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Original Research Article

## Federally Collected Tax Revenue and Economic Growth of Nigeria: A Time Series Analysis

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### **Abstract**

*This study evaluates the relationship between federally collected tax revenues and Nigeria's economic growth rate between 2000 and 2016. The study adopted causal descriptive research method, and the data were drawn from annual reports of the Central Bank of Nigeria (CBN) and Federal Inland Revenue Services (FIRS) publications. The data analysis was based on the Johansen Co-Integration test showing that a meaningful long-run relationship exists between Federally Collected Tax Revenue (FTCR) and Gross Domestic Product (GDP) of Nigeria. Specifically, Custom and Excise Duties (CED) and Value-Added Tax (VAT) and Petroleum Profit Tax (PPT) Granger caused growth rate of Gross Domestic Product (GDP). This implies that proper and efficient administration of laws of these tax components will bring the desired improvement in the tax system and will greatly enhance revenue to the government for the implementation of her policies and programmes. The study, therefore, recommends that those policies that enhance tax compliance, such as reduction in the rates of taxes; blocking of income leakages should be put in place and this will stimulate economic growth and development in the short and long run. Also, regular monitoring of the taxpayers for tax compliance as well as increased education of the taxpayers will further stimulate an increase in revenue generated through the tax system.*

**Keywords:** Tax Revenue, Central Bank Nigeria, Federal Inland Revenue, Economic Growth

***JEL Classification Codes: H200, H270, 0400***

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## **1.0 INTRODUCTION**

Taxation is known globally as a very strong and powerful weapon of fiscal policy and as such government of nations put structures in place to maximise revenue accruable from its various tax components. The structure of tax should be such that it is broader enough to generate revenue to finance government expenditure and various other programmes of government. The growth and development of any nation is predicated upon the availability of funds as well as other human and material resources. Economic growth can be achieved by four important determinants namely: human resources, national resources, capital formation and technological development (Dwivedi, 2004). Efficient use of these resources will help to speed up the political, economic and social activities in the country. The revenue needed is not always available, and so a potent and certain source of revenue from a well-structured tax system will obviously create the required revenue for realising the set objectives.

Nigeria being predominantly a mono-product economy, at present generates the bulk of her revenue from the sale of oil. Oil companies are also made to pay the stipulated tax while other sectors (non-oil sector) are barely harnessed. This abnormal dependence on oil for the revenue of government is generating tension in government circles since the fortunes of oil have been on the decline following global oil crisis. Furthermore, the revenue potentials of the informal sector of the economy have also not been properly identified and harnessed. If this important sector, which has been lying idle, is assisted by the relevant government authorities, the revenue from it would add up to increase the overall revenue of the government. The inclusion of the informal sector, through a broader tax system, will help to stimulate economic growth and development, create employment and stabilise the economy.

Tax is a compulsory payment made by individuals and organisations to the government by predetermined criteria for which no direct or specific benefit is received by the taxpayer (Offiong, 2013). The imposition of taxes often helps to regulate the production and consumption of goods and services; helps protect infant industry and curb inflation. Tax is a compulsory payment, backed by laws and paid according to a predetermined rate. The provision of basic amenities to the citizens is financed mainly from government revenue of which taxes ought to contribute significantly. When social amenities are provided to the taxpayers, it encourages voluntary compliance, stimulate business activities that in turn pay taxes and provide revenue to the government. Other services government renders/provides include maintenance of law and order, defence against external aggression, regulation of trade and business to ensure social and economical maintenance. Despite these, the economic effect of tax appears to still be at the micro levels. Tax serves as an incentive to work when the marginal rate of tax is low and vice versa.

Tax reform has been a regular exercise by the government. Every administration tries to show significant interest in developing ways and means of generating more revenue to meet electoral promises and to provide the needed infrastructure. The reform is expected to bring about increase in government revenue that will stimulate economic growth. Several studies about tax reforms in Nigeria have been carried out. These studies concentrate on economic growth undermining public generated revenue; not much has been done in the area of federally collectable tax revenue and economic growth. Experience has shown that expectation, and the actual result of tax reform seems to be apart. Many times, the objective of engaging on particular tax reform are rarely achieved, and therefore this study seeks to examine the effect of federally collected tax revenue, which arose from various tax policy reforms, on the economic growth of Nigeria from 2000 and 2011.

