

Impact Assessment of Taxes and Government Capital Expenditures on Nigeria's Economic Growth.

Atayi Abraham Vincent¹, Vonke Juliana Dickson², Edache Godwin Omoche³, Nafisatu Isa Abdullahi Odeh O. Sunday⁵

¹Department of Economics, Plateau State University Bokkos, Nigeria.

²Department of Economics, University of Jos, Plateau State, Nigeria

³Faculty of Education, University of Pretoria. South Africa

⁴Department of Political Science, Plateau State University Bokkos, Nigeria.

⁵Department of Accounting and Finance, Ahmadu Bello University, Zaria Nigeria

DOI: <https://doi.org/10.51583/IJLTEMAS.2026.15020000067>

Received: 25 February 2025; Accepted: 02 March 2026; Published: 16 March 2026

ABSTRACT

This study looked at how taxes and government capital expenditures affected Nigeria's economic growth. Secondary time series data from 1992 to 2021 make up the data set used in this investigation. The Granger Causality Test Result and Autoregressive Distributed Lag Model (ARDL) were employed in the study to describe the relationship's direction. According to the findings, the percentage of changes in the dependent variable that can be accounted for by the independent variables is indicated by the coefficient of determination (R²). Economic growth may be described by changes in the explanatory variables as shown by the model, according to the R² of 0.614087, or 61%. The dummy variable accounts for 49% of the explanation.

The model is significant at 5%, according to the F-statistic, which suggest the model's overall importance. The F-statistics and its probability (4.177050 and 0.004027, respectively) support this. Therefore, the study comes to the conclusion that taxes and government capital expenditures significantly contribute to Nigeria's economic growth. As a deterrence to others, this study suggests, among other things, that the government impose a death penalty on people who divert funds from the petroleum profit tax and misappropriate government capital expenditures.

Keywords: Taxation, Government, Capital Expenditure, Econometrics and Economic Development.

INTRODUCTION

Globally, taxes are a significant source of government revenue, and governments utilize the money they receive to carry out their traditional duties, which include supplying goods, upholding law and order, defending against outside aggression, and regulating trade and business to maintain social and economic stability (Edame and Okoi, 2014). A country's internal resources can be mobilized and an atmosphere that supports economic growth can be created through the implementation of a tax system (Ayuba, 2014). As a result, taxes are crucial in helping a nation satisfy its demands and encourage self-reliance. Because it impacts all economies, regardless of national variations, the requirement to pay taxes has been a phenomena of global relevance (Obloh and Isa, 2012). The government sets the amount of taxes that citizens must pay and the things that are subject to taxes. According to Ngerebo and Masa (2012), the primary factor influencing the budget size is the cost of the projects or programs the government plans to carry out. The basis, rates, citizen categories, and tax payment periods are also determined by the government based on its assessment of the citizens' level of living and the intended economic trajectory. Thus, taxes have an impact on government spending, corporate productivity and activity levels, individual consumption patterns, saving and investment inclinations, and economic growth (Al-Yousif, 2017).

Every nation aims for growth and survival in order to keep a competitive position in the global market during this time of intense international rivalry. Economic growth is essential for long-term development since without it, people's living standards won't rise. In addition to drawing attention from around the world, rapid economic growth also paves the way for future development (Udoffia and Godson, 2016). Economic growth is defined as a steady expansion in the economy's capacity for production over time, which raises national output (Adebosin et al. 2021). A nation's political, economic, and social advancement is determined by the amount of money it makes from the supply of infrastructure. On the other side, one method of generating revenue to pay for necessary infrastructure is through a well-designed tax system (Edame and Okoi, 2014). The goal of creating a thriving economy might not be achievable without a workable way to raise money to fund the national spending that will accomplish the intended purpose. According to Nzontta (2007), taxes constitute a significant source of funding for the federal government (Adebosin et al. 2021). To perform its conventional duties, such as supplying public goods, protecting against outside threats, and upholding law and order, the government utilizes tax money.

Due to the high rate of tax evasion and avoidance by taxpayers, Nigeria experiences low government revenue, which in turn lowers government spending. This lowers household and business income savings and expenditures, which in turn results in low levels of economic activity and growth (Fagbemi, 2015). Money is necessary for the government to fulfill its social responsibilities to the people, which include, but are not limited to, providing social services and infrastructure. Murkur and Olugu (2013) assert that in order to meet the demands of society, enormous sums of money are required, which neither a society nor an individual can provide on their own. One way that money is obtained is through taxes. In our system, taxes don't play this crucial role. According to Oboh and Isa (2012), the system is unbalanced and dominated by oil revenue, which has contributed at least 70% of total revenue over the last 20 years. This suggests that traditional tax revenue has never played a significant role in the nation's fiscal policy management.

Government spending is still a crucial tool used in the development process. At practically every level of growth and development, it is essential to the operation of any economy. Today, the majority of both developed and developing nations employ public spending to alter the composition of national income, improve income distribution, and direct resource allocation in targeted sectors (Assi et al., 2019; Vtyurina, 2020). For example, the change in government spending patterns in emerging nations is expected to promote economic growth and increase job possibilities in addition to ensuring stability (World Bank, 2015). Without a question, government spending is a crucial tool for a government to manage a country's economy.

Capital and recurring expenditures are the two main categories into which Nigeria's federal government divides its spending. Government spending on administration, including salaries, wages, loan interest, and upkeep, makes up the recurring expenditure. On the other hand, capital expenditures are used for projects like water, telecommunication, highways, airports, health, education, and electricity generation. Investments with multiplier effects on the economy in terms of public benefits are known as capital expenditures. Most of the time, government action has stabilized the economy's employment and income (Collins and Mary, 2017).

The Nigerian government spends a lot of money that is mishandled, stolen, lost, or even squandered, which leads to the implementation of government projects that are unsuccessful and incomplete. The wealth gap between the rich and the poor keeps widening even though economic growth is anticipated (Udoffia and Godson, 2016). The problem of tax avoidance and evasion made this worse because some Nigerians do not understand the consequences of paying taxes and do not know how the money would be utilized to boost the country's economy (Abata, 2014).

