



## EFFECT OF TAXATION ON ECONOMIC GROWTH (2007-2017)

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**Abstract:** *This study seeks to evaluate the effect of taxation on economic growth (2007-2017). The specific objectives were to; evaluate the effect of petroleum profit tax on the real gross domestic product of Nigeria, examine the impact of company income tax on the real gross domestic product of Nigeria and determine the impact of custom and excise duty on the real gross domestic product of Nigeria. The study adopted ex-post facto. The study made use of secondary data obtained from the Central Bank of Nigeria Statistical Bulletins for the relevant years. The hypotheses were tested using unit root test and regression analysis statistical tool. The following findings were made for this study: Petroleum profit tax has significant effect on the gross domestic product of Nigeria. Company income tax has significant effect on the gross domestic product of Nigeria and Customs and excise duties have significant effect on the gross domestic product of Nigeria. The study concluded that; about 96% changes in the dependent variable are explained by the independent variable. This implies that the goodness of fit measured by the  $R^2$  is about 99%.The study recommend that given the dwindling fortunes of revenue from petroleum related sources, the government should embark on the strategic pursuit of broadening the economy to enhance economic growth and development as well as becoming meticulous in the fight against corruption in Nigeria as it is one of the factors that has led to diversion of public fund especially from petroleum profit tax.*

**Keywords:** Taxation, Economic Growth

### 1.1 Introduction

The Nigerian Tax system has undergone significant changes in recent times. The tax laws are being reviewed with the aim of repelling obsolete provision and simplifying the main ones. Under current Nigerian law, tax revenue is enforced by the 3 tiers of government, which are federal, state and local government with each having its sphere clearly spelt out in the taxes and levies Act, 1998. The whole essence of tax revenue, according to Akwe (2014) is to generate revenue to advance the welfare of the people of a nation with focus on promoting economic growth and development of a country through the provision of basic amenities for improved public services via proper administrative system and structures. Tax revenue plays a crucial role in promoting economic activity, growth and development. Adereti, Sanni and Adesina (2011) state that through tax revenue, government ensures that resources are channeled towards important projects in the society, while giving succor to the weak. The role of tax

revenue in promoting economic activity and growth may not be felt if poorly administered. This calls for a need for proper examination of the relationship between revenue generated from taxes and the economy, to enable proper policy formulation and strategy towards its efficiency.

Adegbe and Fakile (2011) state that the Nigerian economy has remained in a deep slumber with macroeconomic indicators reflecting an economy in dire need of rejuvenation, revival and indeed radical reform. Also, in the view of Adedeji and Oboh (2010), tax administration needs to be revamped and refunds of taxes as well as duty drawbacks administration are inefficient. A critical challenge before tax administration in the 21<sup>st</sup> century Nigeria is to advance the frontiers of professionalism, accountability and awareness of the general public on the imperatives and benefits of tax revenue in our personal and business lives which include; promoting economic activity, facilitating savings and investment and generating strategic



competitive advantage. If tax administration does not for any reason meet the above challenges, then there is a desperate need for reform in the area of the tax regime, and in the administration of taxes. Emekekwe (2009) defines taxation as the collection of a share of individual and organization income and wealth by the government under the authority of the law. A country's tax system is a major determinant of other macroeconomic indexes, specifically, for both developed and developing economies; there exists a relationship between tax structure and the level of economic growth and development. Indeed, it has been argued that the level of economic growth has a very strong impact on a country's tax base and tax policy objectives vary with the stages of development. Similarly, the economic criteria by which a tax structure is to be judged and the relative importance of each tax source vary over time. For example, during the colonial era and immediately after the Nigeria's political independence in 1960, the sole objective of tax revenue was to raise revenue. Later on, emphasis shifted to the infant industries protection and income redistribution objectives. Many countries impose taxes at the national level, and a similar tax may be imposed at state or local levels. The taxes may also be referred to as income tax or capital tax. Partnerships are generally not taxed at the entity level. Wang (2012) states that a country's tax may apply to:

- i. Corporations Incorporated in the country,
- ii. Corporations doing business in the country on income from that country,
- iii. Foreign corporations who have a permanent establishment in the country, or
- iv. Corporations deemed to be resident for tax purposes in the country.

Company income subject to tax is often determined much like taxable income for individual taxpayers. Generally, the tax is imposed on net profits. In some jurisdictions, rules for taxing companies may differ significantly from rules for taxing individuals. Certain corporate acts, like reorganizations, may not be taxed. Some types of entities may be exempt from tax (Bhartia, 2010).

There is no doubt that revenue is necessary for the State to meet the basic needs of citizenry in fulfillment of social contract. While

this objective is been pursued there is need for a focus on the bases or core fundamental for understanding the impediments to industrial development and jobs generation and also serve as a mean for formulating and implementing dynamic industrial and employment policies. This is because special achievement that is unidirectional in terms of generating revenue for the State alone can fuel unemployment and de-industrialization due to its short run optimism in financing State fiscal policy. In addition, it can lead to local and foreign investors' disenchantment, a situation where international investors quickly rebalance off their international investments in Nigeria, and flee to those countries where the tax systems provide for industrial growth and its consequent high investment returns.

Chude and Chude (2015) states that the Nigeria tax system, as it is today, is skewed towards raising fund to meet the State expenditures (recurrent and capital). Laudable as this is, it has however, obscured the need for tax system that can be used as a veritable tool for establishing and developing industries in Nigeria. Taking the forgoing into cognizance, the Nigeria tax architecture will need to be focused on the objective of industrial development, economic growth and employment generation. Therefore, it should look at the role of tax in promoting sound industrial performance and scale down unemployment. A tax system is not merely aimed at raising a certain amount of revenue, but the aim is to raise it from those sections of the people who can best bear the tax. The aim in short, is to secure a just distribution of the tax burden. This obviously cannot be done unless; an effort is made to trace the incidence of each tax. Despite the contribution that taxation can make towards the Gross Domestic Product (GDP) of a country in general, much attention is also needed to the side effects of tax on the performance of organizations.