The need for government to reform tax system/policies in line with changing realities is becoming imperative given falling oil prices. In Nigeria, the reform of tax laws and policies appear not to have yielded the desired results. The various components of federally collected tax revenue require a high degree of reforms to reduce revenue loss occasioned by tax avoidance and evasion and maladministration of the component. It is for this purpose that this study sets to evaluate the impact of these federally collectable tax revenues (Custom and Excise Duty, Value Added Tax, Company Income Tax and Petroleum Profit Tax) on Nigeria's economic growth using the Gross Domestic Product as a proxy. This study appears timely owing to the persistent dwindling of revenue accruable from the sale of oil. Specifically, the study sets to examine the individual effect each of the growth rate in revenues from Customs and Excise Duty, Value Added Tax, Companies Income Tax and Petroleum Profit Tax on the growth rate in Gross Domestic Product of Nigeria.

## **2.0. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### ***Conceptual Review:***

***Nature and scope of Taxes:*** Anyanwu (1997) defined taxation as the compulsory transfer or payment (or occasionally of goods and services) from private individuals, institutions or groups to the government. The primary purpose of the tax is to raise revenue to meet government expenditure and to redistribute wealth and management of the economy (Ola, 2001; Jhingan, 2004; Bhartia, 2009). According to Nzotta (2007), four critical issues must be understood for taxation to play its functions in the society. First, a tax is a compulsory contribution made by the citizens to the government, and this contribution is for general use. Secondly, a tax imposes a general obligation on the taxpayer. Thirdly, there is a presumption that the contribution to the public revenue made by the taxpayer may not be equivalent to the benefits received. Finally, a tax is not imposed on a citizen by the government because it has rendered specific services to him or his family. Thus, it is evident that a suitable

tax structure plays a multiple roles in the process of economic development of any nation which Nigeria is not an exception (Appah, 2010).

***Objectives/importance of taxation.***

Anyanwu (1993) opines that there are three fundamental objectives of taxation. These are to raise revenue for the government, to regulate the economy and economic activities and to control income and employment. Also, Nzotta (2007) while agreeing with Anyanwu (1993) notes that taxes have allocation, distributional and stabilisation functions. The allocation function of taxes entails the determination of the pattern of production, the goods that should be produced, who produces them, the relationship between the private and public sectors and the point of social balance between the two sectors. The distribution function of taxes relates to the manner in which the effective demand for economic goods is divided, among individuals in the society. While stabilisation of function of taxes seeks to attain a high level of employment, a reasonable level of price stability, an appropriate rate of economic growth, with allowances for effects on trade and the balance of payments (Nzotta, 2007).

***Cannons of taxation***

According to Anyafo (1996), the principles of taxation mean the appropriate criteria to be applied in the development and evaluation of the tax structure. Such principles are essentially an application of some concepts derived from welfare economists. To achieve the broader objectives of social justice, the tax system of a country should be based on sound principles. Jhingan (2004), Bhartia (2009) and Osiebgu *et al.* (2010) listed the principles of taxation as equality, certainty, convenience, economy, simplicity, productivity, flexibility and diversity.

***Equity Principle:*** This principle states that every taxpayer should pay the tax in proportion to his income. The rich should pay more and at a higher rate than the other person whose income is less (Jhingan, 2004). Anyafo (1996) states that it is only when the tax is based on the payer's ability to pay, can it be considered equitable and just. Sometimes this principle is interpreted to imply proportional taxation.

***Certainty Principle:*** This principle of taxation states that a tax which each is bound to pay ought to be certain, and not arbitrary. The time of payment, the manner of payment, the quantity to be paid ought to all be clear and understandable to the contributor and every other person (Bhartia, 2009).

***Convenience Principle:*** This principle states that the time and manner should be convenient to the taxpayer. According to Anyafo (1996), this principle of taxation provides the rationale for Pay-As-You-Earn (PAYE) system of tax.

***Economy Principle:*** This one states that every tax should be economical for the state to collect and the taxpayer to pay (Appah, 2004; Jhingan, 2004; Bhartia, 2009). Anyafo (1996) argues that this principle implies that taxes should not be imposed if the cost of their collection exceeds their benefits.

## ***2.1 Theoretical Review***

### ***Benefit Received Theory***

This theory proceeds on the assumption that there is an exchange relationship between taxpayers and the state. The state provides certain goods and services to the members of the society, and that contributes to the cost of these supplies in proportion to the benefits received (Bhartia,2009). Anyafo (1996) argues that taxes should be allocated by benefits received from government expenditures.