LITERATURE REVIEW

Overview of Taxation System in Nigeria

In essence, the Nigerian tax system is set up as a means of raising money. Based on British tax regulations from 1948, this is a holdover from the pre-independence regime and has remained mostly unchanged since improvement. The Income Tax Management Act (ITMA) of 1961 was driven by the necessity of taxing personal incomes across the nation. Pay as you earn (PAYE) is the basis for personal income tax (PIT) for salaried jobs in Nigeria. The 1961 ITMA Act has undergone multiple changes. For example, PIT was raised from N600, or 10%

of earned income, to N2000 + 12.5% of income over N6000 in 1985. In 1989, savings accounts of N50000 or more were subject to a 15% withholding tax, whereas taxes on These laws were designed to achieve effective protection for local industries, increased utilization of raw materials, and increased government revenue, among other goals. The fees of directors were set at 15 percent (Mamud, 2008). As a result, emphasis has been placed on encouraging manufacturers to export and lowering personal and corporate taxes. Many actions were made in accordance with this shift in the focus of policy. These included, among other things, evaluating the capital allowances for custom exemption and rebats, extending the duty drawback and manufacturing-in-bond schemes, and eliminating excise duty. Increasing tax assistance for low-income workers, monetizing termination benefits, and implementing VAT

Value Added Tax (VAT)

VAT, which is ultimately paid for by the final customer but is collected at every stage of the production and distribution chain, is described by Ajakaiye (2013) as a "multi stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered." Ajakaiye (2013) states that VAT is a tax paid at every stage of value creation. Every time producers supply goods and services, a multi-stage tax is applied. He noted that VAT is charged to the value that items have earned or contributed before they are sold. He went on to clarify that one of the indirect taxes that the government collects in this case is VAT. The value-added tax rate in Nigeria is now 7.5% (Abiahu and Amahalu, 2017).

Income Tax for Companies (CIT)

Company income tax, also referred to as corporation tax, is imposed on all companies operating in Nigeria. Today, the tax rate is only thirty percent of the corporations' declared profits, down from forty-five percent in the 1980s. This tax must be paid at a rate of thirty percent for each year that a corporation's profits are assessed (Emmanuel and Charles, 2015). The 1979 Company Income Tax Act (CITA), as amended, governs it. In other words, the current enabling law that controls the collection of taxes on profits made by businesses operating in Nigeria is the Company Income Tax Act, 1990. This is a percentage of a company's profits that are produced, imported into, or obtained in Nigeria. The Federal Tax of Inland Revenue is the recipient of this tax. Since the firm becomes a separate legal entity upon incorporation, the tax is justified as a tax on the company, which is a juristic person distinct from its stockholders. The Companies Income Tax Act of 2004 governs the tax. The Companies Income Tax Act (CITA) of 1979 established CIT, which has its origins in the Income Tax Management Act of 1961. It is among the taxes that the Federal Inland Revenue Service (FIRS) administers and collects. The tax makes a substantial contribution to the Service's revenue profile. Because the government insists on tax certificates being submitted for any official obligation from corporate administration, it is comparatively simple to collect.

Petroleum Profit Tax (PPT)

This tax is levied against the earnings of Nigerian oil production firms. In other words, any resident or occupier company, or any person in control of a non-resident corporation that is producing or exploring petroleum, is subject to the petroleum profit tax. This also includes any recipient, liquidator, or agent of a recipient or liquidator of any business operating petroleum operations in Nigeria. The Petroleum Profit Tax Act, PPTA (1959), as amended, governs it. Petroleum profit tax, according to Eyisi, Oleka, and Bassey (2015), is specifically targeted due to the importance of oil in Nigeria's governmental revenue performance. Given that it accounts for 70% of all foreign exchange gains and 95% of government revenue, it is the most significant tax in Nigeria. In place of CIT, PPT is a tax on the revenue of businesses engaged in upstream petroleum operations.

Investments Made by the Government

The costs expended by the government to sustain itself and provide public goods, services, and projects that are required to promote or encourage economic growth and improve the well-being of members of society are referred to as government expenditures by Brown and Jackson (2016). The amount spent for the benefit of a nation's citizens serves as the basis for estimates of government spending. A large portion of government spending goes on infrastructure, education, and Social Security. Spending by the government might be

continuous or one-time. Capital expenditure is defined as spending that will yield returns in the future because there may be some lag time between the time an investment is made and when it affects the economy. "Capital expenditure" refers to the total amount of money spent on the purchase of fixed (productive) assets, such as buildings, roads, machinery, and equipment, whose useful life is longer than the fiscal or accounting year, as well as the cost of improving or updating fixed assets that are already in place. Additionally, research expenditures fall under this category of government spending. Capital expenditures are generally considered investments that will yield future returns, according to Brown et al. (2016).

Government spending on farms, businesses, and industries in the form of grants and subsidies is very effective since it lowers production costs, which in turn causes prices to drop. However, spending on education and health has a direct impact on the well-being of society. Expenditure on education and health is considered as an investment in human capital enhances skill formation and raises the ability to produce which has the consequence of rising disposable income and in turn increases consumption and investment (Uwaezuoke, Nweke and Ogar, 2018)

The Impact of Taxes on Economic Growth and Government Capital Expenditure in Nigeria

Al-Fawwaz (2016) cites Musgrave and Musgrave (2004) as saying that taxes are a significant part of Nigerian society. From pre-colonial to post-colonial times, it has been a driving factor behind the nation's economic growth. It is by far the most important source of funding for the contemporary government, which is why there has been a current push for tax increases. The government can use tax revenue to fund its spending programs, which include general administration, social and infrastructure services, and other large-scale projects. For this reason, tax revenue is regarded as the government's most important source of funding.