## 1.2 Statement of Problem

The impact of the Nigerian tax system on businesses has been a matter of increasing interest and concern to many persons. Tax policies and the structure of taxation in Nigeria is resulting to multiple taxation on businesses, forcing most businesses to run into losses or collapse. Businesses make numerous decisions daily. Their inability to make the right decisions can result in their failure. Since taxation is a liability businesses have to incur, businesses are faced with the option of managing their tax liabilities in such a way their tax burden is reduced. Their inability



to effectively manage taxation brings about negative effects on the financing, investment and dividend decisions of the business.

Multiple taxation and high tax rates are challenges facing businesses in Nigeria today. Tax liabilities pose two issues for a business. First each and every tax required of a business is just another business expense. An increase in tax has the same effect as would a raise in cost of goods. Ministries, departments, and agencies (MDAs) suffer from limitations in manpower, money, tools, and machineries to meet the ever increasing needs of individual taxpayers. As a matter of fact, the negative attitude of most tax collectors can be linked to poor remuneration and motivation. Also, it has been noted that that staff are not provided with regular training to keep them ahead of developments in tax related matters. This makes the administration of taxes in terms of coverage and assessment very weak. This necessitates the essence of the study on the effect of tax as a tool for economic growth in Nigeria focusing on petroleum profit tax, company income tax and custom and exercise duty tax.

### 1.3 Objectives of the Study

The broad objective of this study is to examine the effect of taxation on economic growth of Nigeria. The specific objectives are as follows:

1. To evaluate the effect of petroleum profit tax on the real gross domestic product of Nigeria.
2. To examine the impact of company income tax on the real gross domestic product of Nigeria.
3. To determine the impact of custom and excise duty on the real gross domestic product of Nigeria.

### 1.4 Research questions

1. What is the effect of Petroleum profit tax on the real gross domestic product of Nigeria?
2. What is the impact of company income tax to the real gross domestic product of Nigeria?
3. What is the impact of custom and excise duty to the real gross domestic product of Nigeria?

### 1.5 Research Hypotheses

#### Hypothesis One

H<sub>0</sub>: Petroleum profit tax does not have significant effect on the real gross domestic product of Nigeria.

H<sub>1</sub>: Petroleum profit tax has significant effect on the real gross domestic product of Nigeria.

#### Hypothesis Two

H<sub>0</sub>: Company income tax does not have significant effect to the real gross domestic product of Nigeria.

H<sub>1</sub>: Company income tax has significant effect to the real gross domestic product of Nigeria.

#### Hypothesis Three

H<sub>0</sub>: Custom and excise duty does not have significant effect to the real gross domestic product of Nigeria.

H<sub>1</sub>: Custom and excise duty has significant effect to the real gross domestic product of Nigeria.

### 2.1 Conceptual Framework

#### 2.1.1 Definition of Taxation

Tax has defined in many ways by different authors. Anyanwu (2007) defined tax as “compulsory transfer or payment of money (or occasionally of goods and services) from private individuals, institutions or and services) from private individuals, institutions or groups to the government. It may be levied upon wealth or income or in the form of surcharge on price.

According to Okpe (2008) “tax is the transfer of resources and income from the private sector to the public sector in order to achieve some of the nation’s economic and social goals, maybe in the form of provision of additional government basic services particularly in education, public health, transportation, capital formation and in the provision of facilities.

Adebaio (2009) also defined tax as “a compulsory levy imposed by the government on individuals and business organizations. It is a payment in return for which no direct and specific “quid pro quo” is offered by the government and indirect benefit to different individual taxpayers cannot be determined. From the above definitions Okwo (2011) summarized tax as a compulsory payment made by individuals and corporate bodies to the government for financing government expenditure or for general purpose of government aimed at improving the tax payers welfare and in which both the taxpayer and the public at large benefit. There are three elements of taxation. These are;

- The tax base
- The tax rate
- The tax yield

The tax base is the object being taxed. Examples of tax based are income, profit and property.



The tax rate is the proportion of the value of the tax based that is paid as tax.

The tax yield is the actual amount accrued to the government in tax.

### 2.1.2 Origin of Taxation in Nigeria

Historically, according to Osiegbu and Nnamdi, (2009) income tax in Nigeria was first introduced in 1904 by the late Lord Lugard of Britain, when community tax became operative in Northern Nigeria. The Nigeria taxation can be traced back in the northern territory. It was a convenient place to experiment the system of direct taxation because the people of the area were used to paying tax.

Under Fulani administration and also because the Muslim religion adhered to by the people approved of taxation as being consistent with the tenants of Islam. The laws passed by the British commissioner include:

- Land and revenue proclamation of 1904
- Native revenue proclamation of 1906
- Direct taxation ordinance of 1940
- Native revenue ordinance of 1917.

This taxation was in operation of northern and western regions in Nigeria. It was later introduced in the eastern Nigeria in 1928. It was the federal system of government taxation 1950, it was at this time that the Raisman Fiscal commission recommended the introduction of uniform basic principle for taxing income in 1958.

### 2.1.3 Gross Domestic Product

Anidiobu, Agu and Ezinwa, (2016) defines Gross Domestic Product as "an aggregate measure of production equal to the sum of the gross values added of all resident and institutional units engaged in production (plus any taxes, and minus any subsidies, on products not included in the value of their outputs). Eme & Johnson (2012) that "GDP measures the monetary value of final goods and services - that is, those that are bought by the final user - produced in a country in a given period of time (say a quarter or a year)."

### 2.1.4 Petroleum Profit Tax

The Petroleum Profit Tax Act (PPTA) is the tax law responsible for the governing of the taxation of companies engaged in petroleum operations (Adedeji and Oboh, 2012). The Act defines petroleum operations as "the winning or obtaining and

transportation of petroleum or chargeable oil in Nigeria by or on behalf of a company for its own account by any drilling, mining, extracting or other like operations or process, not including refining at a refinery, in the course of a business carried by the company engaged in such operations, and all operations incidental there to and sale of or any disposal of chargeable oil by or on behalf of the company". The definition is applicable to the upstream sector of the petroleum industry; hence, only companies in the upstream sector are charged with petroleum profit tax (PPT).The importance of taxation on petroleum profits cannot be overemphasized as tax revenue derived from tax in petroleum profits contributes, largely, to the total tax revenue available to the Nigerian government.

