Impact of Federal Government Taxes on Nigeria Economic Growth

Ogbonna Lilian, Azubike Joseph U.B., Okezie, Stella O.
Department of Accounting,
Michael Okpara University of Agriculture Umudike
DOI: 10.56201/jbae.v10.no4.2024.pg130.145

Abstract
The study focused on impact of federal government taxes on Nigeria economic growth. In achieving the objectives of the study, ex-post facto research design was adopted. The source of data for this work is secondary data through the use of CBN statistical bulletin and Federal Inland Revenue bulletin. Data collected were analyzed using descriptive statistics, unit root and Auto-Regression Distribution Lag (ARDL). The findings revealed that federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in gross domestic product in Nigeria. The findings also revealed that federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in foreign direct investment in Nigeria. The findings further revealed that federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in per capital income in Nigeria. Based on the findings, the study recommends Nigeria government should put policies in place that will foster the continual growth in tax revenue from custom and excise duty, personal income tax, company income tax and value added tax which are progressive in nature. This can be achieved through proper implementation of policies that improve the mechanisms for generating these tax revenues. If imports are discouraged through lower company income tax and higher custom duties, this will improve local production and increase economic growth through upscale of gross domestic product. Also, Nigeria government should set a custom and excise duty rates that are favorable to investors who are willing to carry out investment that encourages local production.

Keywords: *Federal government taxes**,** Petroleum Profit Tax, Company Income Tax, Value Added Tax, Customs and Exercise Duty, Gross Domestic Product*

Introduction

The role of federal government taxes in influencing economic growth has become increasingly relevant in Nigeria, especially given the country's ongoing efforts to enhance its economic stability and growth. Taxes serve as a fundamental source of revenue for governments, enabling them to invest in infrastructure, public services, and other critical areas that contribute to economic development (Adebisi & Gbegi, 2013). In Nigeria, where the economy has historically been heavily reliant on oil revenue, the need to diversify and optimize tax revenue has become more pronounced in recent years (World Bank, 2020). Despite significant strides in tax policy reforms aimed at improving tax administration and compliance, the effectiveness of these measures in driving economic growth remains a subject of debate. The Nigerian government has introduced various reforms to enhance tax collection efficiency and expand the tax base, such as the

introduction of the Voluntary Assets and Income Declaration Scheme (VAIDS) and the implementation of the Finance Act (Ezeani, 2021). However, challenges such as tax evasion, a narrow tax base, and inefficient tax administration persist (Olufemi & Akintoye, 2019).

In Nigeria, the relationship between tax revenue and economic growth is particularly pertinent given the country's efforts to diversify its economy away from oil dependency and enhance public sector efficiency (World Bank, 2020). Historically, Nigeria's tax system has faced challenges including low compliance rates, inefficiencies in tax administration, and a narrow tax base (Olufemi & Akintoye, 2019). These issues have impeded the potential benefits of taxation on economic growth. Recent reforms aimed at improving tax collection and expanding the tax base have been implemented, yet the effectiveness of these measures remains a subject of ongoing debate (Ezeani, 2021). Improved tax revenue contributes positively to economic growth by increasing government spending on infrastructure and public services (Okonjo-Iweala, 2022), others highlight the negative effects of tax policies on investment and economic activity due to high compliance costs and tax evasion (Adegbie & Fakile, 2020).

Objectives of the study

The broad objective of the study is to examine the impact of federal government taxes on Nigerian economic growth. The specific objectives are;

(i) To determine the impact of federal government taxes (PPT, CIT, VAT and CED) on gross domestic product in Nigeria

(ii) To examine the impact of federal government taxes (PPT, CIT, VAT and CED) on foreign direct investment in Nigeria

(iii) To evaluate the impact of federal government taxes (PPT, CIT, VAT and CED) on per capita income in Nigeria

Literature Review

Concept of taxation

Taxation is the process by which a government imposes financial charges or levies on individuals, businesses, or other entities to generate revenue for public expenditures. These charges are compulsory and are used to fund a variety of public services and infrastructure, including education, healthcare, defense, and welfare programs. A tax is a mandatory financial charge or levy imposed by a government on individuals or entities to fund public expenditures and services. Taxes are a critical source of revenue for governments at all levels—local, state, and federal. They are used to finance a variety of public services, including education, healthcare, infrastructure, defense, and social welfare programs.

Nmesirionye et al (2018), argues that taxes constitute key sources of revenue to the federation account shared by the federal, state and local governments. This is why Odusola (2006), stated that in Nigeria, the government’s fiscal power is divided into three-tier tax structure between the federal, state and local governments, each of which has different tax jurisdictions. The system is lopsided and dominated by oil revenue. He further argues that over the past two decades oil revenue has accounted for at least 70% of the revenue, thus indicating that traditional tax revenue has never assumed a strong role in the country's management of fiscal policy. Instead of transforming the existing revenue; base, fiscal management has merely transited from one primary

product-based revenue to another, making the economy susceptible to fluctuations of the international market. It on the account of this lopsided revenue structure that tax experts and scholars stated in clear terms that the Nigerian tax system need to be reformed to achieve long term economic growth and development.

