European Review in Accounting and Finance | *ISSN 2754-4176*
Published by DEQE Publications| *https://eraf.deqepub.org*
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RESEARCH ARTICLE

Impact of Tax Revenue on Nigerian Economic Growth (1994 – 2020)

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ABSTRACT

Tax has ever been a major source of government revenue especially in Nigeria. However, the growth in Nigerian economy has not been in tandem with the growth in tax revenue. This study aims at examining the impact of tax revenue on Nigeria's economic growth. The study adopted the *ex post facto* research design and employed annual time series data for the period 1994 to 2020. The Ordinary Least Squares of Multiple Regression model was used for estimation. The findings revealed that value added tax has a positive and significant impact on the economic growth of Nigeria, company income tax has a negative and significant impact on the economic growth of Nigeria and petroleum profit tax has a positive and weak impact on the economic growth of Nigeria. The study recommends that Nigerian Government should embrace a good governance culture and ensure that tax system is transparent. This will boost the tax revenue and economic growth in Nigeria.

Keywords: Tax Revenue, Economic Growth, Accounting and Finance

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, 2015). Economic development in Nigeria started before colonial era, although many economic activities that took place during that time were not documented. Since then, Nigeria has come up with numerous economic developmental plans all geared toward visible outputs. Notable amongst them are the Structural Adjustment Program (SAP) of the then military administration of Ibrahim Badamosi Babangida in the '80s, the Sure-P program of the Goodluck Ebele Jonathan's administration, and the current N-Power program of the Mohammad Buhari's administration. That withstanding, developmental program in Nigeria or anywhere in the world may not be fully achieved without the contribution of revenue generated from taxes to finance such programs.

It is clear that Nigeria's revenue from oil can no longer support her development objectives adequately due to the serious decline in price of oil in recent years which has led to oil price volatility and a decrease in totally generated revenue by 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 Nwokah (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. Recently, Nigeria undertook various tax policy reforms to improve tax administration and to increase tax yield. The value added tax (Amendment) Act 2000 was for instance intended to widen the Value Added Tax base and improve the machinery for its collection. Similarly, the Company's Income Tax (Amendment) Act 2007; the Federal Inland Revenue Service (Establishment) Act 2007 and the Petroleum Profit Tax (Amendment) Act 2004 were all aimed at encouraging tax compliance and increasing tax yield (Aguolu, 2010). However, citizen is not enjoying the benefit from tax payment due to bad government, unqualified tax personnel and fraudulent tax collectors forge and divert government revenue into personal pockets. Hence, the inconsistent results of previous studies regarding the effect of prompts further investigation in Nigeria.

Citation: Agbo, E. I & Onuegbu, C. E (2022). Impact of Tax Revenue on Nigerian Economic Growth (1994 – 2020). *European Review in Accounting and Finance, 6(1), 23-38.*
Accepted: *August 25, 2022; Published: August 31, 2022*

Problem Statement

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; Adegbie & Fakile, 2011). 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 Value Added Tax (VAT) on the gross domestic product of Nigeria, impact Companies Income Tax (CIT) on the gross domestic product of Nigeria and the impact of Petroleum Profit Tax on the gross domestic product of Nigeria. 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 twenty-six years, 1994-2020. 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 Value Added Tax (VAT), Petroleum Profit Tax (PPT) and Company Income Tax (CIT) while economic growth was measured using the Real Gross Domestic Product (GDP).

The remaining part of this paper is organized as follows: Section 2 sets out the review of related literature. Section 3 presents the methodology. Section 4 highlights the data presentation and analysis, while Section 5 indicate the summary of findings, conclusion and recommendations**.**

Review of the Related Literature

Conceptual Framework

Taxation

Taxation is one of the principals means of revenue generation of any government, According to Ifurueze & Ekezie (2014), tax is a compulsory levy imposed by the government against the income, profit, property, wealth and consumption of individual and corporate organizations for the common use and to serve a number of purposes.

Attama (2004), described tax as a compulsory contribution imposed upon persons and firms by a public authority to cover government expenses. Attamah opined that tax is a good source of revenue to government, as it is regularly imposed annually or as government thinks fit. He affirmed that income from taxes on people and firms play critical roles in any nation's economic growth and development. Tax administration and collection is a major problem facing taxation world-wide. Bad administration and collection of tax has led to tax evasion.

Udabah (2002), referred to tax as a necessary vice to meet the cost of those services a society wishes its government to provide. According to Udabah (2002), tax is an obligatory transfer from tax payers to the public authority and argued that taxation was originally formulated to raise revenue so as to cover the state expenditure.

Unegbu & Irefin (2011), described tax as a compulsory levy imposed on the taxable income of every taxable individual, companies, institutions or products by the government within a particular jurisdiction, of defray expenditure on public goods. Today, however, it has been assumed to play a more far-reaching role which includes curtailing the consumption of harmful commodities, to regulate the production of certain commodities. It is used as an instrument of economic policy, to control monopoly, curb inflation, and protect infant industries. The Institute of Chartered Accountants of Nigeria (2014) and the Chartered Institute of Taxation of Nigeria (2002), defined tax as an enforced contribution of money to government pursuant to a defined authorized legislation. Persons and companies are known to routinely evade and avoid taxes due to corrupt practices and the existence of various loopholes in the tax laws. Also, the inability of government to reciprocate the sacrifice of tax payment has made tax payers to explore the loopholes in tax laws to avoid and evade tax payment, leading to the continuous reduction in tax revenue generation.

