

TAXATION AND ECONOMIC DEVELOPMENT OF NIGERIA (2000-2020)**¹Chukwu, Luke Chukwuka, PhD & ²Kwem-Anyanwu, George, M.Sc**¹*Department of Accountancy, Imo State University, Owerri*²*Imo State Board of Internal Revenue, Owerri***KEY WORDS**Taxation, Development,
GDP-per capita, Revenue**A B S T R A C T**

This study evaluated the effect of tax revenue on Nigeria's economic development. To achieve this objective, the impacts of petroleum profit tax (PPT), company income tax (CIT) and custom duty (CD) on Nigeria's capital infrastructure development and GDP-per capita were examined, from which relevant hypothesis were formulated. The study used secondary data (extracted from CBN annual statistical bulletin for the years under study (2000-2020). The formulated hypotheses were tested using multiple linear regression models with the aid of SPSS version 21. Following the series of empirical tests conducted, it was found that petroleum profit tax (PPT), company income tax (CIT), and custom duty (CD) have an aggregate effect on Nigeria's capital infrastructure development (CIFD). This is evident with the value of the R^2 of approximately 62% indicating that changes in Nigeria's CIFD as an economic development indicator are influenced by the values of tax revenue. The tax revenue proxies also showed a high combine effect on Nigeria's GDP-per capita. The study further revealed that PPT and CD both have positive effect on CIFD while CIT have negative effect on CIFD. Model two results show that all tax revenue proxies have positive effect on GDP-per capita. However, the effect of custom duty (CD) was found to be insignificant. Consequently, it is recommended that government apply tax revenue generated to provide capital infrastructure thus creating an enabling environment that is good enough for those sectors of the economy to thrive.

Introduction

The primary goal of any developing country is to increase the rate of economic development and per capita income which leads to a higher standard of living. Thus, taxation can be used as a stimulus to accelerate such development in the Nigerian economy. Economic history of both developed and developing countries, reveals that taxation is an important instrument of government that generates revenue, which also create fiscal goals that influence the direction of investment and taming the consumption and production of certain goods and services. Oriakhi, (2014) stated that, taxes are imposed to regulate the production of certain goods and services, protection of infant industries, control business and

commerce, curb inflation, and these in turn result to economic growth.

Taxation is the key to promoting sustainable growth and poverty reduction. It provides developing countries with a stable and predictable fiscal environment, promote growth and to finance their social and physical infrastructural needs. Combined with economic growth, it reduces long term reliance on aid and ensures good governance by promoting the accountability of governments to their citizens (Roma & Roma, 2010). They buttressed their point that, availability and mobilization of revenue is the fundamental factor with which an economy is managed.

Empirical studies have shown that the quantum of revenue available to any government needed to meet the social and capital expenditure in a country depends on its ability to harness funds from internal and external sources and channel it towards national development and economic prosperity. It has been observed over the years that tax revenue has generally been grossly understated due to improper tax administration arising from under assessment and inefficient machinery for collection (Chigbu & Njoku, 2015). In Nigeria revenue derived from income taxes has been grossly understated due to improper tax administration, assessment and collection (Ola, 2001; Adegbe & Fakile, 2011). Persons and companies are known to routinely default in remitting their taxes due to corrupt practices and the existence of various loopholes in the tax laws. According to Oluba (2008), the success or failure of any tax system depends on the extent to which it is properly managed; the extent to which the tax law is properly interpreted and implemented.

As a result of the degree of the effect tax revenue has on the economic development of a country many scholars such as Kamiar and Hashem (2013), Keightley (2014), Okoli and Afolayan (2015), Anyaduba and Aronwa (2015), Akhor and Ekundayo (2016) and Manukaji and Nwadiolor (2016), have tried to investigate into its level of impact on the economy, however evidence from the empirical review of the studies carried out showed varying results and conclusions where few found that tax revenue has weak and insignificant effect on economic development other studies revealed a positive and significant effect thus having contradicting results. As a result of these gaps it became necessary that a study is carried out on the topic.

The main objective of this study is to examine the impact of tax revenue collected on the economic development of Nigeria. The specific objectives are to.

- i. evaluate the impact of Petroleum Profit Tax(PPT) on Nigeria's capital infrastructure development(CIFD).
- ii. ascertain the effect of Companies' Income Tax (CIT)on Nigeria's capital infrastructure development(CIFD).
- iii. determine the effect of Custom Duty (CD) on Nigeria's capital infrastructure development (CIFD).
- iv. evaluate the impact of Petroleum Profit Tax(PPT) on Nigeria's GDP per capita (GDP-C).

- v. ascertain the effect of Companies' Income Tax(CIT) on Nigeria's GDPper capita (GDP-C).
- vi. evaluate the impact of Custom Duty (CD) on Nigeria's GDPper capita (GDP-C).

From the above problem and objective of this research, the following research questions were formulated:

- i. to what extent has Petroleum Profit Tax (PPT) affected Nigeria's capital infrastructure development (CIFD)?
- ii. to what extent does Companies' Income Tax (CIT) affect Nigeria's capital infrastructure development (CIFD)?
- iii. how has Custom Duty (CD) affected Nigeria's capital infrastructure development (CIFD)?
- iv. how has Petroleum Profit Tax (PPT) affected Nigeria's GDPper capita(GDP-C)?
- v. to what extent has Companies' Income Tax (CIT) affected Nigeria's GDP-per capita(GDP-C)?
- vi. to what extent does Custom Duty (CD) affect Nigeria's GDPper capita(GDP-C)?