According to Tosun and Abizadeh (2015), taxes are used as proxy for fiscal policy. As an instrument of fiscal policy, they outlined five possible mechanisms by which taxes can affect economic growth. Firstly, taxes can inhibit investment rate through such taxes as corporate and personal income and capital gain taxes. Secondly, taxes can slow down growth in labour supply by disposing labour - leisure choice in favour of leisure. Thirdly, tax policy can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other sectors that may have lower productivity. Fifthly, high taxes on labour supply can distort the efficient use of human capital, for taxes to play its critical role in an economy.

Nmesirionye et al (2018) outlined four key issues that must be understood in taxation. Firstly a tax is a compulsory contribution made by the citizens to the government for the common use of citizens. Secondly, a tax imposes a general obligation on the tax payers. Thirdly, there is a presumption that the contribution to public revenue made by the tax payer may not be equivalent to the benefits received. Fourthly, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family. The foregoing views on taxation imply that a good tax system plays a multiple role in the process of economic development. Such a tax system presents an opportunity for the government to collect additional revenue needed to discharge its obligations. Under such a tax system, the nation's economic resources are efficiently mobilized towards the promotion of economic growth and development. Within the Nigerian context, the fiscal operations of government are divulged into a three-tiered tax structures between the Federal, State and Local governments, with each tier of government possessing and coordinating a separate tax jurisdiction.

Concept of Economic Growth

Economic growth is defined as the increase in the amount of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP. Growth is usually calculated in real terms, i.e. inflation-adjusted terms, in order to net out the effect of inflation on the price of the goods and services produced. In economics, economic growth or economic growth theory typically refers to growth of potential output, i.e., production at full employment, which is caused by growth in aggregate demand or observed output. Economic growth is generally distinguished from development economics. The former is primarily the study of how countries can advance their economics. The latter is the study of the economic aspects of the development process in low-income countries. (Adekunle, 2017).

Gale and Samwick (2018) analyze the impact of income tax policy on economic growth, highlighting that while tax cuts can stimulate short-term growth, they may also lead to increased deficits and reduced public investment, potentially hampering long-term growth.

Tax Revenue and Economic Growth in Nigeria

Company Income Tax and Economic Growth

Tax revenue is a critical source of government funding and plays a vital role in the economic growth of any country. In Nigeria, tax revenue is especially important due to the country's heavy reliance on oil revenues, which are subject to fluctuations in global oil prices.

In recent years, Nigeria has undertaken various reforms to improve tax revenue collection. According to the National Bureau of Statistics (NBS, 2021), tax revenue has shown a gradual increase from 2018 to 2022, despite economic challenges. For example, tax revenue increased by 20% from ₦5.32 trillion in 2018 to ₦6.36 trillion in 2020 (NBS, 2021). This trend continued with a further increase to ₦6.76 trillion in 2021 (FIRS, 2022).

Tax revenue is pivotal for Nigeria's economic growth, particularly in funding public investment and reducing dependency on oil revenues. While recent reforms have improved tax collection, ongoing challenges must be addressed to fully realize the potential of tax revenue in driving sustainable economic growth.

Effective fiscal policies, including efficient tax collection and management, are crucial for economic growth. Nigeria's efforts to diversify its revenue base through tax reforms have been aimed at reducing dependency on oil revenue and stabilizing economic growth. According to the International Monetary Fund (IMF, 2019), improved tax administration and policies have the potential to significantly boost non-oil revenues and support sustainable economic growth.

Increased tax revenue allows for greater public investment in infrastructure, education, and healthcare, which are essential for long-term economic growth. The Nigerian government has utilized tax revenue to fund various infrastructure projects, contributing to economic development. For instance, the construction of major highways and power projects has been partly funded by tax revenues (FIRS, 2022).

Value added tax and economic growth

Value Added Tax (VAT) is a tax on estimated market value added to a product or service at each stage of its manufacture or distribution and the additions are ultimately borne by the final consumer. End users of products and services bear the tax burden or incidence because they cannot recover the tax paid on consumption of goods and services. On the other hand, businesses can recover VAT they pay on goods and services because those goods and services are like intermediates or raw materials as they can be used to produce further goods and services that will be sold to other businesses or individuals in the economic chain of supply. Odunsi (2022) and Olatunji (2009) looked at VAT as a tax on the supply of goods and services which is eventually borne by the final consumer but collected at each stage of production and distribution chain. By the introduction of VAT, it was intended that government revenue priorities will shift from oil revenue which is vulnerable to international petroleum price fluctuation to more stable internally generated revenue (Odunsi, 2022; Olatunji, 2013).

Odu (2022) evaluated the effect of Value-added Tax on revenue generation and economic growth in Nigeria for the period 1994-2018 as well as the trend of VAT in the period under investigation. Time series data were employed using regression analysis. The findings of the study showed that VAT has a significant effect on total tax revenue with a two-year lag and it increasingly explains changes in total tax revenue with time. It also revealed that VAT has a significant and negative

effect on GDP with a one year lag. The trend in VAT has a positive coefficient, indicating that VAT increases with time. Cole et al. (2021) investigated the nexus between Value Added Tax and economic growth in Nigeria from 2004 - 2018 using secondary data analysed with the aid of regression analysis.