I wholeheartedly concur with Rabul's (2000) assertion in Abata (2014). The vast majority of state and federal governments firmly concur with his assertion that government spending should be financed by income. This demonstrates why the government sets spending caps in its yearly budget list to match the anticipated revenue, of which taxes are a major source. Essentially, the difference between what taxes meant to the government and what capital and gains meant to people and businesses

Taxation Problems in Nigeria

Naiyeju (2010) highlights the following challenges of tax administration and collection in Nigeria today in a symposium organized by the Chartered Institute of Taxation of Nigeria as part of the country's 50th anniversary celebration:

- (i) **Administrative Difficulty:** The majority of tax authorities, particularly state and local governments, lack the institutional competence necessary for efficient administration. The taxes that fall within their jurisdiction (capacity in terms of computer and IT infrastructure, staffing, skills, salary compensation, and other funds, etc.
- (ii) **Difficulties with Compliance:** For PIT, employers' failure to register their workers and pay these taxes to the appropriate tax authorities. Many VATs collected are not remitted, and many people in both urban and rural areas avoid paying the tax. Many SMEs, the unorganized sector, and even large corporations engage in evasive techniques for CIT.
- (iii) **Inequality:** Today, only employees pay the majority of PIT. Few people are not fairly taxed, including politicians, the wealthy, professionals, and the privileged.
- (iv) **The Problem of Several Taxes:** It continues to be a significant issue with our administration and collection of taxes.
- (v) **Ineffective Taxation by Government Levels:** The political economy of revenue distribution discourages aggressive taxation, particularly by states and local government units. Their portion of the oil earnings is what they rely on most.

- (vi) The Problem of Bad government: Since there is no outward sign of excellent government, taxpayers are not incentivized to pay higher taxes.
- (vii) Corruption Challenge: Corruption is a common problem in tax administration and collection. The possibility of corruption reduces tax revenue and system trust.
- (viii) Human Capacity Building and Training Challenges: States and Local Governments lack the qualified personnel needed to effectively manage the applicable taxes.

Theoretical

The Friedman Tax Revenue Theory and Wagner's Law of Ever-Increasing State Activities serve as the foundation for this investigation.

Wagner's Law of Ever-Increasing State Activities

In his seminal work, German economist Adolph Wagner developed a law of rising state action. He claimed that as economic development rises, there is a long-term tendency for the scope of government to expand. According to Wagner's law, the pressure of social progress is what led to an increase in public spending. To put it succinctly, the legislation stipulates that the proportion of all significant government spending rises for developing economies. Two factors served as the foundation for Wagner's generalization: (a) The demand for government services has an income elasticity higher than unity; (a) The public sector continuously encroaches on the private sector as economic development progresses. Wagner maintained that greater economic progress leads to more hardships and criminal activity, necessitating ever-higher state spending to combat such crime.

Friedman Tax Revenue Theory

Known by some economists as the "tax-spend debate" or the "revenue-expenditure nexus," the relationship between government spending and receipts has been a source of increasing concern since 1980. Friedman (1978) contends that government revenue and economic growth are causally positively correlated. Friedman argues that raising taxes only results in increased spending and economic expansion. According to Friedman (1978), raising taxes will enhance the government's resources in an effort to lower budget deficits, and the only outcome will be improved economic growth.

Empirical Review

Efuntade, Efuntade, and Akinola (2022) investigated the connection between Nigeria's economic growth, taxes, and capital expenditure. As suggested by Wagner, the main objective is to determine the degree of the relationship between capital expenditure and economic growth as well as the relationship between taxes and economic growth. The specific objective is to evaluate the long-term correlations between petroleum profit tax (PPT), company income tax (CIT), value added tax (VAT), capital spending, and economic growth using time series data from 1989 to 2019. The analysis was based on Wagner's (1883) Law of Ever-Increasing State Activities and Friedman's (1978) Revenue Theory.

The Central Bank of Nigeria Statistical Bulletin and the Federal Inland Revenue Services provided secondary data. The ARDL Cointegration test, regression, descriptive analysis, and error correction model were all used in the study. The findings validated the connection between real gross domestic product, PPT, CIT, VAT, and capital expenditure.

The results demonstrated that capital expenditure and PPT had a long-term, positive, and considerable impact on economic growth, but CIT and VAT had a negative relationship with it. While Friedman discovered a causal association between taxes and economic growth, Wagner was also supported by evidence showing a causal relationship between capital expenditure and economic growth. It is recommended that the government enhance fiscal synchronization, which comprises making decisions on taxes and capital spending simultaneously, in order to foster economic growth.

Ofoegbu, Akwu, and Olive (2016) conducted an empirical analysis of the effect of tax income on Nigeria's economic development using annual time series data from 2005 to 2014.

They found that tax revenue and economic development were significantly correlated. The results also demonstrated that assessing the correlation with GDP rather than the impact of tax revenue on economic development provided a clearer picture of the relationship between tax revenue and economic development in Nigeria.

Chandana, Adamu, and Musa (2021) use time series data from 1970 to 2019 to examine the effect of Nigerian government spending, broken down into capital and recurring expenditures, on economic growth. The Autoregressive Distributed Lag (ARDL) model is used in this paper.

The study takes into consideration structural breaks in the co-integration analysis and the unit root test to guarantee the robustness of the findings. The main conclusions of the study are that, whereas recurring expenditures have no discernible effect on economic growth over the medium or long term, capital expenditures have a positive and considerable impact on both.

The report suggests that the government raise its capital expenditure share, particularly for worthwhile initiatives that directly impact the wellbeing of its citizens. The government should also carefully reallocate resources to constructive endeavors that would advance the nation's human development in order to improve the spending patterns of recurring expenditure.

Bingxin, Shenggen, and Anuja (2016) examined the relationship between taxes and economic growth in China using a dynamic GMM model and a panel data set for 44 developing countries from 1990 to 2014. They found that different types of government spending have varying effects on economic growth. Human capital investment contributes to economic growth in Africa, whereas capital formation, agriculture, and education have a significant development-promoting impact in Asia. In Latin America, no government spending item has a major impact on economic growth.

Szarouska (2016) conducted a study using data from 2000 to 2013 to examine the connection between economic growth in the Czech Republic and federally generated revenue through tax administration. The study examined the relationship between economic growth (as defined by GDP) and 10 government spending components: general public services, defense, public order and safety, economic affairs, environmental protection, housing and commerce, health, recreation and culture, education, and social protection.

