

TAX REVENUE AND ECONOMIC GROWTH IN NIGERIA

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Abstract

The main objective of this study is to explore the relationship between tax revenue in Nigeria and her economic growth using the Ex-post facto research design. Time series data covering the independent variable – tax revenue, (proxied by Custom and Excise Duty (CED), Petroleum Profit Tax (PPT), Company Income Tax (CIT), Value Added Tax (VAT), and capital gains tax (CGT) and the dependent variable – economic growth (proxied by the gross domestic product (GDP)) for a period of twenty (10) years (2013 to 2022) were applied in carrying out this research work. Multiple Linear Regression analysis was used to analyze the data by employing the use of Vector Error Correction Model. The findings reveal that Custom and Excise Duty revenue has a significant and negative effect on economic growth in Nigeria (p-value = 0.0013), Petroleum Profit Tax revenue has a significant and negative effect on economic growth in Nigeria (p-value = 0.0004), Company Income Tax revenue has a significant and positive effect on economic growth in Nigeria (p-value = 0.0012); Value added tax revenue has a significant and positive effect on economic growth in Nigeria (p-value = 0.0000); Capital gains tax revenue has no significant and negative effect on economic growth in Nigeria (p-value = 0.5327); We recommend among others that the government should consider reducing the rate of custom and excise duty on imports and exports, in order to reduce the negative effects on economic growth.

Keywords: Tax Revenue, Economic Growth, Petroleum Profit Tax (PPT), Company Income Tax

Introduction

Tax has been a major source of government revenue for economic growth and development both in developing and developed countries. Tax has a direct bearing on the Human Development Index (HDI) which is the standard indicator for measuring economic development of a country. A sound tax system protects infant industries, encourages entrepreneurial development in the country, which is paramount for the sustenance of economic growth of every economy (Eyisi, Chioma & Bassey, 2022). Tax revenue is at the heart of every economic growth and development (Achema Friday et al.) The collection of taxes and fees is a vital means through which government generates public revenues in quantum to enable her to finance several of her investments in human capital, infrastructure, as well as citizens' services and businesses. Taxation is a very important tool for managing the economy as it spurs up public goods financing, regulate consumption pattern, direct production of desired commodities, and above all protect infant industries. Taxation also reduces discrepancies in income distribution (Okoye, 2014). According to Offiong (2023), tax is a compulsory levy on individuals and organizations to the government by established standards for which no direct or specific benefits are accrued to the taxpayer. Ayeni and Omodero, (2022) opine that a greater portion of the nation's responsibilities is funded through taxes. The amount to be paid as tax, the citizen who is due to pay tax, the basis of taxation, the period to pay tax as well as

the items on which tax should be paid is solely the responsibility of the government, through the tax agents to decide. Gale (2014) posits that a nation's tax system determines the extent of its economic growth. This corroborates Etim, Nsima, Austin, Samuel and Anselem, (2021) who noted that taxation plays a crucial role in the economic growth of the nations, adding that this benefit of taxes is yet to be harnessed among many developing countries. This implies that the payment of taxes by individuals and companies usually impacts the level of economic activities in the country, including productivity, consumption, the propensity to save and invest, and the expenditure side of the government.

A former Minister of Finance, Ngozi Okonjo-Iweala and other concerned citizens have called on governments at various levels to look for other means of revenue generation for the sustainable economic development of Nigeria (Ofoegbu, Akwu, & Oliver, 2016). Kiabel and Nwukah (2009) corroborate this idea by saying that the declining revenue and increased cost of running government require all tiers of Nigeria government to look for alternative means of improving their revenue base. It is to this end that government had to source for alternative means of generating revenue to finance her projects. One of the ready means of revenue generation among others for government is taxation. The imposition of tax by government is not a new phenomenon as it has long been a major source of revenue generation to the government.

According to Abomaye-Nimenibo (2017) Taxation is a process established by the government to exert control over tax and tax collection. It is thus considered as the redistribution of wealth from the private to the public sectors of the economy to help the nation in achieving some of its economic and social objectives which include providing essential facilities and services like proficient health care services, quality road, among others. Taxation is the art of charging citizens with taxes, while tax itself is seen as a mandatory payment to be made by every citizen of a state. This payment of tax is called a civic duty (Abomaye-Nimenibo, Micheal, & Friday, 2018). Taxes are frequently levied to limit the creation of certain products and services, to protect new business and local businesses, and to reduce the level of income disparity in society, also to regulate business and to keep inflation under control (Edewusi & Ajayi, 2019). Due to the significance of tax in bringing revenue to the government for various uses, its ability to affect consumption patterns lead to the growth of the economy, exert influence on economic variables, and its ability to affect consumption patterns, the government of every nation will strive to maximize the revenues from tax (Asaolu, Jayeola, Sakiru, & Alebiosu, 2018).

Todaro and Smith (2006) describe economic growth as “the steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income.” The growth rate is affected by macro-economic policies, such as taxation, consumption, and investment. Every tax must be based on a valid statute. If there is no valid statute, no legitimate tax can be imposed (Okafor, 2012). Tax policy refers to the decision by a government as to what amount and on whom tax is to be levied. Tax policies implemented for a variety of reasons, the key objectives, including a source of revenue generation for financing government spending, resource allocation, redistribution of income and reducing inequalities arising from the distribution of wealth among consumers. Also, Romer and Romer (2010) remarked that tax policies are implemented either to: finance a budget deficit and counter other influences in the economy. The government uses the proceeds of the tax to render their traditional

functions, which include the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic support (Edame and Okoi, 2014; Takumah, 2014). The tax has micro-economic effects (distribution of income and efficient use of resources) as well as a macroeconomic impact (on the level of capacity output, employment, prices and growth (Musgrave and Musgrave, 2004).

Economic growth is described as an increase in the value of goods and services of a given country over a given period of time. This is measured via GDP. It is a determinant of peoples' living standards. Keynes thought that higher government expenditure will be followed by higher economic growth and also that consumers demand is the primary driving force in an economy. According to the theory of economic growth, for long-term employment in a nation's economic activities, two major conditions must be met. The amount of investment to income must be commensurate with the amount of employment savings. In the same manner, the natural growth rate must equate economy's growth rate for the nation to experience full employment. He further singled out the deficiency of aggregate effective demand as the devil that causes stagnation and unemployment in a nation. Keynes maintained that massive government spending targeted at expanding aggregate demand would be the only way out of economic stagnation. Government expenditures depend on the revenue accruing through taxation, including petroleum profit tax, company income tax, value-added tax, customs and excise duties (Gbeke & NKak, 2021). In Nigeria, the government is yet to actualize the projected revenue that they expected from taxes which serves as a medium to increase the accrued government revenue and the country's gross domestic products (Etim, Umoffon & Ekanem, 2020). Tax evasion and avoidance by taxpayers can also result in a reduction in government revenue, which further reduces government expenditure, which amounts to low economic activities as well as poor economic growth. Tax administration and the challenge of information technology have been significant issues affecting the tax system in Nigeria. These include a lack of data management, the diversity of taxes, outdated tax laws, unfavorable tax reforms, tax evasion, tax avoidance and corrupt practices (Ajala & Adegbeie, 2020). Proponents of tax cuts claim that lowering the tax rate will spur greater economic growth and prosperity. Opponents maintain that lower taxes will favor the rich who may gain all the profits since they will pay most of the taxes. The reason for embarking on this study is to comprehensively assess the effects of tax revenue on economic growth in Nigeria and how it contributing to informed decision-making and economic development.