Customs and Excise Duties and Economic Growth

Custom duties are taxes levied on imported and exported items while excise duties are taxes imposed on some goods that are manufactured in a country, such as alcohol, tobacco products including cigarettes, cigars, rolling tobacco, and chewing tobacco, etc., (Umo, 2012; Inimino, Abuo and Bosco, 2018). They (excise duties) are imposed to generate money for the government and to discourage the manufacturing and consumption of certain goods deemed harmful to people's health. Custom duties can be used to defend home industries from well-organized industries abroad. Customs duty is based usually on the worth of goods or upon the weight, dimensions, or some other criteria that will be determined by the government. Customs and excise duties are the oldest forms of modern taxation and remain an important source of revenue in our economy which is still largely import-dependent. Strictly speaking, the essence of customs and excise duties is to generate revenue to advance the welfare of the people of Nigeria with focus on promoting economic growth and development of the country through the provision of basic amenities for improved public services via proper administrative system and structures.

In addition, revenue from customs and excise duties has continued to increase in Nigeria. The increases in customs and excise duties signify that more revenue is available for economic growth in Nigeria. Moreover, the revenue from customs and excise duties will benefit the economy by enhancing its growth and future economic independence if it (the tax revenue from customs and excise duties) is invested in viable projects. On the other hand, if the tax revenue is badly managed and/or used for unproductive purposes, it will undermine the growth of the economy (Inimino, Otubu and Akpan, 2020).

In addition, Inimino, Otubu and Akpan (2020) traced the problems with Nigerian economy to the inability of successive governments to use the country's revenue from various sources in the development of other sectors of the economy. In general, the performance of the various sectors of the economy such as education, agricultural, power, transportation, etc. has been poor. In addition, numerous arguments have trailed the place of revenue from customs and excise duties as a tool for enhancing infrastructural development and hence economic growth in Nigeria. Some empirical works by scholars including Inyiama and Ubesie (2016); as well as Inimino, Abuo and Bosco (2018) revealed that customs and excise duties have positive and significant relationship with economic growth in Nigeria. On the other hand, the empirical study of Onakoya and Afintinni (2016) showed that customs and excise duties have negative and insignificant relationship with economic growth in Nigeria. This state of affairs raises a pertinent question: what is the relationship between customs & excise duties and economic growth in Nigeria? This question pleads for an answer and to provide an answer to this question was the main concern of this study. Specifically, the main objective of this study was to investigate the effect of customs and excise duties on economic growth in Nigeria from 1980 to 2022.

Theoretical Framework

Nigeria's economic growth has been shaped by its fiscal policies, especially in how taxes are utilized to drive public in infrastructure and social services. This study is anchored on the fiscal Policy theory with roots in Keynesian economics and further developed by scholars like Barro and Romer. Fiscal Policy Theory is traced back to John Maynard Keynes, a British economist based on his work titled "The General Theory of Employment, Interest, and Money published in 1936. He argues that government intervention through taxes and public spending was essential to managing economic cycles and stimulating demand during period of recession or depression. The theory proposes the use of tax cuts or increased public spending to stimulate demand and growth during economic downturns and vice versa during in period of boom. Fiscal policy directly impact aggregate demand, as such by adjusting tax rates, government can influence household consumption, business investment and overall economic activity. This theory offers a robust framework for analysing how federal government taxes impact economic growth in Nigeria. By balancing tax rates and efficient use of tax revenues to fund growth enhancing public investment sustainable development is achieved.

Empirical Review

Alban and Lekë (2023) analyzes the effects of types of taxes on economic growth in Eurozone countries. Three of the largest types of taxes are taken into analysis, namely personal income tax (PIT), corporate income tax (CIT), and value-added tax (VAT). The data for the independent variables (types of taxes) and the dependent variable (Gross Domestic Product – GDP) from 2002 (since the creation of the currency union) until 2019 have been taken into consideration. A total of 306 observations are entered into the panel model and analyzed using a fixed effect regression. The purpose of this paper is to highlight which types of taxes can affect growth and the magnitude of their effect. Results reveal that personal income tax, social security contribution, and customs duties and excises have a negative effect on GDP in the Eurozone countries. Whereas corporate income tax and value added tax have a positive effect. They also found that as the share of tax income in GDP increases, their impact on economic growth deteriorates. Based on the empirical findings, we recommend that policymakers should focus on Value Added Tax and corporate income tax in order to have an impact on economic growth. Extra care should be taken in personal income tax revenues and customs and excise revenues, revenues that negatively affect economic growth.

Balasoiu, Chifu and Oancea (2023) examined the Impact of Direct Taxation on Economic Growth: Empirical Evidence Based on Panel Data Regression Analysis at the Level of EU Countries. The research used panel data from all 27 EU countries covering the period 2008–2020 to investigate the impact of direct taxation on economic growth at the level of two main clusters of countries concerning fiscal efficiency. Therefore, the analysis employed cluster methods to classify the main EU countries in both groups of countries with a high level of fiscal efficiency and those with a rather limited level of fiscal efficiency. The study employs fixed effect models and dynamic GMM methods to investigate the effect of direct taxation components (personal and corporate income taxes) on economic growth. The analysis also considers the informal economy's role in relation to the official economy. The empirical results revealed that corporate income taxes significantly negatively impact economic growth for both clusters of high- and limited fiscal efficiency

countries. Additionally, personal income tax was associated with lower economic growth for countries in the limited fiscal efficiency group. Thus, from the perspective of policymakers, lowering direct taxation can increase disposable income, stimulate consumption and economic growth, encourage investment leading to job creation, increase competitiveness, and reduce tax evasion and avoidance, thereby leading to a more efficient tax system.

