



## **Taxation and Nigerian Economy: an Empirical Analysis**

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**Abstract:** The study was carried out to investigate the effect of Nigerian taxation system on Nigerian economy. The study anchored on benefit received theory of taxation as its theoretical framework. The study covered a period of 18 years (1999-2017). Time series data extracted from Central Bank of Nigeria Statistical Bulletin and Federal Inland Revenue Service for the various years was used for the study. Ordinary Least Square method of regression was adopted for data analysis. The independent variables are Value Added Tax (VAT), Petroleum Profit Tax (PPT), and Company Income Tax (CIT) while Gross Domestic Product (GDP) is the dependent variable. The regression result revealed that there is a significant positive relationship between the independent variables (PPT, CIT) and Gross Domestic Product. However the relationship between Value Added Tax and Gross Domestic Product is negative. It is recommended that government should provide enabling environment for companies to generate more revenues. Government should also reduce the VAT rate to encourage consumption of certain goods.

**Keywords:** Value added tax, Gross domestic product, Petroleum profit tax, Company income tax.

### **1. Introduction**

Taxation has received considerable attention from scholars and researchers in recent times and everyone has given different views on the subject. Income tax is one of the major sources of revenue to all governments worldwide, including Nigeria. It is levied by governments to raise revenue that will help in the administration of governmental policies. The role of each government is, first, to provide good governance. Good governance, on the other hand, simply means provision of basic infrastructures, to meet the basic needs of citizens in an atmosphere where peace and security are guaranteed. Revenues generated through income tax enable government to maintain law and order and other socio-economic, political and cultural activities. In order to attain this, every government must put in place a rational income tax system where tax payments are made by every tax-payer and the canons of taxation upheld (Musa, 2009).

Tax as indicated by Eiya (2012), is a levy compulsorily imposed on the income, profit and capital gains of the individual, organisations or other legitimate elements by the government to raise revenue. Tax is a compulsory transfer or payment from private people, organizations or groups to the administration (Anyanwu, 1997). Tax is a major administrative pivot of any society (Azubika, 2009). With tax system serving as an avenue for government to gather income required in releasing its social commitments. Tax framework offers itself as a foremost means of mobilising a country's resources in an efficient and effective manner and thereby making a situation favourable to economic growth and development (Akintoye & Tashie, 2013 as cited by Obaretin, Akhor & Oseghale, 2017).

Anyaduba (2000), views tax as a levy compulsorily imposed on the income of individual, household and corporate entity by the government or its agent for the purpose of raising revenue. While Ogbonna and Appah (2012) assert that the main aim of taxation is to raise income to finance government expenditure and to redistribute riches and the management of the economy. In any case, Johansson, Powerful, Arnold, Brys and Vartia (2008) portray tax system as a system that is primarily aimed at financing public expenditure. They emphasise the importance of tax revenue as a tool for promoting equality and re-addressing issues of social and economic concerns.

Tax is a levy compulsorily imposed on a citizen or upon his or her properties by the state to provide security, social infrastructures and create the enabling environment for the economic welfare of the society (Appah, 2004, Appah & Oyandonghan, 2011). They further assert that the tax payable by an individual is not a function of the benefit derivable from the process. The fundamental reason for imposing tax has always been to finance government activities, redistribute income, stimulate economic activities, and influence the level of aggregate demand among others.

From the above, tax can be seen as a necessary or an obligatory demand imposed on the income, profit and gains of individual, family unit, firms (joined and unincorporated) by the government with the end goal of raising income to meet State commitments to her nationals. In differentiating taxation from tax, the latter is a compulsory levy imposed on the profit, income and gains of individual, firm and other entity by the agencies of government or the government in order to raise revenue for the government while the former is the system or process put in place by the government or its agencies in raising the needed revenue (as cited by Obaretin, Akhor, & Oseghale, 2017).

Though several improvements have been made to reposition the Nigerian tax system, the system is still facing numerous challenges. That is, there are still the existences of many contending issues requiring immediate attention despite the improvements. The tax system in Nigerian is has several loopholes and as a result is confronted with many challenges and the country has not advanced a tax system that is effective and efficient. In October 2010, Price Waterhouse Coopers listed 50 top tax issues (Simeon, Simeon & Roberts, 2017). These include challenges such as multiplicity of taxes, bad administration, non-availability of database, tax touting, complex nature of the Nigerian tax laws, minimum tax, commencement, change of accounting date and cessation, and non-payment of tax refunds among others (Edori et al, 2017).” “While some of the issues have been dealt with especially by the recent reforms that brought about Finance Act, 2020, yet many issues still remain unclear and unresolved. This is particularly important when the objectives of Nigerian tax system is evaluated. The objectives of a tax system as identified by the Nigerian National Tax Policy are as follows; a. To promote fiscal responsibility and accountability b. Economic development and growth facilitation c. To provide resources stability for the government while the government use the resources to provide goods and services for the public. d. To ensure that the issue of income distribution inequalities is addressed. e. To ensure stability of the economy f. To correct disappointments and faultiness in the market (Edori et al, 2017). A cursory look at the system would show that the objectives have not been met regardless of several reforms. Several literatures on taxation system viewed Nigeria Taxation System in perspective of private sectors. While private sector is important, the public sector including the whole economy and its importance cannot be overemphasised. A good tax system is expected to bring about revenue needed for the development of the economy. In the light of this, this study links the relationship between taxation and the accompany effect on the nation’s economy as a whole.