According to Oluba (2008), the success or failure of any tax system depends on the extent to which it is properly managed and the extent to which the tax law is properly interpreted and implemented. According to Iweala (2013), about 75% of registered firms were not in the tax system and 65% of them had not filed their tax returns for 3years (2010-2012). Over ₦80billion was lost monthly from these companies, estimating the total Company Income Tax leakages in that period to about $250million.

Illiyas & Siddiqi (2008) observed that in Nigeria, the quantum of income generated from non-oil tax over the years by the federal government is grossly insufficient in relation to the ever increasing social, political and infrastructural developmental needs of the country. The current budget of borrowing in Nigeria is a fall out of the dwindling oil revenue that has sank into abysmal low prices in the international market and has thrown the Nigeria budget in recent years into serious crisis.

Tax Revenue

According to Attama N. (2004), tax revenue is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes. Total tax revenue as a percentage of GDP indicates the share of a country's output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy's resources. The tax burden is measured by taking the total tax revenues received as a percentage of GDP. This indicator relates to government as a whole (all government levels) and is measured in million USD and percentage of GDP.

Anyanwu (1997) define tax revenue as a compulsory transfer or payment from private individual, institutions or groups to the government. The classical economist was of the view that the only objective of tax revenue was to generate revenue for the government. But with the change in circumstances and ideologies, the aim of taxes has changed. These days apart from raising revenue, tax is levied to affect consumption, production and distribution with a view to achieving social welfare through economic development.

According to Nzotta (2007), four key issues which must be understood for tax revenue to play its function in the society. Firstly, a tax is a compulsory contribution made by the citizens to the government and this contribution is for common use. Secondly, tax imposes a general obligation on the tax payers. Thirdly, there is a presumption that the contribution to the public revenue made by the tax payer may not be equivalent to the benefits received. Finally, a tax is not imposed on citizens by the government because it has rendered specific services to the citizens. Thus, it is evident that a good tax structure plays a multiple role in the process of economic growth and development of any nation**.**

Value Added Tax (VAT)

The concept Value-Added Tax has been given different definitions by different authors and writers. According to American Dictionary Value Added Tax (VAT) is a form of indirect sales tax paid on products and services at each stage of production or distribution, based on the value added at that stage and included in the cost to the ultimate consumer. Value-added tax is a tax that is added to the price of goods or services. The abbreviation VAT is also used. A value-added tax, known in some countries as a goods and services tax, is a type of tax that is assessed incrementally. It is levied on the price of a product or service at each stage of production, distribution, or sale to the end consumer. In a bid to have a near perfect system in the country a major landmark was made in the area of adopting value-added tax (VAT) in January through the VAT Act NO 102 of 1993, with effective date of 1st January 1994 based on the report of Sylvester Ugo led study group set up in 1991by the government to review the system of indirect taxes in Nigeria (Odusola, 2006).

The Act repealed the sales tax Act, 1986. The sales tax lasted only for six (6) years before it was repealed. The Act is now known as VAT Act Cap. V1, LFN 2004. It was last amended in 2007, (ICAN 2009). The precedence for the introduction of VAT in Nigeria was based on the fact that taxation as an instrument of fiscal policy is vital in generating revenue to finance the activities of the government, redistribute income, stabilizing the economy as well as stimulating growth and development. This view was quoted by Adereti, Sanni & Adesina (2011).

According to Abata (2014) Value Added Tax is described as a consumption tax whereby the consumers bear the tax burden. He explained that tax burden is passed from the manufacturer to wholesaler to retailer and finally to the consumer who ultimately bear the burden. It therefore, means that VAT can only be avoided by not buying and consuming the viable goods or services.

Olurifin (2013) asserted that indirect tax imposed on every sale begins at the production and distribution cycle and culminates in sales to the consumers. He went further to create an impression that, consumers absorb. VAT as part of selling price, meaning that VAT is essentially a consumption tax collected, throughout the production chain. VAT is broadly based tax on consumption with few exceptions, levied on goods and services at the rate that varies from one country to another.

Okoye and Gbegi (2013) added that Value Added Tax is a multi-stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution process and to services as they are rendered with its burden eventually borne by the final consumer and collected at each stage of production and distribution chain.

Petroleum Profit Tax
Petroleum taxation is the instrument of choice for sharing wealth between host governments and international oil companies. It is a direct tax, levied annually on net profit of a petroleum tax payer, who is carrying on the business of petroleum exploration and production PPT is a tax on the income of companies engaged in upstream petroleum operations in lieu of CIT. CIT (1990). (Jibrin, Success & Ifurueze; 2012).

Petroleum profits tax means the tax imposed upon the sale of Hydrocarbons under the Petroleum Profits Tax Act of 1959, as amended. The administration of petroleum profit tax in Nigeria has mainly been focused on revenue generation to the detriment of stimulating economic growth and development (Ogbonna, 2009).

Adegbie (2009) averred that oil sector is the main hub of the Nigeria economy and need to be sustained if the country is to achieve real economic growth. The institutional capacity to administer petroleum profit taxes (PPT) is applicable to these companies engaged in petroleum operations as define above.

The Petroleum Profit Tax Act 1959 as amended described petroleum profit tax as a liability where a company disposes off chargeable oil and gas. Disposal include delivery of chargeable oil to refinery, the tax is on the profit of the company from petroleum operation as define in the act, essentially involves petroleum exploration, development, production and sales of crude oil. Section 8, of PPTA states that every company engaged in petroleum operation is under an obligation to render return, together with properly annual audited account and computations, within a specified time after the end of accounting period.