Nwachukwu, Nwoha, Inyama (2022) examined the effect of taxation on the economic growth in Nigeria. Specifically, the study examines the effect of value added tax, petroleum profit tax, company income tax and personal income tax on economic growth in Nigeria. The study adopted an ex-post facto research design. The data were analyzed with econometric techniques involving Descriptive Statistics, Augmented Dicker Fuller Tests for Unit Roots and the Ordinary Least Square (OLS). The result of the study indicates that value added tax, petroleum profit tax, personal income tax and company income tax have positive and significant effect on gross domestic product in Nigeria. The study thus concludes that taxation have positive effect on gross domestic product in Nigeria. The implication is that strong taxation policy is required for economic growth and development which will enhance employment generation, poverty alleviation, enhance capacity building for manpower and skills development promote growth and facilitate industrial development in Nigeria.

Inimino, Abuo and Bosco (2021) examined the impact of tax revenue on economic growth in Nigeria from 1980 to 2015. The data used in the study were sourced from Central Bank of Nigeria (CBN) statistical bulletin. The study used data on real gross domestic product, petroleum profit tax, company income tax and customs and excise duties. The econometrics methods of Cointegration and ECM were employed as the major analytical techniques. The Co-integration result revealed the existence of a long-run relationship among the variables. The Parsimonious Error Correction result revealed that company income tax and customs and excise duties have positive and significant relationship with economic growth in Nigeria. However, petroleum profit tax impacted on economic growth in Nigeria but not significantly. Also, the coefficient of the parsimonious ECM has the appropriate sign (i.e., negative) and statistically significant. This implies that, the short run dynamics adjust to long run equilibrium relationship.

Matthew (2021) focused on the impact of tax revenue on Nigeria economy. Descriptive survey design was adopted and simple random sampling technique was used in the selection of the sample size. 100 copies of questionnaires were administered to workers of the Federal Board of Inland Revenue (FBIR), Lagos, Nigeria. 75 questionnaires were retrieved and found usable for the study hence, giving a 75% response rate. A pilot study was conducted and this gave a reliability value of 0.78. Four Hypotheses were formulated and tested using Chi-square statistical tool of analysis. The findings show that tax revenue significantly impact on Federal Government Budget implementation in Nigeria, Tax administrative system significantly affected the revenue generated in Nigeria, Tax evasion significantly affected government revenue in Nigeria, and lack of training on the part of tax officers significantly affected the generation of government revenue in Nigeria.

Adegbie, Salawu and Ojutawo, (2020), investigated tax revenue volatility on economic growth in Nigeria, using inflation and exchange rates as moderating variables. This study adopted ex post facto research design. Data were obtained from certified sources; namely, National Bureau of Statistics, Central Bank of Nigeria Statistical Bulletin and Federal Inland Revenue Services for the

1981Q1-2017Q4, amounting to one hundred and eight (108) observations. Data were exposed to the scrutiny of the appropriate regulatory agencies for validity and reliability. Pre-estimation tests were conducted using Pearson correlation and stationarity tests. The post-estimation tests included linearity, Heteroskedasticity, Breusch-Godfrey serial Correlation Lagrangian Multiplier and stability test. Data were analyzed using both descriptive and inferential statistics. Findings revealed that tax revenue volatility moderated by inflation rate and exchange rate had significant effect on economic growth (EG) in Nigeria (Adj. R2 =0.6, F (3, 105) =2140.285, $p < 0.05$; $\beta 1 = 0.219$). This study concluded that tax revenue volatility affects economic growth in Nigeria. It was recommended that government should formulate tax policies that will encourage steady tax revenue. In addition, government should ensure prudent application of tax fund to the development of infrastructure that would translate into economic growth.

Adenira and Ugwu (2020) examined the extent to which revenue from taxation has improved the growth of Nigerian economy. An Ordinary Least Square (OLS) model was specified where Company Income Tax (CIT), Petroleum Profit Tax (PPT) and Value Added Tax (VAT) are employed as pre-determined variables for economic growth measured by Real Gross Domestic Product (RGDP). Prior to model fitting, Jarque-Bera test for normality revealed that all variables employed showed normality and therefore suitable for the specified function. However, a logarithmic transformation was required to reduce levels of variability among the observed variables. Different model's validity checks such as Coefficient of determination (R^2), Multiple Correlation Coefficient(r), Durbin-Watson, Akaike info Criterion (AIC), Bayesian Information Criterion (BIC) and F-statistic were used to validate the model. Hypotheses were formulated and tested using statistical tools to validate theoretical backgrounds on economic growth as it is influenced by taxation. The results indicated that taxation had impacted positively on the growth of Nigerian economy and the study therefore recommended that VAT and CIT collections should be further encouraged and developed while more political efforts should be made towards ensuring stable business environments in the oil producing areas of the nation to improved collection of PPT. Uket, Wasiu and Etim (2019), determined the impact of taxation proceeds on the development of Nigerian economy. The study explored the impact of three tax income streams – Income tax from companies' profits, income tax from petroleum companies profits and Value Added Tax on economic development represented by Gross Domestic Product (at current basic prices) growth for the period 1994 to 2018. The study applied Ordinary Least Square statistical tool with the help of SPSS 20.0. The study revealed a positive relationship with a coefficient of determination of 99.2% of the variation in economic development attributable to the tax income streams studied. Also although the study revealed the existence of significant effect of taxes from companies' profits and Value Added Tax on Gross Domestic Product Growth, there is little or no significant impact of taxes on profits of Petroleum companies on Gross Domestic Product growth in Nigeria due to restriction by Organization of Petroleum Exporting Countries production ceiling on Nigeria's production/sales and the global price shocks of crude oil over the decade. Also the study revealed tax payers apathy to tax payment and presence of tax leakages due to corruption and administrative inefficiencies by the tax authorities.