From the research questions stated above the following hypotheses have been formulated in null form;

- H01.** Petroleum profit tax (PPT) has no significant effect on Nigeria's capital infrastructure development (CIFD).
- H02.** Companies' Income Tax (CIT) has no significant effect on Nigeria's capital infrastructure development (CIFD).
- H03.** There is no significant relationship between Custom Duty (CD) and capital infrastructure development (CIFD) in Nigeria.
- H04.** Petroleum profit tax (PPT) has no significant effect on Nigeria's GDPper capita (GDP-C).
- H05.** There is no significant relationship between company income tax and Nigeria's GDP per capita (GDP-C).
- H06.** There is no significant relationship between Custom Duty (CD) and Nigeria's GDP per capita (GDP-C).

Review of Related Literature

Conceptualisation of Study Variables

Independent Variable

Tax Revenue

Petroleum profit tax (PPT)

Company income tax(CIT)

Custom duty (CD)

Dependent Variable

Economic Development

Capital Infrastructure Development

GDP per capita

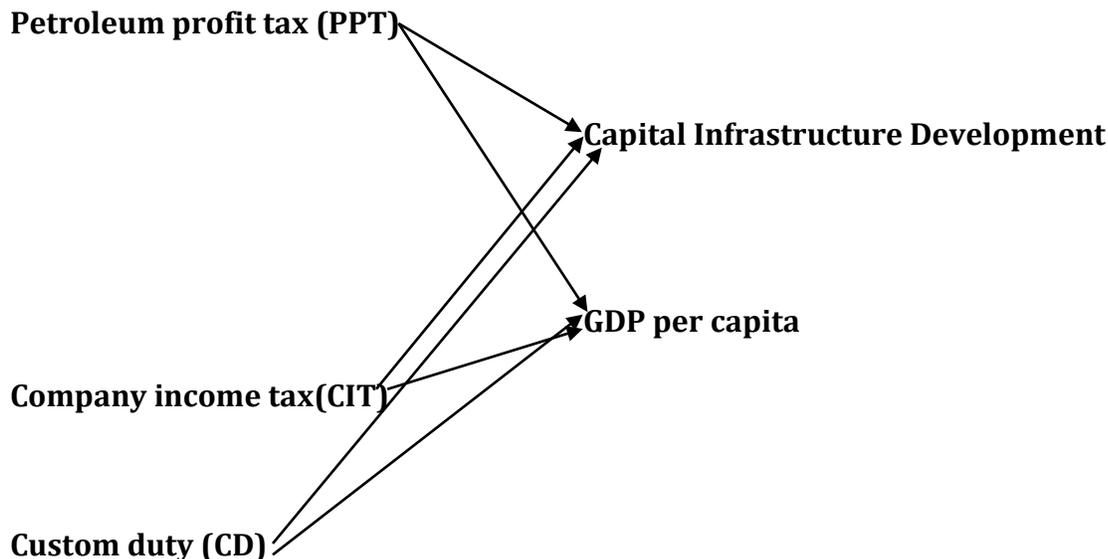


Figure 2.1: Operation conceptual framework

Conceptual Issues:

The Concept of Taxation

Tax is a compulsory contribution imposed upon persons and firms by a public authority to cover government expenses (Attamah, 2004). 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. Udabah (2002), argued that taxation was originally formulated to raise revenue so as to cover the state expenditure. 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.

Despite this improvement, Nigerian tax system still experience many

problems that must be addressed urgently which and among them are appropriate tax authority to administer several taxes, the issue of multiple taxes severally administered by all the three tiers of government which sometimes imposes welfare cost and the issue of the paucity of data base, which contributes to tax avoidance in the country, Unegbu (2011).

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 (Evans & Hunt, 2011).

The Companies Income Tax Act (CITA) defines 'company' in a broader sense. It defines a company as: "any company or corporation (other than corporation sole) established by or under any law in force in Nigeria or elsewhere". The CITA permits the existence of foreign companies and charge their profits derived from Nigeria to tax. While CAMA regulates incorporation, control and management of companies, CITA charges to tax the profits of these companies..

Customs duty is a key source of revenue for the Federal Government which is payable by importers of specified goods.

Adegbe (2011) studied the Customs and Excise Duties contribution towards the growth and development of Nigerian economy. The study reveals that there is a strong correlation between customs and excise duties and economic development of Nigeria. This shows that this is a source of income that Nigeria should develop.

Economic development is a policy intervention efforts targeted at the economic and social well-being of people (Salmon Valley Business Innovation Centre, 2014). Its concern is on improvement in the quality of life of people, introduction of new goods and services using modern technology, mitigation of risk and dynamics of innovation and entrepreneurship (Hadjimichael et al, 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. Availability of financial resources from exportation leads to more investment in infrastructure for the benefit of the society and improvement in living conditions of the people, in education, transportation networks, health conditions, water supply, sewage and sanitation conditions (SVBIC, 2014). The changes create the conditions for long-run economic growth by positioning the economy on a higher growth trajectory (Hadjimichael et al., 2014). Economic development differs from economic growth. Economic growth specifically means an increase in the value of goods and services produced by a country over a period and Economists use an increase in country's GDP to measure it. Thus, it is possible to have economic growth without economic development in the short or even medium term (Hadjimichael et al, 2014). In other words, 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 subsequently improvement in the standard of life of the population of a country. Writers use economic growth and development interchangeably and also use GDP as measurement indicator for both.

