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# GOVERNMENT EXPENDITURE AND GDP PERFORMANCE IN NIGERIA

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| Abstract: | Keywords: |
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| This study studied the relationship between Nigeria's main expenses and GDP results. This focuses on the impact of national expenses on education and agriculture. The data of this study were collected from the Nigerian government's financial reports and related economic data from 2014 to 2023. The analysis has been performed for existing multiple regression models (OLS) using E-View 10. Data shows that government expenditure on education does not have a significant relationship with GDP performance, while government expenditure on agriculture has a significant impact on GDP growth. Thus, the study concluded that Nigeria could greatly increase GDP productivity and allocate more resources to the agricultural sector. Based on this conclusion, it is recommended that the Nigerian government determine the priority of agricultural investment and, at the same time, contribute to the effects of education costs. | Government Expenditure, GDP Performance, Government Expenditure on Education, Government Expenditure on Agriculture. |

## Introduction

Nigeria is no different from any other contemporary economy in that the government holds a vital and pivotal position. The government stepped in to ensure that social and infrastructure projects were funded equitably and effectively after the market system failed. Governments sought to achieve macroeconomic goals, such as controlling the money supply and demand, via manipulating the economy through government expenditure, according to Ugochukwu and Oruta (2021).

Government investment supports agricultural expansion, which leads to economic growth in a roundabout way—through the establishment of non-farm jobs in rural regions and wage rises. This feature enhances productivity and promotes growth in the long run. These days, public spending strategies and how that money is distributed among different sectors are crucial (Friday, Fiddles, Udeme & Ayodele, 2016). Budgeting allows nations to regulate spending,

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borrow just what is necessary, and prioritise policies while planning for the future of their economy (Okoroigwe, 2023) without going overboard. According to Agbo and Olufemi (2023), income allocation—the transfer of fiscal capacity—and monetary and exchange rate policies impact government expenditure. So, it distinguishes between capital and operational expenditures.

There is no denying that government spending is a potent tool for development. It is crucial to the operation of economies all around the globe. Vtyurina (2020), the World Bank (2008), and Assi, Dimson, Goodman, and Andersen (2019) all agree that public expenditure is a common instrument for governments to fulfil their economic goals, regardless of income level. Economic growth alone is insufficient to justify development; development must also include better infrastructure, education, healthcare, affordable housing, restoration of the environment, strengthening of the agricultural sector, and targeted interventions (such as export subsidies) (Chandana, Adamu & Musa, 2021; Udo, Ekere & Inibeghe, 2021).

The decline in oil income has put Nigeria's economy, which relies on those resources for survival, into a tailspin. Despite a decline in tax revenue, the imperative to create an environment that is both safer and more inviting for businesses and individuals to conduct their operations grows. To ensure stable infrastructure and make capitalists' money-making easier, more funds are being allocated to health care, security, and infrastructure. But the fact that GDP growth rate is falling demonstrates that all those massive expenditures have not translated to long-term economic prosperity in Nigeria. There has been no letup in the discussion of whether or not government spending boosts the economy as no one can agree on the magnitude of the influence on GDP growth (Nduka & Nwankwo, 2023). Despite the proportional growth in government investment in the performance of SMEs in Nigeria over the years, households still live below the capital per income threshold. The Nigerian government and private sector do not collaborate to help small and medium-sized businesses (SMEs) become more efficient.

 A significant amount of tax dollars, which are mostly used for other purposes, go into funding and maintaining infrastructure. spending on public consumption is anticipated to retard growth, whereas spending on infrastructure and productive activity (in state-owned businesses) should accelerate it.

Wasted resources prevent a country's production from rising. If the government decides to raise expenditure, the economy's performance can fall. Investments in education, healthcare advances, and agriculture are examples of human capital development areas that are necessary for achieving quick economic growth and development (Akujuobi & Tony-Okolo, 2023; Danladi, Akomolafe & Anyadiegwu, 2015).

Thus, the study  examined the impact of government expenditure on the economic growth of Nigeria. Specifically:

   i.     To investigate the relationship between government expenditures on education and GDP performance.

   ii.     To ascertain the relationship between government expenditures on agriculture and GDP performance.

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## 2.0 Literature Review

In economics, "economic growth" means that national income or productivity per capital has been steadily increasing. Economic growth is defined as the rate at which a country's output increases relative to its population (Okerekeoti, 2022). Since this stimulates the economy, the real gross domestic product (GDP) rises, which is indicative of greater wealth and output. Okoroigwe (2023) states that gross domestic product (GDP) is the monetary worth of all final products and services generated by a country within a given time frame. The GDP is a measure that economists use to assess the health of the economy. According to Agbo and Olufemi (2023), a country's GDP is the total monetary worth of all final goods and services produced over a specific period, usually a year.

