Effect of Government Expenditure on Economic Growth in Nigeria

Fineboy Ikechi Joseph[1], Obioma Manasseh Omeonu[2], Williamson Eucharia Ihuoma[3]
[1&3] Department of Accounting, Clifford University, Owerrinta, Abia State, Nigeria.
E-mail: fayooxyz2009@yahoo.com & kessytrust44@yahoo.com.
[2] Department of Business Administration, Clifford University, Owerrinta, Abia State, Nigeria
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Abstract
The study focused on the effect of government expenditure on the economic growth of Nigeria. The specific objectives of the study include to; examine the effect of capital expenditure on the GDP of Nigeria, examine the effect of recurrent expenditure on the GDP of Nigeria and examine the effect of capital and recurrent expenditure on the GDP of Nigeria. To achieve the objectives of the study ex-post facto research design was adopted. The study population consist of 33 years period given the number of years the data was collected. Secondary data was collected from CBN statistical bulletin. Data were analyzed using Ordinary Least Square Multiple Regression Analysis. The finding revealed that (i) government capital expenditure has a positive and significant effect on the economic growth of Nigeria, (ii) government recurrent expenditure has a positive and significant effect on the economic growth of Nigeria and (iii) government capital and recurrent expenditure have a positive and significant effect on the economic growth of Nigeria. Based on the findings, the study recommends that Nigerian government should channel fund more on capital expenditure which has positive effect on real gross domestic Product, to enhance the economic growth of the country. There is a need for government to streamline and monitor the channels non-interest recurrent expenditure passes through in order to contribute meaningfully to the economic growth of the country. Federal government should strike a balance between allocation of funds into capital and recurrent expenditures in the country , by allocating more funds to recurrent expenditure to ensure that workers' salaries are paid as at when due in the country.
Keywords: Recurrent Expenditure, Capital Expenditure, Gross Domestic Product, Economy

1.1 Introduction

Global economies need to accelerate sustainable economic growth and development, according to Ijuo and Andohol (2020). The relationship between growth and public expenditure, or government spending, has drawn a lot of attention from economists, policymakers, and researchers in recent years. Today, most developed and developing countries use public spending to enhance income distribution, change the structure of national income, and direct resource allocation in desired directions (Assi et al., 2019; Vtyurina, 2020). Growth is viewed as a continuous process characterised by an increase in the economy's output of goods and services.

Human welfare increases when the rate of economic expansion exceeds the rate of population growth. In order for the government to support the people and notably the underprivileged, economic growth is necessary (Rahman et al., 2015). The rise in the market value of the goods and services generated by an economy over time, adjusted for inflation, is known as economic growth. It is expressed as the real gross domestic product growth percentage (IMF, 2012). Purchasing goods and services, as well as capital transfers, transfer payments (pensions, social benefits), and public consumption and investments, are all considered forms of expenditure. In many nations, utilising government spending has been a typical strategy for implementing.

Spending by the government from its revenue, which comes from taxes, levies, and other sources, is known as government expenditure. The federal government of Nigeria splits its spending primarily into capital and recurrent expenses. While capital expenditures are spent on projects like roads, airports, health, education, electricity generation, telecommunication, water, etc., recurring expenditures are the government's expenses for administration, including wages, salaries, interest on loans, and upkeep. The effects of government spending on different sectors of the economy vary (Yusuf et al. 2015). The categories of administration include spending on national assembly, defence, internal security, and general administration. Spending on health, education, and other social and community services is included in the category of "social and community services expenditures." Agriculture, transportation, building, communication, and other economic services are all included in the category of expenditures on economic services.
In 2021, the Nigerian federal government spent 12,164.1 billion naira, up 18.87% from 10,231.7 billion naira in 2020.

Despite a 13.9% increase in government deficit expenditure from 6,248.6 billion naira in 2020 to 7,118.7 billion naira in 2021, not much was left unsatisfied (CBN, 2023). All economic indices keep declining even after the pandemic has ended, and markets keep contracting as output fell. It is evident that the primary objectives of public spending, like resource redistribution and the provision of public goods, are still far from being achieved. The pattern of economic growth should be anticipated to be in line with government capital expenditures on transfers, economic services, social and community service, administration, and deficits. This necessitates a focus on empirical studies examining the relationship between government capital spending and GDP growth.

Nigeria is now experiencing a recession, and some individuals are calling for more government spending to put an end to the downturn and create a favourable economic turnaround. Government spending is thought to have the power to boost the economy and bring back economic expansion. Theoretical works such as Musgrave-Rostow's theory, Wagner's theory of government expenditure, and Keynes' theory of public expenditure all suggested that government spending promotes economic growth, although empirical results in Nigeria appear to contradict this (Echekoba & Amakor, 2017).

Thus, the goal of this study is to determine whether or not the expansion of the Nigerian economy has been harmed by the increased governmental spending. It won't come as a surprise if the economy is showing surplus or equilibrium on the balance of payments records because governmental spending is always increasing. Given that Nigeria is among the world's poorest countries, it appears that growing government spending has not led to or encouraged notable and prosperous economic growth and development in that country.

Because of this, the focus of this study is mostly on the spending side of public finance, specifically looking at how government spending, both capital and recurrent, has affected Nigeria's economic growth from 2000 to 2023.The need for this study to re-examine the relationship between government spending and economic growth in Nigeria and the significance of breaking down government spending for correct cognition in this study are justified by the variances of these studies' findings from the theoretical literature.

Review of Related Literature

2.1 Conceptual Framework

Government expenditure

These are the costs incurred by federal, state, and local government entities. Government spending in Nigeria is divided into four functional categories—administration, economic services, social and community services, and transfer payments—as well as two economic component categories: capital and recurrent expenditures (CBN, 2019). Expenditure on specific economic sectors comprises each functional component.

Recurrent expenditures are payments for transactions made within a year, whereas capital expenditures are payments for non-financial items utilised in the production process for more than a year (CBN, 2019). Capital expenditures encompass expenses related to the construction of long-lasting assets, such as roads, drainage systems, airports, seaports, plants, machinery and equipment purchases, etc. It also includes the expenditures that the government incurs in order to purchase fixed assets and make investments that will eventually pay dividends.