Capital infrastructure comprises of public capital projects which are put up to aid development, stimulate economic growth and enhance the standard of living of the citizenry. Countries invest huge amount of funds on building capital projects such as hospitals, schools, roads, railways, airports, sea ports and recreational center. Haque and Kneller (2008) argue that corruption inflates the level of expenditure on public capital projects, while lowering the return to that capital, for example, because of low quality. Corruption implies that a unit spending on public investment does not buy a unit worth of service. Investment may be based on who offers the best kickbacks to officials rather than who offers the best price-quality combination.

Theoretical Review

Economists have put forward many theories of taxation at different times to guide the state as to how justice or equity in taxation can be achieved. The main theories are as follows:

Cost service Theory of Taxation

This theory was propounded by William smith in 1930, According to Jiweta (1945) cost service theory assumes an exchange or contractual relationship between the state and the taxpayers, certain goods and services are provided by the state and the cost of such goods and services are contributed in the proportion of the received benefits, thus, the benefits received present the basis for distributing the tax burden in specific manner. This theory overlooks the possible use of the tax policy for bringing about economic growth or stabilization. The cost of service theory is very similar to the benefits-received theory. The theory emphasizes on semi commercial relationships between the state and the citizens to a greater extent. The implication according to Chigbu, Igwe & Imoh, (2012) was that, the citizens are not entitled to any benefits from the state and if they do, they must pay the cost thereof. In this theory, the costs of services are scrupulously recovered unlike the benefits-received theory where a balanced budget is implied (Chigbue, Igwe & Imoh, 2012).

This study therefore focuses on the sociopolitical and benefit theories which enables us to assess the extent to which the Nigerian tax system conforms to this scenario where the link between tax liability and economic benefits are linked. If applicable, such will enhance accurate tax revenue projection and targeting of specific tax revenue sources given an ascertained profile of economic development. It will also assist in estimating a sustainable revenue profile there by facilitating effective management of a country's fiscal policy among others.

Benefit Received Theory of Taxation

This theory proceeds on the assumption that there is basically an exchange

relationship between tax-payers and the state. The theory as propounded by Hernandez Rozeweta in 1898 and reported in Jang (2003) posit that the state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received. (Anyanwu) (1997) argues that taxes should be allocated on the basis of benefits received from government expenditure. According to this theory, the more benefits a person derives from the activities of the state, the more he should pay to the government, in accordance with the "benefits theory of taxation," we conceive of taxes as' payments in exchange for government benefits, perhaps states should be obliged to confer personal tax benefits on residents who contribute to their tax coffers. The benefits theory would imply that a resident should be able to collect personal tax benefits to the extent that her tax payments to the source state exceed the money value of any source state government benefits she already receives, including infrastructure, regulated labour and capital markets, and so on. Although intuitively attractive, the benefits theory of taxation suffers from several major draw backs.

Firstly, it would be impossible to implement precisely due to the difficulty of determining the amount of government benefits, including diffuse benefits such as military protection received by each resident and non-resident taxpayer.

Secondly, the benefits theory does not accord with modem understandings of income taxation. In a purely domestic context, states generally do not condition government benefits upon recipient's payment of taxes. Indeed, taxpayers receiving the largest government benefits may be those who, due to their needy circumstances, pay the least taxes.

Thirdly, this theory will be against the basic principle of the tax if the state maintains a certain connection between the benefits conferred and the benefits derived. A tax, as we know, is compulsory contribution made to the public authorities to meet the expenses of the government and the provisions of general benefit.

Fourthly, most of the expenditure incurred by the slate is for the general benefit of its citizens, it is not possible to estimate the benefit enjoyed by a particular individual every year. If we apply this principle in practice, then the poor will have to pay the heaviest taxes, because they benefit more from the services of the state. And if we get more from the poor by way of taxes, it is against the principle of justice.

Empirical review

Many studies have been carried out in the past in related studies; such studies include Lee and Adegbe (2011) studied the Customs Duties contribution towards the advancement and growth of Nigerian economy. The study data was generated from CBN statistical bulletin from 1970-2009. Data was analyzed with ordinary least square techniques and the findings of the study revealed that there is a strong correlation between customs duties and economic development of Nigeria.

Haq-Padda and Akram (2011) in their study on the impact of tax on the economic growth in developing countries used panel data from 3 South-Asian countries during the period of 1973 to 2008 and applying Multiple regression method to examine the impact of tax policies on economic growth using data from 3 South-Asian economies and discovered that tax policies adopted by developing countries have no evidence that taxes permanently affect the rate of economic growth. The results of the study suggest that the neo-classical growth models best describe the relationship between output and the tax rate because a higher tax rate permanently reduces the level of output but has no permanent effect on the output growth rate.

Adegbie and Fakile(2011) concentrated on the Company Income Tax and Nigeria Economic Development relationship. Using Chi-square and Multiple Linear Regression analysis in analyzing the primary and secondary data respectively and concluded that there is a significant relationship between company income tax and Nigerian economic development. And that tax evasion and avoidance are major hindrances to revenue generation.