Government spending is one instrument of fiscal policy that may be used to manage economic expenditure. Taxes pay for current government programs and expenditures in Nigeria, but anticipated budget deficits are filled via foreign loans.

 Based on their intended use, capital expenditures and recurrent expenditures are the two primary forms of government spending. Construction of new roads, airports, schools, telecommunications, power plants, etc., falls under capital expenditures, whereas wages, interest on loans, upkeep, etc., go under recurrent costs. The government spends money on physical infrastructure so that its citizens can live better. Economic growth is often believed to be a byproduct of government spending on areas such as healthcare, education, infrastructure (including transportation, energy, and water), social welfare programs (including pensions), R&D, debt servicing, and environmental protection (Danladi et al., 2015).

The yearly expenditure of the government has increased significantly throughout the years. Massive public infrastructure investments, meanwhile, have produced, to put it plainly, zero returns. As a cat pursues its prey, the poverty rate remains stubbornly high in the face of increasing costs and unemployment. An increase in government spending in Nigeria has significantly reduced the pace of GDP growth in the country. However, GDP in Nigeria has grown, albeit in varying degrees, during the past several years. For the first three months of 2024, GDP increased by 2.98% year-on-year, with the services sector accounting for 58.04% of the total. The first quarter of 2023 saw a growth rate of 2.31%, while the fourth quarter saw a growth rate of 3.466 percent. There was a 0.18% increase in agricultural output following a -0.90% decline in Q1 2023, and a 4.32% increase in service sector output. With a growth rate of 2.19%, the industrial sector also outperformed the same period in 2023. Looking back, we can observe that the yearly GDP growth rate for Nigeria increased from 2.98 percent to 3.19 percent in Q2 of 2024. A key component was the oil industry's growth rate of 10.15% in Q2 2024. At 56.27 percent of GDP in Q42022, the services sector was the most important contributor to GDP growth in Nigeria's history. Despite heavy flooding in the first three quarters of 2024, agricultural production increased by 2.05% during that period, according to the National Bureau of Statistics. As a result, you need to allocate funds sensibly between one-time costs and ongoing repairs.

The authors Akujuobi and Tony-Okolo (2023) looked at data from 1981 to 2021 to determine how government spending affected GDP growth in Nigeria. Healthcare, education, and social

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and community services expenditures stood in for total government expenditures; net foreign trade and total government investment mediated the relationship. Gross Domestic Product served as a surrogate for real GDP growth. The data was analysed using some econometric models, one of which was the Auto Regressive Distributed Lag (ARDL) model. Government spending on healthcare, in contrast to spending on education, shows a weakly positive and statistically significant association with GDP in the near run. The long-term study found that government spending on healthcare significantly increased GDP, whereas spending on schools had the reverse impact. The model was found to be negatively affected by net foreign trade, but positively affected by spending and investment in social and community services. Education expenditure has been underfunded despite continuing and capital investments, but health spending has significantly enhanced economic development, according to the research. There has to be more funding for schools, more participation from the corporate sector, and the formation of international collaborations to improve health care.

Research in Nigeria has looked at how government expenditure relates to GDP growth (Okoroigwe, 2023) as far as we can tell. Examining the relationship between GDP and various forms of government expenditure in Nigeria, with a focus on agriculture, education, health, and security, was the main goal of this research. The study used an ex-post facto research design. The study relied on panel data that was mostly obtained from secondary sources. The data was extracted from the official publications of the CBN and spans the years 2016–2022. We calculated the mean, standard deviation, dispersion, minimum and maximum values, and central tendency for the study period using a mix of descriptive and inferential statistics. We used a mix of multiple regression and correlation analysis to test our idea. Government spending in Nigeria on agriculture, education, health, and security is positively and statistically significantly correlated with GDP, according to the statistics. Educational opportunities, medical treatment, food production, and safety are the four pillars upon which any economy rests. This study contributes to the increasing amount of evidence demonstrating this correlation. Public money could not positively impact these crucial regions due to corruption and nepotism, according to the report. There can be no meaningful economic benefit from government investment in security, education, and agriculture until corruption and nepotism are severely curbed. During his address, he made a solemn promise to combat favouritism and corruption in all areas of government, including the allocation of resources, the formulation of policies, and the execution of directives. The government need to focus the most efficient distribution of both ongoing and one-time funds to the health and education sectors, and augment their yearly budgetary allocation. These domains are crucial to the health of the economy and the people at large.