## **2. Literature Review and Theoretical Framework**

Obaretin, Akhor, and Oseghale (2017) studied taxation as a tool for effective income re-distribution in Nigeria. Consider a period of 34 years from 1981 to 2014 (34 years). Their discovery revealed that taxation has not been able to fulfil its role as a standard tool of income re-distribution in Nigeria. They recommend that the need for effective and equitable utilization of tax revenue and this recommendation suffices because of the insignificant influence of taxes on the level of income inequality.

Ogbonna and Ebimobowei (2012) examined the impact of tax reforms on the economic growth of Nigeria from 1994 to 2009. The study found that tax reforms improves the revenue generating machinery of government to undertake socially desirable expenditure that will translate to economic growth in real output and per capita basis. They recommend that sustainable economic growth cannot be attained with tax reform processes except obsolete tax laws and rates are reviewed in line with macro-economic objectives, corrupt-free and efficient tax administrative machinery with personnels and accountability and transparency of government officials in the management of tax revenue.

Ojo and Oladipo (2017) examined implication of tax and taxation on the construction sector in Nigeria with a view for industry operator’s decision making. Their discovery indicated that tax administration have no insignificant effect on tax payment in Nigeria tax system. The recommend that appropriate guidance and understanding of tax system and policies required by operators/investors and tax authorities in order to attract tax compliance in the economy.

Egger, Keuschnigg and Winner, (2009) models and estimates the determinants of incorporation, including taxation. Their empirical results confirm that a higher personal income tax rate favours incorporation, while a higher corporate

tax rate reduces the probability that a European manufacturing firm will incorporate (Dondena, Casarico, Arachi, D'Antoni & Salvadori, 2017).

Manukaji (2018) study the effect of tax structure on economic growth in Nigeria. She made use of time series data from 1994 through 2016. The regression result of her study revealed that all the tax components studied (Value added tax revenue, personal income tax revenue, petroleum profit tax revenue and company income tax revenue) has significant effect on economic growth in Nigeria. The study recommend that tax administrative loopholes should be plugged for tax revenue to contribute immensely to the development of the economy.

Chigbu and Njoku (2015) investigated the impact of taxation on Nigerian economy covering period from 1994 to 2012. The results of their statistical analysis reveal that positive relationships exist between Custom and Excise Duties, Company Income Tax, Personal Income Tax, Petroleum profit tax and Value Added Tax) and (Gross Domestic Product, Unemployment). According to them, the explanatory variables have not significantly contributed to the growth of Nigeria economy; also the explanatory variables have not significantly contributed to the reduction of the high rate of unemployment and inflation rate in Nigeria for the period studied.

Umoru and Anyiwe (2013) investigated the empiricism behind the New National Tax Policy in Nigeria by employing co-integration and error correction as methods of empirical estimation with an empirical strategy of disaggregation. They found that policy of direct taxation is significantly and positively correlated with economic growth, indirect taxation proved insignificant with its negative impact on economic growth in Nigeria. The implication of the findings according to them is that the global transition from direct taxation to indirect taxation lack empirical justification in developing countries such as Nigeria. They recommend that rather than expand the indirect tax structures, the government should expand the structures of direct taxes in Nigeria.

Akhor and Ekundayo (2016) analysed the impact of indirect tax revenue on economic growth in Nigeria. Value added tax revenue and custom and excise duty revenue were used as independent variables and economic growth on the other hand as the dependent variable. They studied period 1993 to 2013. Their findings indicate 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.

Myles (2000) empirically ascertained that direct tax policy is a stimulant to economic growth. Barry and Jules (2008) found that direct taxes impacted negatively on economic growth in the US. Margalioth (2003) reported that direct taxation is harmful to growth in endogenous growth models. The results of Mamatzakis (2005) hold that direct taxes have significant positive impact on economic growth in South Africa. Tosun and Abizadeh (2005) reported that the share of personal income tax responded positively to economic growth. McCarten (2005) found that the ratio of direct tax to GDP and the ratio of direct tax to total tax stimulated real GDP growth in Pakistan. Tosin and Abizadeh (2005) reported that corporate income taxes are the most harmful to growth as well as personal income taxes. Lee and Gordon (2005) using cross-country data found that statutory corporate tax rates are significantly and negatively correlated with cross-sectional differences in average economic growth rates having controlled for other determinant of economic growth. Danker et al (2009) found strong negative effect of personal income tax on output growth. (as cited by Umoru & Anyiwe, 2013).