The outcome of this study is anticipated to benefit the Government at various levels and Researchers. Moreover, the Federal, State and Local Governments could find this paper useful as a result of the fact that the study empirically investigated the effect tax revenue on economic growth in Nigeria.

Statement of the Problem

It has been observed over the years that tax revenue has generally been grossly inadequate and that the revenue derived from income taxes in Nigeria, has been grossly understated (Ola, 2001; Adegbeie & Fakile, 2011, Success & Musa 2018). Furthermore, it is apparent that the Nigerian economy is not growing at the same pace with its tax revenue. It is expected that with the increase in the taxes levied on persons, companies and items, the Nigerian government would be generating more revenue which should lead to economic growth and improve the economic well-being of the citizens. However, it does not seem to

be the case in Nigeria. Consequently, we considered it reasonable to investigate the impact of Nigeria's tax revenue on its economic growth. The main objective of this study, therefore, was to examine the impact of tax revenue on the economic growth of Nigeria. Specifically, the study sought to examine the: impact of custom and excise duties revenue on gross domestic product in Nigeria, impact Companies Income Tax (CIT) on the gross domestic product of Nigeria, the impact of Petroleum Profit Tax on the gross domestic product of Nigeria, and impact of Value Added Tax (VAT) on the gross domestic product of Nigeria. Related empirical studies have been carried out, despite the robust techniques, methods and design adopted by the researchers, the outcomes are nothing but varied findings and conflicting results that are not consistent at all. While some found a positive statistically significant relationship between PPT, CIT, VAT, CED and economic growth (Onakoya & Afintinni 2016; Edewusi & Ajayi; 2019; Olushola, Oliver, Okon & Osang, 2020; Ewa, Adesola & Essien, 2020; Anisere-Hameed, 2021; Yaro & Adeiza, 2021), others have evidence that the variables have a significant negative effect on economic growth (Asaolu, Olabisi, Akinbode & Alebiosu, 2018; Sani & Ahmad, 2019; Agunbiade & Idebi, 2020; Onoja & Ibrahim, 2020), while some find no significant relationship among the variables (Onoja & Ibrahim, 2020). This necessitated a more thorough work with recent data, hence the study of tax revenue and economic growth in Nigeria using data from 2013 to 2022. The outcome of this study is expected to be useful for government in fiscal policy formulation and to other stakeholders in the financial sector of the economy. This work which was carried out in Nigeria with the aim of determining the impact of tax revenue on economic growth in Nigeria covers a period of ten years, 2013-2022. The choice of this period was based on the availability of consistent data set with respect to the variables of this study. The proxies for tax revenue in this work include Custom and excise duties (CED), Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT), and while economic growth was measured using the Real Gross Domestic Product (GDP)

Objective of the Study

The main objective of this study is to empirically validate the effects of tax revenue on economic growth in Nigeria. More specifically, the study seeks to:

1. Determine the effect of Custom and Excise Duty (CED) revenue on economic growth in Nigeria.
2. Assess the effect of Company Income Tax (CIT) revenue on economic growth in Nigeria;
3. Evaluate the effect of Petroleum Profit Tax (PPT) revenue on economic growth in Nigeria;
4. Investigate the effect of Value Added Tax (VAT) revenue on economic growth in Nigeria;
5. Examine the effect of capital Gains Tax (CGT) revenue on economic growth in Nigeria

Scope of the Study

The research aims to investigate the effect of tax revenue on economic growth. The data for the study covered a period of twenty (10) years (2013 to 2022). From the extant literature we observed that most of the studies concentrated on 2020 and below while more importantly, there is no known study which had covered up to the year 2022 to the best of my knowledge which is of interest to the researcher. This study however, covered a period from 2013 to 2022. The independent variable is tax revenue, proxied by Custom and

Excise Duty (CED), Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT), and Capital gain tax (CGT) while the dependent variable is the economic growth proxied by the gross domestic product (GDP). The time series secondary data from Nigeria which will be obtained from the Central Bank of Nigeria (CBN) bulletin, Nigerian Bureau of Statistics (NBS) publications, and other relevant sources.

Literature Review

Conceptual Framework

(Kiabel & Nwokah, as cited in Edewusi & Ajayi, 2019). Tax revenue is a dynamic source of revenue. The history of taxation in Nigeria can be categorised into three eras – pre-colonial, colonial and post-colonial. For many centuries, various traditional authorities levied taxes and collected other forms of revenue to finance the administration of communities within the areas that ultimately became known as Nigeria, following the amalgamation of the Northern and Southern protectorates by the British colonial government in 1914. These tax systems have evolved over the colonial years, through independence and to the inception of Nigeria's Fourth Republic in 1999 to give form to the taxation architecture in Nigeria.

Custom and Excise Duties Revenue

Custom duties are tax payable on the importation of goods from outside the country. It tends to reduce the inflow of foreign products into the country, and encourage the production of such goods or similar goods locally. They also represent taxes on documents and not on persons or transactions. Bassey, (2018) maintained that it is quite possible for a transaction to be affected without using a document and as a result, there is no document to stamp and no duty to pay. Custom duties are collected by the federal government if such instruments are executed by corporate bodies and residents of the federal capital territory in Nigeria. Such instruments are also collected by the state government at a rate imposed as may be agreed with by the federal government.

Company Income Tax Revenue

Ogbonna & Appah (2016) stated that companies' income tax is a form of tax that is imposed on the profit of companies accruing in, derived from, brought into or received in Nigeria in respect of any trade or business, rent, premium, dividends, interest, royalties and any other source of annual profit excluding profit from companies engaged in petroleum operations (Manukaji, 2018; Abomaye-Nimenibo, Eyo, & Friday, 2018). This Tax is payable for each year of assessment of the profits of any company at a rate of 30%. The current enabling law that governs the collection of taxes on profits made by companies operating in Nigeria excluding companies engaged in Petroleum exploration activities is Companies Income Tax Act, 1990. This tax is payable for each year of assessment (based on actual year) of the profits of any company at a rate of 30 percent. According to (Ola 2023), companies' income tax administration in Nigeria does not measure up to appropriate standards. He further said that company income tax is a major source of revenue in Nigeria but compliance with laws and regulations by tax payers is deep in the system because of weak control. There is the need for a general tax reforms in the Nigerian company income tax system.

Petroleum Profit Tax Revenue

This is a type of tax that was introduced in 1957 by the colonial government but became effective and operational in 1958 when the Nigerian government commenced the export of

crude oil to the international community. Manukaji (2022); Ogbonna and Appah (2022); Chigbu & Njoku (2023); Ehigiamusoe (2022) noted that petroleum profit tax is a type of tax imposed on companies in Nigeria that are engaged in extraction and transportation of petroleum products. It is particularly related to rents, royalties, margins and profit-sharing elements associated with oil mining, prospecting and exploration leases. This type of tax is imposed to provide revenue for the government, also to serves as an instrument through which the government regulate the number of participants in the petroleum industry and gain control over public assets (Abdul-Rahamoh, Taiwo & Adejare, 2023). It is an instrument for wealth re-distribution between the wealthy and industrialized economics represented by the multinational organizations, who own the technology, expertise and capital needed to develop the industry and the poor and emerging economies from where the petroleum resources are extracted (Ehigiamusoe, 2022). Chigbu and Njoku (2023) noted that this tax is applicable to upstream operations in the oil sector and the most important tax in Nigeria in terms of its share of 95% of government revenue and 70 percent of total foreign exchange earnings. The problem of this type tax is the fluctuations in the international market.