Cointegration and error correction modeling (ECM) were used to evaluate the data. The results show that GDP and the expenditure functions for economic affairs, public safety and order, and government spending in general have a cointegration connection. However, the trials demonstrate that GDP and the other governmental components included in the model do not co-integrate. He maintained that while it is impossible to prove that government spending on defense, environmental protection, housing and commerce, health, recreation and culture, education, and social protection has increased, government spending on general public services, public order and safety, and economic affairs has increased over time, increasing GDP.

Jiranyakul and Brahmasrene (2017) used empirical data from OECD nations to determine whether tax structure has an impact on economic growth. This study uses panel data for 17 OECD nations from 1980 to 2010 to evaluate the long-term impact of changes in the tax revenue neutrality structure on the amount of income per capita. Unlike previous research, they were unable to provide a firm foundation for the influence of various tax arrangements on growth. Additionally, they lack concrete proof to support their claims regarding the desire for corporate personal tax or the consumption tax on income tax.

This study examined a number of parameters, including GDP, population growth, human capital, physical capital, personal and corporate income taxes, consumption taxes, and property taxes. The study's findings suggest that higher steady-state levels of per capita income may be associated with shifts in total tax revenue toward property taxes. Additionally, this finding remains valid even after the authors used a new sample, a different regression, and a different description of the temporal effects.

The impact of tax revenues on capital expenditures in the Nigerian economy is assessed by Craig, Adetola, and Maminu (2020) Between 1989 and 2018, the Federal Inland Revenue Service, the Central Bank of Nigeria statistical bulletin, and the National Bureau of Statistics provided secondary sources of data for the study. Utilizing a longitudinal technique, the study collected secondary data from the Federal Inland Revenue Service's audited financial records from 1989 to 2018, the CBN statistics bulletin, and the National Bureau of Statistics. To explain the relationship between the variables of capital expenditure (dependent variable) and tax revenues (oil and non-oil) (independent variable), the data was analyzed using the linear regression approach.

Adebosin, Toriola, Salami, Akingbade, and Ajayi (2021) investigate the connection between Nigeria's economic growth, government spending, and taxes. Using a descriptive research design and the national income accounting framework, the study employed a linear regression model that shows how taxes, government spending, investment, and exports affect economic growth. The Central Bank of Nigeria (CBN) Statistical Bulletin provided the time series data for the study, and the Fully Modified Ordinary Least Squares (FM-LS) estimation approach was employed for the analysis.

It was shown that while government spending hinders Nigeria's economic growth, exports and investment greatly accelerate it. In the meanwhile, it is estimated that taxes have little impact on Nigeria's economic growth. Wide-ranging, efficient internal control measures are required as a policy tool to create fiscal restraint in government spending. Additionally, any ineffective activities and investments in government apparatus and institutions must be discouraged.

METHODOLOGY

The data used in this study came from the Central Bank of Nigeria (CBN) Statistic Bulletin, the National Bureau of Statistics (NBS), the Federal Inland Revenue Services (FIRS), the World Bank Development Indicator Database, and other relevant government organizations. Aggregate time series data were utilized due to their stable nature and qualities, and this study would use basic descriptive statistics as one of its statistical techniques for data analysis.

Model Specification

The model is specified as follows:

$$RGDP = f(GCE + PPT + CIT + VAT)$$

$$RGDP_t = \beta_0 + \ln\beta_1 GCE_t + \ln\beta_2 PPT_t + \ln\beta_3 CIT_t + \ln\beta_4 VAT_t + \varepsilon_t$$

Where;

$RGDP_t$ = Real Gross Domestic Product GCE = Government Capital Expenditure

PPT = Petroleum Profit Tax

CIT = Company Income Tax

CAT = Value Added Tax

β_0 = the constant $\beta_1 - \beta_4$ = the coefficients of the explanatory variables ε = Stochastic Error Term

RESULTS AND DISCUSSION

Unit root test

Before beginning any analysis, this study used the unit root test to see if the data was steady. According to economic theory, before using a standard econometric technique, variables must be stationary, meaning they must have a long-term or equilibrium connection with one another (Gujarati 2004). It is advised that the data be

validated for analysis using the unit root test. At the 5% level of significance, the Augmented Dickey-Fuller test was used to determine the unit root.

It is assumed that the variables should be 1(1) or 1(0) in order to determine the critical values. To ensure that none of the variables are integrated at order two or higher, the unit root test must still be used. The order of integration of model variables is checked for the unit root test using the Augmented Dickey-Fuller (ADF) with the trend and intercept option and the automatic Akaike Information Criterion (AIC) lag selection criteria. The following table displays the outcome:

Table 1: Summary of the Augmented Dickey-Fuller Test

Variables	ADF Statistics	5% Critical value	Probability	Order of integration	Remark
LOGCIT	-7.293204	-2.963972	0.0000	1(1)	Stationary
GDPg	-3.625979	-2.960411	0.0109	1(0)	Stationary
LOGVAT	-3.672273	-2.976263	0.0107	1(0)	Stationary
LOGPPT	-5.004579	-2.967767	0.0004	1(1)	Stationary
LOGGCE	-6.507363	-2.963972	0.0000	1(1)	Stationary
Sources: Authors computation using Eview 10					

The outcomes of the unit root test are displayed in the table above. According to the decision rule, there is no unit root in the data and it is stationary if the Augmented Dickey Fuller statistics is more than the crucial value at 5%. While CIT, PPT, and GCE were stationary at the first difference, the results indicate that RGDP and Value Added Tax are stationary at level, indicating that the data is stationary. according to the methodology of Pesaran & Pesaran (1997). Only two of the variables in the research model are stationary at 1(0), while the other three are stationary at first difference, according to the ADF unit root test for this study1(1). Only two variables are stationary when evaluated at levels, according to the results in table 1 above; the other variables are not. Going forward, each of the resulting time series will undergo the unit root test after the corresponding variables have been differentiated. This process is justified by the argument made by Box and Jenkins (1976) that non-stationary time series can achieve stationarity by differencing. This type of data justifies the application of the Autoregressive Distributed Lag Model.