Capital spending is the term used to describe expenditures on development or investment that yield long-term benefits. Capital expenditures include the acquisition of tangible and intangible assets, debt repayment, and asset improvement and repair. Paying down debt is considered a capital expenditure since it both creates assets and lessens responsibility.

Because capital investment is a long-term process that yields assets, it can be used to expand or upgrade production facilities and increase operational performance, which can support economic growth for many years. It also improves labour force participation, evaluates the status of the economy, and promotes the possibility of future economic growth. Spending by the government is still an essential tool for development.

The diversity of government expenditure patterns across emerging economies is expected to promote economic growth and employment opportunities in addition to ensuring stability (World Bank, 2015). CBN (2023) released information showing that between 1981 and 2021, the average amount of capital expenditure by the government grew. It is reasonable to assume that responsible governments would be more cautious in important economic sectors once the pandemic has been properly managed, while deliberately focusing more emphasis on those that were most badly impacted. One powerful tool in the fiscal policy toolkit is public expenditure, which can be used to both redirect production and promote and stimulate it through innovation. This will increase output and employment by expanding production.

In 2021, the Nigerian federal government spent 12,164.1 billion naira, up 18.87% from 10,231.7 billion naira in 2020. Despite a 13.9% increase in government deficit expenditure from 6,248.6 billion naira in 2020 to 7,118.7 billion naira in 2021, not much was left unsatisfied (CBN, 2023). All economic indices keep declining even after the pandemic has ended, and markets keep contracting as output fell. It is evident that the primary objectives of public

spending, like resource redistribution and the provision of public goods, are still far from being achieved.

Recurrent expenses, often known as consumption expenses, include things like paying salaries, buying goods and services, making transfers, paying interest on loans, and so forth. Expenditures on defence, internal security, national assembly, and general administration comprise the category of administration expenditures. Expenditures on construction, transportation, communication, and agriculture are included in the category of economic services. Spending on health, education, and other services is included in the expenditure on community services. Pensions, gratuities, subventions, and public debt (internal and external) charges make up the transfer payment. A government can control the amount of economic activity in the nation by using spending, a potent tool for fiscal policy.

A nation's government can boost economic activity by increasing expenditure when it is low, which is typically reflected in a high unemployment rate. This will increase output and aggregate demand while also generating jobs. On the other hand, the government can limit economic activity by cutting back on spending when it reaches an excessive level, which is typically signalled by a high inflation rate. Therefore, government expenditure can affect general prices, employment, and national productivity in addition to redistributing income to the poor. It is crucial for promoting growth, stability, and the eradication of poverty in the economy.

2.1.1 Economic Growth and Economic Development

In particular, economic growth is the gradual rise in the value of the products and services that a nation produces. An increase in a country's GDP is how economists gauge it. Thus, in the short or even medium term, economic growth can occur without economic development (Hadjimichael, 2014). However, a state's GDP may rise even when its citizens' standard of living remains unchanged. However, any attempt to utilize GDP as a measure for the two yields erroneous results regarding economic development, given their differences. Robert et al. (2009) emphasized the need for a novel way to gauge advancements in people's well-being. He contends that since economic growth and wellbeing are equal, GDP is not a useful metric.

Furthermore, "development goes beyond the expansion of income and wealth," according to the United Nations report on the Human progress Index (HDI). It suggests that people's options are being expanded. UNDP, 1990. It is a change from an older, more per capita income-focused understanding of development to one that is more holistic. The Human Development Index (HDI) was initially published by the United Nations Human Development in a 1990 report. The Human Development Index (HDI) was developed by the United Nations to rank the social and economic development of nations according to three criteria: the Standard of Living, Education, and Health Indexes. The life expectancy (anticipated number of years) of a specific area or nation under study is represented by the health index. The goal of economic development is to create an atmosphere that encourages the development of innovative methods for producing things in large enough quantities for export to other nations. Economic growth and development are not the same thing. In particular, economic growth is the gradual rise in the value of the products and services that a nation produces. An increase in a country's

GDP is how economists gauge it. Thus, in the short or even medium term, economic growth can occur without economic development (Hadjimichael, 2014).

However, a state's GDP may rise even when its citizens' standard of living remains unchanged. In order to raise a nation's population's standard of living gradually, it is necessary to invest national capital in infrastructure development (Wilkins & Zarawski, 2014) in (Ofoegbu, Akwu & Oliver, 2016). This will generate environmental conditions that would promote economic growth. Growth and development are sometimes used synonymously, with GDP serving as a measurement indicator for each. However, any attempt to utilize GDP as a measure for the two yields erroneous results regarding economic development, given their differences. Robert (2009) emphasized the requirement for a novel way to gauge advancements in the well-being. He argues that GDP is not a good measure because economic growth is the same with wellbeing.

The living standard index shows the per capita income, expressed in US dollars at the Purchasing Power Parity (PPP) rate, for a given area or nation. Although the HDI appears to be growing at a rapid pace on paper, average Nigerians are not feeling the effects of this growth since they are unable to improve their standard of living.

2.2 Theoretical Framework

There are two well-established explanations regarding the rise in governmental spending. The Wiseman and Peacock are the second, while the Wagners are the first.
Theory of Wagner's Law of Increasing State Activities
According to the law of growing state activities, a country's public sector activities would rise in tandem with its economic growth and development. As a result of an increase in the public consumption spending to GDP ratio, the GDP increases. The German economist Adolph Wagner established the Law of Increasing State Activities.
He provided a link between public spending and the degree of development. Wagner claims that as an economy grows, so do the state's (government's) operations and functions. He made this claim based on a thorough analysis of several nations. According to the study, progressive societies have: (i) consistently growing levels of central and local government activity. (ii) They carry out the new and old tasks more fully and efficiently. (iii) There has been a significant and concentrated increase in government activity. (iv) The government takes on new duties to serve the people's interests and finance needs. (v) Public spending rises as government functions become more extensive and intense. To justify the law of increasing state activities, he divided public expenditure into two parts - external expenditure and internal expenditure.