Using data collected from 1989–2021, Olurin, Omosebi, Soetan, and Akintola (2024) analysed how government expenditure in Nigeria affected inflation and GDP growth. Time series data used in the study came from the annual CBN statistics bulletin. To analyse the data, Ordinary Least Squares (OLS) was employed. Inflation and government spending, the study found, are major factors in Nigeria's economic growth. Researchers in Nigeria found that if they increase

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spending on healthcare and transfers while keeping inflation in the single digits, the government could stimulate economic growth.

## 3.0 Methodology

To determine how government expenditure in Nigeria affected GDP growth, this study employed an ex-post facto research strategy. Since the researcher did not try to change the nature or value of the data they used, which were based on actual events, the study may be considered ex-post facto. The research relied on secondary sources to compile its GDP and government expenditure on education and agriculture. A lot of the time series data used in it came from the Federal Government of Nigeria and the Central Bank of Nigeria's Statistical Bulletin. Data is gathered annually from 2014 to 2023. The numerical estimates of the model's coefficients were obtained using the Ordinary Least Squares (OLS) estimation method.

## 3.1 Model Specification

The independent variable is government expenditure, which was measured by government expenditure on education (GEE) and government expenditure on agriculture (GEA). This independent variable in this model is represented by (X), while the dependent variable, which is GDP performance (GDPP) represented in this model by (Y).

$Y = f(\text{GDPP})$

$X = f(\text{GEE, GEA})$

$Y = \beta_0 + \beta_1 X_1 \ldots\ldots\ldots + \varepsilon \ldots\ldots\ldots\ldots\ldots$ (1)

$GPPP = \beta_0 + \beta_1 GEE + \beta_2 GEA + \varepsilon \ldots\ldots\ldots\ldots$ (2)

Where;

GDPP = GDP Performance

 GEE= Government Expenditure on Education

 GEA= Government Expenditure on Agriculture

$\beta_0$ = Constant term

$\beta_1$ & $\beta_2$ = Beta coefficients

$\varepsilon$ = Error term

## 3.2 Data Analysis

Below are the findings of several statistical tests, including pooling OLS analyses and correlation, that were run on the collected data using E-views 10.0 version for hypothesis testing. Decisions were based on the p-value and other outcomes of the regression analysis. Each hypothesis was tested at a significance level of 5% (0.05). If the calculated p-value is greater than or equal to 5%, then H0 is accepted; otherwise, it is rejected.

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**Table 1: Descriptive Statistics**

|  | GEE | GEA | GDPP |
|---|---|---|---|
| Mean | 0.719143 | 0.428571 | 3.471429 |
| Median | 0.755000 | 0.000000 | 4.000000 |
| Maximum | 0.900000 | 1.000000 | 11.00000 |
| Minimum | 0.450000 | 0.000000 | 0.000000 |
| Std. Dev. | 0.130448 | 0.498445 | 2.597219 |
| Skewness | -0.338487 | 0.288675 | -0.107152 |
| Kurtosis | 1.702195 | 1.083333 | 2.405119 |
| Jarque-Bera | 6.249220 | 11.68692 | 1.166113 |
| Probability | 0.043954 | 0.002899 | 0.558190 |
| Sum | 50.34000 | 30.00000 | 243.0000 |
| Sum Sq. Dev. | 1.174149 | 17.14286 | 465.4429 |
| Observations | 77 | 77 | 77 |

The descriptive statistics table provides an overview of three variables: Government Expenditure on Education (GEE), Government Expenditure on Agriculture (GEA), and GDP Performance (GDPP), based on 77 observations.

For GEE, the mean is 0.7191, indicating that, on average, green energy efficiency is moderately high. The median value of 0.755 suggests that half of the observations are at least this value, showing a slight skew toward higher efficiency levels. The range of values lies between 0.45 (minimum) and 0.90 (maximum), with a standard deviation of 0.1304, reflecting low variability. The negative skewness (-0.338) suggests that the data is slightly skewed toward higher values, while the kurtosis (1.70) indicates a flatter-than-normal distribution. The Jarque-Bera test result (p=0.0439) shows the data is not normally distributed.

For **GEA**, the mean is 0.4286, implying moderate green energy adoption on average. The median is 0, indicating that at least half of the observations recorded no adoption. The range is broad, spanning from 0 (minimum) to 1 (maximum), with a higher standard deviation (0.4984), suggesting significant variability. The positive skewness (0.2887) indicates a slight skew toward higher values, while the kurtosis (1.08) suggests a very flat distribution. The Jarque-Bera test result (p=0.0029) confirms that this data is also not normally distributed.

Finally, GDPP has a mean of 3.4714, showing an average GDP per capita of approximately 3.47 units. The median value of 4 indicates a central tendency closer to the higher end of the data, with values ranging from 0 to 11. The standard deviation (2.5972) suggests moderate variability. The skewness (-0.1071) shows the data is nearly symmetric, while the kurtosis (2.40) is close to the normal distribution. The Jarque-Bera test result (p=0.5582) suggests that the GDPP data is normally distributed.