Granger causality test

Regression analysis examines how one variable affects another, but it does not prove causation. According to Gujarati (2004), the presence of a relationship between variables does not establish causation or the direction of influence. Finding out whether there is a causal relationship between Company Income Tax (CIT), Value Added Tax (VAT), Petroleum Profit Tax (PPT), Government Capital Expenditure (GCE), and

RGDP growth rate (GDPg) is the main goal of this research project's Granger causality test. The F- statistics is used to reject or accept the null hypothesis of no causation between the variables when F-statistics is greater than 2 and less than 2 respectively. Or the probability value, the null hypothesis is rejected if p- value is less than 5% level of significance. Consider the table below to check for direction of influence between the variables in Nigeria for the period under study (i.e. from 1990 to 2021).

Table 2: Granger Causality Test Result

Pairwise Granger Causality Tests		
Date: 05/01/26 Time: 08:26		
Sample: 1990 2021		
Lags: 2		

Null Hypothesis:	Obs	F-Statistic	Prob.
LOGCIT does not Granger Cause GDPG	30	0.41067	0.6676
GDPG does not Granger Cause LOGCIT		2.51691	0.1010
LOGGCE does not Granger Cause GDPG	30	0.57737	0.5687
GDPG does not Granger Cause LOGGCE		2.51522	0.1011
LOGPPT does not Granger Cause GDPG	30	0.65569	0.5278
GDPG does not Granger Cause LOGPPT		0.22648	0.7990
LOGVAT does not Granger Cause GDPG	26	3.55399	0.0468
GDPG does not Granger Cause LOGVAT		0.60271	0.5565
LOGGCE does not Granger Cause LOGCIT	30	2.20601	0.1311
LOGCIT does not Granger Cause LOGGCE		0.70976	0.5014
LOGPPT does not Granger Cause LOGCIT	30	3.00520	0.0677
LOGCIT does not Granger Cause LOGPPT		0.01051	0.9895
LOGVAT does not Granger Cause LOGCIT	26	3.71265	0.0416
LOGCIT does not Granger Cause LOGVAT		1.20180	0.3205
LOGPPT does not Granger Cause LOGGCE	30	0.12935	0.8793
LOGGCE does not Granger Cause LOGPPT		2.08438	0.1455
LOGVAT does not Granger Cause LOGGCE	26	0.66268	0.5259
LOGGCE does not Granger Cause LOGVAT		4.20395	0.0291
LOGVAT does not Granger Cause LOGPPT	26	0.86310	0.4363
LOGPPT does not Granger Cause LOGVAT		2.72327	0.0888

Source: Author's computation using Eview 10

Depending on the permitted lag length, the results, which are all tested on the same lag, cycled between unidirectional and no causality. The results are shown in Table 2 above. According to the findings, there is a causal relationship between VAT and GDP, GCE and VAT, and VAT and CIT.

The findings indicate that while RGDP does not granger cause VAT, VAT is granger causing RGDP. Additionally, while VAT is not Granger driving GCE, government capital expenditure is, leading to value added tax. Similarly, CIT does not granger cause VAT, but VAT granger causes CIT. The relationship between them is unidirectional. Since their probability in Nigeria is more than 5%, the remaining variables are not granger causing one another.

Autoregressive Distributed Lag Model (ARDL)

The ARDL approach was adopted because its test statistics generally perform much better in small sample than the test statistics computed using the asymptotic formula that explicitly takes account of the fact that the regressors are $I(1)$. It permits the combination of the different order of integration ($I(1)$ and $I(0)$) among the variables in the model. The result of the ARDL for the models is represented below:

TABLE 3: showing the ARDL result

Dependent Variable: RGDP				
Method: ARDL				
Date: 07/01/26 Time: 08:46				
Sample (adjusted): 1992 2021				
Included observations: 30 after adjustments				
Maximum dependent lags: 2 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (2 lags, automatic): LOGCIT LOGGCE LOGPPT				
LOGVAT				
Fixed regressors: C				
Number of models evaluated: 162				
Selected Model: ARDL(1, 2, 0, 1, 0)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LOGCIT	1.047784	1.325992	0.790189	0.4382
LOGGCE	-2.193453	1.520619	-1.442474	0.1639
LOGPPT	-0.509612	1.130825	-0.450655	0.6569
LOGVAT	0.963466	0.961114	1.002448	0.3275
C	9.058357	6.089323	1.487580	0.1517
R-squared	0.614087	Mean dependent var		4.693000
Adjusted R-squared	0.467072	S.D. dependent var		3.206609
S.E. of regression	2.340885	Akaike info criterion		4.782260
Sum squared resid	115.0746	Schwarz criterion		5.202619
Log likelihood	-62.73390	Hannan-Quinn cr iter.		4.916737
F-statistic	4.177050	Durbin-Watson stat		1.889983
Prob(F-statistic)	0.004027			

*Note: p-values and any subsequent tests do not account for model

selection.

The RGDP would expand positively by 9058357, indicating an increase in economic growth and development, if all explanatory factors were maintained constant, according to the coefficient of the constant intercept β_0 , which is 9.058357. Our apriori expectation is that the independent variables (CIT, PPT, VAT, and GCE) and the Real Gross Domestic Product (RGDP) in Nigeria should be directly positively correlated. With the exception of CIT and VAT, the coefficients do not meet the apriori expectation. The government capital expenditure coefficient as a proportion of GDPg, however, does not match the apriori expectation. The coefficient ($\beta_1 = -2.193453$, $P = 0.1639$) shows a negative and an insignificant relationship between GCE and economic growth in Nigeria. Its shows that a unit change in GCE will lead to 219% decrease in economic growth and development in Nigeria.

As a result, the Petroleum Profit Tax coefficient indicates that it does not meet the apriori anticipation of a positive association. The coefficient of ($\beta_2 = -0.509612$, $P = 0.6569$) supports this. At 5%, the outcome is negative and negligible. This indicates that the economy's GDP will drop by 51% for every unit change in the petroleum profit tax. PPT and economic progress have a negative association.