Scarlett (2011) found that an increase in the share of taxes from personal taxable income has the greatest harm on per capital GDP over time and correction to equilibrium from such an impact would take up to nine years.

Arnold et al (2011) found that personal income taxes are progressive with marginal tax rates that are higher than their average rate with the implication of discouraging savings and labour supply. Arisoy and Unlukaplan (2010) tested the effect of direct-indirect tax composition on economic growth in Turkey. The empirical finding of their study holds that direct taxes have no significant effect on economic growth. Aamir, Qayyum, Nasir and Hussain (2011) found significant impact of direct taxation on the total revenue of the economy of India (as cited by Umoru & Anyiwe, 2013). Salami, Apelogun, Omidiya and Ojoye (2015) investigated into the impacts of taxation on the growth of the economy from 1981 to 2012. They made use of both simple and multiple linear regression analysis of the ordinary least square method. They discovered that all the exogenous variables (custom excise duty, company income tax, petroleum profit tax and value added tax) have significant effect on economic growth.

Okoli, Njoku and Kaka (2014) analysed the relationship between taxation and economic growth in Nigeria, covering the period 1994-2012. Their results revealed that a significant positive relationship exists between taxation and economic growth in Nigeria. They recommend that government should encourage entrepreneurial development in Nigeria, as this would increase government revenue from tax and reduce the rate of unemployment in Nigeria. Afubero & Okoye (2014) discovered in their study that that, taxation has a significant contribution to revenue generation and taxation has a significant contribution on Gross Domestic Product (GDP).

## 2.1 Theoretical Framework

### 2.1.1 Benefit Received Theory

This theory posits that payment of tax should depend on the benefit received from government which implies that there should be a direct proportion between the burden of tax on an economic entity and benefits received by the economic entity. This beneficial exchange of relationship between state and citizens depends on provision of essential services the level of tax paid should be in line with the service provided. While goods and services are provided by the state to the society, citizens and beneficiaries are expected to bear the cost of the provision of the infrastructural amenities which they benefit from.

In other words, the justification of payment of taxes is the hallmark of benefit theory of taxation. Musgrave (1959) emphasize that the benefit principles of taxation plays a dual role of working as a cumulative justice principle based on contract of relationship between the state and the citizens on one hand, and on the other hand it presents the principle of equity in taxation which makes citizens to pay taxes equivalent to the amount of benefits received by the state.

Evidently, the practicability of the benefit received theory of taxation has been challenged, and seen as unrealistic since it lacks scientific methods to measure the monetary terms of benefit received by government services. Indeed, in a welfare state the poor benefits more from state services which implies that the poor should pay more taxes, services provided by the state in most cases are unidentifiable and indivisible, the creation of employment, redistribution of income and equitable distribution of wealth as justified by the reasons for taxation will not holds if this theory is applied in practice.

However, the concept of benefit received theory of taxation remain useful to tax administrators, policy makers and indeed government on the ground that the motivation of taxpayers' compliance that will close tax revenue gap will depend on the provision of essential social and economic infrastructure by government to her citizenry.

## 3. Methodology

The study assesses the effect of taxation on economy. Data were obtained from secondary sources such as Central Bank of Nigeria (CBN statistical bulletin, 2017) and Federal Inland Revenue Service (FIRS) publications. The study considered a period of 19 years from 1999 to 2017. Regression method was used to analyse the data using Ordinary Least Square (OLS) using Econometric-View version 7.0 (EViews7).

### 3.1 Model Specification

$$GDP = \beta_0 + \beta_1 PPT + \beta_2 CIT + \beta_3 VAT + \alpha$$

GDP = Gross Domestic Product (Dependent Variable)

PPT = Petroleum Profit Tax (Independent Variable)

CIT = Company Income Tax (Independent Variable)

VAT = Value Added Tax (Independent Variable)

$\alpha$  = Error Term.

## 4. Results and Discussion of Findings

**Table 1: Unit Root Test**

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Status
GDP(-1)	0.165486	0.047752	3.465550	0.0032	Stationary
PPT(1-)	-1.531210	0.360330	-4.249471	0.0017	Stationary
CIT(-1)	0.638004	0.330767	1.928863	0.00437	Stationary

VAT(-1)	-1.107967	0.247440	-4.477726	0.0004	Stationary
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**Source:** Author's Computations using E-views 7.0

Unit root test was conducted using Augmented Dickey-Fuller Test. The variables become stationary at level and decision was made at this level.