Value Added Tax Revenue

This is a form of indirect tax that is applied at each stage of production to the value added. Akhor and Ekundayo (2016) stated that value added tax is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Abomaye-Nimenibo, Eyo & Friday (2018) suggest that value added tax is collected by the seller when taxable items are sold. The seller then nets off the VAT and submits it to FIRS through a designated bank. However, Manukaji, (2018) noted that value added tax is an estimated market value added to a product or service at each stage of its manufacture or distribution and the additions are ultimately added to and services bear the tax burden or the incidence because they cannot recover the tax paid on consumption of goods and services. It was introduced by The Federal Government of Nigeria in January, 1993 and requires a taxable person to register with the Federal Inland Revenue Service to charge and collect VAT at a flat rate of 7.5 percent.

Capital Gains Tax Revenue

Capital Gains Tax Update from the Nigerian Finance Act, 2021 The Finance Act 2021 was signed into law on 31 December 2021, which makes it operational and will apply to all transactions carried out from 1 January 2022. The Finance Act introduced new amendments to the provision of the Capital Gains Tax Act and 12 other fiscal regulations. The details of the amendments to the Capital Gains Tax Act are provided below. What is Capital Gains Tax? Capital gains tax is a levy on the profit/gains from sale of property or an investment. Capital Gains Tax is computed by deducting the cost of the property or the investment from the sales proceeds, then the tax rate is applied on the margin or profit. What is the new provision? The Finance Act stipulates that 10% Capital Gains tax will be applicable to investors who sell shares in any Nigerian company registered under the Companies and Allied Matters Act worth N100m (roughly \$241k using N415 exch) and above whether in aggregate or as a one-off sale. The Exemptions provided for include: Proceeds from sales that are reinvested within the same year of assessment in buying shares of other Nigerian companies. The tax will still be applicable on any portion of the sale that was not reinvested. Proceeds from sales that are below N100m (one-off or aggregate). Shares that are transferred between an approved borrower and lender in a regulated securities Lending Transaction as defined in the Companies Income Tax Act. Gains from disposal of Nigerian Government securities which are described as including

Nigerian Treasury Bonds, Savings Certificates, Premium Bonds issued under the Savings Bonds and Certificates Act or any other long-term security issued by the Nigerian Government.

Tax Revenue

The literature on the connections between tax and revenue generation has been hampered by lack of clear theoretical model on how tax would improve government revenue and which could pin down the empirical specification of the tax-growth relationship (Chin and Lai, 2009). The variations noticed in various tax studies are often occasioned by the peculiarities of their methodologies and choice of variables. For example, Avila and Strauch (2008), Chin and Lai (2009), and Song (2002), in their investigation of the empirical linkage between foreign tax and economic growth, employed the endogenous growth model while Chen (2007), and Floster and Henrekson (2001) involving a similar work, employed the neoclassical growth model. Despite the peculiarities in various tax related studies, however, the use of endogenous growth model has dominated development economics. The conventional Solow growth (neoclassical) model implies that taxes should have no impact on long-term growth rates. In part, this result occurs by assumption, since productivity growth is assumed to be fixed and unaffected by tax policy. In endogenous growth models, the stable growth rate of the Solow model, stapled down by technology and workforce productivity growth, is replaced by steady-state growth rates which can differ, persistently, because of tax and expenditure policies pursued by the government (Austeri & Constantini, 2022, Asaolu, et al, 2023).

Economic Growth (Gross Domestic Product – GDP)

Concept of Economic Growth

Economic growth simply refers to as an increase in the value of goods and services produced by a country over a period and can be used to reflect the size of a country. According to Dwivedi (2022), economic growth is a sustained increase in per capita national output or net national product over an extended period. It implies that the rate of increase in total output must be higher than the rate of population growth thereby resulting to improvement or increased in standard of living of the citizens. There are different proxies used for measuring economic growth but the most accepted is Gross Domestic Product (GDP). GDP is the monetary value of goods and services produced in a nation during a particular period by the residents of that nation irrespective of the nationality of the residents. GDP is commonly used as an indicator of the economic health of a country, as well as to gauge a country's standard of living (Asaolu, Dopemu, & Monday, 2022).

GDP measures the monetary value of final goods and services—that is, those that are bought by the final user—produced in a country in a given period of time (say a quarter or a year). It counts all the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also include some nonmarket production, such as defense or education services provided by the government (NGF, 2022). An alternative concept, gross national product, or GNP, counts all the output of the residents of a country. So if a German-owned company has a factory in the United States, the output of this factory would be included in U.S. GDP, but in German GNP. Not all productive activity is included in GDP. For example, unpaid work (such as that performed in the home or by volunteers) and black-market activities are not included because they are difficult to measure and value accurately. That means, for example, that a baker who produces a loaf of bread for a customer would contribute to GDP, but would not contribute to GDP if he baked the same loaf for his family (Callen, 2022).

Theoretical Framework

Three philosophical theory such as “The Expediency Theory” was reviewed to underpin the study.

The Expediency Theory

The Expediency theory was propounded by Bhartia in 2009. Otu and Adejumo (2013) using this theory emphasized the practicality test as the government option in considering a tax proposal. The theory corroborated the canon of taxation as it buttresses the principles of effectiveness, the efficiency of tax collection, the economic and social objectives of the state and the effects of a tax system should be treated as irrelevant. The Premise of expediency theory lies in the connection between tax liability and state activities. It believes that citizens of a state should be made to pay for services provided to them, hence the need to collect taxes from them (Kiabel & Nwokah, as cited in Edewusi & Ajayi, 2023). It further added that the efficiency of a tax system lies in the ease of administration and collection otherwise it does not what it is. This is because pressures from economic, social and political groups abound where each group tries to structure or lobby the restructuring of tax to suit their group. This theory states that all tax proposals must pass field trials. This should be the only important consideration for authorities when choosing a tax proposal. The economic and social goals of the state and the impact of taxation should be treated as insignificant in Bhartia, (2022). Anyafo, (1996) Blartia, (2009) explains that convenience theory is based on the link between tax obligations and government activities. It assumes that the services provided by the state should be charged to the members of society.

This set of inferences justifies the collection of taxes to fund government activities by inference and provides the basis for sharing the tax burden among members of society. Otu and Adejumo (2013) argued that every tax proposal normally passes the test of practicality and is the only consideration for government authority to choose a tax policy. This theory which is embedded in the canon of taxation explains the economy, effectiveness and efficiency of tax collection instruments. Taxation provides a powerful set of policy tools to the authorities and should be effectively used for remedying economic and social ills of the society such as income inequality, regional disparities, and unemployment (Afuberon & Okoye 2014). Economic and social objective of the state is to put in place an effective tax system which should be relevant to the economic growth of a nation (Kiabel, 2009). Kiabel (2009) added that this proposition has a truth in it, since is useless to have a tax system which cannot be levied and collected efficiently. Since there are pressures from economic, social and political groups, and every group tries to protect and promote its own interests, hence, the authorities are often forced to reshape tax structure to accommodate these pressures. In addition, the administrative set up may not be efficient to collect the tax revenue at a reasonable cost. Ihenyen and Ebipanipre (2014) proposed that taxation provides a powerful set of policy tools to the authorities and should be effectively utilized for remedying economic and social disturbance in the society such as income inequalities, regional disparities, unemployment, cyclical fluctuations.