Appah & Oyandonghan (2011) affirmed that PPT involved charging of tax on income accruing from petroleum operations, he noted that the importance of petroleum to Nigeria economy gives rise to the enactment of different laws regulating taxation of income from petroleum operations. Petroleum profit tax is a tax applicable to upstream operation in the oil industry as it is related to rent, royalties, oil mining prospecting and exploration leases. It is an important tax in Nigeria in terms of its contribution to total revenue as it contributes over 70% to government revenue and 95% to foreign exchange earnings Kiabel (2009).

Nzotta (2012) hinted that the basis period for petroleum profit tax (PPT) is the actual profit of the accounting period. This implies that, the basis period for any year of assessment is the same as the accounting period of the company.

Company Income Tax (CIT)
According to American Dictionary, a corporate tax, also called corporation tax or company tax, is a direct tax imposed on the income or capital of corporations or analogous legal entities. Many countries impose such taxes at the national level, and a similar tax may be imposed at state or local levels. Company income tax is one of the taxes levied in Nigeria in line with constitutional demands. Company Income Tax (CIT) was introduced in Nigeria in 1961. The original law (Company Income Tax) has been amended many times and is currently codifies as the Company Income Tax Act 1990 (CITA) (Odusola, 2006).

Appah (2010) submitted that company income tax is payable by all incorporated entities in Nigeria on profits accruing in, derived from, brought into or received in Nigeria. It also includes taxes on the profits of non-resident companies carrying on business in Nigeria and is paid by both private and public limited liability companies. Company Income Tax (CIT) was created by the Companies Income Tax Act (CITA) 1979 and has its root in Income Tax Management Act of 1961. It is one of the taxes administered and collected by the Federal Inland Revenue Services (FIRS) and the tax contributes significantly to the revenue profile of the government. Such profits shall be deemed to accrue in Nigeria wherever they have arisen (worldwide) and whether or not they have been brought into or received in Nigeria (Azubiike, 2009). The CITA however, exempts the profits of any company engaged in ecclesiastical, charitable or educational activities of a public character in so far as such profits are not derived from a trade or business carried on by such company; What constitutes a 'trade or business' is however, not defined or described in the CITA (as amended).

Orojo (2005), referred to the decision in AR Bisco v FBIR15 where the Supreme court applied the dictionary meaning which is that a trade or business is: "The practice of some occupation, business or profession habitually carried on especially when practiced as a means of livelihood' It was also decided in this case that the question of whether the activity in question is a trade or business is a matter of fact and not of law". CITA also exempts the profits from taxation of any company formed for the purpose of promoting sporting activities where such profits are wholly expendable for such purpose. Company limited by guarantee may be exempted upon an application to the president for an order for exemption.

According to Ariwodola (2000), Companies Income tax is chargeable on:

I. The global profits of Nigerian companies irrespective of whether or not they are brought into or received in Nigeria.
II. The portion of the profits of non-Nigerian companies derived from such companies' operations in Nigeria.
III. Dividends, interests or royalties due to non-Nigerian companies which are assessed at ten percent (10%) withholding tax rate.

Company Income tax is chargeable on the income of all companies operating in the country except those specifically exempted under the Act. There is some emphasis in the Act on the distinction between Nigerian and non-Nigerian companies. A Nigerian company is defined as one incorporated under the Companies and Allied Matters Act 1990, or any enactment replaced by that Act. The total profits of such company are assessable to Nigerian tax irrespective of whether or not all the profit have been derived from, brought into or received in Nigeria.

Economic Growth

Economic growth can be simply be define as an increase of the national income per capital, and involves the analysis, especially in quantitative terms. Economic growth is a process related to increasing economic indicators related to the size of the national economy, gross income per capital, and macroeconomic indications in a country (Haller, 2012), the increases in capital goods, labor force, technology, and human capital can all contribute to economic growth (Abata, 2014).

Economic development differs from economic growth; economic development is a policy intervention effort targeted at the economic and social well-being of the people (Salmon Valley Business Innovation Center, 2014). Its concern is on improvement in the quality of life of people, introduction of new goods and services using modern technological, mitigation of risk and dynamics of innovation and entrepreneurship (Hadji Michael, Kemeny & Lanahan, 2014).

The objective of economic development is to create an enabling environment for local communities and regions to develop new ways of production of goods in such quantities that may lead to exportation to other countries. Economic growth specifically means an increase in the value of goods and services produced by a country over a period. Increase in country's GDP is used to measure economic growth. Thus, it possible to have economic growth without economic development in the short or even medium term (Hadji Michael, Kemeny & Lanahan 2014). In other word, there could be an increase in GDP without any increase in standard of living of people in a state. Environmental conditions that would enhance economic growth must be created through an investment of the national income in infrastructural development for subsequent improvement in the standard of life of the population of a country.

Tax Revenue and Economic Growth

A country's tax system is a major determinant of other macroeconomic indexes. Specifically, for both developed and developing economics, there exist a relationship between tax structure and the level of economic growth and development. Undeniably it has been argued that the level of economic development has a very strong impact on a country tax base and tax policy objective varies with stages of development (Kiabel, 2009).

Anyanwu (1997) summarized a country 's economic growth as a long-term rise in capacity to supply increasing diverse that the growth capacity is based on advancing technology, institutional and ideological adjustment. Economic growth indicates expansion of a country's potential Gross Domestic Product. Jarkir (2011) concluded that, at the early stage of economic development, will be very high because government provides basic infrastructural facilities and most these projects are capital intensive.