Ogbonna and Ebimobowei (2011) conducted a study on the impact of petroleum profit tax revenue on the economy of Nigeria for the period 1970 to 2010. The study showed that a strong correlation exists between petroleum profit tax revenue and GDP. This was determined from the regression results that showed an $R=0.839$, R Squared of 0.705 , F -value of 90.630 and a corresponding significant value of 0.000 and a t -value of less than 0.05 significant level. They concluded that oil based revenue if invested efficiently in the economy will to a large extent make material difference on GDP. From the result of Ogbonna and Ebimobowei (2012), it can be deduced that PPT has a positive impact on Nigeria's economy but it will be good to further investigate the roles other taxes play on the economy's GDP both individually and as a lump sum which is one of the objectives this study aims to achieve.

Jibrin, Blessing & Ifurueze (2012) ascertained the impact of Petroleum Profit Tax on the growth of the Nigerian economy for the period 2000 to 2010. They made use of the ordinary least square technique. They found that Petroleum Profit Tax impacted positively on Gross Domestic Product of Nigeria and that the relationship was statistically noteworthy.

Appah and Ebiringa (2012) explored the impact of Petroleum Profit Tax on the economic growth of Nigeria. Relevant data were gathered from the CBN and FIRS from 1970 to 2010 and analyzed using a granger causality model. The results showed a long-run equilibrium correlation between economic growth and Petroleum Profit Tax. It also found that Petroleum Profit Tax did granger cause Gross Domestic Product of Nigeria.

Omojumite and Iboma, (2012) in their study on the impact of the Nigerian tax system on tax revenue generation between 1970 and 2010. They formulated ten models (including a model which tested the correlation between Petroleum Profit

Tax and economic growth) for the study and used Ordinary Least Square Method to estimate the data. The data set was separated into three periods in other to be able to capture changes in the Nigerian macroeconomic environment. The analysis result showed that overall, the elasticity of all the tax system including the Petroleum Profit Tax were less than one even though they displayed positive elasticity coefficients. In summary, the result showed that the Nigerian tax system is less fruitful irrespective of the level of data aggregation.

Njideka (2012) studied the impact of tax revenue on economic development and stability. The study span through 1990-2010 and data were analyzed using ordinary least square regression and the result of the analysis revealed that found that tax revenue even though is a serve as a withdrawal from the equilibrium economic cycle it adds to the economic growth by way of government expenses which add to the capital base of the economy.

Onaolapo, Fasina and Adegbite (2013) empirically studied the effect of Petroleum Profit Tax (PPT) on Nigeria's economy from 1970 to 2010. Multiple regressions were employed to analyze data, involving the variables as Gross Domestic Product (GDP), Petroleum Profit Tax, Inflation and Exchange Rates. The results of the study showed that the variables were all statistically significant with the economic growth of Nigeria with the adjusted R² of 86.3%. Following the outcome of the study, they concluded that abundance of petroleum and its associated income had been beneficial to the Nigerian economy.

Sikka and Hamphon, (2015) examined the relationship between company income tax and Nigeria's economic development for the period 1981 to 2007. They used GDP to capture the Nigeria economic which was measured against total annual revenue from company income tax for the same period. They employed the use of chi-square and multiple regression analysis method to analyzed data obtained from both primary and secondary sources. Their variables included various taxes regressed against GDP with an R-squared of 98.6percent and an adjusted R squared of 98.4percent, revealing that company income tax's impact on GDP is very high and impressive. It further showed that there is a significant relationship between company income tax and Nigerian economy development and that tax evasion and avoidance are the major hindrance to revenue generation.

Anyaduba and Aronnwan (2015) investigated 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 to 2014). The hypotheses 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 have non-significant impact.

Adegbite (2015) examined the effects of corporate income tax on revenue profile; it also determined the impact of corporate tax revenue on economic growth

in Nigeria using multiple regression analysis method from 1993 to 2013 and found that there is a positive significant impact of corporate tax on revenue in Nigeria. The study concluded that government should reduce corporate income tax rather than eliminate corporate tax in Nigeria, lower corporate tax will increase the demand for labour which will in turn raises wages and increases consumption.

Akhor and Ekundayo (2016) examined the impact of indirect tax revenue on economic growth in Nigeria. The study uses value added tax revenue and custom and excise duty revenue as independent variables and economic growth was proxy with real gross domestic product as the dependent variable. The study employ secondary data collected from Central Bank of Nigeria statistical bulletin for the period covering 1993 to 2013 for the empirical analysis using the convenient sampling techniques. The result revealed that value added tax had a negative and significant impact on real gross domestic product. In the same vein, past custom and excise duty had a negative and weakly significant impact on real gross domestic product. The Error Correction Model (ECM (-1)) coefficient had a correct negative and statistically significant sign. This shows that short-run deviation can be quickly corrected. The Durbin-Watson positive value indicates the absence of autocorrelation in the model.

