



P-ISSN: 2315-9391

AJAF June 2025, 9(1) 143-157

Corresponding Author:

Ebiyemi, God'stime Rowland (PhD)

Ignatius Ajuru University of Education,

Faculty of Management Sciences,

Department of Accounting

bishopgodstime@gmail.com

Public Expenditure and Economic Growth in Nigeria: A Sectoral Analysis of Health and Agriculture

¹Ebiyemi, God'stime Rowland (PhD) and ²Christiana Uyilowhoma Abua (PhD)

^{1,2}Ignatius Ajuru University of Education, Faculty of Management Sciences, Department of Accounting

¹bishopgodstime@gmail.com, ²christuyi@yahoo.com

Abstract

This study evaluates the effect of public expenditure on economic growth in Nigeria using time series data of 34 years (1991-2024). The underpinning theory is Keynesian Theory. Ex-post-facto research design was employed and the descriptive statistics, panel regression model, correlation coefficient (R), R-Square, Adjusted R-Square, t-Statistic (t-Stat) and P-value are used to analyze the data collected and to test the hypotheses stated as well. The level of significance is 5%. The findings of the study indicates; agriculture expenditure showed positive and significant effect on Gross domestic product; health expenditures indicated negative and insignificant effect on Gross domestic product. The study concluded that there is need for strategic allocation and effective management of public funds to maximize their growth-enhancing potential. It is recommended that government should prioritize and expand investment in the agricultural thereby strengthening its role as a key engine of economic growth and health expenditure should be restructured and better managed to improve efficiency.

Keywords: Public expenditure, Health expenditure, Agriculture expenditures, Economic Growth.

1.0 Introduction

Public expenditure assumes a pivotal role in the realm of macroeconomic management, enabling the regulation of overall demand and money supply within an economy. When administered effectively, it has the potential to nurture sustainable growth and development. Governments, as Abdullah (2020) highlights, play a dual role in society: safeguarding and providing essential infrastructure and services. The safeguarding aspect encompasses establishing the rule of law to mitigate risks such as crime and external threats. The delivery of essential infrastructure and services involves providing citizens with access to quality healthcare, education, electricity, agriculture, and transportation, alongside the development of key facilities such as roads and bridges.

Achieving this objective requires significant financial resources, especially in nations with inadequate infrastructure and limited social amenities, as is evident in Nigeria (Soyebi & Umobong, 2024).

Economic growth plays a vital role in reducing poverty, narrowing social inequality, boosting productivity, and supporting sustainable development. However, Nigeria's historical pattern of public expenditure has not effectively achieved these objectives, primarily due to its heavy reliance on crude oil revenue, as is evident from the fiscal revenue figures (Akanbi, 2020).

Nigeria is presently grappling with an economic downturn primarily brought about by the decreasing revenue from oil, which the country heavily relies on for sustenance. The Gross Domestic Product (GDP) of Nigeria has exhibited a declining trend, with -2.06% and -1.5% recorded for the years 2019 and 2020, respectively, attributed to the plummeting oil revenue (Trading Economics, 2020). Despite this diminishing revenue, there's a growing need to establish a secure and conducive environment for both individuals and businesses to operate, leading to increased investments in infrastructure to foster consistent infrastructure development, security, and an enabling environment for capitalist activities. However, these substantial expenditures have not translated into the achievement of steady economic growth in Nigeria, as evidenced by the

declining growth rates in the GDP for 2019 and 2020.

Notably, despite numerous studies conducted on the impact of public expenditure on economic growth, such as those by Asley (2020), Muhtar (2020), Smyth and Hsing (2020), there remains a lack of consensus regarding the extent to which public expenditure affects economic growth (Anyamu, 2020). A majority of research on public expenditure has predominantly focused on describing the origins, causes, magnitude, and sustainability of public expenditure-related issues. Some of these studies include Raheem (2020), Ajayi (2020), Nyatepe (2020), Uwatt (2020), and Iyoha (2020). Fewer studies have concentrated on examining the effect of public expenditure on economic growth, with works like those by Ajayi and Oke (2020), Adepoju (2020), Adesola (2020), Amakon (2020), and Anyamu (2020). Additionally, this study will employ more up-to-date and current data compared to previous research on this topic. The main objective of this study is to examine the effect of public expenditure on economic growth of Nigeria.