METHODOLOGY

A research design is the method a researcher uses in his investigation and analyses. The study adopted *ex-post facto* research design. This is because the researcher made use of secondary data.The study adopted time series secondary data. The data were sourced from Central Bank of Nigeria Statistical and National bureau of Statistic. The data covered for 1996 to 2021. The time series variables when used in their explosive form often leads to spurious or nonsense regression results (Gujarati, 2007) which mislead policy; In order not to obtain spurious regression results, the variables will be tested for stationaritys employing the Augmented Dickey-Fuller (ADF) test. Co-integration test was employed to establish whether the variables have a long-term stable equilibrium relationship between them. The Engle-Granger (1987) two-step approach used. First, the residuals generated, then, using the ADF technique, we test for the stationarity of generated residuals. If found stationary, then we will conclude that there is co-integration. The hypotheses were tested using Auto-Regression distribution lag (ARDL). The ARDL is used when testing macroeconomic time series data. Pesaran et al. (2001) developed the ARDL limits test approach to co-integration employed in this investigation. The ARDL bounds test approach to co-integration has been demonstrated to outperform other traditional co-integration strategies. This is because it offers many advantages over other long-term estimation techniques. When applied to variables that are either I(1), I(0), or a combination of the two, the approach yields unbiased estimates and its t-statistics are still usable, even if some of the regressors are endogenous (Harris & Sollis 2003).

Model Specification

The study adapted the model of Uzoka, Chinedu and Christain (2018), with modification to suit the present study. The model of Usoka, *et al.* (2018), is stated below.

GDP = f (PPT, CIT, VAT, CED).

But this study has made the following modifications as depicted below:

Y= f(X)

Y = y1

X = x1, x2, x3, x4, x5

In Econometric form;

$\Delta GDP_t = \alpha 1 + \beta 1 LogPPT_t + \beta 2 LogCIT_t + \beta 3 LogVAT_t + \beta 4 LogCED_t + \mu_t$

$\Delta FDI_t = \alpha 1 + \beta 1 LogPPT_t + \beta 2 LogCIT_t + \beta 3 LogVAT_t + \beta 4 LogCED_t + \mu_t$

$\Delta PCI_t = \alpha 1 + \beta 1 LogPPT_t + \beta 2 LogCIT_t + \beta 3 LogVAT_t + \beta 4 LogCED_t + \mu_t$

Where;

Δ = Change

Y= Economic Growth (EG)

y1= Δ in Gross Domestic Product (ΔGDP)

y_2 = Δ in Foreign Direct Investment

y_3 = Δ in Per Capita Income

x_1= Petroleum Profit Tax (PPT)

x_2 = Companies Income Tax (CIT)

x_3= Value Added Tax (VAT)

x_4 = Custom, Excise Duties (CED)

DATA RESULTS AND DISCUSSION

The data extracted were estimated based on the panel data regression analysis to determine the effect of the variables. Petroleum profit tax (PPT), company income tax (CIT), Value added tax (VAT) and custom and exercise duties (CED) were used as the independent variables while gross domestic product (GDP), per capital income (PCI) and foreign direct investment (FDI) were used as the dependent variables. The adjusted R square which is the coefficient of determination and the F statistic was used to ascertain the significance of the overall model. Specifically, the probability of the F-statistic test was used to test the hypotheses of the study to determine the relationship between the variables. Data was analyzed with the aid of E-View 9 (Econometric View). The descriptive statistics for both the dependent and independent variables are presented in table 1.

Table 1: Descriptive Statistics

	PPT	CIT	VAT	CED	GDP	FDI	PCI
Mean	2.99E+09	2849.901	3063.342	1705.441	2.34E+11	4114.114	1647.210
Median	23763289	2091.225	2206.070	1568.750	1.68E+11	4505.815	1887.400
Maximum	1.51E+10	13110.84	21516.67	4015.530	5.68E+11	8914.890	3222.690
Minimum	44721.27	335.1200	104.0000	997.2700	2.85E+10	1177.710	408.1800
Std. Dev.	5.66E+09	2618.889	3990.120	659.8053	1.87E+11	2427.275	944.3910
Skewness	1.402657	2.403946	3.980578	1.977843	0.301536	0.449838	0.018095
Kurtosis	3.077684	10.06971	19.07093	7.096846	1.481488	2.162544	1.578263
Jarque-Bera	8.532140	79.18804	348.4593	35.13423	2.892037	1.636643	2.191199
Probability	0.014037	0.000000	0.000000	0.000000	0.235506	0.441172	0.334339
Sum	7.78E+10	74097.42	79646.89	44341.46	6.07E+12	106967.0	42827.46
Sum Sq. Dev.	8.02E+20	1.71E+08	3.98E+08	10883575	8.73E+23	1.47E+08	22296860
Observations	26	26	26	26	26	26	26