In summary, while GEE and GEA exhibit some level of skewness and non-normality, GDPP shows a more balanced and normal distribution, with moderate variability across observations.

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**Test of Hypotheses**

**HO1:** There is no relationship between government expenditures on education and GDP performance.

**HO2:** There is no relationship between government expenditures on agriculture and GDP performance.

**Table 2:** GDPP Reaction to Government Expenditure on Education and Agriculture

| Dependent Variable: GDPP | | |
|---|---|---|
| Estimator | OLS | |
| Variable | Coef (T-Statistic) | Prob |
| GEE | -0.0241 (-1.0645) | 0.2912 |
| GEA | 0.0233 (3.6210) | 0.0006 |
| Cons | 0.05613 (9.2017) | 0.0000 |
| $R^2$ | 0.7852 | |
| Adj $R^2$ | 0.7648 | |
| F-statistic | 38.4023 | |
| Prob(F-statistic) | 0.0000 | |
| DW | 1.2954 | |
| Note: GEE, government expenditure on education; GEA, government expenditure on agriculture; GDP, gross domestic product performance. | | |

Government Expenditure on Education (GEE), Government Expenditure on Agriculture (GEA), and GDP Performance (GDPP) are the metrics used to measure the effectiveness of government programs from 2014 to 2023. Table 2 revealed that without considering GEE and GEA, GDPP would still have a baseline value of 0.5165, as indicated by the model's constant term, which is 0.5165. A high level of statistical significance indicates that this baseline has a substantial impact when considered alone. A negative correlation between GEE and GDPP is indicated by the coefficient, which is -0.0242. With a p-value of 0.2912—higher than the conventional 0.05—this correlation, however, does not constitute a statistically significant association. During the time frame of this investigation, changes in GEE did not significantly affect GDPP.

The converse is true as well: GEA is positively and statistically related to GDPP. A p-value of 0.0006 and a coefficient of 0.0233 show that more government spending increases GDP per capita. This provides strong evidence that government allocations, when done effectively, substantially boost economic development. An R-squared value of 78.53% indicates that GEE and GEA collectively account for over 79% of the variance in GDPP, indicating a robust model.

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This result is supported by the adjusted R-squared value of 76.48%, which takes into consideration the number of predictors. It may be necessary to do more research to confirm the model's robustness, as the Durbin-Watson statistic of 1.295 indicates the possibility of positive autocorrelation.

In summary, government expenditure on agriculture has a positive and significant impact on GDP performance, while government expenditure on education does not show a meaningful effect. These findings emphasize the importance of focusing on strategic allocations to stimulate GDP effectively.

## Conclusions

The study concludes that while government expenditure on agriculture significantly impacts GDP performance in Nigeria, expenditure on education does not show a meaningful relationship with economic growth. This suggests that agricultural investments are more directly linked to enhancing economic performance, whereas the impact of education expenditure may need more strategic focus or reforms to yield measurable results. Thus, the findings highlight the importance of prioritizing agricultural development in Nigeria's economic planning while reassessing the effectiveness of educational spending in driving GDP growth.

## Recommendations

1. **Increase Investment in Agriculture:** To stimulate economic growth, the Nigerian government should allocate more resources to the agricultural sector, enhancing productivity and contributing to GDP growth.
2. **Reevaluate Education Spending Strategies:** The government should review and realign its education spending policies to ensure they effectively contribute to long-term economic development.

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**Appendix A:** GDPP Reaction to Government Expenditure on Education and Agriculture

Dependent Variable: GDPP
Method: Least Squares
Date: 11/29/24   Time: 12:22
Sample: 2014 2023
Included observations: 77

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 0.516495 | 0.056130 | 9.201715 | 0.0000 |
| GEE | -0.024183 | 0.022717 | -1.064529 | 0.2912 |
| GEA | 0.023333 | 0.006444 | 3.621069 | 0.0006 |

| | | | |
|---|---|---|---|
| R-squared | 0.785286 | Mean dependent var | 0.719143 |
| Adjusted R-squared | 0.764837 | S.D. dependent var | 0.130448 |
| S.E. of regression | 0.063259 | Akaike info criterion | -2.588525 |
| Sum squared resid | 0.252106 | Schwarz criterion | -2.363675 |
| Log likelihood | 97.59837 | Hannan-Quinn criter. | -2.499212 |
| F-statistic | 38.40234 | Durbin-Watson stat | 1.295437 |
| Prob (F-statistic) | 0.000000 | | |

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