2.0 Literature Review

2.1 Conceptual Review

Proponents of increased public expenditure argue that boosting investments in public goods such as education, agriculture, and infrastructure is essential for elevating productivity levels. They contend that higher public expenditure also enhances the spending capacity of individuals and businesses, thereby stimulating further production.

Keynesian economists, for instance, advocate for government involvement in economic activities as a means to drive improved performance. They posit that public expenditure spurs demand by increasing spending on various consumer goods, thereby promoting economic growth. Large-scale public expenditure stimulates both public and private sector demand for goods and services, resulting in increased production to meet this heightened demand. Empirical support for the positive correlation between public expenditure and economic growth is presented by scholars like Uchenna and Evans (2020), Anaman (2021), Kustepelli (2021), and Heidari et al. (2021).

2.2 Health expenditure

Omotor (2018) stated that health expenditure refers to the total amount of money spent by individuals, governments, and organizations on healthcare services (Gombe et al., 2024). This underinvestment in healthcare has resulted in significant challenges, such as inadequate healthcare infrastructure, a shortage of medical professionals, and limited access to essential services, ultimately hindering Nigeria's ability to address both immediate health concerns, like infectious disease outbreaks, and the growing burden of chronic conditions, underscoring the urgency of increased health expenditure and more equitable healthcare financing mechanisms to meet the healthcare needs of its diverse and rapidly growing population (Smyth & Hsing 2020).

2.3 Agriculture expenditure

As noted by Chude and Chude (2020), agriculture holds a pivotal role in the economic growth of many nations, particularly those with substantial rural populations and well-established agricultural sectors. The economic implications of agriculture and its impact on growth can be examined from various angles. Agriculture often serves as the backbone of rural economies, and its growth can significantly contribute to rural development and the reduction of poverty. By increasing agricultural productivity and income levels, rural communities gain more resources for essential services like education and healthcare. Improved living standards in rural areas can have a positive impact on overall economic growth and reduce income disparities between rural and urban areas (Soyebi & Umobong, 2024; Joseph, et al., 2024).

2.4 Economic growth

According to Kimberly (2019), economic growth is defined as an augmentation in a state's capacity to produce goods and services over a specific period. The yardstick for measuring a nation's or state's economic growth is gross domestic product (GDP), which takes into account the entire array of goods and services produced within the country. Maingi (2019) posits that multiple factors contribute to economic growth, with a particular focus on the significance of a higher rate of investment, whether by the private sector or the government, in contrast to factors such as consumption spending, increased school

enrollment rates, and political stability (Udo, et al., 2023; Nathan, et al., 2024).

This perspective challenges the neo-classical viewpoint on growth causes, which posits that growth can be driven by random technical changes. Instead, it suggests that economic growth can be actively promoted through effective policies.

2.5 Gross Domestic Product (GDP)

As outlined by Adebisi and Oladele (2019), Gross Domestic Product (GDP) serves as a widely accepted economic gauge that quantifies the total worth of all final goods and services produced within the confines of a country's borders during a specific period, commonly a year. It offers a snapshot of a nation's economic activity and plays a pivotal role in evaluating the scale and expansion of an economy.

Chude and Chude (2020) elucidate that GDP can be computed using various methodologies, including the production approach, income approach, and expenditure approach. As noted by Ajayi and Oke (2020), GDP is typically denominated in the local currency of the country under scrutiny, such as U.S. dollars or euros. Nevertheless, for the sake of international comparisons, GDP is frequently converted into a common currency using exchange rates or purchasing power parity (PPP) adjustments.

Conceptual Framework

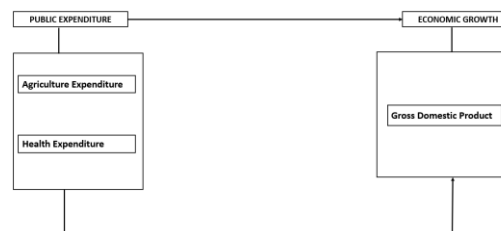


Fig 1. Public expenditure and economic growth of Nigeria

Source: Wahab (2020); Smyth and Hsing (2020); Dunne and Uye (2020).