External Expenditure: rises when a government shifts its focus from outright aggression to attack avoidance. It also rises as a result of the rising demand for public sector products and services. Internal Expenditure: rises as a result of economic development because of factors such as increased friction between individuals and economic units, a high standard of living, easier access to money for major administrative units, etc. Additionally, Adolf Wagner maintained that government services have income elasticity larger than unity. That is to say, governmental spending will rise faster than the general population's income. The public sector expands as a percentage of total economic activity in industrialized nations in accordance with the law of expanding state activities "as per capital income increase."

Wiseman and Peacock's Displacement Effect Theory

In addition to Wagner's rule, the so-called Peacock and Wiseman's displacement effect is another well-known idea about what influences public spending. Alan Peacock and Jack Wiseman captured this in their famous 1961 monograph. According to their theory, which was expounded in The Growth of Public Expenditure in the United Kingdom, government spending tends to follow a step-like evolution that corresponds with social upheavals, particularly wars. The two claim that in order to address social unrest, the government increases taxes in order to raise income and increases public spending. This has the effect of displacing lower tax and spending levels with greater tax and spending levels. The displacement effect is aided by the shifts from the previous, lower level of taxation and spending to a new, higher level. But once the uproar subsides, people adjust to their newfound tax tolerance and become more receptive to increased levels of public spending. As a result, the new level of public revenue and spending stabilizes, but it is quickly upset by a fresh disturbance that results in yet another displacement impact.

Since economic growth should be expected to follow a pattern compatible with government expenditures on administration, social and community service, economic services, transfers, and government deficits, this study will primarily focus on Wagner's Theory. This suggests that empirical studies examining the relationship between government spending and GDP growth rate should be pursued.

2.3 Empirical Review

Multitudinous studies and research have been carried-out to examine the relationship between government spending and economic growth. Ahmad Usman Gambo (2022) Examines the impacts of government capital expenditure and recurrent expenditure on Nigeria's economy from 1970-2012. The study-employed autoregressive distributed lag model (ARDL) and VECM and found out that a long-run relationship exist between the variables at 10% level of significant based on the F bound. Furthermore, recurrent expenditure has positive but insignificant impact on economic growth, and capital expenditure is statistically insignificant with an adverse effect on economic growth. Nonetheless, financial development has a favourable effect on economic growth and is statistically significant. With the exception of the financial development index, all the factors are statistically unimportant, according to the anticipated short-run results. Furthermore, the results of the causality test showed that, with the exception of the financial development index, neither government spending nor capital expenditures Granger cause economic growth. The government needs to boost its capital spending by allocating more cash and curb its recurring expenditures in light of these empirical findings. The banking industry and anti-craft organizations should also be strengthened.

Adole et al. (2022): This study reexamined the claim made by the Keynesian and Endogenous Growth Models that public spending promotes economic growth by looking at how government spending affected economic growth in Nigeria from 1984 to 2015. Johansen co-integration and the Error Correction Model were used in the study. The empirical findings supported the Keynesian and Endogenous Growth Models, which postulate that public expenditure promotes economic growth in Nigeria over the long term. They also demonstrated that public (recurrent and capital) expenditure has a negligible short-term negative impact on the Nigerian economy. Accordingly, the report suggested that the Nigerian government reassess its spending priorities in order to allow for increased capital investment and better allocation of funds.

Models demonstrating how, over time, public spending in Nigeria boosts economic growth. The study concluded that, in order to maximize government spending in Nigeria, the government of that country should re-assess its spending priorities in order to allow for more capital expenditure. Increased spending should also be directed towards some vital economic sectors, such as general infrastructure, power, health, and education.

Augustine Odubuasi (2018) uses a 15-year time series of data (2004-2018) to assess the impact of government spending on economic growth in Nigeria. The study's independent variables were recurrent spending, highway spending, safety expenses, and education costs, whereas the dependent variable was real GDP. Four goals were established for the investigation, and four hypotheses were developed to support the goals. In order to investigate the long-term causal effect relationship between government spending and economic growth in Nigeria, an ex-post-facto research design was used. The time series data was generated and analyzed using regression analysis, autoregressive distributed lag (ARDL) testing technique, and Error Correction Model-based, Granger Causality, unit root test, and co-integration. According to the study, government spending on highways and safety has a positive, significant impact on Nigeria's economic growth at the 5% and 1% levels, respectively. Government recurrent spending has a positive, non-statistically significant impact on economic growth, while government spending on education has a negative, non-significant impact. The government should spend more on capital projects, according to the report, as this will provide the infrastructure required to raise private sector productivity and boost economic growth. D'Agostino et al. (2018) postulated that a rise in government spending may have contributed to an increase in corruption inside a nation, implying that corruption may also have a secondary impact on GDP growth. This research verified that expenditure by the government stimulates economic growth, whereas a heavy military load and non-capital government spending lower GDP and have a noteworthy indirect effect on corruption. Using a Johansen co-integration and error correction model covering the years 1984–2015, Okpabi et al. (2021) evaluated the impact of government spending on economic growth in Nigeria. In the long run, their results support the notion that government expenditure stimulates economic growth in Nigeria. Mohammed and AbuAllah (2021) investigated the character and pattern of the relationship that exists between governments. The tests conducted by the authors were the Phillips and Perron (PP) and Augmented-Dickey Fuller (ADF) tests. The variables the authors looked into showed a positive correlation with one another. The relationship between government spending and economic growth in China from 1952 to 2014 was examined by Thanh & Canh (2019). Using Markov switching estimates, the authors were able to determine a mixed influence between the factors that were previously indicated. In their study on government capital investment in Nigeria's economic services sector and economic growth, Ikubor et al. (2022) employed the ARDL model. The findings indicated a strong positive correlation between government spending and economic growth.

The findings of a study by Oriakhi (2021) that examined government spending, economic growth, and poverty reduction in Nigeria using a vector error correction model revealed a bi-directional causal association between total government spending and declining poverty in that country. Aluthge et al. (2021) investigated the impact of government spending on Nigeria's economic growth. The study's findings, which were based on the Autoregressive Distributed Lag model, demonstrated that capital spending had a long-term and short-term positive and significant impact on economic growth.