Table 1 showed the result of the descriptive or summary statistics of various variables (PPT, CIT, VAT, CED, GDP, FDI and PCI). It is important to states that for the summary statistics, the raw data in their untransformed state were used to enable an appraisal of the structure of the raw data used for the regression analysis. The summary statistics were used to compare the measures of central tendency, the measures of dispersion and the measures of normality of the data set. The measures of central tendency compared the mean and median values of the data set. While the mean considered the average values of the variables the median looked at the middle distribution of the data set. The measures of dispersion considered how widely spread the dataset was from their mean values. The measures of dispersion considered in this study were the minimum value, the maximum values and the standard deviation. The standard deviation measures how far the observations are from their sampled averages.

The Jarque-Bera (JB) test measures the difference of the skewness and kurtosis of the series with those from the normal distribution. The null hypothesis for the JB statistics is that the series is normally distributed. Given the result in table 4.6 above, the JB values of 8.532140, 79.18804, 348.4593, 35.13423, 2.892037, 1.636643 and 2.191199 with their respective p-values of 0.014037, 0.000000, 0.000000, 0.000000, 0.235506, 0.441172 and 0.334339. respectively for PPT, CIT, VAT, CED, GDP, FDI and PCI. However, GDP, FDI and PCI have P-values greater than 0.05 (5 per cent) meant that the null hypotheses of GDP, FDI and PCCI were accepted. While that of PPT, CIT, VAT and CED were rejected.

Stationarity/ Unit Root Tests

To avoid running a spurious regression, a unit root test was carried out to ensure that the variables employed in this study are mean reverting i.e stationary. For this purpose the Augmented Dickey Fuller (ADF) test was utilized and the result of the test is presented in the table 2

Table 2. Augmented Dickey Fuller (ADF) Test

Variable	ADF	Critical value 5%	P-value	Level	Decision
PPT	-6.124743	-2.991878	0.0000	1st difference	Stationary
CIT	-5.034908	-2.991878	0.0005	1st difference	Stationary
VAT	-3.864521	-2.986225	0.0072	At level	Stationary
CED	-2.986477	-2.986225	0.0500	At level	Stationary
GDP	-4.229367	-2.986225	0.0031	At level	Stationary
FDI	-5.194244	-2.986225	0.0003	At level	Stationary
PCI	-3.146892	-2.986225	0.0358	At level	Stationary

Source: Authors Output from E-views 9

The table above is the result of the first test required to know the individual stationarity of the variables. The Augmented Dickey-Fuller (ADF) unit root test result can be interpreted using the p-value. A variable is stationary if the ADF p-value is less than or equal to 0.05 level of significance. Table 4.2 above shows that VAT, CED, GDP, FDI and PCI are stationary at level while PPT and CIT are stationary at 1st difference. According to Gujarati and Porter (2007), a non-stationary time series can be made stationary through integrated series by differencing.

Regression of the estimated model summary

This section of the chapter presents the results produced by the Error Correction Model summaries for further analysis.

Table 3: Auto-regression distribution lag for Model 1

Variable	**Coefficient**	**Probability**	**Statistic**	**Value**
GDP (-1)	-0.069330	0.8150	**R^2**	0.272732
PPT	-25.10017	0.4195	**R^2 Adjusted**	-0.045447
CIT	-49.46508	0.4538	**Fisher Statistic**	0.857165
VAT	15.09245	0.7737	**F Probability**	0.058791

CED	-4.969223	0.9754	**DW**	1.962173

Source: Authors output from E-views 9

To ensure that the set of data was free from serial auto-correlation, the Durbin Watson statistic for the model specified was computed. The Durbin Watson statistics for the model specified is estimated at 1.962173. The Durbin Watson statistics for the series data is below the standard of 2 indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the problem of auto-correlation. Gujarati and Sangeetha (2007) explained that the value for Durbin Watson should not be above the standard of 2. Thus, this model exhibit low risk of potential autocorrelation problem as the model shows a DW statistics below 2.

For model fitness, the R^2 value is used to establish the level of overall fluctuation the study independent variables (PPT, CIT, VAT and CED) can collectively cause GDP as the dependent variable to change. The R square value of 0.2727 shows that PPT, CIT, VAT and CED cause GDP to fluctuate at approximately 27%; this means that 73% fluctuation of Nigerian GDP is caused by other factors not considered in this study. The Fisher statistic reveal a value of 0.857165 with a probability value of 0.058791 which prove that the model is statistically significant.

Furthermore, a unit change in PPT, CIT, VAT and CED will cause GDP to change at -0.069330.

Ho_1: *Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in gross domestic product in Nigeria.*

Since the calculated Probability values for *PPT, CIT, VAT and CED* is 0.558791; which is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected. Therefore, federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in gross domestic product in Nigeria.