### ***Socio-political theory***

This theory of taxation states that social and political objectives should be the significant factors in selecting taxes. The theory advocated that a tax system should not be designed to serve individuals, but should be used to cure the ills of society as a whole

### ***Cost of service theory***

This theory is similar to the benefits received theory. It emphasises the semi-commercial relationship between the state and the citizens to a greater extent. In this theory, the state is being asked to give up essential protective and welfare functions. It is to recover the cost of the services scrupulously, and therefore this theory implies a balanced budget policy.

### ***Economic Growth***

According to Dwivedi (2004), economic growth is a sustained increase in per capita national output or net national product over an extended period. It implies that the rate of increase in total output must be higher than the rate of population growth. Another quantification of economic growth is that national output should be composed of such goods and services which satisfy the maximum want of the maximum number of people. Economic growth can be determined by four essential determinants namely, human resources, national resources, capital formation and technological development. The theories of economic growth can be examined under the Harrod-Domar theory of growth, Kaldor model of distribution, Pasinetti model of profit and growth, Joan Robinson's model of capital accumulation, Meade's Neo-Classical model of economic growth and the Slow model of long-run growth. All these model of economic growth represent the various views of scholars on the most suitable explanation of economic growth. However, the percentage growth in Gross Domestic Product (GDP) was adopted in this paper as it is the most popularly adopted proxy for economic growth.

## **2.2. Empirical Review**

### **Federally Collected Revenue and Economic Growth**

Auberon and Okoye (2014) investigated the impact of Taxation on Revenue Generation in Nigeria: A study of federal capital territory and selected states. The primary challenge of the study was to determine the Impact of Revenue derived from taxes and identifying the means taxation has been utilised to promote fiscal redistribution of income, identifying problems that militate against the use of taxation as revenue generation in the federal capital territory and some states in Nigeria. The study adopted both primary and secondary source of data and regression analysis was employed with the aid of SPSS version 17.0. The finding of the study was that taxation has a significant contribution to revenue generation and also has a significant contribution to Gross Domestic Product. The researchers however recommended that federal, state and local governments should establish well-equipped database on all taxpayers with the aim of identifying all possible resources of income of taxpayers for tax collection process and must be free from corruption.

Engen and Skinner (1996) in their study of taxation and economic growth of U.S. economy, large sample of countries and use of evidence from micro-level studies of labour supply, investment demand, and productivity growth. Their result suggests modest effects on the order of 0.2 to 0.3 percentage points' differences in growth rates in response to significant reform. They stated that such small effects could have a substantial cumulative impact on living standards.

Tosun and Abizadeh (2005) in their study of the economic growth of tax changes in OECD countries from 1980 to 1999 reveal that economic growth measured by GDP per capita has a significant effect on the tax mix of GDP per capita. It is shown that while the shares of personal and property taxes have responded positively to economic growth, shares of the payroll and goods and services taxes have shown a relative decline.

Rotimi, Udu and Abdulazeez (2013), Investigated Revenue Generation and Engagement of Tax Consultants in Lagos State, Nigeria. The challenge was to examine revenue generation of Lagos state with an emphasis on the use of Tax Monitory Agents (TAMA) in the light of tax evasion as well as activities of some unscrupulous tax officials. The study concluded by stating that tax evasion and avoidance is imminent and of course has a significant relationship with revenue generation of Lagos State; hence the researchers state that tax evasion and avoidance reduce revenue inflow. The study recommended that use of tax consultants in Lagos State yield positive result but their activities should be monitored, commissions on collections should be paid promptly as well. The

study also recommends for continuous tax education right from early education as well as in religious gathering in Lagos State.

Samuel and Iyokoso (2014) investigated taxation and revenue generation: An empirical investigation of selected states in Nigeria. The challenge of the study was to examine the contribution of taxation on revenue generation and to ascertain the extent at which tax evasion and avoidance have affected negatively on revenue generation and the extent to which taxation has contributed to the steady growth in Gross Domestic Product in Nigeria. The study adopted both primary and secondary source of data; simple regression was employed in analysing the data with the aid of SPSS version 17.0. The result of the study showed that taxation has a significant contribution to revenue generation and also has a significant contribution to Gross Domestic Product (GDP). More so, that tax evasion and avoidance have a significant effect on revenue generation in Nigeria. The study recommended among other things that well-equipped database on taxpayers should be established by the federal, state and local government with the aim of identifying all possible source of income of taxpayers for tax purposes.

Arnold (2011) in his study found that short-term recovery requires an increase in demand while long-run growth requires an increase in supply. A short-term concession can be hard to reverse; this implies that policies to alleviate this crisis could compromise long-run growth.