Ibrahim, et al. (2022) investigated the relationship between Nigerian public health spending and health indices. The long-term relationship between health indicators, healthcare spending, GDP per person, carbon dioxide emissions, literacy rate, and urban population was demonstrated by the study, which employed the Error Correction model. Anyeneh, Ananwude, Ezu, and Nnoje (2020) assessed the effect of government capital and recurring spending on the standard of living in Nigeria by employing a test of causation. The health index is a measure of the life expectancy, or projected number of years, for a certain region or country under investigation.

Establishing an environment that fosters the creation of novel approaches to manufacturing goods in sufficient quantities for sale to other countries is the aim of economic development. Development and economic growth are not the same things. Specifically, economic growth refers to the steady increase in the value of goods and services that a country generates. Economists measure a country's progress by its GDP growth. Therefore, economic growth might happen in the short or even medium term without economic development (Hadjimichael, 2014). The study found that spending on energy, housing, and environmental protection is less beneficial in promoting human growth than spending on education, health, agricultural and rural development, and water resources. In 2020, Azuh, Osabohien, Orbih, and Godwin investigated the impact of government health spending on mortality rates for children under five in Nigeria. The results showed that public health spending is positively correlated with mortality for children under five, even though it is statistically significant. From 1985 to 2019, Imandojemu, Imonikhe, Akinlosotu, and Babatunde (2020) examined the relationship between health spending and economic growth in Nigeria. While the ECM showed that, in the event of disequilibrium, the system would return to equilibrium with an adjustment speed of about 85.5%, the empirical data showed that the variables had a long-term connection. Keji (2021) looked at the relationship between. The variables were estimated using the Johansen and Vector Auto regression approaches. The findings showed that the projected human capital coefficients have a major long-term influence on Nigeria's economic growth. 2020 saw an investigation into the efficacy of Nigerian education investment by Obi, Obi, and Ejefobihi. The study's conclusions demonstrate that investing in education has a significant detrimental impact on Nigeria's economic expansion. Furthermore, spending on education has a significant positive influence on the development of Nigeria's human capital. Lastly, the influence of education spending on Nigeria's literacy rate is positive but negligible. In 2020, Utpal and Christopher carried out research on Namibian government spending on human capital and economic development. The results demonstrated a high long-term positive correlation between government spending on education and the rates of literacy, net primary enrollment, and gross tertiary enrolment. There was no relationship found between gross enrolment rate at the primary and secondary levels and government financing for education. D'Agostino et al. (2018) conducted an experimental investigation using model simulations to investigate the impact of corruption and government spending on growth in 106 countries. Their findings indicated that a high level of corruption in a country is directly related to an increase in government spending. This demonstrates how corruption has an indirect impact on GDP growth. This demonstrates that while government spending spurs economic growth, the high cost of the armed forces and the government's incapacity to engage in capital spending reduce GDP, giving corruption an indirect advantage. In addition, countries with unproductive governments have seen a decline in economic activity due to government spending (Butkiewicz and Yanikkaya, 2018). In order to investigate the effects of government spending on general administration, defence,

education, and health on Nigeria's GDP (1983-2016), Echekoba and Amakor (2017) performed research. Time series data were produced using statistical bulletins published by the Central Bank of Nigeria (CBN) for a range of years between 1983 and 2016. In the multiple regression analysis, the Ordinary Least Square (OLS) method of estimation was applied. GDP stands for gross domestic product; DFE for defence expenditures; GADM for general administration; EDUT for education expenditures; and HTH for health expenditures were the econometric expressions for the variables utilised in the study. The findings indicated that general administration spending has a positive and significant relationship with GDP; defence spending has a negative but significant relationship with GDP; education spending has a positive and highly significant relationship with GDP; and health spending has a positive but negligible relationship with GDP. One of the recommendations was for the government to make sure that all of its spending, capital and ongoing, is controlled and monitored during the implementation phase in order to improve comparative results. Comparatively speaking.

In a study published in 2017, Salami, Olabode, Atoyebi, Lawal, and Danmola empirically investigated the impact of health and education spending on Nigeria's economic growth from 1917 to 2013. Ordinary least square was used in the study to ascertain how Nigeria's economic growth is impacted by spending on health and education. Our results, however, did not match our apriori expectation, which states that all variables should be positively correlated with economic growth. Instead, capital expenditure and recurrent expenditure displayed a negative sign, indicating that economic growth decreases as more variables increase. The study also found that the health sector received insufficient attention, as evidenced by the fact that its share of the budget was allocated between 1.07% in 1980 and to 5.24% in 2007 compared with education.

Gupta (2017) looked into how government spending affected Nepal's economic expansion. The analysis uses annual series data from 2002/03 to 2015/16. While total capital expenditure, total recurrent spending, industry, services, non-agricultural, agriculture, and inflation are independent variables, economic growth is the dependent variable. Data are gathered from Nepal's Economic Survey. The DW Test, a regression model between the variables, and the VIF test, which looks for multi-linearity between the variables, are the analytical tools. The empirical finding demonstrates a favourable association between the predictors, such as the agricultural, non-agricultural, industrial, and service sectors, and the dependent variable, economic growth. Inflation and total current and recurrent spending have a negative relationship with economic development. For the agricultural, non-agricultural, industrial, and service sectors, the beta coefficient is positively significant. This suggests that greater investment in the agricultural and non-agricultural sectors would result in stronger economic growth. Likewise, increased investment in the nation's industry and service sectors would translate into increased economic growth.