2.6 Theoretical Review

2.6.1 Keynesian Theory

The Keynesian economic theory, developed by John Maynard Keynes in 1936, forms the theoretical foundation for this research. It operates on the premise that, following an economic shock, households may lack the capacity to sustain their consumption patterns, leading to an excess supply. In this scenario, businesses may be compelled to reduce their production, further exacerbating the economic downturn. Keynes argues that the government can counter a recession by injecting more money into the hands of the public. The theory posits that increased public expenditure encourages private spending, ultimately boosting production and driving higher economic output. According to Keynes, the specific manner in which the money is spent is less relevant than its capacity to generate income and employment. Nevertheless, critics of this theory, such as Riedl (2021), contend that public expenditure, as advocated by Keynes, may not effectively stimulate growth, as it is typically financed through taxation or borrowing. Taxation essentially involves redistributing existing income

without creating new purchasing power and can act as a disincentive to production and income. Domestic borrowing can diminish private sector investment and output, while foreign borrowing may have implications for a country's balance of payments. Riedl (2021) suggests that public expenditure can support long-term growth if it is channelled into activities that enhance productivity and employment, such as investments in education (human capital development), physical capital (e.g., plant and equipment), technology, public infrastructure, and institutions that facilitate contract enforcement.

Another significant theory concerning the relationship between economic growth and public expenditure is Wagner's Law, originally proposed by Adolph Wagner in the 19th century and further developed in later literature. The theory posits that as an economy grows and economic activities expand, there is a natural tendency for public expenditure to increase. This is because economic development generates greater demand for government functions such as infrastructure, education, healthcare, and social services. In other words, economic growth is the driving force behind rising public spending.

This perspective resonates with the insights of Riedl (2021), who stresses that the extent to which public expenditure contributes back to economic growth depends largely on the nature and efficiency of the activities funded by the government. While Wagner's theory explains the demand-side dynamics that growth induces higher

government spending Riedl complements this by highlighting the supply-side effects, showing that only productive expenditures, such as those directed at human capital and infrastructure, can translate into sustained output growth.

Thus, taken together, Wagner's theory and Riedl's position suggest a dual relationship, economic growth tends to increase public spending, and the quality and structure of that spending determine whether it will, in turn, reinforce or undermine future growth.

2.7 Empirical Review

Soyebi and Umobong (2024) examined government expenditure and economic growth in Nigeria, 1970–2022: ARDL approach. They explicitly study capital versus recurrent government expenditure over 1970–2022 using an ARDL framework to capture both short-run dynamics and long-run cointegrating relationships, and they test residuals for standard diagnostics. The authors report that, counter-intuitively to some older Keynesian expectations, recurrent expenditure emerges as the (more) long-run growth-relevant component in their specification, while capital spending does not uniformly deliver positive long-run impacts, a result they attribute to poor capital project execution and absorptive capacity constraints. They conclude that Nigeria's fiscal structure and implementation quality condition the growth returns to spending, and they recommend policies to improve the efficiency and targeting of capital

projects, strengthen institutions around public investment management, and complement recurrent programs that support productive activity.

Christopher et al. (2025) studied government expenditure and economic growth in Nigeria (1970–2023): Evidence from time series data (South Asian Journal of Social Studies and Economics). This time-series study examines government expenditure and growth across a long span (1970–2023) using cointegration/ARDL-type techniques to identify both short-run shocks and long-run elasticities between disaggregated fiscal components and aggregate output. The empirical evidence they present shows statistically meaningful links between certain components of public spending and long-run growth, though the strength and sign differ by category, so the authors interpret the results as indicating that correct composition and stable financing of spending are essential for growth. Their conclusion stresses the importance of reallocating resources toward high-multiplier areas while improving public-investment governance, and they recommend tighter project appraisal, performance monitoring, and alignment of fiscal policy with structural reforms to raise the growth effectiveness of government spending.

Oyetunde and Jiboku (2024) studied the effect of government expenditure on Nigeria's sustainable economic growth. Studies framed around combining time-series regression (ARDL or error-correction models) with indicators of

sustainability (e.g., environmental or social proxies) often find that while headline fiscal expansion can stimulate GDP, only spending directed to sustainable infrastructure and human capital delivers persistent, welfare-enhancing growth. Consequently, the likely conclusion is that fiscal policy must be re-oriented toward sustainable capital investments (renewable energy, resilient infrastructure, health and education) and accompanied by environmental and governance safeguards, with the recommendation that Nigeria adopt explicit sustainability criteria in budget planning and project appraisal.