Onakoya and Afintinni (2016) investigated the co-integration relationship between tax revenue and Economic growth in Nigeria from 1980 to 2013. Various preliminary tests including descriptive statistics, trend analysis, and stationary tests using Augmented Dickey Fuller (ADF) test were conducted. The Engle-Granger Co-integration test was employed to determine whether a long run relationship existed between the variables. The Vector Error correction model was employed to confirm the long run relationship and determine the short run dynamics between the variables. The result revealed a significant positive relationship at 5% level of significance between Petroleum profit tax, Company Income tax and economic growth, but a negative relationship between economic growth and customs and Excise Duties. However, the tax components are jointly insignificant in impacting the Nigerian economic growth.

Cornelius, Ogar and Oka (2016) examined the impact of tax revenue on the Nigerian economy. The objectives of the study were; to examine the relationship between petroleum profit tax and the Nigeria economy, the impact of company income tax on the Nigerian economy and the effectiveness of non-oil revenue on the Nigerian economy. Data were sourced from Central Bank Statistical Bulletin and extracted through desk survey method. Ordinary least square of multiple regression models was used to establish the relationship between dependent and independent variables. The finding revealed that there is a significant relationship between petroleum profit tax and the growth of the Nigeria economy. It showed that there is a significant relationship between non-oil revenue and the growth of the Nigeria economy. The finding also revealed that there is no significant relationship between company income tax and the growth of the Nigeria economy.

Ngwamu (2017) studied the impact of tax revenue on government income and economic growth. The study used time series data from the CBN statistical bulletin between 1985-2015. Data was analyzed using multiple linear regression and the findings show that tax revenue is a major source of income to government and thus serves a revenue source for funding of most recurrent and capital expenditures which in turn stimulate economic growth

Omma (2018) studies the impact of the tax revenue on Nigerias's economic development between 1990 and 2017. The study applied the quasi experimental research design. and used Ordinary Least Square Method to estimate the data. The analysis result showed that revenue has a significant linear relationship with economic development. As tax revenue increased government ability and capacity to carry out infrastructure development projects is enhanced.

Oluotonye (2018) studied the impact of the tax revenue generation on Nigeria's economic development between 2000 and 2017. The study applied the quasi experimental research design. Multiple linear regression analysis to analyze data. The analysis result showed that tax revenue has a significant effect on economic development.

Chigbuogwu (2019) on the impact of the tax revenue on Nigeria's economic development between 1995 and 2015 used Nigeria's foreign reserve, employment ratio, GDP per capita and infrastructure development as parameters for economic development. The study also adopted the quasi experimental research design and data sourced were analyzed using the multiple linear regression analytical technique. The findings of the study revealed that tax revenue have significant positive impact of economic development.

Ahamed (2020) studied the implication of enhanced tax revenue capacity on economic growth of Nigeria. The study used the ex-post factor research design and data were analyzed using the multiple linear regression analysis. Results of data analysis show that tax revenue is a major factor in enhancing economic development and in stimulating economic growth, tax administration should be properly planned to reach the best possible advantage it presents.

The review of literature shows that there were conflicting results of the study findings as many found the positive relationship exist between tax revenue and economic development while others found that a negative relationship between them. Thus it becomes necessary that a study is carried out with broader scope to further investigate the impact of tax revenue on economic development. The review of existing literature also show that most studies were now almost obsolete since they were carried at a time in the past and as such its findings may not be applicable to current economic realities thus there is need for a more recent study to be carried out to cover data on economic variables on current realities.

Methodology

The study adopted the quasi-experimental design research design.

Data on the study variables were sourced from the CBN statistical bulletin, the Nigeria bureau of statistics and federal Inland Revenue service annual report covering the years under study (2000-2020). Data gathered for any research study are expected to be statistically analyzed while the formulated hypotheses are tested using appropriate statistical technique(s). Consequently, the major statistical tool employed in this study is multiple linear regression with the aid of Statistical package for social sciences (SPSS). The study seeks to determine the effect of the independent variables; Petroleum Profit Tax (PPT), Company Income Tax (CIT) and Custom duty (CD), on the dependent variable; capital infrastructure development (CIFD) and GDP per capita (GDP-C).

Model Specification

Multiple linear regression model is considered suitable for this study, with emphasis on establishing a relationship between each of the proxies of the study's dependent variable and the independent variables.

The models are specified below.

Petroleum Profit Tax(PPT) and Company Income Tax (CIT) on the dependent variable; capital infrastructure development (CIFD) and GDP per capita(GDP-C).

$$\text{CIFD} = F(\text{PPT}, \text{CIT}, \text{CD}) \text{-----} (1)$$

$$\text{GDP-C} = F(\text{PPT}, \text{CIT}, \text{CD}) \text{-----} (2)$$

Where

CIFD = Capital infrastructure development

GDP-C = GDP per capita

PPT = Petroleum Profit Tax (PPT)

CIT = Company Income Tax

CD= Custom duty

Translating the above to regression equations, we have:

$$\text{CIFD} = \beta_0 + \beta_1\text{PPT} + \beta_2\text{CIT} + \text{CD}\beta_3 + \mu \text{-----} (3)$$

$$\text{GDP-C} = \beta_0 + \beta_1\text{PPT} + \beta_2\text{CIT} + \text{CD}\beta_3 + \mu \text{-----} (4)$$

Where

β_0 = Scope/Intercept

$\beta_1, \beta_2, \beta_3,$ = The coefficients of the independent variables

μ = Error term or stochastic variable

Source: Cornelius, Ogar and Oka (2016)

Decision Rule

Data will be tested at 5% level of significance; therefore, decisions on the hypotheses will be based on the following criteria:

Reject H0 and Accept HA; if p-value < 0.05 level of significance

Accept H01 and Reject HA1; if p-value > 0.05 level of significance

Apriori Expectation: The apriori expectation is that tax revenue have positive effect on Economic development.