In a study published in 2018, Ogunjimi and Adebayo investigated the connection between health spending, health outcomes, and economic growth in Nigeria from 1981 to 2017. The Toda-Yamamoto causality paradigm was used in this study to investigate these connections. The data was analyzed using the Autoregressive Distributed Lag (ARDL) Bounds test technique, the Augmented Dickey Fuller test, and the unit root test. The findings of the causality tests revealed three distinct causal relationships: one that is unidirectional and connects health expenditure to infant mortality while real GDP and infant mortality are not related; another that is unidirectional and connects health expenditure and real GDP to life expectancy and maternal mortality; and a third that is unidirectional and connects real GDP to

health expenditure. Accordingly, this study suggested that the Nigerian government should work hard to raise health spending in order to at least comply with the WHO's recommendation that all nations give the health sector at least 13% of their annual budget for efficient funding. Using GDP as a stand-in for economic growth as the dependent variable and capital expenditure on health (CAPEXP) and recurring expenditure on health (RECEXP) as the independent variables, Yusuf (2018) carried out an empirical investigation into the relationship between government health spending and economic growth in Nigeria. The system corrects to equilibrium at a rate of 43.40%, according to the results of the Error Correction Mechanism. In order to estimate the model, the study also used OLS regression analysis. The R2 result indicated a 94% significant correlation between government health spending and economic growth. According to the findings of the regression analysis, there is a positive and substantial link between the dependent variable (GDP) and all of the independent variables. For example, an increase of 1% in CAPEXP and RECEXP will result in an increase of 140.1217 and 190.7144 units, respectively, in economic growth. Any nation must prioritize public health in order to protect national security as well as to keep its citizens healthy. In light of these findings, it is advised that the Nigerian government double its financial allocation to the health sector in order to maintain sustainable economic growth.

A study by Udeorah, Obayori, Joseph, and Onuchuku (2018) looked at how health care spending affected Nigeria's economic growth from 1980 to 2016. The study's data came from the statistical bulletin published by the Central Bank of Nigeria (CBN). The research approach used in the study was ex post facto. Real Gross Domestic Product (RGDP) was utilised as a stand-in for economic growth as the dependent variable in the study, with health care expenditures (HE) serving as the main independent variable and education expenditures (EE) acting as a tick regressor to increase the model's explanatory power. Descriptive statistics and the Generalized Method of Moments (GMM) test were employed in the study as data analysis estimation methodologies. The GMM outcome showed that the correlation between health care spending and Descriptive statistics and the Generalized Method of Moments (GMM) test were employed in the study as data analysis estimation methodologies. According to the GMM finding, the positive-sign coefficient of health care expenditure, which is consistent with economic theory, is not statistically significant at the 5% level. At the 5% level, the coefficient of education spending was statistically significant and in accordance with economic theory, meaning it was positive. According to the study's findings, spending on health care had no discernible effect on economic growth over the study period in Nigeria, but spending on education did. The government should rethink its policies for health care spending in particular and human capital development in general, according to the report, and set up systems for carrying out and overseeing these policies to ensure their efficient execution.

In 2020, Onifade, Çevik, Erdoğan, Asongu, and Bekun conducted research on the effects of public spending on economic growth, specifically in relation to capital expenditure, ongoing spending, and government fiscal expansion in support of budgetary allocations to different sectors within the Nigerian economy. The impact analysis was conducted using annual time-series data from 1981 to 2017 and Pearson's ARDL technique. The existence of a level link between public spending metrics and economic growth in Nigeria is supported by empirical results. Over the course of the study, it was determined that government recurring spending had a considerably detrimental influence on economic growth, whereas public capital expenditures had no significant positive effects.

Methodology

3.1 Research Design

Ex post facto research design is the foundation of the investigation. With this approach, the effects of an independent variable—groups that possess specific attributes before a study is conducted—on a dependent variable are examined. This involves that specific characteristic of participants that is unmanageable in the process of establishing a causal relationship between an independent and a dependent variable. *Ex post facto* studies examine the relationship between a certain trait, attribute, or previous event and the dependent variable because the independent variable cannot be changed or manipulated.

3.2 Sources of Data

Given the nature of the study, the study employed secondary data. The data were obtained from CBN Statistical Bulletin 2022, World Bank 2020 for variables such as; gross domestic product (GDP), recurrent expenditure (REC), and capital expenditure (CEP).Other secondary data were sourced from published articles, journals, textbooks and other publications. The study covers a period of 32 years, that is, from 1990-2023.

3.3 Method of Data Collection

Due to the nature of the investigation, secondary data were used. The data for variables like Gross Domestic Product (GDP), Recurrent Expenditure (REC) and Capital Expenditure (CEP) were collected from the World Bank 2020 and the CBN Statistical Bulletin 2022.Supplementary secondary data were acquired from books, journals, published articles, and additional sources. The thirty-two-year study period spans from 1990 until 2023.

3.4 Method of Data Analysis

Preliminary analysis, such as descriptive statistics and stationarity tests, is part of the study's analytical framework. The data's behaviour on the variables will be made clear by doing this. Grant's causality will show how government spending affects economic growth, and Johansen's (1991) multivariate co-integration technique will be used to test for the existence of a long-run equilibrium relationship.

3.5 Model Specification

The study's dependent variable is the gross domestic product, whereas the study's independent variables are capital expenditure and recurring expenditure.

Model 1: $GDP=B_0+B_1CEXP+Ui$ …… (1)
Model 2: $GDP=B_0+B_1REXP+Ui$ …… (2)
Model 3: $GDP=B_0+B_1CEXP+B_2REXP+Ui$ …… (3)

Where;
GDP= Gross Domestic Product
CEXP=Capital expenditure
REXP= Recurrent expenditure
Ui= Error Term

Data Presentation, Analysis and Discussion of Findings

4.1 Data Presentation

Regression analysis was used to estimate the extracted data in order to ascertain the variables' effects. Government capital expenditure (CEXP) and recurrent expenditure (REXP) were utilized as the independent variables, while the gross domestic product (GDP) was used as the dependent variable. The significance of the entire model was determined using the adjusted R square, which is the coefficient of determination and the F statistic. In particular, the study's hypotheses were tested using the likelihood of the F-statistic test to ascertain the direction of the variable-variable association. The appendix 1 below has the data for each of the different variables.