Additionally, the Company Income Tax coefficient matched the apriori prediction of a positive correlation. This is demonstrated by the coefficient ($\beta_3 = 1.047784$, $P = 0.4382$), which shows that economic growth and development will increase by 105% for every unit increase in company income tax.

Finally, the Value Added Tax coefficient matched the apriori prediction of a positive correlation. The coefficient of ($\beta_4 = 0.963466$, $P = 0.3275$) supports this. At 5%, the outcome is both good and negligible. According to the results, Nigeria's economic growth will improve by 96% for every unit change in VAT.

The percentage of changes in the dependent variable that can be accounted for by the independent variables was displayed by the coefficient of determination (R^2). Economic growth may be described by changes in the explanatory variables as shown by the model, according to the R^2 of 0.614087, or 61%. The dummy variable accounts for 49% of the explanation. According to the F-statistic, which gauges the model's overall significance, it is significant at 5%. This is indicated by the F-statistics and its probability (4.177050 and 0.004027) respectively. With a Durbin Watson statistic of roughly 2 indicating that there is no serial correlation that is, the value of the random term in any given period is uncorrelated with its preceding values, indicating the absence of autocorrelation we conclude that there is a significant relationship between taxes and government capital expenditure on economic growth in Nigeria.

DISCUSSION OF FINDINGS

Nigeria ranks among the world's top producers of crude oil. The petroleum industry is essential to the country's government's existence. Excessive corruption and poor administration have plagued Nigeria's oil industry, which has hindered successive leadership's ability to use the money earned from oil revenue wisely for the country's growth. To achieve sustained economic growth and development, Nigeria must diversify its economy.

The coefficient of company income tax as a percentage of RGDP is positive and negligible, according to the regression's findings. It demonstrates that there was a favorable correlation between CIT and Nigeria's economic expansion. It indicates that Nigeria's economic growth and development will improve by 105% for every unit change in CIT. This might be the outcome of businesses making more money and being more inclined to pay taxes as a mandatory duty to the government. This contradicts the findings of Efuntade, Efuntade, and Akinola (2022), who discovered a negative correlation between CIT and Nigeria's economic growth.

The study further reveals that there exists a beneficial association between Value Added Tax and economic growth and development in Nigeria. It demonstrates that a 96% increase in RGDP will result from a unit change in VAT. Finally, the Government Capital Expenditure coefficient does not match the apriori anticipation of a positive correlation. At 5%, the outcome is negative and negligible. According to the results, Nigeria's economic

growth will decline by 219% with every unit change in GCE. This might be because resources intended primarily for infrastructure development are being diverted to a select few, which is causing the economy to expand negatively.

CONCLUSION

The connection between taxes, government capital expenditures, and economic growth in Nigeria has been investigated in this study. According to the paper, Nigeria's economic growth is significantly influenced by taxation and government capital expenditures. The study concluded that in order to have a substantial and positive impact on the Nigerian economy, taxes should be kept under control as a source of government funding.

RECOMMENDATIONS

The following suggestions are offered in light of the findings of this study:

To discourage others, the government should hang individuals responsible for stealing money from the petroleum earnings tax and government capital projects. To increase revenue, the government should diversify the economy. To lessen and eventually eradicate its detrimental effects on the economy, the government should keep an eye on capital project spending. In order to help businesses create more and raise value added tax and company income tax, the government should invest more in infrastructure development. This would have a huge impact on the economy.

REFERENCE

1. Abata, M. A (2014). The impact of tax revenue on Nigerian economy (Case of federal board of inland revenue), *Journal of Policy and Development Studies*, 9(1), 1-14
2. Abiahu, T.H. and Amahalu, U.T. (2017). Value Added Tax and Economic Growth of Nigeria. *European Journal of Humanities and Social Sciences*, 10(1): 180-189.
3. Adaramola, S.K. & Ayeni-Agbaje, T.M., (2015). The tax structure and economic growth in Nigeria: A disaggregated empirical evidence. *International Research Journal of Finance and Economics*, 54, 125-135.
4. Adebosin, W. G; Toriola, A. K; Salami, L. A; Akingbade, V. T. & Ajayi, F. O. (2021). The Nexus between Taxation, Government Expenditure and Economic Growth in Nigeria (1981 to 2016). *Lapai Journal of Economics*; 5(1), 133-143. Online ISSN: 2659-0271.
5. Adejare, A. T. & Akande, S. S. (2017). The impact of personal income tax on government expenditure in Oyo State. *Account and Financial Management Journal*, 2(4), 635-643 doi: 10.18535/afmj/v2i4.02
6. Ajakaiye, T. J. (2014). The Impact of Tax Accounting on Economic Development of Nigeria: Collection and Remittance Perspective. *Scholarly Journal of Business Administration*, 4 (3) 60-66.
7. Amahalu, L. M. & Ezechukwu, N. (2017). Causal Relationship between Trade Openness and Government Size: Evidence from Saudi Arabia. *The Journal of Economic and Legal Researches*, 5 (6), 110-124.
8. Akpan, K. (2015). The Nexus between the Nigerian Tax on Government Capital Expenditure And Economic Growth. *International Research Journal of Finance and Economics*, 54, 125-135.
9. Al-Fawwaz., T. M (2016) The Impact of Government Expenditures on Economic Growth in Jordan (1980-2013), *International Business Research*, 9(1), 1-16
10. Al-Yousif, M. H. (2017). An Empirical Study on the Causality between Economic Growth and Taxation in Nigeria. *Current Research Journal of Economic Theory*, 4 (2), 29-38.
11. Appah, E. & J.K. Oyandonghan I. (2011) The challenges of tax mobilization and Management in the Nigerian Economy, *Journal of Business Administration Management*, 6(2), 128-136.
12. Ayuba, A. J. (2014). The Welfare and Economic Performance. *National Tax Journal*, 48, 171-198.
13. Bakare, A. S. & Olubokun, S. (2015). Health Care Expenditure and Economic Growth in Nigeria: An Empirical Study. *Journal of Emerging Trends in Economics and Management Sciences*, 2 (2): 83-87.
14. Bingxin, E. R., Shenggen, T. U. & Anuja, A. (2016). The Impact of Taxation On Capital Expenditure and Economic Growth in China. *Current Research Journal of Economic Theory*, 4 (2), 29-38.