Gombe (2024) examined the assessment of the impact of government expenditure and inflation on economic growth in Nigeria. Gombe uses annual data (reported coverage: 1980–2023) and an ARDL framework to examine short- and long-run relationships among total government expenditure, inflation and GDP, conducting unit-root and diagnostic tests to validate the specification. The study finds a positive and statistically significant relationship between aggregate government expenditure and GDP in both the short and long run, reporting elasticities (long-run ~ 0.16 and short-run ~ 0.39) while inflation operates as an offsetting macro constraint that can erode the growth effect when it is high or volatile. Gombe concludes that fiscal expansion can support growth provided price stability is managed, and recommends a coordinated fiscal-monetary strategy that prioritizes productive public spending, improves macroeconomic

stability, and tightens inflation-containing measures to preserve the growth impact of government expenditure.

Babatunde and Adefabi (2019) analyzed the links between government education expenditure and economic growth by tracing dataset transitions across primary and tertiary enrollment anniversaries. A Johansen co-integration procedure served as the analytical shelter. Observations confirm that a labour pool nourished by strong education empowers economic progress through both factor accumulation channels and tipping improvements in total factor efficiency.

Adebiyi and Oladele (2019) investigated how public education financing boundaries relate to broad growth envelopes. By threading error-correction channels through vector autoregressive architectures, the study observed a forced trade-off between rising military budgets and reallocative headroom for educational programming. Impulse-response schematics confirmed that initial hikes in military finance within the existing budgetary sequence reflected as transient, but sizeable, augmentations to educational expenditure envelopes.

Dauda (2020) displaced the focus from human capital to public works by assembling a long-span dataset from 1977 through 2018. Employing Johansen residues along with a vector error-correction aftermath, the analyst confirmed sustained long-run overlap between public works capital injections and the economy's growth

profile, establishing a latent vector stretching from project completion to deferred benefits.

Omojomite (2020) shifted the analytical lens back to budgets, linking capital programming, public project finance streams, and macro growth footprints. By layering co-integration structures over Granger causation confrontation through time series captured from 1980 to 2019, the exercise confirmed that proportionate additions to capital budgets, whether earmarked for education, health or infrastructure, articulate sustained growth amplification. No causation was confirmed linking capital outlay to macroeconomic growth.

Nurudeen and Usman (2020) assessed how government infrastructure outlays influenced national growth. Applying co-integration and error-correction models, the team analysed annual time-series from 1979 through 2017. Results show that aggregate capital outlay, current expenditure, and educational outlays each exerted a downward pull on national growth. In contrast, spending on transport and communications yielded a statistically significant positive effect.

Wahab (2020) used symmetric and asymmetric frameworks to relate public expenditure to growth. The panel was processed with a Tobit and Logit two-stage duration estimator. This work also detected that government consumption spending exerted no statistically measurable effect on GDP, while capital spending proved beneficial, most markedly when growth tracked below its long-term trajectory.

2.8 Knowledge Gap

There have been a limited number of studies that have delved into the relationship between public expenditure and economic growth. Some of these studies include Ajayi and Oke (2020), Adepoju (2020), Adesola (2020), Amakon (2020), and Anyamu (2020). Furthermore, the research conducted in Nigeria, Europe, and other developed economies has primarily focused on evaluating public expenditure using metrics such as Health expenditure and Agriculture expenditure.

To the best of the researcher's knowledge, few studies, both locally and internationally, have examined the impact of public expenditure on Nigeria's economic growth by employing a broader sample size and incorporating independent variables such as health expenditure and agricultural expenditure.

In light of this, the present study seeks to enrich existing scholarship by utilizing an expanded dataset sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin and the National Bureau of Statistics (NBS). Specifically, it investigates the influence of health and agricultural expenditure on economic growth in Nigeria, using time series data covering the period 1991 to 2024. Including a larger sample size with health and agricultural expenditure enhances the understanding of factors influencing economic growth in Nigeria. By situating public expenditure within the broader framework of these specific variables, the study provides deeper insights into the complex interactions that drive growth in the Nigerian

economy. The reliance on credible sources such as the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS) enhances the robustness of the dataset, thereby strengthening the reliability of the findings. The extended timeframe of 1991 to 2024 also facilitates a comprehensive analysis of long-term trends and patterns, offering valuable historical context for present and future policy formulation.

Lastly, this research underscores the necessity for a more thorough examination of the nexus between public expenditure, health expenditure, agricultural expenditure, and economic growth in Nigeria. By bridging this gap and adopting a rigorous methodological approach, the study aims to generate insights capable of informing effective policies and strategies that promote sustainable economic growth in the country.