Table 4: Auto-Regression Distribution Lag for Model 2

Variable	Coefficient	Probability	Statistic	Value
FDI (-1)	-1.122328	0.0271	**R^2**	0.723879
PPT	-0.044041	0.5736	**R^2 Adjusted**	0.420147
CIT	-1.130676	0.0537	**Fisher Statistic**	2.383277
VAT	-0.325840	0.4368	**F Probability**	0.041168
CED	-1.409592	0.2274	**DW**	1.758674

Source: Author's output from E-views 9

To ensure that the set of data was free from serial auto-correlation, the Durbin Watson statistic for the model specified was computed. The Durbin Watson statistics for the model specified is estimated at 1.758674. The Durbin Watson statistics for the series data is below the standard of 2 indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the problem of auto-correlation. Gujarati and Sangeetha (2007) explained that the value for Durbin Watson should not be above the standard of 2. Thus, this model exhibit low risk of potential autocorrelation problem as the model shows a DW statistics below 2.

For model fitness, the R^2 value is used to establish the level of overall fluctuation the study independent variables (PPT, CIT, VAT and CED) can collectively cause FDI as the dependent variable to change. The R square value of 0.724 shows that PPT, CIT, VAT and CED cause FDI to fluctuate at approximately 72%; this means that 27% fluctuation of Nigerian FDI is caused by

other factors not considered in this study. The Fisher statistic reveal a value of 2.383277 with a probability value of 0.041168 which prove that the model is statistically significant.
Furthermore, a unit change in PPT, CIT, VAT and CED will cause FDI to change at -1.122328.
Ho₂: *Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in foreign direct investment in Nigeria.*
Since the calculated Probability values for *PPT, CIT, VAT and CED* is 0.091168; which is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected. Therefore, federal government taxes (PPT, CIT, VAT and CED) have no significant impact on foreign direct investment in Nigeria.

Table 5: Auto-Regression Distribution Lag for Model 3

Variable	Coefficient	Probability	Statistic	Value
PCI (-1)	-2.824414	0.0070	**R^2**	0.859250
PPT	-0.738514	0.0076	**R^2 Adjusted**	0.507373
CIT	-0.576674	0.1809	**Fisher Statistic**	2.441908
VAT	-0.772344	0.0253	**F Probability**	0.038654
CED	1.272615	0.1353	**DW**	1.869096

Source: Author's Output from E-views 9

To ensure that the set of data was free from serial auto-correlation, the Durbin Watson statistic for the model specified was computed. The Durbin Watson statistics for the model specified is estimated at 1.869096. The Durbin Watson statistics for the series data is below the standard of 2 indicating the absence of auto-correlation. The Durbin Watson statistics ensures that the residuals of the proceeding and succeeding sets of data do not affect each other to cause the problem of auto-correlation. Gujarati and Sangeetha (2007) explained that the value for Durbin Watson should not be above the standard of 2. Thus, this model exhibit low risk of potential autocorrelation problem as the model shows a DW statistics below 2.
For model fitness, the R^2 value is used to establish the level of overall fluctuation the study independent variables (PPT, CIT, VAT and CED) can collectively cause PCI as the dependent variable to change. The R square value of 0.859 shows that PPT, CIT, VAT and CED cause PCI to fluctuate at approximately 86%; this means that 14% fluctuation of Nigerian PCI is caused by other factors not considered in this study. The Fisher statistic reveal a value of 2.441908 with a probability value of 0.038654 which prove that the model is statistically significant.
Furthermore, a unit change in PPT, CIT, VAT and CED will cause FDI to change at -2.824414.
Ho₃: *Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in per capital income in Nigeria.*
Since the calculated Probability values for *PPT, CIT, VAT and CED* is 0.138654; which is greater than the accepted probability value of 0.05. The null hypothesis is accepted and the alternative rejected. Therefore, federal government taxes (PPT, CIT, VAT and CED) have no significant impact on per capital income in Nigeria.

CONCLUSION AND RECOMMENDATION

Effective tax revenue mobilization reduces an economy's dependence on external flow of fund which has been found to be highly volatile. Federal government taxes allows governments' greater

flexibility in designing and controlling the development agenda; conditions states to improve their domestic economic policy environment, creating a conducive environment for the much needed foreign direct investment and strengthens the bonds of accountability between governments and the citizens In the light of that, this study concludes that

(i) Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in gross domestic product in Nigeria.
(ii) Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in foreign direct investment in Nigeria.
(iii) Federal government taxes (PPT, CIT, VAT and CED) have no significant impact on change in per capita income in Nigeria.

Based on this study's findings, the following recommendations become imperative:

i. Nigeria government should put policies in place that will foster the continual growth in tax revenue from custom and excise duty, personal income tax, company income tax and value added tax which are progressive in nature. This can be achieved through proper implementation of policies that improve the mechanisms (border checks and tracking of goods produced within the country) for generating these tax revenues. If imports are discouraged through lower company income tax and higher custom duties, this will improve local production and increase economic growth through upscale of gross domestic product.
ii. Also, Nigeria government should set a custom and excise duty rates that are favourable to investors who are willing to carry out investment that encourages local production. This will go a long way to discourage custom and excise duty evasion, encourage foreign direct investment, increase local production, create employment and consequently lead to increase in the per capita income of Nigeria.
iii. Although there seems to be an insignificant effect of company income tax, personal income tax, custom and excise duty and value added tax on gross domestic product, foreign direct investment and per capita income of Nigeria government, adjustment of these various tax policies by making them investors friendly can spur foreign direct investment, per capita income and gross domestic product of Nigeria.