Data Presentation

The data used for analysis in research thesis are presented below.

Table 4.1: Tax Revenue contribution from petroleum profit tax and company income tax, 2000-2020

Year	Company income tax (in millions)	Custom Duty(000)	Petroleum profit tax (in millions)	Capital infrastructure development (in millions)	GDP per capita (in millions)
2000	9,888.57	6,589.90	12,718.30	25,781.30	35,020.55
2001	9,516.99	5,997.32	13,624.12	27,354.22	37,474.95
2002	11,222.47	7,589.49	15,788.35	26,790.36	39,995.50
2003	10,958.47	6,590.36	19,161.46	27,118.06	42,922.41
2004	11,645.37	7,356.24	24,792.02	11,652.21	46,012.52
2005	12,330.33	9,378.33	26,682.41	27,096.43	49,856.10
2006	16,048.89	10,378.09	23,966.55	38,836.55	54,612.26
2007	16,429.38	9,020.97	23,748.89	39,888.19	57,511.04
2008	14,329.71	10,114.27	27,729.00	38,899.44	59,929.89
2009	14,750.52	11,903.22	22,673.41	39,253.52	63,218.72
2010	19,380.39	12,092.22	24,286.89	35,256.01	67,152.29
2011	25,952.22	11,946.09	25,374.78	24,974.84	69,023.93
2012	25,989.45	11,879.23	36,879.09	35,079.10	73,982.9
2013	26,345.12	11,7112.64	34,356.97	26,326.24	88,897.97
2014	26,2345.14	12,893.36	35,897.90	26,009.32	79,342.08
2015	26,341.884	12,834.44	38,900.651	34,6575.45	80,680,236
2016	37,882,500	12,664.10	39,801.660	43,645.454	87,904,510
2017	33,087,434	14,290.93	40,001.231	35,476.453	86,908,432
2018	30,936.052	16,390.57	40,887.992	32,678.231	93,672.002
2019	35,765.003	15,904.47	42,998.443	29,512.121	89,555.403
2020	37,345.666	15,389.46	46,876.435	31,332.559	92,880.110

Source: CBN Statistical Bulletin (2021), And Federal Inland Revenue Service (Firs) Annual Report (2021)

Data Analysis

The two multiple linear regression models specified in the preceding chapter of this work was analyzed using the SPSS version 21. Results of the analysis are presented as follows:

**Table 4.1 Analysis of model 1 (Hypothesis 1 - 3)
 Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.873 ^a	.628	.455	.2231	1.937

a. Predictors: (Constant), PPT, CIT, CD

b. Dependent Variable: CIFD

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.332	3	.628	1.783	.047 ^a
	Residual	4.151	11	.369		
	Total	6.483	14			

a. Predictors: (Constant), PPT, CIT, CD

b. Dependent Variable: CIFD

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	10.781	3.221		3.378	.006		
	PPT	.263	.335	.243	.757	.015	.859	1.112
	CIT	-.322	.326	-.253	-1.274	.011	.821	1.162
	CD	.432	.266	.462	1.640	.221	.852	1.214

a. Dependent Variable: CIFD

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	EWSC	EWPC	ECSDC
1	1	3.992	1.000	.00	.00	.00	.00
	2	.005	33.572	.01	.57	.55	.03

3	.004	37.570	.00	.08	.32	.78
4	.003	48.144	.99	.38	.16	.08

a. Dependent Variable: CIFD

Source: SPSS Version 21 Statistical Result 2023

From the result of the analysis of model 1, it is evident that the three independent variables namely petroleum profit tax (PPT), company income tax (CIT) and Customs duty (CD) aggregately affect the capital infrastructure development (CIFD) of Nigeria. This is evident with the value of the R² of approximately 63% indicating that changes in the nations' CIFD as an economic development indicator is influenced by the values of the taxation (measured by PPT, CIT, and CD) by at least 62% while the rest 37% is accounted for by other variables not captured in the model. The result also indicates that PPT and CD each has a positive effect on the country's CIFD as evidenced by the positive value of the coefficient (B) of the two independent variables 0.263 and 0.432 respectively. It further reveals a negative effect of the CIT on the country's CIFD as indicated in coefficient (B) value of -0.322. The result also revealed a Durbin-Watson(DW) results show a DW of 1.937. Since the DW result of (1.937<2) the study concludes that there is a positive autocorrelation of the predictive variables. The test for multicollinearity revealed VIF results of 1.112 for PPT, 1.162 for CIT and 1.214 for CD, with the VIF results lying between 1-1 it indicates the absence of multicollinearity in the data set thus enhancing the reliability of the data on the variables under study.

However, the significance of the results was measured with t-statistic (sig.) as reported under test of hypothesis.

