Statement of Accounts.