Empirical Review of Literature

Empirical studies reviewed related to include research work carried out by Musa, J.S (2022) studied the Effect of Custom and Excise Duties reform on Federally Collected Revenue in Nigeria. The main objective of this study is to examine the effect of Custom and Excise Duties reform on Federally Collected Revenue in Nigeria. This study adopted ex-post facto research design; the population of the study comprises of time series data in respect of Custom and Excise Duties (CED) and Total Federal Collection Revenue (TFCR) in Nigeria. This study used purposive sampling technique and chose the period of thirty four years (1984-2017), the major sources of data were secondary sources, stationarity test was conducted on data collected for the study, the Augmented Dickey–Fuller test (ADF) of unit root test was conducted to determine the stationarity of the data adopted and Data analysis was done with Econometric Views (EViews) 8 software. The finding shows that Custom and Excise Duties (CED) does not have any significant effect on total federal collected revenue generation in Nigeria. The study therefore recommends that Central electronic system should also be installed at the various border post of the country in order to ascertain the actual value of imports and exports which will help in reducing tax avoidance and tax evasion in the various ports.

Inyiama and Ubesie (2016) studied the effect of value added tax, customs and excise duties on Nigeria economic growth. The study examines the effect of value added tax and customs and excise duties on Nigeria economic growth. Secondary sources were explored in data gathering while simple regression technique was employed in data analysis for test of the study hypotheses. Furthermore, correlation analysis was applied in the assessment of the relationship between value added tax, customs and excise duties and Nigeria Gross Domestic Product (which represent economic growth). The outcome reveals that all the non-oil tax revenue affects Nigeria Gross Domestic Product. On the side of the relationship among the variables studied, the strength of their relationship is very high for all the variables. The researcher concludes that Value Added Tax and Customs and Excise Duties are some of the major contributors to Nigeria economic growth.

Musa, S.J (2019) carried out a study on Effect of Value Added Tax, Customs and Excise Duties on Economic Growth in Nigeria. This study empirically examines the effect of Value Added Tax and Customs and Excise Duties on Nigeria Economic Growth as the prime objective. Data were source and extracted from the CBN bulletin from 2000-2015. The Autoregressive Distributive Lag (ARDL) and Error Correction Model (ECM) with and array of diagnostic test serves as the prime technique of analysis. The ARDL model was adopted to test for the long run relationship between value added tax, customs and excise duties and economic growth in Nigeria, while the ECM tested for the disequilibrium cause by tax evasion and avoidance in Nigeria. The study findings showed that there is a long run relationship between value added tax, customs and excise duties and economic growth in Nigeria. ECM coefficient of (-0.697) reveals the speed of reversion from disequilibrium caused by tax evasion and avoidance in Nigeria to equilibrium. The study established that Value Added Tax and Customs and Excise Duties are some of the major contributors to Nigeria Gross Domestic Product. The revenue sources could be used to predict the value and status of the nations' Gross Domestic Product as indicated by the strength of the relationship between the variables.

Akhor and Ekundayo (2016) examined the impact of indirect tax revenue on economic growth in Nigeria. The study used value added tax revenue and custom and excise duty revenue as explanatory variables and economic growth was proxy with real gross domestic product as the dependent variable. The study employed secondary data collected

from Central Bank of Nigeria statistical bulletin for the period covering 1993 to 2013. The finding revealed that value added tax had a negative and significant impact on economic growth. In the same vein, past custom and excise duty had a negative and weakly significant impact on economic growth.

Ibadin and Oladipupo (2015) examines the impact of indirect taxes on economic growth of Nigeria, utilizing time series data spanning a thirty-four-years period, from 1981 to 2014. The residuals, whose unit root are usually tested at level, were found to be stationary while all other variables, such as the Value Added Tax (VAT), Petroleum Profit Tax (PPT) and Custom and Excise Duties (CED), except the Real Gross Domestic Product (RGDP), were stationary at second difference, suggesting a long run relationship. Consequently, the study utilized the Error Correction Model to evaluate the impact of VAT, PPT and CED on the RGDP. The findings revealed that VAT and PPT exert a positive and significant relationship on the RGDP. It was also revealed that CED of two period lags has a positive relationship with RGDP and VAT of two-period lags showing a negative but significant relationship with RGDP. The study is related to the study because both dealt with tax revenue collection. While, the study focused on all the taxes and economic growth, the present study evaluated how the non-oil taxes have fared in government revenue generation.

Asaolu, et al. (2018), examined the nexus between tax revenue (VAT, PPT, CIT and CED) and economic growth in Nigeria. Data spanning from 2012 to 2019 were gathered and analyzed with Auto Regressive Distributed Lag (ARDL) as estimation techniques while post estimations were done the study found, VAT and CED to have a significant relationship with economic growth, while CIT negatively but significantly related with economic growth, while no significant relationship existed between PPT and economic growth.

Onakoya and Afintinni (2016) examined the cointegration relationship between tax revenue and economic growth in Nigeria. Engle-Granger Cointegration test and The Vector Error correction model were employed and the result revealed a long-run relationship between taxation and economic growth in Nigeria. It also, suggested a significant positive relationship among PPT, CIT and GDP, whereas economic growth reacted negatively with customs and Excise Duties.

Musa, S.J., Anaja, B., & Success, B.E. (2016) Examine the Effect of Personal Income Tax on Internally Generated Revenue of Kogi State. Data collated were analyzed using multiple regression analysis, co-integration, as well as post estimation tests were done and the study found personal income tax has positive significant impact on economic growth.

Sani and Ahmad (2019) examined the impact of tax revenue on aggregate and disaggregate economic growth in Nigeria for the period 2013-2022. ARDL model was employed and the result showed Petroleum Profit Tax and Company Income Tax have a negative but statistically significant impact on economic growth, while custom and excise duties have a positive and statistically significant impact on economic growth performance in the short-run.

In a related study by Edewusi and Ajayi (2021), the nexus between tax revenue (PPT, CIT and VAT) and economic growth in Nigeria was investigated. Data collated were analyzed using multiple regression analysis, co-integration, as well as post estimation tests were done and the study found petroleum profit tax, company income tax and VAT to have a

positive significant impact on economic growth.

Gap in Literature

Period Gap: From the extant literature we observed that most of the studies concentrated on 2020 and below while more importantly, there is no known study which had covered up to the year 2022 to the best of my knowledge which is of interest to the researcher. This study however, covered a period from 2013 to 2022.

Methodological Gap: The present study expanded the methodology adopted by the present study by including Custom and Excise Duty (CED), Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT), Capital Gains Tax (CGT) and the gross domestic product (GDP) as measures of tax reforms and economic growth respectively. Thus, the study fill the gap in knowledge through methodology.