**Table 2:** Correlation Matrix

Variables	VAT	CIT	GDP	PPT
VAT	1.000000	-0.025795	-0.025225	-0.016003
CIT	-0.025795	1.000000	0.982754	0.973903
GDP	-0.025225	0.982754	1.000000	0.960882
PPT	-0.016003	0.973903	0.960882	1.000000

**Source:** Author's Computations using E-views 7.0

The result of the correlation matrix of 0.983 and 0.961 reveals a very high correlation between CIT, PPT and GDP. This indicates that the impact of the two variables are significant on GDP. VAT gives a very low correlation (-0.025225) with GDP and even a negative relationship which indicates that as GDP increases VAT reduces and vice versa. This may be due to the VAT that when government increases VAT on certain goods the consumption reduces and the resulting effect is that revenue from VAT will reduce as citizens consume less when VAT increases on those goods. The correlation matrix table shows negative relationship between CIT, GDP and VAT (-0.025795, -0.025225), this means that if VAT is increased company's income will also reduce as consumers will reduce consumption of those goods (law of demand) and this will in turn reduce the GDP.

**Table 3:** Ordinary Least Squares Result

Dependent Variable- GDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	35734.62	512840.7	0.069680	0.9454
CIT	27.14601	6.247371	4.345190	0.0006
PPT	0.742209	2.121188	7.349903	0.0513
VAT	-0.006620	0.578889	-0.011435	0.9910
R-squared	0.966083			
Adjusted R-squared	0.959299			
F-statistic	142.4175			
Prob(F-statistic)	0.000000			
Durbin-Watson stat	1.910744			

**Source:** Author's Computations using E-views 7.0

The OLS result of probability of 0.0006 and 0.0513 at 5% level of significant and t-Statistic value of 4.345190 and 7.349903 indicate that Company Income Tax and Petroleum Profit Tax revenue has a significant effect on GDP. The result indicates a positive relationship between CIT, PPT and GDP. This means as CIT and PPT increase GDP also increase and vice versa. The result of VAT at 0.9910 shows that VAT does not have significant effect on GDP. The negative relationship between GDP and VAT means as VAT reduces GDP increases and vice versa.

The result of R-squared i.e. correlation between the variables at 0.97 indicates a strong relationship between GDP and the variables considered in this study leaving only 0.03 out as variables that are not considered in this work. The adjusted R-squared value at 0.96 also indicates that the variables significantly affect variables. That is if a period is adjusted the relationship will still be significant. The result of Durbin-Watson Statistics at 1.91 indicates that the variable is properly combined and the result can be relied upon for decision making.



**Table 4:** Pairwise Granger Causality Tests

Null Hypothesis-	Obs	F-Statistic	Prob.
CIT does not Granger Cause VAT	17	0.08128	0.9224
VAT does not Granger Cause CIT		0.05695	0.9449
GDP does not Granger Cause VAT	17	0.04320	0.9579
VAT does not Granger Cause GDP		0.08812	0.9162
PPT does not Granger Cause VAT	17	0.03221	0.9684
VAT does not Granger Cause PPT		0.08348	0.9204
GDP does not Granger Cause CIT	17	4.08310	0.0595
CIT does not Granger Cause GDP		13.59188	0.0299
PPT does not Granger Cause CIT	17	2.04529	0.0121
CIT does not Granger Cause PPT		17.0664	0.0003
PPT does not Granger Cause GDP	17	0.97732	0.0003
GDP does not Granger Cause PPT		16.8966	0.4044

**Source:** Author's Computations using E-views 7.0

The result of the Granger Causality test showing 0.0595 and 0.0299 and significant value of F-Statistic at 13.59188 reveals that indicate that company income tax revenue can be used to predict gross domestic product for the country. The result also reveals that petroleum profit income tax revenue can be used to predict the nations GDP with the result at 0.0003 and 0.4044 and the F-Statistics value of 16.8966 indicate that PPT can be used to predict the GDP but GDP in return cannot be used to predict PPT.

## 5. Conclusion and Recommendation

From the result of the OLS we conclude that Company Income Tax and Petroleum Profit Tax have significant effects on gross domestic product of Nigeria. This result is in consonance with the findings of Okoli, Njoku & Kaka (2014), Afuberoh & Okoye (2014), and Chigbu & Njoku (2015). Our findings also agree with ManukajiJeoma (2018) findings. In her study she discovered a positive relationship between GDP and VAT whereas our regression result reveal otherwise. The negative relationship between GDP and VAT is in agreement with the findings of Akhor&Ekundayo (2016).

From the regression result it is seen that Value added tax revenue may not directly affect the Gross Domestic Product but indirectly affects GDP.

Consequently, it is recommended that government should provide and enabling environment for companies to generate more revenues. In addition, government should also reduce the VAT rate to encourage consumption of certain goods.

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