### 2.1.5 Company Income Tax

Companies Income Tax (CIT) is tax on the profits of incorporated entities in Nigeria (Wooldridge, 2006). It also includes the tax on the profits of non-resident companies carrying on business in Nigeria. The tax is paid by limited liability companies inclusive of the public limited liability companies. It is therefore commonly referred to as corporate tax.

CIT was created by the Companies Income Tax Act (CITA) 1979 and has its root from the Income Tax Management Act of 1961. It is one of the taxes administered and collected by the Federal Inland Revenue Service ('FIRS' or 'the Service'). The tax contributes significantly to the revenue profile of the Service. In 2016, the revenue target for Companies Income Tax is N1.877 trillion representing approximately 40% of the total projected tax revenue of N4.957 trillion for the year.

### 2.1.6 Custom and Excise Duties

According to Osiegbu and Nnamdi, (2009) custom and excise duty refers to taxes levied on imported or exported goods. The two types of customs duties collected under international trade are import and export duty.

The duties are listed in the country's tariff schedule.

Duties may be ad valorem or specific.

- An ad valorem duty is a fixed percentage of the value of the goods that are being imported e.g. 10% of value.
- A specific duty is a duty of a specific amount of money that does not vary with the price of the goods but with its weight, volume, surface, etc. The specific duty stipulates how many units of currency are to be levied per unit of quantity.



### 2.1.7 Effect of Taxation on Economic Growth

Tax is a compulsory levy imposed on a subject or upon his property by the government to provide security, social amenities and create conditions for the economic well-being of the society (Nwezeaku, 2012). Asterious and Hall (2010) stated that tax are imposed to regulate the production of certain goods and services, protection of infant industries, control business and curb inflation, reduce income inequalities etc. Odusola, (2009:45) say taxes are used as proxy for fiscal policy. They outlined five possible mechanisms by which taxes can affect economic growth.

- First, taxes can inhibit investment rate through such taxes as corporate and personal income, capital gain taxes.
- Second, taxes can slow down growth in labour supply by disposing labour leisure choice in favour of leisure.
- Third, tax policy can affect productivity growth through its discouraging effect on research and development expenditures. Fourth, taxes can lead to a flow of resources to other sectors that may have lower productivity.
- Finally, high taxes on labour supply can distort the efficient use of human capital high tax burdens even though they have high social productivity.

## 2.2 Theoretical Framework

### 2.2.1 Benefit Principle Theory

The theoretical framework of this study is based on the benefit principle theory:

The benefit principle theory is a concept in the theory of taxation from public finance. It bases taxes to pay for public-goods expenditures on a politically-revealed willingness to pay for benefits received. The principle is sometimes likened to the function of prices in allocating private goods. In its use for assessing the efficiency of taxes and appraising fiscal policy, the benefit approach was initially developed by Knut Wicksell (1896) and Erik Lindahl (1919), two economists of the Stockholm School. Wicksell's near-unanimity formulation of the principle was premised on a just income distribution. The approach was extended in the work of Paul Samuelson, Richard Musgrave, and others

This principle has been subjected to severe criticism on the following grounds:

1. The assumption that the tax should be paid by an individual in proportion to benefits conferred by the State on that individual, is quite unrealistic because the benefits derived cannot be correctly measured in terms of money. Benefit is purely a subjective matter and there is no scientific way to measure the magnitude of benefit and its money value.
2. If benefits accrued to an individual is the basis of taxation, the poor must pay higher taxes because in a welfare State the poor get more benefits than the rich from the expenditure of the Government. This is clearly unjust and as such an unacceptable proposition.
3. It is also very difficult to determine under this theory what proportion of the general benefits accrues to particular individuals. Government is for civilized existence and there is, therefore, no basis for valuing the services which the State renders.
4. Most of the services provided by the State are indivisible and beneficiaries are unidentified. For example, it is not possible to divide the benefits of national defense, etc.
5. Certain benefits accrue only to definite persons and in definite proportion. If this principle is followed, the whole of the benefit, they should return to the State as taxes. For example; pension paid to retired servants, definite and clear enough and therefore, they should offer the whole of their pension as taxes.
6. The equitable distribution of wealth, the main objective of most of the modern Governments, will be defeated if this principle is followed.

The above description makes it amply clear that the benefit principle cannot ensure justice in the distribution of burden of taxes among different sections of the society.

### 2.2.2 Ability to Pay Theory

The ability to pay theory was propounded by MS Kendrick in 1939. The theory considers tax liability in its true form-compulsory payment to the state without quid pro quo. It does not assume any commercial or semi-commercial relationship between the state and the citizens. According to this theory, a citizen is to pay taxes just because he can and his relative share in the total tax burden is to be determined by his relative paying capacity. This doctrine has been in vogue for at least as long as the benefits





theory. A good account of its history is found in Seligman. This theory was bound to be supported by socialist thinkers because of its conformity with the ideas and concepts of justice and equity. The basic tenet of this theory is that the burden of taxation should be shared by the members of society on the principles of justice and equity and that these principles necessitates that the tax burden is apportioned according to their relative ability to pay.

## 2.3 Empirical Review

### 2.3.1 Effect of Petroleum Profit Tax on Economic Growth

Akwe (2014) analysed the impact of 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 the 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.

Ogbonna and Ebimobowei (2012) investigated the impact of petroleum profit tax on the economic growth of Nigeria. To achieve the objective of this paper, relevant secondary data were collected from the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS) from 1970 to 2010. The secondary data collected from the relevant government agencies in Nigeria were analysed with relevant econometric tests of Breusch-Godfrey Serial Correlation LM, White Heteroskedasticity, Ramsey RESET, Jarque Bera, Johansen Co-integration and Granger Causality. The results show that there exists a long run equilibrium relationship between economic growth and petroleum profit tax. It was also found that petroleum profit tax does granger cause gross domestic product of Nigeria.