Bhartia (2009) submitted that growth increase economic activities. Therefore, government spending and investment in education, health, roads, electricity and water are necessities that launch the economy from developing stage to take off stage of economic development to develop an egalitarian society.

Theoretical Review

Many theories of taxation exist but this study was anchored on the cost of service and economic growth theories.

Cost of Service Theory

Jhingan (2009), According to cost-of-service theory of taxation, the cost incurred by government in providing certain services to the people must collectively be met by the people who are the ultimate receiver of the service. This theory believes that tax is similar to price. So, if a person did not utilize the service of a state, he should not be charged any tax. Some criticisms have been leveled against the theory. The cost-of-service theory imposes some restrictions on government services. The objectives of government are to provide welfare to the poor. If the theory is applied, the state will not undertake welfare activities like medical care, education, social amenities, etc. Furthermore, it will be very difficult to compute the cost per head of the various service providers by the state, again, the theory has violated the correct definition and tenets of tax, finally the basis of taxation as propounded by the theory lad to the modernization of the theory. The modernization gave birth to the benefit receive taxation.

Theory of Economic Growth

Interest in growth issues has led to the development of various theories of growth, each purporting to explain the mechanics of growth. However, in the context of the study, the Keynes' growth theory provides the theoretical basis for this study because it explains how expansion through increase in government expenditure can bring about growth, whereas government expenditure is a function of revenue, of which petroleum taxation is a major source. Keynes was of the opinion that increase in government leads to higher economic growth. The theory demonstrates a long-term full employment which requires that two fundamental conditions be met, that is, the ratio of investment to income must equal the full employment savings ratio, and the economy's rate of growth must equal the natural rate of growth. Keynes asserted that a key factor that could account for the economy's stagnation and unemployment that was deficiency of aggregate effective demand. Keynes view was that the solution to the problem of economic stagnation rested on expansion of aggregate demand through massive increase in government expenditure (Alfred, 2005). Whereas, government expenditure also depends on the revenue accruing to it through taxation, including value added tax, company income tax and petroleum profit tax.

Empirical Review

Okafor (2012) investigated the impact of tax revenue on the economic growth of Nigeria as proxy by the gross domestic product (GDP). The study adopted the ordinary least square (OLS) regression analysis technique to explore the relationship between the GDP (the dependent variable) and a set of federal government income tax revenue heads over the period 1981-2007. The regression result indicated a very positive and significant relationship between the components of tax revenue and the growth of the Nigeria economy.

Akwe (2014) analyzed the impact of Non-oil Tax Revenue on Economic Growth from 1993 to 2012 in Nigeria. To achieve this research objective, relevant secondary data were used from the 2012 Statistical Bulletin of Central Bank of Nigeria (CBN). These data were analyzed using the Ordinary Least Squares Regression. The result from the test shows that there exists a positive impact of Non-oil Tax Revenue on economic Growth in Nigeria

Anyaduba & Aronnwan (2015) investigating the impact of tax revenues collected by the government on infrastructural development in Nigeria. This study restricts itself to taxes collected by the federal government of Nigeria. The longitudinal research design was used. The choice of this design is based on the observation of variables over a period of time (1980-2014). The hypothesis raised were evaluated using the Error Correction Model. The findings show that CIT and TET have significant impact on the level of infrastructural development while PPT and VAT have non-significant impact.

Akhor & Ekundayo (2016) analysed the link between revenue from indirect taxes and economic growth in Nigeria. The study focuses on the explanatory variables while real gross domestic product was adopted as the dependent variable. The study covered a 21 years period 1993 to 2013 and relied on secondary data which were collected from the statistical bulletins of the Central Bank of Nigeria (CBN) over the study. Analysis of data was based on descriptive and inferential statistics which included correlation analysis, co-integration test and the regression analysis via the Error Correction Model (ECM). The result from the analysis procedure suggests that revenue from value added tax and customs and excise duties had negative effect on the economic development. Specifically, it was observed that the relationship between VAT and economic development, though negative, was significant, whereas, the relationship between customs and excise duties was weak.

Akeem & Adejare (2015) conducted research on the impact of Petroleum Profit Tax (PPT) on economic growth in Nigeria. The aim of the study was to examine the impact of petroleum profit tax on economic growth in Nigeria. Secondary sources of data from Central Bank of Nigeria (CBN) were used. Multiple regressions were used to analyzed the data. Results of the finding shows that petroleum profit tax has positive significant impact on the GDP both on the short-run and the long-run, government should also minimize or find ways of eliminating totally the widespread corruption and leakage in the petroleum profit tax administration.

Kalas, Mirovic & Adrasie (2017) conducted a study in the United State of American and examined the effect of taxes on economic growth. The study covered a period of 20 years from 1996 to 2016. The study utilized the personal income tax and company income tax as proxies of tax revenue while growth and social security contribution on GDP were determined by the use of correlation matrix and analysis. The result revealed that company income tax and GDP are not significantly correlated.

Musa & Sanusi (2013) analyzed the impact of Value Added Tax (VAT) on economic growth in Nigeria, the objective of the study was to investigate the relative impact of value added tax on economic growth in Nigeria. The data used were collected from secondary sources through Federal Inland Revenue Service (FIRS) Gauge and Central Bank of Nigeria (CBN) Statistical Bulletin. Unrestricted Vector Auto-regression (VARs) techniques were employed to analyze and draw policy influence. Impulse Response Functions (IRFs) and Forecast Error Variance Decomposition (FEVDs) were computed through 1000 Monte Carlo Simulations. The result reveals that Value Added Tax have positive impact on economic growth in Nigeria and recommend that policy makers in Nigeria should continue this fiscal policy with another macro-economic indicator. This will enhance the Nigeria economy in the time of economic crisis.