Methodology

Research Design

The ex-post facto research design was use for the study. The ex-post facto research design will be employ in this research because the research will be unable to manipulate the data or variable. This study deal with data that has already been collected. The study cover Nigeria's economy with time series, it will analyze the cause of an effect, Rather than cross-sectional data relating to different tax reform components and GDP collected. Ex-post facto research is a design that begins for ten (10) years (2013 – 2022). The study uses Vector Error Collection Model (VECM) to after an event has occurred and without the interference of researchers, examine the relationship between tax revenue and economic growth in Nigeria.

Methods of Data Collection

The data for this study were obtained mainly from secondary sources. The secondary data were collected from the Central Bank of Nigeria statistical Bulletin and Federal Inland Revenue Service (FIRS).

The data is made up of Gross Domestic Product (GDP) of Nigeria from 2013 to 2022 while the data for tax revenue covers the same period and captures revenues from Custom and Excise Duty (CED) , Company income tax, Petroleum Profit Tax, Value Added Tax and Capital Gain Tax. n

Population of the Study

The population of this study relates to the entire tax revenue and the Gross Domestic Product (GDP) in Nigeria from 2013 to 2022.

Sample of the Study

The sample of this study is made up of Custom and Excise Duty (CED), Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT), Capital Gains Tax (CGT) revenues and Gross Domestic Product (GDP), for the period of 2013- 2022.

Techniques of Data Analysis

Basically, this study will involve the use of econometric method of analysis. The method to be use is the Vector Error Correction Model (VECM) using the E-Views statistical package. The order of integration will be examined using Augmented Dickey Fuller (ADF) tests. Taxation is represented by revenue from Custom and Excise Duty (CED), company income tax, petroleum profit tax, value added tax and capital gains tax for the

period under study. Also other robustness test will be carried out like the VEC heteroskedasticity test.

Model Specification:

In order to examine the impact of tax reforms on Nigerian economic growth, a multiple linear model was adopted. The model captures the contribution of the independent variable, tax reform, (proxied by Custom and Excise Duty (CED), Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT) and Capital Gains Tax (CGT) to the dependent variable, economic growth (proxied by the gross domestic product (GDP)).

$$GDP=f(CED, CIT, PPT, VAT, CGT) \dots \dots \dots i$$

From the above function, the following model is derived:

$$GDP=\alpha+\beta_1CED_t+\beta_2CIT_t+\beta_3PPT_t+\beta_4VAT_t+\beta_5CGT_t \quad ii$$

where

GDP = Gross Domestic Product

CED = Customs and Excise Duties

CIT = Company Income Tax

PPT = Petroleum Profit Tax

VAT = Value Added Tax

CGT = Capital Gains Tax

α = constant

β_{1-5} = coefficient of the parameter estimate.

= error term.

Variables Measurement

VARIABLE NAME	VARIABLE MEANING	VARIABLE MEASURE	SOURCE
DEPENDENT VARIABLE			
GDP	Gross Domestic Product	Product At basic price	Onakoya, A fintinni O gundajo
INDEPENDENT VARIABLE			
CED	Customs and Excise Duties	All generated in Nigeria from the importation of goods and from outside country	Sani and (2023)
PPT	Petroleum Tax (now to as Hydrocarbon Tax) following implementation of Petroleum Industry Act 2021.	50% for oil operations and production agreements on PSC operations including ventures (J) charged in percent in five years percent after five years. from upstream are taxed at	Kalas, M & (2022)
CIT	Company Tax	30% tax for companies charged on for the accounting year ending year assessment	Akeem Adejare (2022)
VAT	Value Added Tax	7.5% tax is on goods produced in Nigeria for year 2021	Olugbemi Michael & (2022)
CGT	Capital Gains Tax	10% tax is on capital asset disposal	Akhor Ekundayo (2022)

Data Estimation and Evaluation Techniques

Various tests were used to evaluate the vector error correction model (VECM) results, which include t-test, R-Squared and f-test. Time series analysis will be carried out to test the data for stationarity or non-stationarity problems using Augmented Dickey-Fuller (ADF), which is an extension of Dickey-Fuller test. After that, the researcher will run a cointegration test to establish whether the non-stationarity variables are cointegrated and to confirm the existence of a long run equilibrium relationship between the variables. An error correction model will be specified having established the cointegration to present the short run dynamics while preserving the long run equilibrium relationship.

The R-squared is used to test the measure of goodness of fit of the model. Moreover, Fstatistics is used to test the joint statistical significance of the explanatory variable and the dependent variable. When f-calculated is greater than f-critical, it shows that there is a joint significant relationship and vice versa.

Finally, an econometric criterion is needed to test the presence or absence of positive serial correlation. The measurement use for this is Durbin Watson statistics. The econometric analysis will cover the period of 2013 – 2023.

Presentation Of Data And Data Analysis

Data Presentation

The study examined the effect of tax reform on the economic growth of Nigeria. The proxies for tax revenue include custom and excise duty (CED) petroleum profit tax (PPT), company income tax (CIT), value added tax (VAT) and capital Gains Tax (CGT), while economic growth is measured using the nominal value of Gross Domestic Product (GDP). The dataset covers 21 fiscal years from 2013 to 2022. Both the raw data (₦'b) and the log transformed data are presented in Appendix I of this report.

Data Analysis

Descriptive Analysis of Data

The descriptive statistical analysis of the data (*see appendix I*) was done using measures of central tendency and measures of dispersion. **Table 2** presents the descriptive summary of the test variables.

Table 2: Descriptive Analysis of Data

	G D P	C E D	P P T	C I T	V A T	C G T
M e a n	7 1 4 8 0 . 6 5 9 0 . 9 8 1 1 6 0 6 . 2 1 7 6 0 . 0 2 6 2 2 . 2 9 1 1 6 8 . 9 1 2					
M e d i a n	6 3 7 1 3 . 4 5 7 0 . 8 7 1 1 4 8 0 . 4 7 1 5 . 4 0 3 1 8 . 0 0 1 5 1 . 5 3 0					
M a x i m u m	1 7 3 5 2 7 2 2 4 0 . 0 3 2 0 1 . 3 1 7 4 7 . 9 9 6 9 . 4 1 2 7 9 . 3 6 0					
M i n i m u m	8 2 3 4 0 . 6 1 7 0 . 6 0 2 2 4 . 4 0 6 9 . 4 0 0 4 4 . 9 1 0 1 2 3 . 9 1 0					
S t d . D e v .	5 0 6 0 3 . 6 4 7 9 . 0 5 7 8 4 4 . 7 9 5 3 4 . 2 4 2 3 7 . 7 3 2 4 4 . 5 8 2 6					
S k e w n e s s	0 . 4 9 6 6 1 1 . 9 7 8 3 2 0 . 2 5 7 0 8 0 . 2 0 2 7 8 0 . 9 6 3 6 4 1 . 0 9 3 5 2					
K u r t o s i s	2 . 0 9 5 3 1 7 . 6 5 4 6 8 2 . 2 3 6 8 9 1 . 7 9 6 2 0 3 . 7 1 6 9 0 3 . 2 5 2 9 5					
J a r q u e B e r a	1 5 7 9 3 3 3 2 . 6 5 6 0 0 . 7 4 0 8 7 1 . 4 1 1 8 5 3 . 6 9 9 9 4 . 2 4 1 3 4					
P r o b a b i l i t y	0 . 4 5 3 9 9 0 . 0 0 0 0 0 0 . 6 9 0 4 3 0 . 4 9 3 6 4 0 . 1 5 7 2 4 0 . 1 1 9 9 5					
S u m	1 5 0 1 0 9 . 1 2 4 1 0 . 6 3 7 3 0 . 4 1 5 9 6 0 . 5 6 7 6 8 . 1 2 3 5 4 7 . 1 6					
S u m S q . D 5 . 1 2 E + 4	5 8 9 9 2 1 4 2 7 3 5 5 7 0 8 3 9 1 1 3 0 3 3 3 9 7 5 2 . 2					
O b s e r v a n s	2 2	2 2	2 2	2 2	2 2	2 2