### 2.3.2 Impact of Company Income Tax on Economic Growth

Adegbie and Fakile (2011) examined the relationship between company income tax and Nigeria's economic development for the period 1981 – 2007. They used the GDP to capture the Nigerian economy which was measured against total annual revenue from company income tax for the same period. They employed the use of chi square and multiple linear regression analysis method to

analyze data obtained from both primary and secondary sources. Their variables included various taxes regressed against GDP. With an R squared of 98.6% and an adjusted R squared of 98.4%, revealing that company income tax impact on GDP is very high and impressive. It further showed that there is a significant relationship between company income tax and Nigerian economic development and that tax evasion and avoidance are the major hindrances to revenue generation. Overall the study examined only company income tax which calls for the need to see the impact of all tax revenues on the Nigerian economy.

In their study of the relationship between company income tax and Nigerian economic development, Festu and Samuel (2007) reported that in Nigeria, the role of tax revenue in promoting economic activities and growth is not felt primarily because of its poor administration, perception and often an undesirable imposition which bears no relation to the responsibilities of citizenship or the service provided by the government. Their study further revealed that an efficient and effective tax administration results in increased revenue yield, but this is not possible because of the presence of evasion and avoidance due to loop holes in the tax laws

### 2.3.3 Impact of Custom and Excise Duty on Economic Growth

Owolabi and Okwu (2011) evaluated the contribution of VAT to the development of Lagos State economy. Development aspects considered included infrastructural development, environmental management, education sector development, youth and social development, agricultural sector development, health sector development and transportation sector development. Result showed that VAT revenue contributed positively to the development of the respective sectors. However, the above studies show there is paucity of comprehensive research on the impact of tax revenue on the Nigerian economy. Rather, most research has focused only on a single aspect of the tax sources.

Okafor (2012) investigated the impact of income tax revenue on the economic growth of Nigeria as proxied 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.

## METHODOLOGY

### 3.1 Research Design

The researcher adopted ex-post facto. The choice of the ex-post facto design is because the research relied on secondary data (Onwumere, 2009).

### 3.2 Area of Study

This study is centered on Nigeria economy.

### 3.3 Sources of Data

This study made use of secondary data obtained from the Central Bank of Nigeria Statistical Bulletins for the relevant years.

### 3.4 Method of Data Analysis

Historical data covering a period of 10 years are to be estimated using Auto correlation test, it often occurs in time series data and it can make an OLS inefficient for drawing inferences. Heterskedasticity test is also a factor commonly associated with time series data. It affects the standard error as well as the t-statistics. Bound test is a test for measuring long run relationship. It measures whether a long run relationship exists between the independent variables and the dependent variable.

The Auto Regressive Distributed Lag Model (ARDL) are standard least squares regressions that include lags of both the dependent variable and explanatory variables as repressors' (Greene, 2008).

### 3.5 Unit Root Test

This is the pre-Co-integration test. It is used to determine the order of integration of a variable that is how many times it has to be differenced or not to become stationary. It is to check for the presence of a unit root in the variable i.e. whether the variable is stationary or not. The null hypothesis is that there is no unit root. This test is carried out using the Augmented Dickey Fuller (ADF) technique of estimation. The rule is that if the ADF test statistic is greater than the 5 percent critical value we accept the null hypothesis i.e. the variable is stationary but if the ADF test statistic is less than the 5 percent critical value i.e. the variable is non-stationary we reject the null hypothesis and go ahead to difference once. If the variable does not become stationary at first

difference we difference twice. However it is expected that the variable becomes stationary at first difference.

### 3.6 Model Specification

The following model was used to evaluate the study:

$$GDP = F (PPT, CIT, CED) \dots\dots\dots (1)$$

Where:

GDP = Gross Domestic Product (it is used as a proxy for economic growth)

PPT = Petroleum Profit Tax

CIT = Company Income Tax

CED = Custom and excise duties (it is used as a proxy for tax revenue)

In a linear regression form, it will become:

$$RGDP = \beta_0 + \beta_1 PPT + \beta_2 CIT + \beta_3 CED + \mu \dots\dots\dots (2)$$

Where

$\beta_0$  = Constant Term

$\beta_1$  = Coefficient of Petroleum Profit Tax

$\beta_2$  = Coefficient of Company Income Tax

$\beta_3$  = Coefficient of Custom and excise duties

$\mu$  = Error Term

### 3.7 Description of Research Variables

The research work is describing as follows:

#### Dependent Variable:

##### Gross Domestic Product:

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period.

#### Independent Variables

##### Petroleum Profit Tax:

Petroleum Profits Tax (PPT) is the taxation imposed on the profits from the petroleum companies in the course of petroleum operations in an accounting period.

##### Company Income Tax:

An assessment levied by a government on the profits of a company. The rate of corporate income tax paid by a business varies between countries, although since corporations are legal entities distinct from their owners and operators, they are typically taxed as if they were people.



**Custom and Excise Duties**

Custom and excise duty this is a tax levied on imported or exported goods in a country.

**4.1 DATA PRESENTATION**

This section comprises of the data presentation, estimation and results of the empirical investigation carried out. It also addresses the relationship between each of the types of tax revenue (petroleum profit tax(PPT), companies income tax(CIT), custom and excised duties(CED)) and gross domestic product(GDP). Table 4.1 shows the data that was used in the analysis in this study.

**Table 4.1: Data showing GDP, PPT, CIT and CED**

YR	GDP (N'M)	PPT(N'M)	CIT(N'M)	CED(N'M)
2007	6061700	683500	114800	195500
2008	11411067	1183600	113000	217200
2009	15610882	1904900	140300	232800
2010	18564595	2038300	244900	177700
2011	23280715	1500600	275300	241400
2012	25424948	2812300	420600	281300
2013	25236056	1256500	593700	297500
2014	34494583	1944700	658400	309200
2015	38016970	30700000	663020	438300
2016	40115340	32010000	847500	438300

Source: CBN Statistical Bulletins

The data were log transformed as in table 4.2 to minimize the values of the data in order to get an improved regression result.