16. Bojanic, A. N (2013). The composition of government expenditures and economic growth in Bolivia, *Latin American Journal of Economics*, 50(1), 83–105.
17. Brown, C. V. & Jackson, P. M., (2016). *Public Sector Economics*. 4th Ed. UK: Blackwell Publishers Ltd, Nigerian Economic Society.
18. Chaido, D. & Melina, D. (2012). Government expenditure and national income: Causality test for twelve new members of European Union. *The Romanian Economic Journal* 13 (38), 27-34.
19. Chandana, A. Adamu, J. & Musa, A. (2021). Impact of Government Expenditure on Economic Growth in Nigeria, 1970-2019. *CBN Journal of Applied Statistics*, 12(1), 139-174.
20. Craig, A.O., Adetola, R., & Maminu, K.A. (2020). Tax revenue and capital expenditure in Nigeria. *Accounting and Taxation Review*, 4(1): 132-147.
22. Edame, G. E & Eturoma, A. D (2014). The determinants of public expenditure on educational infrastructural facilities and economic growth in Nigeria, E3. *Journal of Business Management and Economics*, 5(6), 152-161
24. Edame, G. E. & Okoi, W. W. (2014). Government Expenditure and Economic Growth in Nigeria: A Disaggregated Approach. *Economic and Financial Review*, 43 (1), 112-121.
25. Efuntade, A. O; Efuntade, O. O. & Akinola, A. O. (2020). Capital Expenditure and the Impact of Taxation on Economic Growth in Nigeria. *The International Journal of Business Management and Technology*, 4(5), 147-159. ISSN: 2581-3889
26. Emmanuel, C. U. & Charles, A. (2015). The Impact of Taxation on the Nigerian Economy. *International Research Journal of Finance and Economics*, 54, 125-135.
27. Emori, D. O; Duke, A. I., & Nneji, H. A, (2015). The Impact of Taxation on Government Expenditure on The South African Economy. *International Research Journal of Finance and Economics*, 50(3): 25-52.
28. Eyisi, A. S., Oleka, C. D., & Bassey, B. E, (2015). The Effect of Taxation on Macroeconomic Performance in Nigeria. *Journal of Economics*, 54, 70-78.
29. Fagbemi, T.O., (2015). Effect of Tax Avoidance and Tax Evasion on Personal Income Tax in Nigeria. *International Research Journal of Finance and Economics*, 64, 23-32.
30. Folster, S. & Herekson, M., (2011). Growth Effects of Government Expenditure and Taxation in Rich Countries. *European Economic Review*, 45, 1501-1520.
31. Friedman, M. (1978). The limitations of tax limitation. *Policy Review*, 7-14.
32. Furceri, Z. & Karras, U. (2013). Oil Prices and Exchange Rate Volatility in Nigeria: An Empirical Investigation. *Central Bank of Nigeria Economic and Financial Review*, 48 (3), 31-48.
33. Ihenyen, C. J. & Mieseigha, E. G., (2014). Taxation as an Instrument of Economic growth (The Nigerian Perspective). *Information and Knowledge Management*, 4 (12): 49-53.
34. Iyidogan, P. V. & Turan, T. (2017). Government size and economic growth in Turkey: A Threshold regression analysis. *Prague Economic Papers*, Prague University of Economics and Business, 2017(2), 142-154.
35. Jibir, A., Abdullahi, S., Abdu, M., Buba, A., & Ibrahim, B. (2018). External debt-growth nexus in Nigeria revisited. *Asian Economic and Financial Review*, 8(1), 117-130.
36. Johansen, S. (1988). Statistical Analysis of Cointegration Vectors. *Journal of Economics*. 3(2), 23-56.
37. Johansen, S., & Juselius, K. (1990). Maximum likelihood estimation and inference on co-integration—with applications to the demand for money. *Oxford Bulletin of Economics and statistics*, 52(2), 169-210.
38. Jiranyakul, K. & Brahmasrene, T. (2017). The Relationship between Government Expenditures and Economic Growth in Thailand. *Journal of Economics and Economic Education Research*, 8 (1): 93-102.
39. Levina, O. (2016). Government Expenditure and Economic Growth in Nigeria. *Journal of Economic Management*, 2 (1), 1-13
40. Macek, M. (2014). The Impact of Taxation Revenue on Economic Growth in OECD Countries. *European Journal of Business and Management*, 3 (9), 21-29.
42. Mudaki, J. S. & Masaviru, W. (2016). The Impact of Taxation on Education. *European Journal of Business and Management*, 3 (9), 03-16.
43. Mukur I. N. & Olugu, K. N., (2013). Increasing Size of Government: Implication for Output Growth in Nigeria. Atlanta, USA: Spelman College.