Source: Analysis Output (2023) Using Eviews 10

GDP: The average GDP in the data is 71,480.64 and the median is 63,713.40, which suggests that the data has a relatively large spread around the mean. The standard deviation of 50,603.64 indicates that the data is dispersed. The skewness of 0.496613 suggests that the data is slightly skewed to the right. The Kurtosis of 2.095317 indicates that the data is relatively flat compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.453996, which is not significant, indicating that the GDP data may be approximately normally distributed.

CED: The average CED in the data is 590.9817 and the median is 570.8700. The standard deviation of 479.0577 suggests that the data is dispersed. The skewness of 1.978329 suggests that the data is significantly skewed to the right. The Kurtosis of 7.654680 indicates that the data is very peaked compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.0000, which is significant, indicating that the CED data is not approximately normally distributed. Since the data on CED contain heavy outliers, there is a need to use an estimation technique which accounts for outliers or influential observations. Thus, Robust Least Squares regression was adopted for the purpose of model estimation.

PPT: The average PPT in the data is 1,606.210 and the median is 1,480.400. The standard deviation of 844.7952 suggests that the data is dispersed. The skewness of 0.257088 suggests that the data is slightly skewed to the right. The Kurtosis of 2.236890 indicates that the data is relatively flat compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.690432, which is not significant, indicating that the PPT data may be approximately normally distributed.

CIT: The average CIT in the data is 760.0267 and the median is 715.4000. The standard deviation of 534.2471 suggests that the data is dispersed. The skewness of 0.202780 suggests that the data is close to symmetrical. The Kurtosis of 1.796209 indicates that the data is relatively flat compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.493641, which is not significant, indicating that the CIT data may be approximately normally distributed.

VAT: The average VAT in the data is 322.2914 and the median is 318.0000. The standard deviation of 237.7328 suggests that the data is dispersed. The skewness of 0.963659 suggests that the data is skewed to the right. The Kurtosis of 3.716907 indicates that the data is relatively peaked compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.157241, which is not significant, indicating that the VAT data is approximately normally distributed.

CGT: The average CGT in the data is 168.9124 and the median is 151.5300. The standard deviation of 44.58266 suggests that the data is dispersed. The skewness of 1.093531 suggests that the data is skewed to the right. The Kurtosis of 3.252994 indicates that the data is relatively peaked compared to a normal distribution. The Jarque-Bera test gives a p-value of 0.119951, which is not significant, indicating that the CGT data is approximately normally distributed.

Estimated Long Run Relationship Using VECM

The presence of cointegration between variables suggests a long run relationship among the variables under consideration. The long run relationship between GDP, CED, CIT, PPT, VAT, and CGT for one cointegrating vector for Nigeria within the period under

review is shown in the table below. For better understanding of the relationship between the dependent and independent variables, the study has estimated the VEC model for the period in special consideration to each of the independent variables and their impact on the dependent variable separately. The justification for this is to examine whether each of the independent variable will have more influence on GDP than considering the pooled data and its impact on GDP. When the variables are in logarithms and one cointegrating vector is estimated, the coefficients can be interpreted as long run elasticity.

Table 3 Vector Error Correction Results

<i>VARIABLES</i>	<i>STD ERROR</i>	<i>T-STATISTICS</i>	<i>P-VALUE</i>
<i>CED</i>	0.37487	0.34804	0.130470*
<i>PPT</i>	4.07486	0.56772	2.313364*
<i>CIT</i>	11.7893	1.39071	16.39553*
<i>VAT</i>	9.17704	-1.25606	-11.52689*
<i>CGT</i>	0.1762	1.76543	7.050597 *

CUMULATIVE RESULT

<i>Model</i>	<i>R-Square</i>	<i>Adjusted square</i>	<i>R - Std error of the Estimates</i>	<i>F statistics</i>
1	0.728935	0.530153	4.257323	3.667020

Source: Analysis Output (2023) Using Eviews 12

During the long run period, the results revealed t statistic value of 0.34804 with standard error of 0.37487 and p value of 0.130470. This implies that for every one percent increase in Value Added Tax revenue, gross domestic product will increase by 0.130470 percent; this signifies that there is a positive significant relationship between values added tax reforms and gross domestic product. This will make us to accept the submission of Asaolu, Sakiru and Alebiosu (2018) which stated that value added tax reform have significant impact on economic growth.

More also, t statistic for petroleum profit tax revenue is 0.56772, with standard error of 4.07486, while the p value is 2.313364, implying that for every one percent increase in petroleum profit tax revenue, there is likely to be an increase in gross domestic product by 2.313364 percent and this estimate is significant at 1% level. Thus, it shows there is positive and significant relationship between petroleum profit tax revenue and gross domestic product. In Nigeria, high petroleum profit tax is instrumental to the growth of the

economy, hence, the Nigerian government should ensure that companies dealing with petroleum both in the upstream and downstream sector do not in any way evade tax, as our result indicates that it has positive influence on the economy.

The Company Income Tax reform proxy within the long run period shows a positive significant relationship with gross domestic product, as the t statistic value is 1.39071 with a standard error of 11.7893, while the p value is 16.39553, this implies that for every one percent increase in this proxy, domestic product will increase by 16.39553 percent. Our result signifies that taxes realized from companies in Nigeria are contributing positively to the growth of the economy. This may be as a result of the effectiveness of the bodies in charge of the collection of such taxes at both state and federal level, that is, the State Internal Revenue Board and the Federal Inland Revenue Service. This was also evident in the study of Uzoka and Chiedu (2018) where the study shows that company income tax has a positive impact on Nigeria's GDP. The capital gains tax revenue proxy shows a t statistic of -1.25606 with a standard error of 9.17704 and p value of -11.52689, this implies that this proxy has a negative significant relationship with gross domestic product. The custom and excise duty revenue proxy shows a t statistic of 1.76543 with a standard error of 0.1762 and p value of 7.050597, this implies that this proxy has a positive significant relationship with gross domestic product.

The summary of the overall results shows that tax revenue has made a significant impact on the economic growth of Nigeria within the period under study. The coefficient of determination reveals a value of 0.729. This implies that tax revenue has explained up to 73% of the variation in economic growth of Nigeria and the remaining 27% is covered by other factors that are beyond the scope of this study. This signifies the fitness of the model, thus, the model is fit and the explanatory variables are well selected and utilized. This is confirmed by the value of adjusted R square which even after the adjustment is still strong and positive at 53%. The f statistics of 3.66 is a proof for the fitness of the model, and it is significant at 1%.