Okafor (2012) examined the relationship between tax revenue and economic growth in Nigeria. the study adopted a descriptive and historical research design, secondary data for twenty-two years (1994-2015) were collected from various issues of the Central Bank of Nigeria (CBN) statistical bulletin and annual report. Analysis was performed on data collected using Auto Regressive Distributed Lag (AEDL). The result of the study showed that VAT and CED had a significant relationship with economic growth while CIT has negative significant relationship with economic growth

Summary of Literature Review/Gap

Many previous studies done on tax revenue in Nigeria show that tax revenue has a positive and significant relationship with growth. However, Kalas, Mirovic and Adrasie (2017), conducted a study in the United States of America and examine the effect of taxes on economic growth. The result revealed that Company Income Tax and GDP are not significantly correlated.

Anyaduba & Aronnwan (2015) then investigated the impact of tax revenues collected by the government on infrastructural development and found out that CIT and TET have significant impact on the level of infrastructural development while PPT and VAT have non-significant impact. To the best of the knowledge of the researcher, most research papers on the influence of tax revenue generation and economic growth in Nigeria stopped at 2018 and not much have been researched beyond this period. This study bridges the gap by providing an up to date on the effect of tax revenue on economic growth in Nigeria employing PPT, CIT, and VAT as independent variables of tax revenue and GDP as dependent variable proxying economic growth.

Methodology

Research Design

The *ex-post facto* research design was adopted for the study. The *ex-post facto* research design was employed because secondary data were used for the study.

Population of the Study

The population of this study relates to the entire tax revenue and the Gross Domestic Product (GDP) in Nigeria from 1994 to 2020.

Sample of the Study

The sample of this study is made up of Company Income Tax (CIT), Petroleum Profit Tax (PPT), Value Added Tax (VAT) revenues and Gross Domestic Product (GDP), for the period of 1994- 2020.

Model Specification

Ordinary Least Square Method is the analytical tool that was used, while the model used in multiple regression. In this model, GDP is the dependent variable; while VAT, CIT, and PPT are the independent variables. Consequently, the model for the study was stated as follows:

GDP=f (VAT, CIT, PPT, μ) - - - - - - - - - - (i)
Regression model:
GDP= $\beta 0 + \beta 1$VAT+$\beta 2 CIT + \beta 3 PPT + \mu$ - - - - -(ii)
Where,
GDP = Gross Domestic Product
VAT = Value Added Tax
CIT = Company Income Tax
PPT = Petroleum Profit Tax
$\beta 0$ = Constant
$\beta 1, \beta 2\ and \beta 3 = The\ parametersestimated$
$\mu = Therandomerrorterm$

The F-Statistic for the linear regression models was computed to determine the significance of the model that is, to what extent the variation in the independent variable explains the changes in the dependent variable.

Normality Test

In statistics, normality tests are used to determine if a data set is well-modeled by a normal distribution and to compute how likely it is for a random variable underlying the data set to be normally distributed. In this study normality test was carried out to show that all the datasets followed the normal distribution

Aprior Expectation

The researcher expects at the end of the study, that the PPT, VAT and CIT will have positive and significant impact on economic growth.

Decision Rule

Accept the hypothesis if the p-value is greater than 0.05. otherwise, reject the hypothesis. In other words, accept the hypothesis that the effect of the independent variable is non-significant, if the p-value is greater than 0.05 and reject the hypothesis that the effect is non-significant if the p-value is 0.05 Accept the hypothesis if the p-value is greater than 0.05. otherwise, reject the hypothesis. In other words, accept the hypothesis that the effect of the hypothesis that the effect of the independent variable is non-significant if he p-value is greater than 0.05 and reject the hypothesis.

Data Presentation and Analysis

The data employed for this study, the descriptive and the analysis of data are shown below;

Data Presentation

Table 1: Data Presentation

	GDP (Naira) Trillion	VAT Trillion	CIT Trillion	PPT Trillion
1994	105222.8	0.143700	122.3500	125.0400
1995	139085.3	1.567983	15.51000	68.15000
1996	216797.5	2.006385	19.14000	10.60000
1997	267550.0	2.948229	3.000000	26.90000
1998	312139.7	3.655385	3.800000	38.60000
1999	532613.8	5.064389	5.400000	51.50000
2000	683869.8	6.948430	9.600000	59.20000
2001	899863.2	7.300000	12.30000	42.80000
2002	1933212.	20.80000	21.90000	42.90000
2003	2702719.	32.50000	23.10000	47.50000
2004	2801973.	35.30000	27.80000	64.30000
2005	2708431.	37.60000	33.30000	24.60000
2006	3194015.	47.80000	46.20000	71.10000
2007	4582127.	58.00000	53.30000	334.5000
2008	4725086.	91.70000	69.40000	407.1000
2009	6912381.	108.6000	89.10000	224.4000
2010	8487032.	136.4000	114.8000	438.0000
2011	11411067	163.3000	130.8000	878.6000
2012	14572239	192.7000	170.2000	1352.200
2013	18564595	232.7000	246.7000	1349.500
2014	20657318	312.6000	332.4000	1132.000
2015	24296329	401.7000	420.6000	2060.900
2016	24712670	481.4000	600.6000	939.4000
2017	29205783	564.9000	666.1000	1480.400
2018	29894567	659.2000	715.4000	3070.600
2019	30354675	710.6000	846.6000	3201.300
2020	30124621	802.7000	998.4000	2666.400