**Table 4.2 Analysis of model 2 (Hypothesis 4- 6)
Model Summary^b**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.724 ^a	.683	.456	.22475	1.964

a. Predictors: (Constant), PPT, CIT, CD

b. Dependent Variable: GDP-C

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.544	3	.515	1.318	.016 ^a
	Residual	4.395	11	.390		
	Total	5.939	14			

a. Predictors: (Constant), PPT, CIT, CD

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.724 ^a	.683	.456	.22475	1.964

b. Dependent Variable: GDP-C

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	5.670	3.276		1.731	.111		
	PPT	.454	.320	.422	1.560	.047	.899	1.114
	CIT	.242	.331	.394	1.424	.022	.857	1.162
	CD	.441	.282	.042	.146	.007	.831	1.244

a. Dependent Variable: GDP-C

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	EWSC	EWPC	ECSDC
1	1	3.992	1.000	.00	.00	.00	.00
	2	.005	33.572	.01	.56	.52	.03
	3	.004	37.570	.00	.08	.33	.87
	4	.003	48.144	.99	.36	.14	.08

a. Dependent Variable: GDP-C

Source: SPSS Version 21 Statistical Result 2023

The results of the analysis of model 2 reveal that the three independent variable namely petroleum profit tax (PPT), company income tax (CIT) and Customs duty (CD) aggregately show a high combine effect on the GDP- per capita of Nigeria. This is evident with the value of the R² of approximately 66% indicating that the values of the three independent variables affects the values of the companies' ROE at about 68% while other variables not captured in the model determines about

22% changes in Nigeria's GDP-per capita. The result also indicates that all tax variable PPT, CIT and CD positively affect Nigeria's GDP per capita as evidenced by the positive value of the coefficient (B) of 0.454 for PPT and -0.242 for CIT and 0.441 for CD respectively. The Durbin-Watson (DW) results show a DW of 1.964. Since the DW result of (1.964 < 2) the study concludes that there is a positive autocorrelation of the predictive variables. The test for multicollinearity revealed VIF results of 1.113 for PPT, 1.162 for CIT and 1.244 for CD, with the VIF results lying between 1-1 it indicates the absence of multicollinearity in the data set thus enhancing the reliability of the data on the variables under study.

The significance of the results measured with t-statistics (sig.) are however reported under test of hypothesis.

- H01.** Petroleum profit tax (PPT) has no significant effect on Nigeria's capital infrastructure development (CIFD).
- H02.** Companies' Income Tax (CIT) has no significant effect on Nigeria's capital infrastructure development (CIFD).
- H03.** There is no significant relationship between Custom Duty (CD) and capital infrastructure development (CIFD) in Nigeria.
- H04.** Petroleum profit tax (PPT) has no significant effect on Nigeria's GDP per capita (GDP-C).
- H05.** There is no significant relationship between company income tax and Nigeria's GDP per capita (GDP-C).
- H06.** There is no significant relationship between Custom Duty (CD) and Nigeria's GDP per capita (GDP-C).

Test of Hypotheses

The test results of the six hypotheses of this study are revealed in the analysis result on table 4.1 and 4.2

The hypotheses of the study are restated as follows:

- H01:** Petroleum profit tax (PPT) has no significant effect on Nigeria's capital infrastructure development (CIFD).

From table 4.1, the test for significance in favour of the first hypothesis shows a value of t-sig = 0.015 (i.e. $P < 0.05$); indicating significance. This suggests that the null hypothesis 1 which states that there is Petroleum profit tax (PPT) has no significant effect on Nigeria's capital infrastructure development (CIFD) is taken to be false and thus rejected; leading to the acceptance of the alternative hypothesis. Thus the study concludes that petroleum profit tax (PPT) do significantly affect Nigeria's capital infrastructure development.

- H02:** Companies' Income Tax (CIT) has no significant effect on Nigeria's capital infrastructure development (CIFD).

From table 4.1, the test for significance in favour of the second hypothesis shows a value of t-sig = 0.011 (i.e. $P < 0.05$); indicating significance. This suggests that the null hypothesis 2 which states that Companies' Income Tax (CIT) has no

significant effect on Nigeria's capital infrastructure development (CIFD) is false, thus the study rejects the null hypothesis 2 and accepts the associated alternative hypothesis. Thus the study concludes that company income tax (CIT) has significant impact on Nigeria's capital infrastructure development.

H03: There is no significant relationship between Custom Duty (CD) and capital infrastructure development (CIFD) in Nigeria.

From table 4.1, the test for significance in favour of the third hypothesis shows a value of $t\text{-sig} = 0.221$ (i.e. $P > 0.05$); indicating no significance. This result suggests that the null hypothesis 3 which states that no significant relationship exist between Custom Duty (CD) and capital infrastructure development (CIFD) in Nigeria is statistically true, thus the study accepts the null hypothesis 3 and rejects the associated alternative hypothesis; thus holds that custom duty do not have any significant relationship with Nigeria's capital infrastructure development.

From the ANOVA result in table 4.1, it reveals that value of $t\text{-sig} = 0.047$ (i.e. $P < 0.05$); indicating significance. This result suggests that tax variables of PPT, CIT and CD all have a combined significant effect Nigeria's capital infrastructure development (CIFD)

H04: Petroleum profit tax (PPT) has no significant effect on Nigeria's GDPper capita (GDP-C).