3.0 Methodology

3.1 Research design

The study used time series data and was based on an ex-post-facto research design. The study was based on ex-post-facto because the data used are data of events that have taken place, and the study did not attempt to manipulate its nature or value.

The study covers the Nigerian economy through the agricultural and health sectors, drawing on data between 1991 and 2024, with the sample comprising figures from the Central Bank of Nigeria (CBN) Statistical Bulletin and the National Bureau of Statistics (NBS).

3.2 Data and Variable Description

Health expenditure and agriculture expenditure were used as independent variables, while ss Domestic Product and Gross National Product were used to measure Economic growth. Below are the variables and their proxy.

The descriptive statistics, Simple linear regression model, correlation coefficient (R), R-Square, Adjusted R-Square, t-Statistic (t-Stat) and P-value are used to analyze the data collected and to test the hypotheses stated as well. The level of significance is 5%.

<u>Variables</u>	<u>Measures</u>
Economic growth	GDP
Health expenditure	HTEPT
Agriculture expenditure	AGCEPT

3.3 Model specification

$$GDP_{ij} = \beta_0 + \beta_1 AGCEPT_{ij} + \beta_2 HTEPT_{ij} + e$$

Where:

GDP = Gross Domestic Product

HTEPT = Health Expenditure

AGCEPT = Agriculture Expenditure

β, β_1, β_2 = coefficients

e = error term

4.0 Result and Discussion

This section lays out the methodology for analysis, the subsequent interpretation of findings, and the implications of the results. The computed variables are Gross Domestic Product (GDP), health expenditure (HTEPT), and agriculture expenditure (AGCEPT). These variables underpin the research objective of appraising the influence

of public outlays on economic growth. Calculations were performed on figures obtained from annual reports. Full representation of the data employed in the study is shown in Table 1 of the appendices.

4.1 Descriptive Statistics

Descriptive statistics for each of the indicated variables were organized and are provided in Table 1 below:

Table 1: Descriptive Statistics

Variable	Mean	Std. Deviation	N
GDP Growth	1.6718	.93339	34
Health Exp.	2.4609	1.34371	34
Agric. Exp.	2.0597	1.59897	34

Source: Researcher's Computation, 2025

The descriptive statistics show that agricultural expenditure (AGCEPT) ranges from 0.02 to 6.56 with a mean of 2.0597 (SD = 1.59897), while health expenditure (HTEPT) ranges from 0.02 to 6.03 with a mean of 2.4609 (SD = 1.34371). GNP and GDP have means of 2.4429 and 1.6718, respectively, with standard deviations of 1.22882 and 0.93339, indicating moderate dispersion around their sample means. The relatively wide ranges, especially for AGCEPT and non-trivial standard deviations, suggest possible skewness or outliers that may bias OLS estimates if not addressed. With only 34 observations, the sample is small for macroeconomic inference, increasing the risk that coefficient estimates are sensitive to a few influential points or measurement error. Overall, the summaries confirm usable variation

for regression analysis but flag the need for diagnostic checks such as outlier detection, normality tests, and consideration of variable transformations.

Table 2: Model Summary

Model	R	R Square	Adj/ R Square	SD	DW
1	.440	.193	.141	.86498	2.255

Source: Researcher's Computation, 2025

The GDP model reports an R of 0.440 and an R² of 0.193, meaning the two predictors jointly explain about 19.3% of the variance in GDP, while the adjusted R² of 0.141 corrects for model complexity and sample size. This modest explanatory power implies that important determinants of GDP are missing from the specification or that the relationship is noisy over the sample period. The standard error of the estimate (0.86498) is large relative to GDP's mean (1.6718) and its standard deviation (0.93339), indicating substantial residual variability and limited predictive precision. The Durbin–Watson statistic of 2.255 is close to 2 and therefore does not indicate problematic first-order positive autocorrelation, which supports the basic OLS independence assumption. Given the small sample and limited R², the model provides suggestive but not definitive evidence, and results should be supplemented with robustness checks and additional covariates before strong policy inferences are drawn.