Sources: Federal Inland Revenue Service, World Bank, CBN and UNDP (2020)

Descriptive Statistics

Table 2: Descriptive Statistics

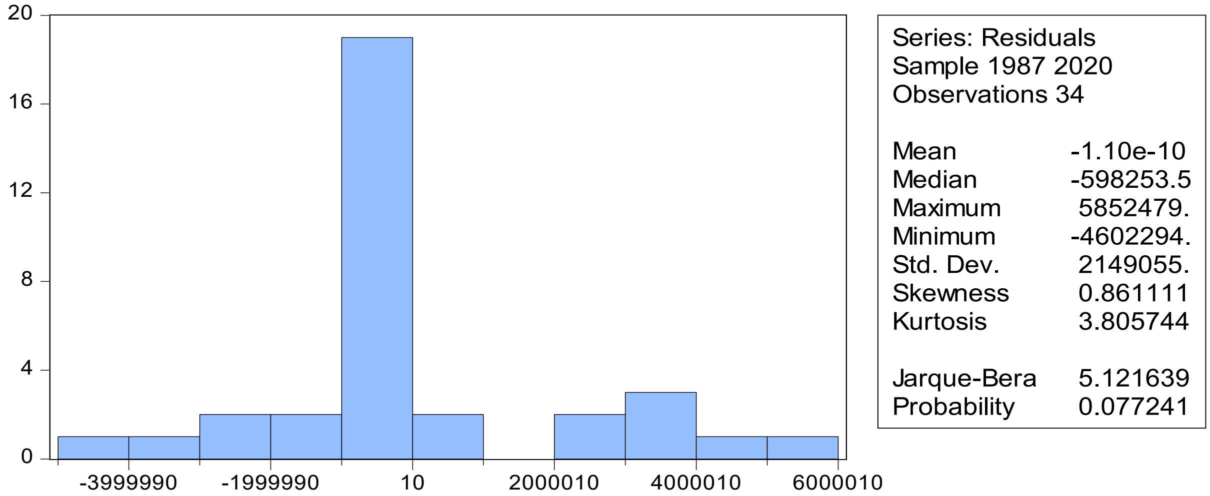
VARIABLES	GDP	VAT	CIT	PPT
Mean	8099826.	149.9353	171.9124	605.0697
Median	2705575.	33.90000	30.55000	67.63000
Maximum	30354675	802.7000	998.4000	3201.300
Minimum	47619.66	0.000000	3.000000	10.60000
Std. Dev.	10817033	233.2921	273.5452	920.2607
Skewness	1.106102	1.590015	1.761388	1.679156
Kurtosis	2.624527	4.243640	4.859637	4.708117
Jarque-Bera	7.132671	16.51725	22.47995	20.11089
Probability	0.028259	0.000259	0.000013	0.000043
Sum	2.75E+08	5097.800	5845.020	20572.37
Sum Sq. Dev.	3.86E+15	1796032.	2469290.	27947034
Observations	26	26	26	26

Table 2 describes the basic features of the data employed in the study. It provides simple summaries about the samples and measures covering observations for each data series. Firstly, over the period under review, the GDP which proxies economic growth averaged of 8099826.Trillion Naira. The mean of Value Added tax (VAT) is 149.9353Trillion Naira; The table also reveals that a positive average values of 171.9124 trillion Naira for company income tax (CIT) and 605.0697Trillion Naira for petroleum profit tax (PPT). These values mean that within the period under review, the tax revenue meet up 8099826 trillion Naira on the average within the period under review. The maximum value of VAT is 802.7000 trillion Naira and its minimum value is 0.143700 trillion Naira, maximum value for CIT is 998.4000Trillion Naira and its minimum value is 3.000000, maximum value for PPT is 3201.300Trillion Naira and its minimum value is 10.60000Trillion Naira. The large differences between the maximum and minimum value shows that the data used for the study are homogeneous.

Pre diagnostic Test

Normality Test

Graph 1: Normality test



These normal probability plots show that all the datasets follow the normal distribution. This type of graph is also a great way to determine whether residuals from regression analysis are normally distributed. In the graph 1 above, the statistic is tested at 0.05 level of significance and the decision rule is to reject the null hypothesis, when P-value is less than 0.05 level of significance, otherwise, do not reject. In Graph1 above, Normality of the data was assessed. Result showed that data were normally distributed as *P-value* = 0.077241 were statistically insignificant, that is, data were considered normally distributed. According to the results of Jarque-Bera test, errors are normally distributed. The normal distribution of errors is very important especially when we want to make interpretation according to the estimated econometrical equation. The normality of the data goes to confirm the suitability of using Ordinary Least Squares as an analytical tool. The serial correlation, shown in graph 1 of Normality test, confirmed with the help of Serial Correlation LM test shown on the table 3 below, available with the help of the option View/Residual tests/Serial Correlation LM Test.