REFERENCES

Adebisi, J. F., & Gbegi, D. O. (2013). Taxation and Economic Growth: A Theoretical Analysis. *International Journal of Business and Social Science*, 4(4), 1-10.

Adegbie, F. F., & Fakile, A. S. (2020). Taxation and Economic Growth: Evidence from Nigeria. *Journal of Economics and Sustainable Development*, 11(10), 88-97.

Adegbie, J.B. & Falkie, N.U. (2010) Boosting revenue generation by state governments in Nigeria: The tax consultants' option revisited *Journal of Social Science, 8(4):53-67.*

Adekunle, A.F. (2014). The impact of tax poli&y on economic growth, income distribution, and allocation of taxes. *Journal of Social Philosophy and Policy Foundation, 6(3):28-52.*

Adekunle, A.H. (2017). Government expenditures and economic growth in Nigeria. *Journal of Economic Management. 2(1):1-18*

Akwe, B.E. (2017) "The impact of income tax rates (ITR) on the economic development of Botswana". *Journal of Accounting and Taxation, 1 (1):1-15.*

Anayo, S.A. (2015) Taxation and economic growth. *National Tax Journal, 6(4):47-60.*

Anyanwu, J.C. (2007). Nigerian public finance. Onitsha: Joanne educational publishers. *Financial Operations Journal, 2(1): 1-18.*

Bloom, N., Van Reenen, J., & Williams, H. (2020). Do Tax Incentives for Research Increase Innovation? *American Economic Review*, 110(4), 1137-1163.

Chigbu, E.E, Eze, L,G &Ebimobowei, A. (2011). An empirical study in the casualty between economic growth and taxation in Nigeria. *Current Research Journal of Economic Theory. 4(2):29-38.*

Ezeani, E. N. (2021). Tax Reforms and Economic Growth in Nigeria: Challenges and Prospects. *Nigerian Journal of Economic and Social Studies*, 63(2), 65-80.

Gale, W. G., & Samwick, A. A. (2018). Effects of Income Tax Changes on Economic Growth. *Brookings Institution*.

Gujarati, B.M. (2007) Impact of non-oil tax revenue on economic growth: The Indian perspective. *International Journal of Finance and Accounting, 11 (8): 100-117.*

IMF. (2019). World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers. *International Monetary Fund*.

Matthew, A. A. (2021). The impact of tax revenue on Nigerian economy: A case study of federal board of inland revenue (FBIS). *Journal of Policy and Development Studies, 9(1), 109-*

121.

Nmesirionye, J. A., Nwawuru, C. E., & Ekwuruke, H. (2018). Analysis of the impact of federally collectable taxes on economic growth of Nigeria (2000-2015). A Paper presented at the 8th Annual Int'l Conference of AFRA held in December 2018 at UNICAL.

Odusola, A.R. (2006). Tax policy reforms in Nigeria. Research paper no. 2006/03 United Nations university. *World Institute for Development Economics Research.*

OECD. (2021). Corporate Tax Statistics. *OECD Publishing*. Retrieved from [OECD] (https://www.oecd.org/tax/tax-policy/corporate-tax-statistics-database.htm)

OECD. (2022). Tax Policy Reforms 2022. *OECD Publishing*. Retrieved from [OECD] (https://www.oecd.org/tax/tax-policy/tax-policy-reforms-26185550.htm)

Okonjo-Iweala, N. (2022). Reforming Nigeria's Tax System for Sustainable Economic Growth. Brookings Institution Press.

Ola, C.S. (2001): Income Tax Law and Practice in Nigeria. Heinemann Educational Books (Nigeria) Pic, Ibadan.

Olufemi, A. B., & Akintoye, I. R. (2019). The Impact of Taxation on Economic Growth in Nigeria: An Empirical Analysis. *Global Journal of Management and Business Research*, 19(2), 1-12.

Olufemi, A. B., & Akintoye, I. R. (2019). The Impact of Taxation on Economic Growth in Nigeria: An Empirical Analysis. *Global Journal of Management and Business Research*, 19(2), 1-12.

Owolabi, O.A, Okwu, and A.T.(2011). Empirical Evaluation of contribution of Value Added Tax to Development of Lagos state Economy'. Journal of Middle Eastern Finance and Economics. 2011; 1(9):24-34.

Tosun, M.S. &Abizadeh, S.A (2005). Economic growth and tax components: An analysis of changes in OECD. *Journal of Applied Economics. 37(11):121-137.*

World Bank. (2020). Nigeria: Systematic Country Diagnostic. World Bank Group.

Worlu, C.N. &Nkoro, E (2012). Tax revenue and economic development in Nigeria: A macroeconometric approach. *Academic Journal of Interdisciplinary Studies, 1(2): 17-33.*

Xing, J. (2012). Tax structure and growth: How robust is the empirical evidence? Economics Letters, 117(1), 379-382.https://doi.org/10.1016/j.econlet.2012.05.054.

Yi, F., Suyono, E. (2014). The Relationship between tax revenue and economic growth ofHebei Province based on the tax multiplier effect. *Global Economy and Finance Journal*, 7:2, 1 - 18.