**Table 4.2: Data showing log of GDP, PPT, CIT and CED**

YR	LPPT	LCIT	LCED	LGDP
2007	13.43498	11.65095	12.18332	15.61750
2008	13.98407	11.63514	12.28857	16.25009
2009	14.45994	11.85154	12.35793	16.56348
2010	14.52763	12.40861	12.08785	16.73677
2011	14.22138	12.52562	12.39421	16.96314
2012	14.84951	12.94944	12.54718	17.05124
2013	14.04384	13.29413	12.60317	17.04378
2014	14.48062	13.39757	12.64174	17.35631
2015	17.23977	13.40456	12.99066	17.45354
2016	17.28156	13.65005	12.99066	17.50727

Source: E-views Output

**4.2 Normality Test**

**Table 4.3: Descriptive Analysis**

	LPPT	LCIT	LCED	LGDP
Mean	14.85233	12.67676	12.50853	16.85431
Median	14.47028	12.73753	12.47069	17.00346
Maximum	17.28156	13.65005	12.99066	17.50727
Minimum	13.43498	11.63514	12.08785	15.61750
Std. Dev.	1.325524	0.772085	0.309113	0.588514
Skewness	1.182592	-0.218003	0.408500	-0.863609
Kurtosis	2.901597	1.512170	2.082318	2.941134
Jarque-Bera	2.334910	1.001558	0.629012	1.244477
Probability	0.311158	0.606058	0.730149	0.536742
Sum	148.5233	126.7676	125.0853	168.5431
Sum Sq.				
Dev.	15.81313	5.365042	0.859955	3.117142
Observation				
s	10	10	10	10

Source: Author's Computation with Eviews Software Version 9

The study conducted the descriptive statistics of the relevant variables involved. Table 4.3 illustrates vividly these statistics. It shows the total number of observations, mean, median, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera. The dependent variable which is gross domestic product shows the minimum 15.61750 which was observed in 2000 and shows the maximum of 17.50727 which was observed in 2016. The mean value of the dependent variable is 16.85431 and the standard deviation is 0.588514 This implies that there was high fluctuation in gross domestic product for the years. It can be observed from Table 4.2 that all the variables have positive average values (means). The minimal deviation of the variables from their means as shown by the standard deviation gives indication of growth rate (fluctuation) of these variables over the period. It can be observed also that company income tax and gross domestic product show signs of negative skewness while petroleum profit tax and custom and excise duties show signs of positive skewness.





### 4.3 Unit Root Test

This test tries to examine the property of the variables. It is used to check for the presence of a unit root i.e. whether the variables are stationary. It is also used to ascertain the regression technique to adopt for analysis and testing of hypotheses. This test is carried out using the Augmented Dickey Fuller (ADF) test. The ADF is carried out using E-views software package and the results from the test are tabulated below:

**Table 4.4 Unit root test**

	ADF	cv@5%	Probability	Inference
LPPT	-2.538871	-1.995865	0.0186	I(1)
LCIT	-3.164169	-3.017328	0.0351	I(0)
LCED	-2.885408	-1.995865	0.0100	I(1)
LGDP	-3.124923	-1.995865	0.0065	I(1)

Source: Eviews 9.0 Computation by Researcher

The a priori expectation when using the ADF test is that a variable is stationary when the value of the ADF test statistic is more negative than the critical value at 5%. Log of petroleum profit tax, log of custom and excise duties and log of gross domestic product are stationary at first difference (I(1)) while log of company income tax is stationary at level I(0).

### 4.4 Test for Autocorrelation

Auto correlation often occurs in time series data and it can make an OLS inefficient for drawing inferences. For instance, positive autocorrelation makes the standard error biased and too small while negative autocorrelation makes the standard error too large.

**Table 4.4 Test for Autocorrelation**

Breusch – Godfrey Serial Correlation LM Test

F- statistics	553.0092
Probability Values	0.1302

Source: Author's Compilation from Eviews 9

#### Decision Rule:

Accept that there is no autocorrelation when the probability value is greater than 5% otherwise accept that there is auto correlation.

The null hypothesis for autocorrelation says that there is no autocorrelation.

For the fact that the probability value is greater than 5%, it is therefore concluded that there is no auto correlation.

### 4.5 Test for Heteroskedasticity

Heteroskedasticity is also a factor commonly associated with time series data. It affects the standard error as well as the t-statistics.

**Table 4.6 Test for Heteroskedasticity**

Heteroskedasticity Test: Breusch – Pagan Godfrey

F- statistics	2.222109
Probability Values	0.2716

Source: Author's Compilation from Eviews 9

#### Decision Rule:

Accept that there is no heteroskedasticity when the probability value is greater than 5% otherwise accept that it exists.

For the fact that the probability value is greater than 5%, it is therefore concluded that there is no heteroskedasticity.

### 4.6 Bound Test

Bound test is a test for measuring long run relationship. It measures whether a long run relationship exists between the independent variables and the dependent variable.

ARDL Bounds Test

Date: 06/09/18 Time: 17:32

Sample: 2008 2016

Included observations: 9

Null Hypothesis: No long-run relationships exist

Test Statistic	Value	K
F-statistic	5.558477	3

#### Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

#### Decision Rule:

If the F-statistics is greater than the upper bound, reject the null and conclude that there is long run relationship.



If the F-statistics is less than the lower bound accept the null and conclude there is no long run relationship.

If the F-statistic falls in between the upper and lower bound, the result becomes inconclusive.

**Decision:**

Since the F-statistic been 5.558477 is greater than the upper bound (3.77), it is therefore concluded that there is long run relationship between the independent variables and the dependent variable.