Serial Correlation LM Test

Table 3: Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:				
F-statistic	10.83994	Prob. F(2,28)		0.0003
Obs*R-squared	14.83731	Prob. Chi-Square (2)		0.0006
Test Equation:				
Dependent Variable: RESID				
Method: Least Squares				
Date: 04/05/22 Time: 07:19				
Sample: 1987 2020				
Included observations: 34				
Pre sample missing value lagged residuals set to zero.				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

C	231181.6	369293.5	0.626010	0.5364
VAT	-18839.32	13808.42	-1.364335	0.1833
CIT	12328.13	9824.273	1.254864	0.2199
PPT	569.3157	1114.507	0.510823	0.6135
RESID (-1)	0.657931	0.193685	3.396921	0.0021
RESID (-2)	0.206909	0.208732	0.991267	0.3300
R-squared	0.436391	Mean dependent var		-1.10E-10
Adjusted R-squared	0.335747	S.D. dependent var		2149055.
S.E. of regression	1751516.	Akaike info criterion		31.74865
Sum squared resid	8.59E+13	Schwarz criterion		32.01801
Log likelihood	-533.7270	Hannan-Quinn criteria		31.84051
F-statistic	4.335975	Durbin-Watson stat		1.659225
Prob(F-statistic)	0.004779			

Source: E-Views0.9

For each variable and constant E-Views reports the standard error of the value, the t-Statistic and its associated probability. We have been working on 5% level of relevance and the probability attached to this kind of test is superior and the values are considered insignificant from statistical point of view. Durbin Watson statistic (DW) is a statistic test that checks the serial correlation of errors. If errors are not correlated then DW value will be about 2. In the table 3 above, this indicator has the value of 1.659225and consequently there is no serial correlation of errors. E-Views also reports two informational criteria: Akaike info criterion and Schwarz criterion. These indicators are used when an equation must be chosen among more variants. According to the informational criterion we choose the specification for which informational criteria have the smallest values.

Correlation Analysis

Table 4: Correlation Analysis

VARIABLES	GDP	VAT	CIT	PPT
GDP	1.000000	0.971049	0.946072	0.934351
VAT	0.971049	1.000000	0.991768	0.944743
CIT	0.946072	0.991768	1.000000	0.920734
PPT	0.934351	0.944743	0.920734	1.000000

The correlation matrix is to check for multi-collinearity and to explore the association between each explanatory variable and the dependent variable. The table shows that GDP has positive association with VAT (0.971049), CIT (0.946072) and PPT (0.934351). VAT has a strong positive association with CIT (0.991768) and PPT (0.944743). CIT also has a strong positive association with PPT (0.920734). In checking for multi-collinearity, the study observed that no three explanatory variables were perfectly correlated.

Regression Analysis

Table 5: GDP Model

Dependent Variable: GDP				
Method: Least Squares				
Date: 12/01/21 Time: 09:28				
Sample: 1994-2020				
Included observations: 26				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1248141.	465463.2	2.681504	0.0118
VAT	92516.80	16953.06	5.457234	0.0000
CIT	-40899.96	12147.02	-3.367079	0.0021
PPT	18.77439	1410.331	0.013312	0.9895
R-squared	0.960529	Mean dependent var		8099826.
Adjusted R-squared	0.956582	S.D. dependent var		10817033
S.E. of regression	2253948.	Akaike info criterion		32.20440
Sum squared resid	1.52E+14	Schwarz criterion		32.38397

Log likelihood	-543.4747	Hannan-Quinn criteria		32.26563
F-statistic	243.3502	Durbin-Watson stat		1.751951
Prob(F-statistic)	0.000000			

The R-squared which is the co-efficient of determination or measure of goodness of fit of the model, tests the explanatory power of the independent variables in any regression model. From our result, the R-squared (R^2) is 96% in GDP Model. This showed that our model displayed a good fit because the R^2 is closer to 100%, these explanatory variables can impact up to 96% out of the expected 100%, leaving the remaining 4% which would be accounted for by other variables outside the models as captured by the error term.

The F-statistics measures the overall significance of the explanatory parameters in the model, and it shows the appropriateness of the model used for the analysis while the probability value means that model is statistically significant and valid in explaining the outcome of the dependent variables. From table 5above, the calculated value of the f-statistics is 243.3502 and its probabilities are 0.000000 which is less than 0.05. We therefore accept and state that there is a significance relationship between the variables. This means that the parameters estimates are statistically significant in explaining the relationship in the dependent variable.

The t-statistics helps in measuring the individuals' statistical significance of the parameters in the model from the result report. It is observed from table 5 above that VAT and CIT were statistically significant at 5% with its t-values as 5.457234 and -3.367079 respectively and p-values as 0.0000 and 0.0021 respectively. This implies that they have contributed significantly to economic growth (GDP) at the rate of 5% level of significance. PPT is positive but not statistically significant at 5% with its t-value as 0.013312 and p-value as 0.9895. This implies that PPT does not contributed significantly to economic growth (GDP) at the rate of 5% level of significance. Our model is free from the problem of autocorrelation because the Durbin-Watson value is 1.751951 which is approximated as 2 (that Means, the absence of autocorrelation in the model used for the analysis). The apriority criteria are determined by the existing accounting theory and states the signs and magnitude of the variables from the result. The explanatory variables - VAT and PPT has positive sign and its values are 5.457234 and 0.013312 respectively. In the Model, this implies that increase in VAT and PPT increases the economic growth (GDP) by 546% and 1.3% respectively. CIT has negative sign and its values are -3.367079. In the Model, this also implies that decrease in CIT decreases the economic growth (GDP) by 337%, and this conforms to our theoretical expectations.

Hypotheses Testing

Ho_1: Value Added Tax has no significant impact on economic growth in Nigeria.

From the result of our test in table 5 above, we found out that the value of our t-test for VAT is 5.457234 with a probability of 0.0000. This probability value is less than the desired level of significant of 0.05. We accept the alternative and reject the null hypothesis, which assumes that Value Added Tax has no significant impact on economic growth in Nigeria. Thus, Value Added Tax has a positive and significant impact on economic growth in Nigeria at 5% level of significance.