4.2 Data Analysis

4.2.1 Descriptive Statistics

Table 4.2: Descriptive Statistics of the Variables

	LCEXP	LREXP	LRGDP
Mean	2.582352	2.998769	4.413067
Median	2.697253	3.110658	4.602011
Maximum	3.401831	4.687635	4.859701
Minimum	1.381090	1.558944	2.698692
Std. Dev.	0.516266	0.774885	0.611547
Skewness	-0.807846	-0.214966	-1.915779
Kurtosis	3.033467	2.341512	5.453567
Jarque-Bera	3.590926	0.850366	28.46365
Probability	0.166051	0.653650	0.000001
Sum	85.21762	98.95937	145.6312
Sum Sq. Dev.	8.528964	19.21428	11.96766
Observations	33	33	33

Source: Extracted from Appendix 2

A general average degree of dispersion over the chosen years is depicted in the results for all the variables displayed above. With a standard deviation of 0.516266 and a maximum level of 3.4018331 and a minimum of 1.381090, CEXP suggests that most of the variables may be distributed more towards the minimum than the maximum. The typical value of CEXP is likewise 2.582352. A general average degree of dispersion over the chosen years is depicted in the results for all the variables displayed above. With a standard deviation of 0.774885 and a maximum level of 4.687635 and minimum of 1.558944, REXP suggests that most of the variables may be distributed more towards the minimum than the maximum. REXP also has a mean value of 2.998769.The results shown above regarding all the selected variables depicts a general average level of spread over the selected years. RGDP has a maximum level of 4.859701 and a minimum of 2.698692 with a standard deviation figure of 0.611547 which implies that most of the variables may be spread to the minimal than to the maximum. RGDP also has a mean value of 4.413067. However, the normality test result indicate an acceptable level of normalcy in the series hence we proceed to apply it to the regression estimation. The skewness and kurtosis of the series are compared to those of the normal distribution using the Jarque-Bera (JB) test. The normal distribution of the series is the null hypothesis for JB

statistics. The JB values for CEXP, REXP, and GDP are 3.590926, 0.850366, and 28.46365, respectively, based on the information displayed in Table 4.1 above. P-values 0.166051, 0.653650, and 0.000001 correspond to these values. While RGDP has probability values less than 0.05, indicating that RGDP did not fulfil the normality condition, the null hypothesis, which asserts that there is no autocorrelation, was accepted for CEXP and REXP, meaning that CEXP and REXP meet the normality assumption.

4.3 Regression Analysis

$H0_1$: Government capital expenditure has no positive effect on the economic growth of Nigeria.

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:34
Sample: 1990 2022
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.719273	0.265308	6.480285	0.0000
LCEXP	1.043155	0.100804	10.34834	0.0000

R-squared	0.775506	Mean dependent var	4.413067
Adjusted R-squared	0.768264	S.D. dependent var	0.611547
S.E. of regression	0.294392	Akaike info criterion	0.450884
Sum squared resid	2.686671	Schwarz criterion	0.541582
Log likelihood	-5.439592	Hannan-Quinn criter.	0.481401
F-statistic	107.0882	Durbin-Watson stat	1.593231
Prob(F-statistic)	0.000000		

Extracted from Appendix 1

The findings of the regression study demonstrate how government capital spending affects Nigeria's economic expansion. According to the coefficient of determination R-square of 0.775506, the explanatory variable (CEXP) explains or causes 77.6% of the sample variation in the dependent variable, gross domestic product (GDP), while 22.4% remains unexplained. The remaining 22.4% may be the result of variables or other factors not included in the model. A positive and strong correlation between the independent variable (CEXP) and the dependent variable (GDP) is indicated by the R-square value. As a result, the adjusted R2 value is 0.768264. This demonstrates that variation in the explanatory variable included in the model is what drives the regression line, which accounts for 76.8% of the total variance in GDP. Additionally, the model's overall significance was tested using the F-statistic. At the five percent significance level, the model is statistically significant, as indicated by the F-value of 107.0882 and p-value of 0.00000. Lastly, the Durbin-Watson test of autocorrelation reveals that the Durbin-Watson value of 1.593231 is located within the Durbin-Watson partition curve's conclusive zone. As a result, it is evident that there is no autocorrelation. The probability of the F statistic with 107.0882 is 0.0000% at the significance level. We would

reject the null hypothesis, H0, because the likelihood of the F-statistics is less than 5% threshold of significance. As a result, we can conclude that government capital expenditure significantly and favourably affects Nigeria's economic growth.

4.3.2 Hypothesis Two: Hypothesis testing for the effect of government recurrent expenditure on economic growth of Nigeria.

$H0_2$: Government recurrent expenditure has no positive effect on the economic growth of Nigeria.

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:36
Sample: 1990 202
Included observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.485272	0.254426	9.768161	0.0000
LREXP	0.642862	0.082223	7.818492	0.0000

R-squared	0.663515	Mean dependent var	4.413067
Adjusted R-squared	0.652660	S.D. dependent var	0.611547
S.E. of regression	0.360418	Akaike info criterion	0.855589
Sum squared resid	4.026942	Schwarz criterion	0.946286
Log likelihood	-12.11722	Hannan-Quinn criter.	0.886106
F-statistic	61.12882	Durbin-Watson stat	1.774332
Prob(F-statistic)	0.000000		

Extracted from Appendix 2

The findings of the regression analysis demonstrate how Nigeria's economic growth is impacted by government recurrent spending. The explanatory variable (REXP) is responsible for 33.6% of the sample variation in the dependent variable real gross domestic product (GDP), leaving the remaining 66.4% unexplained, according to the coefficient of determination R-square of 0.663515. The remaining 33.6% may be the result of variables or other factors not included in the model. Positive correlation between the independent variable (REXP) and dependent variable (RGDP) is indicated by the R-square value. As a result, 0.652660 is the adjusted R2 value. This demonstrates that variation in the explanatory variable included in the model accounts for 65.3% of the variance in RGDP as represented by the regression line. Additionally, the model's overall significance was tested using the F-statistic. At the five percent significance level, the model is statistically significant, as indicated by the F-value of 61.12882 and p-value of 0.00000. Lastly, the Durbin-Watson test of autocorrelation reveals that the Durbin-Watson value of 1.774332 is located within the Durbin-Watson partition curve's conclusive zone. As a result, it is evident that there is no autocorrelation. The probability of the F statistic with 61.12882 is 0.0000% at the significance level. We would reject the null hypothesis, H0, because the likelihood of the F statistics is less than 5% level of significance. As a result, we can argue that government recurrent expenditure significantly and favourably affects Nigeria's economic growth.

4.3.2 Hypothesis Three: Hypothesis testing for the effect of government capital and recurrent expenditure on economic growth of Nigeria.

$H0_3$: Government capital and recurrent expenditure have no positive effect on the economic growth of Nigeria.