**4.7 Regression Analysis**

**Tables 4.7: Auto Regressive Distributed Lag Model**

**Table Analysis**

The Auto Regressive Distributed Lag Model (ARDL) was adopted for analysis and test of hypotheses based on the premise that the unit root test in table 4.4 was a combination of I(0) and I(1).

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.530298	0.206820	2.564058	0.0829
LPPT	0.047262	0.045217	3.045229	0.0327
LCIT	0.291310	0.276788	2.752467	0.0169
LCIT(-1)	0.535851	0.244526	2.191385	0.1161
LCED	0.377467	0.336987	1.120125	0.0342
C	9.109371	3.093538	2.944645	0.0603
R-squared	0.986952	Mean dependent var	16.99174	
Adjusted R-squared	0.965206	S.D. dependent var	0.420932	
S.E. of regression	0.078517	Akaike info criterion	-2.016274	
Sum squared resid	0.018495	Schwarz criterion	-1.884791	
		Hannan-Quinn		
Log likelihood	15.07323	crit.	-2.300014	
F-statistic	45.38468	Durbin-Watson stat	3.621337	
Prob(F-statistic)	0.005001			

\*Note: p-values and any subsequent tests do not account for model selection.

Source: Author's E-View 9.0 Output, 2018

From the above regression analysis, the R<sup>2</sup> is 0.986952 which is about 99%. The R<sup>2</sup> is used to explain the goodness of fit. Therefore, since it is about 99%, it implies that about 99% change in GDP is explained by the independent variables and the higher the R<sup>2</sup> the better fit the independent variables. Since the F – statistics is 45.38468 which is greater than 2.5 and the probability value is 0.005001 is <0.05. This shows that the model is significant and has a high goodness of fit.

**4.4 Test of Hypothesis**

The test of hypothesis was carried out as follows:

Step 1: Re-statement of the hypothesis in the null and alternate forms

Step 2: Statement of decision criteria

Step 3: Presentation of test result

Step 4: Decision

**Test of Hypothesis one**

**Step 1: Restatement of the hypothesis.**

Petroleum profit tax does not have significant effect on the gross domestic product of Nigeria.

**Step 2: Statement of Decision Criteria**

Reject H<sub>0</sub> if the t-statistics is > 2.5 and the probability of the t-statistics is <0.05.

**Step 3: Presentation of test result**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.530298	0.206820	2.564058	0.0829
LPPT	0.047262	0.045217	3.045229	0.0327
LCIT	0.291310	0.276788	2.752467	0.0169
LCIT(-1)	0.535851	0.244526	2.191385	0.1161
LCED	0.377467	0.336987	1.120125	0.0342
C	9.109371	3.093538	2.944645	0.0603
R-squared	0.986952	Mean dependent var	16.99174	
Adjusted R-squared	0.965206	S.D. dependent var	0.420932	
S.E. of regression	0.078517	Akaike info criterion	-2.016274	
Sum squared resid	0.018495	Schwarz criterion	-1.884791	
		Hannan-Quinn		
Log likelihood	15.07323	crit.	-2.300014	
F-statistic	45.38468	Durbin-Watson stat	3.621337	
Prob(F-statistic)	0.005001			



\*Note: p-values and any subsequent tests do not account for model selection.

Source: Auhtor's E-View 9.0 Output, 2018

**Step 4: Decision**

Given the decision criteria to reject  $H_0$  if the probability value is  $< 0.05$ . Table 4.4.1 shows a probability of  $0.0327 < 0.05$ . We accept the alternative hypothesis ( $H_1$ ) and conclude that petroleum profit tax has significant effect on the gross domestic product of Nigeria.

**Test of Hypothesis Two**

Step 1: Restatement of the hypothesis.

Company income tax does not have significant effect on the gross domestic product of Nigeria.

**Step 2: Statement of Decision Criteria**

Reject  $H_0$  if the t-statistics is  $> 2.5$  and the probability of the t-statistics is  $< 0.05$ .

**Step 3: Presentation of test result**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.530298	0.206820	2.564058	0.0829
LPPT	0.047262	0.045217	3.045229	0.0327
LCIT	0.291310	0.276788	2.752467	0.0169
LCIT(-1)	0.535851	0.244526	2.191385	0.1161
LCED	0.377467	0.336987	1.120125	0.0342
C	9.109371	3.093538	2.944645	0.0603
R-squared	0.986952	Mean dependent var		16.99174
Adjusted R-squared	0.965206	S.D. dependent var		0.420932
S.E. of regression	0.078517	Akaike info criterion		-2.016274
Sum squared resid	0.018495	Schwarz criterion		-1.884791
Log likelihood	15.07323	Hannan-Quinn criter.		-2.300014
F-statistic	45.38468	Durbin-Watson stat		3.621337
Prob(F-statistic)	0.005001			

\*Note: p-values and any subsequent tests do not account for model selection.

Source: Auhtor's E-View 9.0 Output, 2018

**Step 4: Decision**

Given the decision criteria to reject  $H_0$  if the probability value is  $< 0.05$ . Table 4.4.2 shows the probability value of  $0.0169 < 0.05$ . We reject the null hypothesis ( $H_0$ ) and conclude that company income tax has significant effect on the gross domestic product of Nigeria.

**Test of Hypothesis Three**

Step 1: Restatement of the hypothesis.

Customs and excise duties do not have significant effect on the gross domestic product of Nigeria.

**Step 2: Statement of Decision Criteria**

Reject  $H_0$  if the t-statistics is  $> 2.5$  and the probability of the t-statistics is  $< 0.05$ .

**Step 3: Presentation of test result**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LGDP(-1)	0.530298	0.206820	2.564058	0.0829
LPPT	0.047262	0.045217	3.045229	0.0327
LCIT	0.291310	0.276788	2.752467	0.0169
LCIT(-1)	0.535851	0.244526	2.191385	0.1161
LCED	0.377467	0.336987	1.120125	0.0342
C	9.109371	3.093538	2.944645	0.0603
R-squared	0.986952	Mean dependent var		16.99174
Adjusted R-squared	0.965206	S.D. dependent var		0.420932
S.E. of regression	0.078517	Akaike info criterion		-2.016274
Sum squared resid	0.018495	Schwarz criterion		-1.884791
Log likelihood	15.07323	Hannan-Quinn criter.		-2.300014
F-statistic	45.38468	Durbin-Watson stat		3.621337
Prob(F-statistic)	0.005001			

\*Note: p-values and any subsequent tests do not account for model selection.