Table 3: ANOVA^a

Source	Sum of Sq	df	Mean Square	F	Sig.
Regression	5.557	2	2.778	3.713	.036
Residual	23.194	31	.748		
Total	28.750	33			

Source: Researcher's Computation, 2025

The ANOVA table shows a regression sum of squares of 5.557 and a residual sum of squares of 23.194, producing an F-statistic of 3.713 with an associated p-value of 0.036 for the joint test of the predictors. Because $p = 0.036$ is below the conventional 5% threshold, we reject the null that AGCEPT and HTEPT jointly have no explanatory power for GDP and conclude the model is statistically significant overall. However, the modest F and low R² indicate that statistical significance does not necessarily translate into large economic importance—only a small portion of GDP variance is explained by these fiscal variables. The degrees of freedom (df regression = 2, df residual = 31) and sample size mean this result can be sensitive to influential observations, heteroskedasticity, or model misspecification, which would undermine the F-test. Therefore, while the ANOVA supports a non-zero joint effect, it is prudent to run diagnostic tests (e.g., heteroskedasticity-robust F, influence measures) and consider alternative specifications.

Table 4: Coefficients^a

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	1.366	.345	—	3.954	.000
AGCEPT	.259	.096	.444	2.706	.011
HTEPT	-.093	.114	-.133	-.813	.422

Note. Dependent Variable: GDP.

Source: Researcher's Computation, 2025

The coefficients table reports a constant of 1.366 ($p < .001$), a positive coefficient on AGCEPT of 0.259 ($SE = 0.096$) with $t = 2.706$ and $p = 0.011$, and a negative coefficient on HTEPT of -0.093 ($SE = 0.114$). AGCEPT's standardized beta of 0.444 and statistically significant t-value indicate a reasonably strong positive association with GDP, implying that agricultural expenditure is an important growth correlate in the sample. HTEPT's negative point estimate (standardized beta = -0.133) suggests a possible adverse association with GDP, with a standardized Beta of .444. AGCEPT has a moderate-to-strong relative influence on GDP compared with the other predictors in the model. In contrast, health expenditure (HTEPT) has a negative point estimate ($B = -0.093$) and a small standardized effect (Beta = -0.133) that is not statistically significant ($t = -0.813$, $p = .422$), so there is no reliable evidence here that health spending reduces GDP. The lack of significance for HTEPT could

stem from limited sample size ($N \approx 34$), measurement error, misclassification of health spending, or the possibility that health investments affect growth only with time lags not captured by the contemporaneous model. Because the model's R^2 is only .193 (adjusted $R^2 = .141$), these variables explain a modest share of GDP variation, so even the significant AGCEPT result should be interpreted cautiously. Because AGCEPT's sign, magnitude, and significance are internally consistent, the main empirical takeaway is that agricultural spending meaningfully relates to GDP in this model, while the health result requires verification by re-running the regression and correcting the discrepancy.

4.2 Discussion of Findings

4.2.1 Agriculture expenditure showed a positive and significant effect on Gross Domestic Product.

The study discovered that agricultural expenditure has a positive and significant impact on Gross Domestic Product, indicating that government investment in agriculture boosts productivity, creates rural jobs, and enhances the value chain that contributes to overall domestic income. This result shows that resources allocated to agriculture effectively help increase farm outputs and diversify exports, thereby improving national welfare. In line with this, Soyebi and Umobong (2024) also reported that capital-biased government expenditure in Nigeria, especially in agriculture, notably promotes long-term economic growth. The finding highlights that agriculture

remains a vital sector for Nigeria, owing to its substantial capacity to absorb labour and its direct effect on food security. Consequently, maintaining and increasing capital expenditure in agriculture is essential for sustaining continuous growth in GDP.

4.2.2 Health expenditures indicated a negative and insignificant effect on Gross Domestic Product.

The result that health expenditures have a negative and insignificant impact on Gross Domestic Product suggests that increases in health spending did not contribute meaningfully to short-term economic growth during the study period. However, the negative sign should not be misinterpreted to mean that health spending harms the economy; rather, it may reflect issues such as poor implementation of health budgets, misallocation of resources, corruption, or the fact that the benefits of health investments often emerge only in the long run rather than immediately. This outcome resonates with Gombe (2024), who found that health spending, when not properly managed, can become a burden that suppresses short-run economic output, particularly when deficit-financed. It implies that while health expenditure is essential for long-term human capital development, in the short run, it may crowd out private investment or increase macroeconomic instability. To reverse this trend, policy should prioritize quality capital health investment, strong monitoring systems, and reducing waste in recurrent health budgets.

5.0 Conclusion and Recommendation

5.1 Conclusion

The coefficient results suggest that agricultural expenditure has a positive and significant impact on GDP, highlighting its importance as a driver of economic growth in Nigeria. Conversely, health expenditure shows a negative but insignificant effect, implying that its contribution to growth is not evident in the short term and may be hindered by inefficiencies or delayed outcomes. The model, therefore, underscores the stronger role of agricultural investment in stimulating immediate economic performance compared to health spending. Overall, the findings emphasize the need for strategic allocation and effective management of public funds to maximize their growth-enhancing potential.