Model Diagnostics

A number of tests were conducted to determine whether the regression analysis carried out satisfied the assumption of linear regression analysis. Ordinary Least Square regression was estimated in order to test some assumptions of linear regression analysis. The details of the model diagnostics are presented in subsequent chapters.

Normality Test

Normality assumption of linear regression analysis requires the residuals to have the properties of a normal distribution.

The probability of JB-stat = 0.692522 which is greater than 0.05. Therefore, it was concluded that the linear regression analysis satisfied the assumption that the distribution of the residuals must not significantly deviate from a normal distribution.

Test for Serial Correlation

Serial correlation test was conducted to check whether the residuals are dependent on each other over time. Breusch-Godfrey Serial Correlation LM Test was carried out to check for the presence or otherwise of serial correlation.

Table 4 Breusch -Godfrey Serial Correlation LM Test

F-statistic	3.232017	Prob. F(2,13)	0.0725
Obs*R -squared	6.974130	Prob. Chi -Square(2)	0.0306

Source: Analysis Output (2023) Using Eviews 10

This table presents results from a Breusch-Godfrey Serial Correlation LM (Lagrange Multiplier) Test. The purpose of this test is to determine if there is any serial correlation present in the residuals of a regression model. With a probability of Prob. F(2,13) = 0.0725, the researcher accepted the null hypothesis of no serial correlation at a significance level of $\alpha=0.05$.

Heteroskedasticity Test

Breusch-Pagan-Godfrey (BPG) test for heteroskedasticity was carried out to check whether the residuals of the regression model have constant variance, or if the variance changes across the range of the independent variable(s).

Table 5 Heteroskedasticity Test: Breusch -Pagan -Godfrey

F-statistic	0.678693	Prob. F(5,15)	0.6463
Obs*R -squared	3.874354	Prob. Chi -Square(5)	0.5676
Scaled explained SS	1.1628 93	Prob. Chi -Square(5)	0.9484

Source: Analysis Output (2023) Using Eviews 10

F-statistic = 0.678693 is associated with the Prob. F(5,15) = 0.6463. A p-value less than 0.05 indicates that the hypothesis of constant variance can be rejected, and that heteroskedasticity is present. Since the p-value is 0.6463, which is greater than 0.05, the null hypothesis of no heteroskedasticity was accepted.

Linearity Test

Ramsey RESET test was used to assess the linearity assumption in the regression model. The linearity assumption states that there is a linear relationship between the independent variables and the dependent variable.

Table 6 Ramsey RESET Test

Equation: UNTITLED

Specification: LOGGDP C LOGCED LOGCIT LOGEDT LOGPPT LOGVAT

Omitted Variables: Squares of fitted values

	Value	df	Probability
t-statistic	0.159895	14	0.8752
F-statistic	0.025566	(1, 14)	0.8752
Likelihood ratio	0.038315	1	0.8448

Source: Analysis Output (2023) Using Eviews 10

The probability value was used to determine whether the null hypothesis (that the linearity assumption holds) can be rejected or not. If the probability value is less than a certain significance level (0.05), then the null hypothesis can be rejected, which means that there is evidence to suggest that the linearity assumption does not hold. However, the probability values for all three tests (t-statistic, F-statistic, and likelihood ratio) in **Table 4.** are greater than 0.05, which means that there is not enough evidence to reject the null hypothesis. This suggests that the linearity assumption holds and the regression model has a linear relationship between the independent variables and the dependent variable.

Hypothesis Testing

Ordinary Least Square regression would have been used to estimate the regression model for the purpose of hypothesis testing save that CED has significant outliers. Thus, Robust Least Square (RLS) regression which is an alternative to ordinary least squares regression was adopted. RLS is preferred when data are contaminated with outliers or influential observations (Naz, Sultan, Zaman, Aldakhil, Nassani & Abro, 2019).

Dependent Variable: LOGGDP

Method: Robust Least Squares

Date: 02/3/24 Time: 12:43

Sample: 2013 2022

Included observations: 21

Method: S-estimation

S settings: tuning=1.547645, breakdown=0.5, trials=200, subsmpl=7,
refine=2, compare=5

Random number generator: rng=kn, seed=1660431862

Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
C	2.907594	0.229675	12.65959	0.0000
LOGCED	0.370606	0.114006	3.250769	0.0012
LOGPPT	-0.164776	0.046678	-3.530015	0.0004
LOGCIT	-0.071816	0.115097	-0.623963	0.5327
LOGVAT	0.985692	0.179764	5.483258	0.0000
LOGCGT	-0.323620	0.100802	-3.210446	0.0013
Robust Statistics				
R-squared	0.917585	Adjusted R-squared	0.890114	
Scale	0.044293	Deviance	0.001962	
Rn-squared statistic	2377.512	Prob(Rn-squared stat.)	0.000000	
Non-robust Statistics				
Mean dependent var	4.715113	S.D. dependent var	0.393700	
S.E. of regression	0.070694	Sum squared resid	0.074965	

Source: Analysis Output (2023) Using EvIEWS 10

The table presents the results of the robust least squares regression analysis of the logarithm of Gross Domestic Product (LOGGDP) as the dependent variable. The sample includes 21 observations from the years 2023 to 2022. The S-estimation method was used for the estimation of the coefficients, with a specific set of tuning parameters. The Huber Type I Standard Errors and Covariance were used for the estimation of the standard errors and covariance.

The robust R-squared and adjusted R-squared values indicate that 91.76% and 89.01% of the variation in LOGGDP can be explained by the independent variables in the model, respectively. The scale is 0.0443 and the deviance is 0.001962. The Rn-squared statistic is 2377.512 and has a p-value of 0.000, indicating that the regression model is highly significant.

Hypothesis I

HO1: Custom and Excise Duty (CED) revenue does not exact any significant effect on economic growth in Nigeria.

The coefficient of LOGCED (Custom and Excise Duty) is -0.323620 with a z-statistic of -3.210446, which is significant at the 5% level (p-value = 0.0013). This means that a 1% increase in LogCED leads to a -0.323620% decrease in LogGDP. The null hypothesis was rejected while the alternate hypothesis was accepted that Custom and Excise Duty has a significant and negative effect on economic growth in Nigeria (p-value = 0.0013).

Hypothesis II

HO2: Petroleum Profit Tax (PPT) revenue has no significant effect on economic growth in Nigeria.

The coefficient of LOGPPT (Petroleum Profit Tax) is -0.164776 with a z-statistic of -3.530015, which is significant at the 5% level (p-value = 0.0004). This means that a 1% increase in LogPPT leads to a -0.164776% decrease in LogGDP. The null hypothesis was rejected while the alternate hypothesis was accepted that petroleum profit tax has a significant and negative effect on economic growth in Nigeria (p-value = 0.0004).

Hypothesis III

HO3: Company Income Tax (CIT) revenue has no significant effect on economic growth in Nigeria.

The results suggest that the coefficient of LOGCIT (Company Income Tax) is 0.370606 with a z-statistic of 3.250769, which is significant at the 5% level (p-value = 0.0012). This means that a 1% increase in LogCIT leads to a 0.370606% increase in LogGDP. The null hypothesis was rejected while the alternate hypothesis was accepted that company income tax (CIT) has a significant and positive effect on economic growth in Nigeria (p-value = 0.0012).