From the significance result in table 4.2, the value of $F\text{-sig} = 0.047$ (i.e. $P < 0.05$); indicating significance. This result suggests that the null hypothesis 4 which states that Petroleum profit tax (PPT) has no significant effect on Nigeria's GDPper capita (GDP-C) is statistically false, thus the study rejects the null hypothesis 4 and accepts the associated alternative hypothesis and holds that Petroleum profit tax (PPT) has significant effect on Nigeria's GDP per capita (GDP-C).

H05: There is no significant relationship between company income tax and Nigeria's GDP per capita (GDP-C).

From the significance result in table 4.2, the value of $t\text{-sig} = 0.022$ (i.e. $P < 0.05$); indicating significance. This result suggests that the null hypothesis 5 which states that There is no significant relationship between company income tax and Nigeria's GDP per capita (GDP-C) is statistically false, thus the study rejects the null hypothesis 5 and accepts the associated alternative hypothesis.

H06: There is no significant relationship between Custom Duty (CD) and Nigeria's GDP per capita (GDP-C).

From the significance result in table 4.2, the value of $t\text{-sig}$ in favour of hypothesis six indicates a $\text{sig} = 0.007$ (i.e. $P < 0.05$); indicating significance. This result suggests that the null hypothesis 6 which states that there is no significant relationship between Custom Duty (CD) and Nigeria's GDP per capita (GDP-C) is statistically false, thus the study rejects the null hypothesis and accepts the

associated alternative hypothesis.

From the ANOVA result in table 4.2, it reveals that value of $t\text{-sig} = 0.016$ (i.e. $P < 0.05$); indicating significance. This result suggests that tax variables of PPT, CIT and CD all have a combined significant effect on Nigeria's GDP Per Capita.

Discussion of Findings

The regression equations in model 1 show that Petroleum profit tax (PPT), company income tax (CIT) and custom duty (CD) aggregately affect Nigeria's Capital infrastructure development (CIFD). This is deduced from the value of the R^2 of approximately 63% indicating that changes in Nigeria's CIFD as an economic development indicator are influenced by the values of the taxation, while the remaining 37% is accounted for by other variables not captured in the model. The result also indicates that PPT and CD each has a positive effect on the Nigeria's CIFD as evidenced by the positive value of the coefficient (B) of the two independent variables 0.265 and 0.432 respectively. It further reveals a negative effect of the CIT on Nigeria's CIFD as indicated in coefficient (B) value of -0.322. This affirms the study by Ngwamu (2017) which found that tax revenue is a major source of income to government and thus serves a revenue source for funding of most recurrent and capital expenditures which in turn stimulate economic growth.

The result of the regression equation model 2 show that proxies have combines high effect on Nigeria's GDP-per capita. This is shown in the value of the R^2 of approximately 68% indicating which indicates that the values of the three independent variables of CIT, PPT and CD aggregately affect Nigeria's GDP-per capita at about 68%. The result also indicates that all tax revenue proxies have positive effects on Nigeria's GDP per Capita as evidenced by the negative value of the coefficient (B) of PPT, CIT and CD respectively. This affirms the study by Njideka (2012) which found that tax revenue even though is a serve as a withdrawal from the equilibrium economic cycle it adds to the economic growth by way of government expenses which add to the capital base of the economy.

Summary of Findings

Findings from the data analysis carried out in the preceding chapter of this work are summarized as follows:

- (i) Petroleum profit tax (PPT) have positive and significant effect on Nigeria's Capital infrastructure development (CIFD)
- (ii) Company income tax (CIT) have significant negative effect on Nigeria's Capital infrastructure development (CIFD).
- (iii) Custom duty (CD) have significant positive effect on Nigeria's Capital infrastructure development (CIFD).
- (iv) Tax revenue proxies have combine significant effect on Nigeria's Capital infrastructure development (CIFD).
- (v) There is positive and significant relationship between Petroleum profit tax (PPT) and Nigeria's GDP-per capita.

- (vi) Company income tax (CIT) have positive and negative effect on Nigeria's GDP-per capita.
- (vii) Custom duty (CD) have positive but insignificant effect on Nigeria's Capital GDP-per capita.
- (viii) Tax proxies have combine significant impact on Nigeria's Capital GDP-per capita.

Conclusion

Based on the research findings on the analysis of the study, the research study concludes that Nigerian tax revenue have had significant contribution to economic development of the nation. Although non-tax revenue sources contribute substantially to the country's GDP per capita and Nigerian capital infrastructure funding, tax revenues also contribute greatly helping to add to the nations revenue base, increasing foreign exchange income, reducing balance of payment deficit, creating jobs for the teaming populace and enhancing economic stability in the Nigeria. With proper tax administration and revenue mobilization Nigerian revenue will be sustainable enough to provide for the demand for development that has been the demand of every Nigerian from the government

Recommendations

Based on the findings of this study the following recommendations are made:

- (i) Government apply tax revenue generated to provide capital infrastructure thus creating an enabling environment that is good enough for those sectors of the economy to thrive
- (ii) Efforts should be made on attracting foreign investments on the non-oil sectors of the economy thus improving the productive capacity of the Nigerian non-oil revenue and tax generated thereof.
- (iii) Better tax administration is put in place to close the loopholes that encourage tax avoidance and evasion which in turn shrinks the Nigerian tax revenue generation.
- (iv) Finally, tax revenue generated from all sectors of the economy should be properly utilized to achieve national objectives and improvement of the standard of living of the Nigerian nationals.

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