5.2 Recommendations

Drawing from the empirical evidence and analytical findings, this study offers the following recommendations

1. Prioritize increased and well-targeted agricultural expenditure, as it has a proven positive and significant impact on economic growth.
2. Strengthen agricultural value chains through improved infrastructure, extension services, and access to credit, ensuring that public spending translates into sustainable productivity gains.

3. Reforms should focus on improving efficiency, transparency, and accountability in the use of health funds.
4. Investments should be directed toward areas with high developmental spillovers, such as primary healthcare, preventive medicine, and workforce development, to generate long-term growth benefits.
5. Development partners to support government efforts by channeling resources into both agriculture and health, with emphasis on capacity building, technology transfer, and institutional strengthening

References

- Abdullah, H. A. (2020). The relationship between public expenditure and economic growth in Saudi Arabia. *Journal of Admin. Science*, 12(2), 173-191.
- Adebisi, M. A., & Oladele, O. (2019). Public education expenditure and defence spending in Nigeria: An empirical investigation. *Research in International Business and Finance*, 24(6), 295-314
- Adepeju, S. (2018). Public expenditure on infrastructure and economic growth in Nigeria. *Economic Research-Ekonomska Istraživanja*, 31(1), 997-1014.
- Adesola, O. (2020). Tax revenue, public expenditure and the economy of Nigeria. *African Economic Research Review. An International Multi-Disciplinary Journal, Ethiopia*, 4(3), 90 -108.
- Ayodele, A. (2020). Public expenditure in Nigeria: Determinants and trends. *Mediterranean Journal of Social Sciences*, 5(27) 98 - 108.
- Afxention, C. & Serletis, A. (2020). The nature of public expenditure and its impact on sustainable economic growth. *Middle Eastern Finance and Economics*, 77(5),19 -22.
- Ajayi, S., & Oke, A. (2020). Public expenditure and financial accountability in Nigeria. Paper presented at the joint government of Nigeria – World Bank workshop on improving public expenditure and financial accountability in Nigeria.
- Akanbi, O.A. (2020). The macroeconomic determinants of technological progress in Nigeria. *South African Journal of Economics and Management Sciences*, 14(3), 1-16.
- Anyanwu, J. C. (2020). *Nigerian Public Finance*. Awka: Joanee Educational Publishers Ltd.
- Babatunde M. A., & Adefabi, R. A. (2019). Long-run relationship between education and economic growth in Nigeria: Evidence from Johannes's co-integration approach. Paper presented at the regional conference on education in West Africa: Constraints and opportunities. Dakar, Senegal, Nov. 1st – 2nd 2006.
- Chude, N. P., & Chude, D.I. (2020). Impact of public expenditure and economic growth in Nigeria. *International Journal of Business and Management Review*, 1(4), 64–71.
- Dauda, R. O. (2020). Investment in education and economic growth in Nigeria: A co-integration approach. Paper presented at the 9th Global Conference on Business and Economics held at the University of Cambridge, UK.
- Dunne, J.P., & Uye, M. (2020). Defence spending and development. Department of Economics, British University in Egypt and University of the West of England. A paper is based on work undertaken for Oxfam.
- Gombe, F. J. (2024). Assessment of the impact of government expenditure and inflation on economic growth in Nigeria. *International*