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:24
Sample: 1990 2022
Included observations: 32

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.769990	0.259363	6.824363	0.0000
LCEXP	0.788053	0.179500	4.390274	0.0001
LREXP	0.202765	0.119591	1.695483	0.1003

R-squared	0.795136	Mean dependent var	4.413067
Adjusted R-squared	0.781479	S.D. dependent var	0.611547
S.E. of regression	0.285875	Akaike info criterion	0.419986
Sum squared resid	2.451740	Schwarz criterion	0.556032
Log likelihood	-3.929762	Hannan-Quinn criter.	0.465761
F-statistic	58.21939	Durbin-Watson stat	1.955873
Prob(F-statistic)	0.000000		

Extracted from Appendix 3

The findings of the regression study demonstrate how government capital and ongoing spending affect Nigeria's economic expansion. The explanatory variables (CEXP and REXP) are responsible for 79.5% of the sample variance in the dependent variable real gross domestic product (GDP), leaving 33.6% of the variation unexplained, according to the coefficient of determination R-square of 0.795136. The remaining twenty-five percent may be the result of variables or other factors not included in the model. A positive correlation between the independent variables (CEXP and REXP) and the dependent variable (GDP) is indicated by the R-square value. As a result, the adjusted R2 value is 0.781479. This indicates that variations in the explanatory variable included in the model explain for 78.1% of the overall variation in GDP, with the stochastic error term accounting for 21.9% of the variation. Additionally, the model's overall significance was tested using the F-statistic. At the five percent significance level, the model is statistically significant, as indicated by the F-value of 58.21939 and p-value of 0.00000. In summary, the Durbin-Watson test of autocorrelation reveals that the Durbin-value of 1.955873 is located in the conclusive region of the Durbin-Watson partition curve. As a result, it is evident that there is no autocorrelation.

The probability of the F statistic with 58.21939 is 0.0000% at the significance level. We would reject the null hypothesis, H0, because the likelihood of the F statistics is less than 5% level of significance. As a result, we can conclude that government capital and recurrent expenditures have a positive and significant impact on Nigeria's economic growth.

4.4 Discussion on Results

The first hypothesis's result showed that government capital spending significantly and favourably affects Nigeria's economic expansion. The P-value being less than 0.05 serves as the foundation for the decision. The results align with those of Dikeogu et al. (2016), who employed the error correction model, ordinary least square method, Keynesian theory, Wagner's law, and time series data to investigate the impact of government spending on Nigeria's economic growth. They discovered that disaggregate public expenditure significantly influences economic growth. According to the analysis, increasing government investment and infrastructure spending will boost Nigeria's economic expansion. Conversely, the results of Ahmad Usman and Gambo's (2022) study, which looked at how government capital and ongoing spending affected Nigeria's economy between 1970 and 2012, show otherwise. Using VECM and the autoregressive distributed lag model (ARDL), the study determined that, at the 10% significance level, there is a long-term association between the variables based on the F bound.

Additionally, capital investment has a statistically insignificant negative influence on economic growth, while recurring expenditure has a small but beneficial impact.

The second hypothesis's result showed that government recurrent spending significantly and favourably influences Nigeria's economic growth. The P-value being less than 0.05 serves as the foundation for the decision. The results are in conflict with those of Augustine Odubuasi (2018), who used time series data spanning 15 years to assess the impact of government spending on economic growth in Nigeria.

The study's independent variables were recurrent spending, highway spending, safety expenses, and education costs, whereas the dependent variable was real GDP. Four goals were established for the investigation, and four hypotheses were developed to support the goals. In order to investigate the long-term causal effect relationship between government spending and economic growth in Nigeria, an ex-post-facto research design was used. The time series data was generated and analyzed using regression analysis, autoregressive distributed lag (ARDL) testing technique, and Error Correction Model-based, Granger Causality, unit root test, and co-integration. According to the study, government recurrent spending has a positive but non-statistically significant impact on economic growth, while government spending on highways and safety has a positive significant impact at the 5% and 1% levels, respectively. The third hypothesis's result showed that Nigeria's per capita income is significantly impacted by the federal government's capital and recurring budget allocations. The P-value being less than 0.05 serves as the foundation for the decision. The results are in line with those of Adole et al. (2022), who looked at how government spending affected economic growth in Nigeria between 1984 and 2015 in order to reevaluate the claim made by the Keynesian and Endogenous Growth Models that public spending promotes economic growth. Johansen co-integration and the Error Correction Model were used in the study. The empirical findings supported the Keynesian and Endogenous Growth Models, which postulate that public expenditure promotes economic growth in Nigeria over the long term. They also demonstrated that public (recurrent and capital) expenditure has a negligible short-term negative impact on the Nigerian economy. Additionally, Ojong, Ekpo, and Ogar (2016) used the Ordinary Least Squares technique to analyze government spending and its effects on the Nigerian economy. The analysis's conclusions showed that both ongoing and total spending had a direct impact on the Nigerian economy.

5.1 Summary of Findings

The main conclusions of this investigation, which were reached by testing the research hypotheses that were previously developed in this study, are summarized as follows. Nigeria's economic growth is positively and significantly impacted by government capital expenditures.

Nigeria's economic growth is positively and significantly impacted by government recurrent expenditure.

Nigeria's economic growth is positively and significantly impacted by government capital and ongoing spending.

5.2 Conclusions

The study's main focus was on government spending on Nigeria's economic expansion. The term "government expenditure" describes the costs borne by a government for upkeep as well as the supply of products and services intended to promote economic expansion and enhance the wellbeing of the populace. By offering social amenities, the government helps its people earn a living and therefore contributes to the expansion of the economy. Regression analysis was used to analyze the data that were gathered from the CBN statistical bulletin in order to meet the study's goal. The findings showed that government spending, both capital and ongoing, significantly and favourably affects Nigeria's real gross domestic product (GDP) growth.

5.3 Recommendations

The study's findings suggest that the Nigerian government should set aside more money for capital projects that increase the country's real gross domestic product and encourage economic growth.