Source: Auhtor's E-View 9.0 Output, 2018

**Step 4: Decision**

Given the decision criteria to reject  $H_0$  if the probability value is  $< 0.05$ . Table 4.4.2 shows that a probability value of  $0.0342 < 0.05$ . We reject the null hypothesis ( $H_0$ ) and conclude that customs and excise duties have significant effect on the gross domestic product of Nigeria.

**4.8 Discussion of Findings**

The regression analysis showed the  $R^2$  to be 0.986952 which is about 99%. The  $R^2$  is used to explain the goodness of fit. Therefore, since it is about 99%, it implies that about 99% change



in GDP is explained by the independent variables and the higher the  $R^2$  the better fit the independent variables. Since the F – statistics is 45.38468 which is greater than 2.5 and the probability value is 0.005001 is  $<0.05$ . This shows that the model is significant and has a high goodness of fit.

It was also discovered that petroleum profit tax has significant effect on the gross domestic product of Nigeria due to the fact that its t-statistics been 3.045229 was greater than 2.5 and its probability value been 0.0327 was less than 0.05.

It was also discovered that company income tax has significant effect on the gross domestic product of Nigeria as the t-statistics been 2.752467 was greater than 2.5 while its probability value been 0.0169 was less than 0.05.

Customs and excise duties have significant effect on the gross domestic product of Nigeria because its t-statistics been 0.0342 though was less than 2.5 but its probability value been 0.0342 was less than 0.05.

### 5.1 Summary of Findings

The following findings are made for this study:

1. Petroleum profit tax has significant effect on the gross domestic product of Nigeria.
2. Company income tax has significant effect on the gross domestic product of Nigeria.
3. Customs and excise duties have significant effect on the gross domestic product of Nigeria.

### 5.2 Conclusion

From the findings of this study, it is concluded that petroleum profits tax ,Company income tax and custom and excise duty has a significant positive relationship with Gross Domestic Product and still have a long run relationship among themselves for the period covered in the study. It was also concluded that about 96% changes in the dependent variable are explained by the independent variable. This implies that the goodness of fit measured by the  $R^2$  is about 99%.

### 5.3 Recommendations

The following recommendations are made for this study:

1. Given the dwindling fortunes of revenue from petroleum related sources, the government should embark on the strategic pursuit of broadening the economy to enhance economic growth and development as well as becoming meticulous in the fight against corruption in Nigeria as it

is one of the factors that has led to diversion of public fund especially from petroleum profit tax.

2. Government agencies should effectively devise procedures for the collection of company income tax as it contributes to economic growth as reported in the findings.
3. Government agencies should as well ensure timely payment of custom and excise duties as it also contributed positively to economic growth as reported in the findings of the study.

### 5.4 Areas for Further Studies

Since the researcher could not exhaust every aspect of taxation and its effect on economic growth, it is therefore suggested that other researchers should focus on other aspects of taxation such as personal income tax, value added tax, etc and as well as study how they affect economic growth.

### References

- Aboyade, L. (2010). *Principles of International Finance*. Forthright Educational Publishers, Lagos.
- Adeba, K. (2009). Perceived relationship between Exchange rate and Economic growth in Nigeria, 1970-2010. *American Journal of Humanities and Social Sciences*, 11(3), 116-12.
- Adedeji, H. and Oboh, I. (2010). Effects of tax revenue on economic growth of Nigeria, *International Journal of Business and Social Science*. 5(2), 302-309.
- Adegbe, E. and Fakile, A. (2011). The relationship between company income tax and Nigeria's economic development for the period 1981 – 2007, *Global Journal of Management and Business Research*. 11(96), 1-5.
- Adereti, I. Sanni, K. and Adesina, U. W. (2011). Relationship of Value Added Tax and Economic Growth in Nigeria, *Academy of Management Journal*, 33 (9), 663-691.
- Aguolu, I. (2008). Effect of Tax Reforms and Economic Growth of Nigeria, *Czech Journal of Economics and Finance*, 54, (7), 2-21.