- Journal of Economics and Business Management*, 10(1), 1–13.
- Iyoha, A. (2020). *Macroeconomics: Theory and Policy*. Benin City: Mareh Publishers.
- Kimberly, N. (2019). Public spending and economic growth during economic crises. *Southwestern Economic Review*, 4(1), 59–68.
- Jelilov, G., & Musa, M. (2020). The impact of public expenditure and economic growth in Nigeria. *Sacha Journal of Policy and Strategic Studies*, 5(1), 15 – 23.
- Joseph, F. I., Muftau, O., & Wilfred, O. (2024). Effect of government expenditure on economic growth in Nigeria. *World Journal of Finance and Investment Research*, 10(1), 7-9.
- Lawal A. & Wahab T. I. (2020). Education and economic growth: The Nigerian experience. *Journal of Emerging Trends in Econ. Manage. Sci.* 2(3), 225-231.
- Maingi, S. (2019). Public expenditure and economic growth: Evidence from India. *The ICAFI University Journal of Public Finance*, 6(7), 60-69.
- Muhtar, D. (2019). The impact of public expenditure on economic growth. *Journal of Accounting*, 10(3), 79-86.
- Munnel, A. (2020). Policy watch: Infrastructure investment and economic growth. *The Journal of Economic Perspective Fall*, 5(4), 189-198.
- Nasiru, I. (2020). Public expenditure and economic growth in Nigeria: Cointegration analysis and causality testing. *Academic Research International*, 2(3), 53-66.
- Nathan, E., Stanley, U. K., & Adu, M. J. (2024). Institutional quality, government expenditure and economic growth nexus in Nigeria. *NG-Journal of Social Development*, 13(1), 171–192.
- Nurudeen, A., & Usman, A. (2020). Public expenditure and economic growth in Nigeria (1970- 2019): A disaggregated analysis. *Business, Economic Journal*, 3(6), 1-11.
- Nwadiubu, A., & Onuka, I. O. (2019). Public expenditure and economic development in Nigeria – A timeseries study (1980 – 2020). *Journal of Arts, Social Sciences, Humanities*, 1(5), 20-30.
- Nyatepe, C. (2020). Government and economic growth in the less developed countries: An empirical Study from 1960-1980. *Economic Development and Cultural Change*, 35(5), 35-75.
- Odeleye, A. T. (2020). Education and economic growth in Nigeria: A comparative analytical approach. *European Journal of Global Development Research*, 6(1), 330-342.
- Ojo, A. (2020). Effects of public expenditure on industrial sector productivity in Nigeria. *Canadian Social Science*, 8(1), 204-214.
- Omojomite, B. U. (2020). Education and economic growth in Nigeria: A Granger causality analysis. *African Research Review. An International Multi-Disciplinary Journal, Ethiopia*, 4(3), 90-108.
- Omotor, D. G. (2018). An analysis of federal public expenditure in the education sector of Nigeria: Implications for national development. *Journal of Social Science*, 9(2), 105-110.
- Oyetunde, M. O., & Jiboku, K. O. (2024). Effect of government expenditure on Nigeria's sustainable economic growth. *International Journal of Economics and Financial Management*, 9(6), 151–165.
- Pattilo, Y., Ricci, S., & Poirson, D. (2020). Is public expenditure productive? Evidence from the manufacturing sector in U.S. cities, 1880–1920. *Cato Journal*, 33 (1), 1-28.

- Raheem, S. (2020). Easing the disease of poverty in Nigeria. *Developing Country Studies*, 4(19), 55–66.
- Shabana, N., Mohd, S. & Nazia, M. (2019). An examination of the relationship between public expenditure and economic growth in Namibia. *Journal of Financial Economics*, 67(4), 217 -248.
- Schmidheiny, D. (2020). Public Expenditure and Economic Growth in Malaysia. *Journal of Economic Development*, 23(2), 71–80.
- Smyth, V., & Hsing, E. (2020). Government size and economic growth. Ohio: Washington, D.C. Sjoerd, H., Nasser, C., & Jolanda, T. (2020). Public expenditure and national income in Malaysia. *Journal Analysis*, 8(6), 37–51.
- Soyebi (Johnson), O., & Umobong, A. A. (2024). Government expenditure and economic growth in Nigeria 1970–2022: ARDL approach. *GPH-International Journal of Business Management*, 7(6), 87–106.
- Uchenna, E., & Evans, O. (2020). Public expenditure in Nigeria: An examination of tri-theoreticalmantras. *Journal of Economic and Social Research* 14(2), 27-52.
- Udo, A. B., Akpan, B. L., & Nsor, O. N. (2023). The developmental implications of Nigeria's public spending: An ARDL analysis. *International Journal of Novel Research and Development*, 8(5), 376–384.
- Udoka, C., & Anyingang, R. A. (2019). The effect of public expenditure on the growth and development of the Nigerian economy (1980–2020). *International Review of Management and Business Research*, 4(3), 824–835.
- Uwatt, K. (2020). The nature of public expenditure and its impact on sustainable economic growth. *Middle Eastern Finance and Economics Journal*, 4(3), 25-56.
- Wahab, M. (2020). Asymmetric output growth effects of public expenditure: Cross-sectional and panel data evidence. *International Review of Economics & Finance*, 20(4), 21-34.