Government oversight and simplification of the channels via which non-interest recurrent expenditure flows are necessary if it is to contribute significantly to the growth of the national economy. In order to strike a balance between capital and recurrent spending, the federal government should provide more funds to recurring expenses to ensure that workers' salaries are paid on time throughout the country.

The government should prioritize capital and ongoing spending more, especially in areas where it is related to per capita income, such as hospitals, road development, and market establishment. Ignoring these sectors will negatively impact per capita income, which will generally limit economic growth.

The government should review its continuous spending, especially the salary budget in light of the current high cost of living in the country. Living expenses are on the rise and earnings stagnation will hinder economic growth.

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APPENDICES

APPENDIX 1 (RAW DATA)

YEAR	CEXP	REXP	RGDP	LCEXP	LREXP	LRGDP
1990	24.05	36.2196	499.68	1.38109	1.558944	2.698692
1991	28.34	38.2435	596.04	1.452414	1.582558	2.775275
1992	39.76	53.0341	909.8	1.599482	1.724555	2.958946
1993	54.50	136.727	1259.07	1.736411	2.135855	3.10005
1994	70.92	89.9749	19979.12	1.850758	1.954121	4.300576
1995	121.14	127.63	20353.2	2.083281	2.105952	4.308633
1996	212.93	124.291	21177.92	2.328229	2.094441	4.325883
1997	269.65	158.564	21789.1	2.430803	2.200203	4.338239
1998	309.02	178.098	22332.87	2.48998	2.250659	4.348945
1999	498.03	449.662	22449.41	2.697253	2.652887	4.351205
2000	239.45	461.6	23688.28	2.379216	2.664266	4.374534
2001	438.70	579.3	25267.54	2.642164	2.762904	4.402563
2002	321.38	696.8	28957.71	2.507016	2.843108	4.461764
2003	241.69	984.3	31709.45	2.383256	2.993127	4.501189
2004	351.25	1032.7	35020.55	2.545616	3.013974	4.544323
2005	519.47	1223.7	37474.95	2.71556	3.087675	4.573741
2006	552.39	1290.2	39995.5	2.742243	3.110658	4.602011
2007	759.28	1589.27	42922.41	2.880403	3.201198	4.632684
2008	960.89	2117.36	46012.52	2.982674	3.325795	4.662876
2009	1,152.80	2127.97	49856.1	3.061753	3.327966	4.697718
2010	883.87	3109.38	54612.26	2.946391	3.492674	4.73729
2011	918.55	3314.51	57511.04	2.963102	3.52042	4.759751
2012	874.70	3325.16	59929.89	2.941859	3.521812	4.777643
2013	1,108.39	3689.06	63218.72	3.044691	3.566916	4.800846
2014	783.12	3426.9	67152.79	2.893828	3.534901	4.827064
2015	818.35	3831.95	69023.93	2.91294	3.583419	4.839
2016	895.25	5762.7	67931.24	2.951944	3.760626	4.83207
2017	910.26	5850.12	68490.98	2.959163	3.767165	4.835633
2018	921.98	5947.55	69799.94	2.964722	3.774338	4.843855
2019	316.69	1722.528	71387.83	2.500634	3.236166	4.853624
2020	278.66	48711.88	70014.37	2.445075	4.687635	4.845187
2021	2,522.50	9145.88	72393.67	3.401831	3.961225	4.859701
2022	2,522.50	9145.88	72393.67	3.401831	3.961225	4.859701

APPENDIX 2 (DESCRIPTIVE STATISTICS)

	LCEXP	LREXP	LRGDP
Mean	2.582352	2.998769	4.413067
Median	2.697253	3.110658	4.602011
Maximum	3.401831	4.687635	4.859701
Minimum	1.381090	1.558944	2.698692
Std. Dev.	0.516266	0.774885	0.611547
Skewness	-0.807846	-0.214966	-1.915779
Kurtosis	3.033467	2.341512	5.453567
Jarque-Bera	3.590926	0.850366	28.46365
Probability	0.166051	0.653650	0.000001
Sum	85.21762	98.95937	145.6312
Sum Sq. Dev.	8.528964	19.21428	11.96766
Observations	33	33	33

APPENDIX 3 (REGRESSION ANALYSIS)

MODEL 1

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:34
Sample: 1990 2022
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.719273	0.265308	6.480285	0.0000
LCEXP	1.043155	0.100804	10.34834	0.0000

R-squared	0.775506	Mean dependent var	4.413067
Adjusted R-squared	0.768264	S.D. dependent var	0.611547
S.E. of regression	0.294392	Akaike info criterion	0.450884
Sum squared resid	2.686671	Schwarz criterion	0.541582
Log likelihood	-5.439592	Hannan-Quinn criter.	0.481401
F-statistic	107.0882	Durbin-Watson stat	1.593231
Prob(F-statistic)	0.000000		

MODEL 2

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:36
Sample: 1990 2022
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.485272	0.254426	9.768161	0.0000
LREXP	0.642862	0.082223	7.818492	0.0000

R-squared	0.663515	Mean dependent var	4.413067
Adjusted R-squared	0.652660	S.D. dependent var	0.611547
S.E. of regression	0.360418	Akaike info criterion	0.855589
Sum squared resid	4.026942	Schwarz criterion	0.946286
Log likelihood	-12.11722	Hannan-Quinn criter.	0.886106
F-statistic	61.12882	Durbin-Watson stat	1.774332
Prob(F-statistic)	0.000000		

MODEL 3

Dependent Variable: LRGDP
Method: Least Squares
Date: 02/22/24 Time: 09:24
Sample: 1990 2022
Included observations: 33

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.769990	0.259363	6.824363	0.0000
LCEXP	0.788053	0.179500	4.390274	0.0001
LREXP	0.202765	0.119591	1.695483	0.1003

R-squared	0.795136	Mean dependent var	4.413067
Adjusted R-squared	0.781479	S.D. dependent var	0.611547
S.E. of regression	0.285875	Akaike info criterion	0.419986

Sum squared resid	**2.451740**	**Schwarz criterion**	**0.556032**
Log likelihood	**-3.929762**	**Hannan-Quinn criter.**	**0.465761**
F-statistic	**58.21939**	**Durbin-Watson stat**	**1.955873**
Prob(F-statistic)	**0.000000**		