44. Musa, Y., & Asare, B. K. (2013). Long and short run relationship analysis of monetary and Fiscal policy on economic growth in Nigeria: A VEC model approach". Research Journal of Applied Sciences, Engineering and Technology, 5(10), 44-51.
45. Musgrave, R & Musgrave P. B (2004). PublicFinancein. Theory and Practice, 5th Edition, Tata Mcgraw HillEducation Private ltd, New Delhi. 627.
46. National Bureau of Statistics (2019). Labor Force Statistics - Volume I: Unemployment and Underemployment Report. Abuja: NBS
47. Ngerebo, T. A. & Masa, A., (2012). Government Expenditure and Economic Growth in Nigeria: A Disaggregated Analysis. Business and Economics Journal, 4, 1-11.
48. Nweze, P. N., & Greg, E. E. (2016). An empirical investigation of Oil revenue and economic growth in Nigeria. European Scientific Journal September, 12(25): 271-294.
49. Nwaeze, C. & Njoku, R. & Nwaeze, O. P. (2014). Impact of government expenditure on Nigeria's economic growth (1992 – 2011). The Macrotheme Review 3(7), 1-14.
50. Nwaiwu, O. (2015). Tax Revenue and Economic Growth In Nigeria. European Journal of Business and Management, 3 (9): 3-16.
51. Oboh, C. S. & Isa, E. F. (2012). Tax Policy Reforms in Nigeria. Research Paper No. 2006/03
52. United Nations University. World Institute for Development Economic Research.
53. Ofoegbu, O. E., Akwu, T. O. & Olive, T. I., (2016). The effects of tax revenue on economic development of Nigeria. Research Journal of Social Sciences, 4 (1): 12 – 22.
54. Ofoegbu, A., & Oliver, O. (2016). Empirical analysis of effect of tax revenue on economic development of Nigeria. International Journal of Asian Social Science.6(10), 604-613.
55. Ogbonna G. N., & Appah, E. (2016). Effect of Tax Administration and Revenue on Economic Growth in Nigeria. <https://www.semanticscholar.org/paper>.
56. Ogbonna, G., & Odoemelam, N. (2015). Impact of taxation on economic development of Nigeria: 2000-2013. Research Gate. <https://www.researchgate.net/publication/305333001>
57. Ojong, C. M., Ogar, A. & Oka, F. A. (2016). The impact of tax Revenue on economic growth: Evidence from Nigeria. IOSR Journal of Economics and Finance, 7(1), 32-38
58. Okoli M.N, Njoku C.O., & Kaka G.N (2014). Taxation and economic growth in Nigeria; A Granger causality approach. International Journal of Research in Management, Science & Technology, 2(3).
59. Okwara, C. C., & Amori, O. M. (2017). Impact of tax revenue on economic growth in Nigeria. International Journal of Scientific Research in Social Sciences & Management Studies, 2(2), 90-102.
60. Oladipupo, A. O. & Ibadin, P. O., (2015). The Relationship between Government Expenditures and Economic Growth in Thailand. Journal of Economics and Economic Education Research, 8 (1): 93-102.
61. Onakoya, O. & Afintinni, J. (2016). Effect of revenue and economic growth in Nigeria.
62. International Journal of Humanities and Social Sciences Invention, 23(19), 2319 -2322.
63. Onakoya, A.B., Afintinni, O. I. & Ogundajo. (2017). Taxation revenue and economic growth in Africa. Journal of Accounting and Taxation, 9(2), 11-22
64. Otu, G. O. & Adejumo, T. O. (2013). The Effects of Tax Revenue and Economic Growth in Nigeria. International Journal of Humanities and Social Sciences Invention, 2(6),16-26.
65. Oziengbe, S. A. (2013). The relative impacts of federal capital and recurrent expenditures on Nigeria's Economy. American Journal of Economics, 3(5), 210-221.
66. Salami, S. B., Amusa, A. B. & Ojoye O. O. (2018). Empirical analysis of the impact of non-oil revenue on economic growth: Nigerian experience. International Journal of Economics, Commerce and Management, United Kingdom, 6(6), 263-276.
67. Perron, P. (1989). The great crash, the oil price shock, and the unit root hypothesis. Econo-metrica, 57(6), 1361-1401
68. Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. Journal of Applied Econometrics, 16(3), 289-326.
69. Phillips, P., & B. Hansen (1990). 'Statistical Inference in Instrumental Variables Regression with I(1) Process. Review of Economic Studies, 57:99-125.
70. Phillips, P. & Perron, P. (1988). Testing for a unit root in time series regression. Biometrika 75(2), 335-346.
71. Poulson, B. & Kaplan, J., (2014). State Income Taxes and Economic Growth. Academy of Management Review, 28(1): 12-37.

72. Razzaq, A., Ahmed, F. & Razzaq, A. (2015). Dynamic Relationship between Income and Consumption: A Time Series Analysis of Spain, *Management and Administrative Sciences Review*, 4(2): 404-411
73. Saidin, N. A. B., Basit, A. & Hamza, S. M. (2016) The role of tax on economic growth.
74. *International Journal of Accounting & Business Management*, 4(2) doi: 10.24924/ijabm/2016.11/v4.iss2/242.250.
75. Szarouska, E. (2016). The Impact of Tax on Government Capital Expenditure and Economic Growth in Nigeria. *International Journal of Humanities and Social Sciences*, 2(6), 16-26. Todaro, M. P. & Smith, S. C., (2006). *Economic Development*, 9th Edition. Pearson Educational Limited England.
76. Udoffia, D.T & Godson, J.R (2016) The impact of federal government expenditure on economic growth in Nigeria. *Greener Journal of Social Sciences*. 6(4), 092-105.
77. Udoka, C. O. & Anyingang, R. A. (2015). The effect of public expenditure on the growth and development of Nigerian economy. *International Review of Management and Business Research*, 4(3), 1-12.
78. Uremadu, S.O.,& Ndule, J.C. (2011) Doc “An evaluation of taxation as a mechanism of revenue
- Uwaezuoke, O.C., Nweke, I.M., & Ogar C.A. (2018). Effect of foreign direct investment on government expenditure in a pre and post-Deregulation Period in Nigeria 1970-2016.
79. *International Journal of Current Aspects in Finance (IJCAF)*, 4(2); 1- 10.
80. Veronika, B. & Lenka, J. (2014). Taxation of Corporations and their Impact on Economic Growth.
81. *Journal of Management Science Review*, 161(16).
82. Wagner, A. (1883). Three Extracts on Public Finance”. Translated and reprinted in R.A. Musgrave and A.T. Peacock (eds), *Classics in the Theory of Public Finance*, London: Macmillan, 1958.
83. Wambai, U.S.K., & Hanga, B.Y. (2013) Taxation as an Instrument of Economic growth <https://pdfs.semanticscholar.org>.
84. Worlu, C. N. & Nkoro, E. (2012). Tax Revenue and Economic Development in Nigeria: A Macro econometric Approach. *Academic Journal of Interdisciplinary Studies*, 1(2), 221-223.
85. World Bank (2008). *Public Expenditure Management Handbook*. Washington, D.C.: The World Bank Group.
86. World Bank (2015). *Introduction to Public Sector Governance and Accountability Series: Public Expenditure analysis*. Washington, D.C.: The World Bank Group.
87. World Bank (2020). *World Development Indicators*. Washington, D.C.: The World Bank Group.