Ho_2: Company Income Tax has no significant impact on economic growth in Nigeria.

Drawing inference from table 5, we found that the computed value, t-value for CIT is -3.367079, while its probability is 0.0021. Since its probability value is less than the desired level of significance of 0.05, we therefore, reject the null and accept the alternative hypothesis, which indicates that Company Income Tax significantly impact on economic growth in Nigeria. Thus, Company Income Tax has a negative and significant effect on economic growth in Nigeria at 5% level of significance.

Ho_3: Petroleum Profit Tax has no significant impact on economic growth in Nigeria.

From the result of our test in table 5 above, we found that the value of our t-test for PPT is 0.013312 with a probability of 0.9895. This probability value is greater than the desired level of significant of 0.05. Consequently, we accept the null hypothesis which maintains that Petroleum Profit Tax has no significant effect on economic growth in Nigeria. Thus, Petroleum Profit Tax has positive and weak impact on economic growth in Nigeria at 5% level of significance.

Discussion of Result

This study used economic growth (proxied by GDP) as dependent variable; while tax revenue was represented by Value Added Tax, Company Income Tax and Petroleum Profit Tax. The findings show that the impacts of Value Added Tax and Company Income Tax was statistically significant at 5% with their t-values as 5.457234 and -3.367079 respectively and p-values as 0.0009 and 0.0021 respectively. This implies that they have contributed significantly to economic growth (GDP) in Nigeria at 5% level of significance. The impact of Petroleum Profit Tax was not statistically significant at 5% as its p-value was 0.9895. This implies that PPT has contributed non-significantly to economic growth (GDP) in Nigeria at 5% level of significance. The implication is that an increase in Value Added Tax and Company Income Tax will influence economic growth (GDP) by 546% and 337% respectively; as increase in the VAT will increase GDP, whereas increase in the CIT will decrease the GDP. An increase in Petroleum Profit Tax will have weak impact on economic growth. The findings of this study were not totally in alignment with some of the previous studies carried out on related topic. For instance, Okafor (2012) investigated the impact of income tax revenue on the economic growth of Nigeria, adopting the ordinary least square (OLS) regression analysis techniques to explore the relationship between GDP (the dependent variable) and a set of federal government income tax revenue heads over the period 1981-2007.

The regression result of the study of Okafor (2012) showed a very positive and significant relationship between the components of tax revenue and the growth of the Nigeria economy. However, the findings of this study are supported by Akwe (2014) who analyzed the effect of Non-oil Tax Revenue on Economic Growth from 1993 to 2012 in Nigeria. Using the Ordinary Least Square Regression technique to analyze the data collected for the study, Akwe (2014) found a positive effect of non-oil tax revenue on economic growth in Nigeria. The negative and significant effect on economic growth by company income tax is contrary to the *apriori* expectation of this study. This might be due to the incidence of tax evasion and avoidance among the companies in Nigeria in addition, government policy on tax matters tend to discourage some companies from paying tax. For instance, the continuous increase in double and multiple taxes on company incomes, especially as regards the infant companies could make them to evade or avoid taxes.

Summary of Findings

The study investigated the relationship between tax revenue on economic growth in Nigeria, and the following were found at the 5% level of significance:

- **I.** Value Added Tax has a positive and significant impact on the economic growth of Nigeria.
- II. Company Income Tax has a negative and significant impact on the economic growth of Nigeria.
- III. Petroleum Profit Tax has a positive and nonsignificant effect on the economic growth of Nigeria.

Recommendations

The study, therefore recommends the following based on the findings of the study:

- I. Government should endeavor that tax system is very transparent and the proceeds from taxes are used honestly to provide social amenities to all nooks and crannies of the country. As this will boost the level of tax compliance in Nigeria, reduce tolerable problems of tax evasion and avoidance.
- II. The government federal, state and local level, having noticed the negative and significant effect of CIT on the economic growth in the country. Should prudently manage the financial resources generated from taxes and also reduce drastically municipal waste of funds.
- III. Since, PPT has insignificant effect on the economic growth; the government and the tax authority should consider that when making decision on tax policy bearing in mind that it has positive effect on economic growth.

Finally, the culture of good governance should be embraced by the government so as to secure the loyalty of the populace of good tax culture.

Suggestion for Further Study

The researcher suggest that further should be carried out on this study, to find out why Company and Income Tax (CIT) should be having a negative effect on economic growth in Nigeria.

Conclusion

This study has examined the impact of tax revenue on economic growth of Nigeria. All the independent variables (Value Added Tax, Company Income Tax as well as Petroleum Profit Tax) have statistical significance on the dependent variable (Gross Domestic Product). This study has been able to describe the roles that petroleum profit, company income tax and value added tax play in the economic growth in Nigeria. Nigeria has the potential to build a prosperous economy, reduce poverty significantly, and provide the health, employment generation, education, and infrastructure services to its citizenry. Considering the positive and significant relationship between Values added tax, petroleum profit tax and economic growth in Nigeria, there is an urgent need for government to prioritize her needs as petroleum revenue continues to decrease and address the situation where most of registered firms were not in the tax system. From the foregoing analysis and findings, we can derive empirical conclusions with respect to the impact of tax revenue on economic growth in Nigeria. It was observed that Value Added Tax and Petroleum Profit Tax have positive impact on economic growth in Nigeria; while Company Income Tax has negative impact on economic growth in Nigeria

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