Hypothesis IV

HO4: Value Added Tax (VAT) revenue has no significant effect on economic growth in Nigeria.

The coefficient of LOGVAT (Value Added Tax) is 0.985692 with a z-statistic of 5.483258, which is significant at the 5% level (p-value = 0.0000). This means that a 1% increase in LogVAT leads to a 0.985692% increase in LogGDP. The null hypothesis was rejected while the alternate hypothesis was accepted that value added tax has a significant and positive effect on economic growth in Nigeria (p-value = 0.0000).

Hypothesis V

H04: Capital Gains Tax (CGT) revenue has no significant effect on economic growth in Nigeria.

The coefficient of LOGEDT (Education Tax) is -0.071816 with a z-statistic of -0.623963, which is not significant at the 5% level (p-value = 0.5327). This means that a 1% increase in LogCGT does not have a significant effect on LogGDP. The null hypothesis was accepted while the alternate hypothesis was rejected that education tax has no significant and negative effect on economic growth in Nigeria (p-value = 0.5327).

Summary Of Findings, Conclusion And Recommendations

Summary of Findings

The findings of the RLS regression carried out revealed the following:

1. Custom and Excise Duty revenue has a significant and negative effect on economic growth in Nigeria (p-value = 0.0013).
2. Petroleum Profit Tax reform has a significant and negative effect on economic growth in Nigeria (p-value = 0.0004).
3. Company Income Tax revenue has a significant and positive effect on economic growth in Nigeria (p-value = 0.0012).
4. Value added tax revenue has a significant and positive effect on economic growth in Nigeria (p-value = 0.0000).
5. Capital gains tax revenue has no significant and negative effect on economic growth in Nigeria (p-value = 0.5327).

Conclusion

In conclusion, the findings from the research examining the effect of tax revenue on Nigeria's economic growth reveal both opportunities and challenges for policymakers. On one hand, the positive relationship between company income tax and value-added tax and economic growth suggests that well-designed taxes can generate government revenue, stimulate investment and encourage compliance with tax laws. On the other hand, the negative relationship between petroleum profit tax and custom and excise duty and economic growth reveals the dangers of relying too heavily on a single sector, such as oil, and the potential negative consequences of raising taxes on imports and exports. The lack of a significant relationship between capital gains tax and economic growth highlights the complex nature of the relationship between taxes and economic growth and the need for a nuanced approach.

The implications of these findings are significant for policymakers in Nigeria. In order to promote economic growth, they must consider the specific context and design of tax reform and balance the need for government revenue with the potential impact on economic growth. The findings also underscore the need for a diversified tax system that encourages compliance, reduces the informal sector and provides a stable source of revenue for the government. Failure to take these factors into account could lead to harmful consequences for the economy, including decreased investment, reduced demand for goods and services, and ultimately, slower economic growth.

Recommendations

1. Custom and Excise Duty has a significant and negative effect on economic growth in Nigeria (p-value = 0.0013).
 - I. Recommendation 1: The government should consider reducing the rate of

- custom and excise duty on imports and exports, in order to reduce the negative effects on economic growth.
- ii. Recommendation 2: Policymakers should also consider implementing measures to reduce smuggling and ensure that imported goods are properly taxed, in order to increase revenue and reduce the negative impact of custom and excise duty on economic growth.
2. Petroleum Profit Tax has a significant and negative effect on economic growth in Nigeria (p-value = 0.0004).
 - i. Recommendation 1: The government should diversify its revenue sources by reducing its dependence on oil and investing in other sectors of the economy, such as agriculture, manufacturing and technology.
 - ii. Recommendation 2: Policymakers should consider implementing a more stable and predictable tax regime for the oil sector, such as a tax on profits rather than on production, in order to minimize the negative effects on economic growth.
 3. Company Income Tax has a significant and positive effect on economic growth in Nigeria (p-value = 0.0012).
 - i. Recommendation 1: Policymakers should consider increasing the compliance rate of company income tax by improving tax administration and implementing measures that encourage companies to report their true income.
 - ii. Recommendation 2: The government should explore ways to further incentivize investment in the formal sector, such as providing tax incentives for companies that invest in research and development or offer training to their employees.
 4. Value added tax has a significant and positive effect on economic growth in Nigeria (p-value = 0.0000).
 - i. Recommendation 1: The government should consider expanding the coverage of value-added tax to include more sectors of the economy, in order to increase revenue and improve compliance.
 - ii. Recommendation 2: Policymakers should also consider reducing the administrative burden of value-added tax, such as streamlining the registration process and improving tax administration, in order to encourage compliance and reduce the informal sector.
 5. Capital gains tax has no significant and negative effect on economic growth in Nigeria (p-value = 0.5327).
 - i. Recommendation 1: The government should consider increasing investment in properties, particularly in areas such infrastructure development, in order to improve the life of citizen and increase its impact on economic growth.
 - ii. Recommendation 2: Policymakers should also consider providing tax incentives for companies that invest in properties, such as a tax credit for companies that provide development to the citizen.

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APPENDICES

Appendix A: Raw Data

Y ea r	GDP	CE D (N' b)	PP T (N' b)	CI T (N' b)	VA T (N' b)	CG T (N' b)	Log GD P	Log CE D	Log PPT	Log CIT	Log VA T	Log CG T
20 22	1735 27.70	174 7.9 9	200 8.5 0	18 9.5 3	96 9.4 1	224 0.0 0	5.24	3.24	3.30	2.28	2.99	3.35
20 21	1542 52.30	127 5.3 8	151 7.0 0	25 9.5 6	69 9.3 7	109 4.0 8	5.19	3.11	3.18	2.41	2.84	3.04
20 20	1456 39.10	160 4.7 0	211 4.3 0	22 1.0 6	56 4.4 5	100 5.4 9	5.16	3.21	3.33	2.34	2.75	3.00
20 19	1290 86.90	134 0.3 3	246 7.6 0	20 3.2 8	53 3.7 4	884 .76	5.11	3.13	3.39	2.31	2.73	2.95
20 18	1148 99.20	121 5.0 6	152 0.5 0	15 4.9 6	47 3.7 7	785 .89	5.06	3.08	3.18	2.19	2.68	2.90
20 17	1025 75.40	933 .54	115 7.8 0	13 0.1 2	39 7.0 6	679 .49	5.01	2.97	3.06	2.11	2.60	2.83
20 16	9517 7.70	126 8.9 8	129 0.0 0	20 6.0 4	38 1.2 7	694 .60	4.98	3.10	3.11	2.31	2.58	2.84
20 15	9013 7.00	117 3.4 9	245 3.9 0	18 9.6 1	38 8.8 5	750 .53	4.95	3.07	3.39	2.28	2.59	2.88
20 14	8101 0.00	998 .40	266 6.4 0	27 9.3 6	38 9.5 3	636 .38	4.91	3.00	3.43	2.45	2.59	2.80
20 13	7259 9.60	846 .60	320 1.3 0	18 8.4 4	34 7.6 9	646 .67	4.86	2.93	3.51	2.28	2.54	2.81

Source: CBN Statistical Bulletin (2023) and FIRS Tax Report (2023)