- Akwe, H. (2014). Impact of oil Tax Revenue on Economic Growth of Nigeria, *International Journal of Arts and Commerce*. 2(2); 27-32
- Anidiobu, G.A., Agu, B.O. & Ezinwa, C.E. (2016). Responsiveness of economic growth to external debt in Nigeria. *Journal of Policy and Development Studies*, 10(3), 1-19.
- Anidiobu, G. A. and Okolie, P. I. P. (2016) Responsiveness of Foreign Exchange to foreign debt: Evidence from Nigeria *International Journal of Arts, Humanities and Social Sciences*, 1(3), 11-20.
- Anyanwu, J.C., (2014). Monetary Economics: Theory, Policy and Institutions. Onitsha: Hybrid Publishers.
- Anyawaokoro, M. (2004). *Banking Method and Processes*, Hossana Publication, Enugu Association.
- Asterious, D. and Hall S., (2010). *Applied Econometrics: A Modern Approach*. London: Palgrave Macmillan.
- Adegbie, E. and Fakile, A. (2011). The relationship between company income tax and Nigeria's economic development for the period 1981 – 2007, *Global Journal of Management and Business Research*. 11(96), 1-5.
- Adereti, I. Sanni, K. and Adesina, U. W. (2011). Relationship of Value Added Tax and Economic Growth in Nigeria, *Academy of Management Journal*, 33 (9), 663-691.
- Akwe, H. (2014). Impact of oil Tax Revenue on Economic Growth of Nigeria, *International Journal of Arts and Commerce*. 2(2); 27-32
- Alli, B. D., (2009). Managing the tax reform process in Nigeria. Enugu: Abic Books and Equipment.
- Anyanwu, J.C., (2011). Nigerian Public Finance. Onitsha: Joanne Educational Publishers.
- Anyanfo, O., (2011). Public Finance in a Developing Economy: The Nigerian Case. Department of Banking and Finance, University of Nigeria, Enugu Campus. Enugu.
- Anyanwu, J.C., (2003). Monetary Economics: Theory, Policy and Institutions. Onitsha: Hybrid Publishers.
- Appah, E., (2009). Principles and Practice of Nigerian Taxation. Port Harcourt: Ezevin Mint Printers and Publishers.
- Appah, E., (2010). The Problems of Tax Planning and Administration in Nigeria: The Federal and State Governments Experience. Vol. 4 (12).
- Appah, E. and Oyandonghan, J.K. (2011). The challenges of tax mobilization and management in the Nigerian economy. *Business Administration Management journal*, Vol. 6(42).
- Arnold, J.M., (2011). Tax policy for economic recovery and growth. Illinois: Richard Irwin Inc.
- Azubike, J.U.B., (2009). Challenges of tax authorities in the management of tax reform processes. Enugu: Africana Fep Publishers Ltd.
- Asterious, D. and Hall S., (2010). *Applied Econometrics: A Modern Approach*. London: Palgrave Macmillan.
- Bhartia, H.L., (2010). Public Finance. 14th Edition., New Delhi: Vikas Publishing House PVT Ltd.
- Darrah, W. (2005). Tax revenue and economic growth of West African Countries, *An European Review*, 10 (7), 4-8.
- Dwivedi, D.N., (2012). Managerial Economics. 6th Edition., New York: McGraw Hill Inc.
- Darrah, W. (2005). Tax revenue and economic growth of West African Countries, *An European Review*, 10 (7), 4-8.
- Engen, E. and Skinner, J. (2011). Taxation and economic





- growth. New Jersey: Prentice hall International.
- Eme, O.A & Johnson A.A. (2012). Effect of Exchange Rate movement on Economic growth in Nigerian, *CBN Journal of Applied Statistics*, 2(2): 1-28.
- Emekekwue, P. (2009). *Corporate Financial Management*, Kinshasa: African Bureau of Educational Sciences.
- Festu, S. and Samuel, R. (2007). Role of tax revenue in promoting economic activities and growth in Nigeria, *Science Journal of Business and Management* 4(6), 38 – 42.
- Gujarati, D.N. and Porter, D.C. (2009). *Basic Econometrics*. 5th Edition. New York: McGraw Hill.
- Hino, F. and Weilbert, K. (2001). Elements of Taxation, *Journal of General Management*, 29 (1), 15–31.
- Jhingan, M.L., (2010). *Money, Banking, International Trade and Public Finance*. New Delhi: Vrinda Publications.
- Kiabel, B.D. and Nwokah, N.G. (2009). Boosting revenue generation by state governments in Nigeria: The tax Consultants option revisited. Vol. 18(46).
- Mbanefoh, A. (2012). Principles of taxation, *International Journal of Academic Research in Business and Social Sciences*, 5 (6), 34 – 43.
- Musgrave, R.A. and Musgrave, P.B (2011). *Public Finance in Theory and Practice*. New Delhi: Tata McGraw Hill.
- Mbanefoh, A. (2012). Principles of taxation, *International Journal of Academic Research in Business and Social Sciences*, 5 (6), 34 – 43.
- Nwete, A. (2004). The analysis of the effect of petroleum profit tax on Nigerian Economy, *International Journal of Environmental & Science Education*, 11 (15), 45-53.
- Nwezeaku, N.C., (2012). *Taxation in Nigeria: Principles and Practice*. Owerri: Springfield Publishers.
- Ogbonna, A. L. and Ebimobowei, G. (2012). Impact of petroleum profit tax on the economic growth of Nigeria, *International Journal of Multidisciplinary Education and Research*, 1(5), 5-10 22.
- Okafor, M. (2012). Impact of income tax revenue on the economic growth of Nigeria, *Journal of Abnormal Psychology*, 67, 422-436
- Omoh, W. I. (2007). Revenue generating capacity of the nine oil producing states, *Arabian Journal of Business and Management Review*, 4 (2), 34 – 39.
- Oduola, A., (2009). *Tax Policy Reforms in Nigeria*. Enugu: Providence Press Nigeria Limited.
- Okwo, I. (2011). *Challenges of tax authorities in the management of tax reform processes*. Enugu: Africana Fep Publishers Ltd.
- Osiogbu, P.I. and Nnamdi, I (2009). *Public Finance: Theories and Practices*. Asaba: C.M. Global Company Ltd., Asabi.
- Ogbonna, A. L. and Ebimobowei, G. (2012). Impact of petroleum profit tax on the economic growth of Nigeria, *International Journal of Multidisciplinary Education and Research*, 1(5), 5-10 22.
- Okafor, M. (2012). Impact of income tax revenue on the economic growth of Nigeria, *Journal of Abnormal Psychology*, 67, 422-436
- Omoh, W. I. (2007). Revenue generating capacity of the nine oil producing states, *Arabian Journal of Business and Management Review*, 4 (2), 34 – 39.
- Onaolapo, S. Aworemi, E. I. and Ajala, K. (2013). Impact of value added tax on revenue generation in Nigeria, *Quarterly Journal of Economics*, 122 (19), 729 – 773.



Owolabi, M. and Okwu, U. (2011). Contribution of VAT to the development of Lagos State economy, *British Journal of Education Studies*, 35(2), 129-148.1.5, 50-58.

Wooldridge, J.M., (2006). *Introductory Econometrics: A Modern Approach*.3rd Edition. New York: Thomson Higher Education, Mason

Tosun, E. and Abizadeh, J. (2005). Responsiveness of Economic Growth to Taxation in Nigeria, *International Journal of Business and Social Sciences*, 5 (2), 19 – 26.