These studies notwithstanding, no empirical investigation on the effect of the various components federally collected tax on the economic growth of Nigeria exist. This gap in the literature is what this paper sets to fill.

### **3.0. RESEARCH METHODS**

#### ***Theoretical Framework***

##### ***Laffer Curve:***

This study is anchored on the Laffer's Curve Theory. According to the theorist (Prof. Arthur Laffer), the Laffer curve shows the relationship between government revenue raised by taxation and all possible rate of taxation. It considers the amount of tax revenue raised at the extreme tax rates of 0% and 100%. This theory is of the opinion that a 100% tax rate raises no revenue in the same way that 0% tax rate raises no revenue. This is because, at 100% rate, there is no longer incentive for a rational taxpayer to earn any income. Thus the revenue raised will be 100% of nothing. It, therefore, follows that there must exist at least one rate in between where tax revenue would be a maximum. This theory is one the opinion that increasing tax rate beyond a certain point will

become counterproductive for raising further tax revenue because of diminishing returns (Afuberoh & Okoye, 2014). **Research Design**

The study adopts descriptive research method. The data for the study are purely secondary were obtained from Central Bank of Nigeria (CBN) bulletin, Federal Inland Revenue Service and annual statistical reports. The tax revenues to be regressed on the Gross Domestic Product (GDP) are Petroleum Profit Tax, Company Income Tax, and Value Added Tax. The study adopts co-integration and error correction modelling by way of the preliminary test in ascertaining the stationarity state of our time series variables. To ascertain if a common stochastic drift exists among our variables, we employed the Johansen Co-integration test. By using the co-integration and error correction model, we have combined both short-run dynamics and long-run equilibrium in broad macro-econometric modelling.

The analytical model for this study was adapted from Laffer’s Theory as previously used by (Rotimi *et al.* 2013; Samuel & Iyokoso, 2014). The model is explicitly to empirically examine the relationship between Federally Collected Tax Revenues and Economic Growth proxy by the Gross Domestic Product (GDP). This is expressed as:

$$GDP = f(PPT, VAT, CED, CIT) \text{-----} (1)$$

Equation (1) can be re-specified in a stochastic form

$$GDP = \beta_0 + \beta_1 PPT + \beta_2 VAT + \beta_3 CIT + \beta_4 CED + U_{1t} \text{-----} (2)$$

Where  $U_{1t}$  is the Gaussian white noise

Based on apriori expectations, all the various income taxes are expected to have a positive relationship with Gross Domestic Product (GDP). Thus,  $\beta_i > 0$  where  $i = 1, 2, 3, 4$ .

Where:

$\beta_i$  is the coefficient

- GDP = Gross Domestic Product
- $f$  = Function
- PPT = Petroleum Profit Tax
- VAT = Value Added Tax
- CIT = Company Income Tax
- CED = Custom and Excise Duty

## 4.0. RESULTS AND DISCUSSION

### UNIT ROOT TESTS

#### Data Presentation, Analysis and Interpretation

To ascertain the stationary state of our time series variables, we employ the unit root test. This is imperative since we are ignorant of the data generating process.

The Augmented Dickey-Fuller test was employed, and the results are shown in table 1 below.

**Table 1: Summaries of Unit Root Tests: At 99% Critical Levels**

| AT LEVELS |      |                | AT FIRST DIFFERENCE |            |            |
|-----------|------|----------------|---------------------|------------|------------|
| Variables | ADF  | Remark         | Variables           | ADF        | Remark     |
| GDP       | 2.96 | Non-stationary | DPCR                | -7.289695  | Stationary |
| CIT       | 3.66 | Non-stationary | DCIT                | -8.5677837 | Stationary |
| PPT       | 2.96 | Non-stationary | DPPT                | -4.628360  | Stationary |
| VAT       | 2.86 | Non-stationary | DVAT                | -6.692997  | Stationary |
| CED       | 3.67 | Non-stationary | DCED                | -5.807121  | Stationary |

The results of the unit root test using Augmented Dickey-Fuller at 1 percent level shows that all the time series variables are non-stationary at levels, but became stationary only after first differencing hence the variables have an order of integration of one. This conclusion is based on a comparison of the augmented Dickey fuller statistic and the critical values provided by MacKinon (1996). Hence, he permits us to carry out the Johansen's co-integration test designed to ascertain whether a common stochastic drift exists among time series variables.

### Co-Integration Test

Having established the time series properties of the data, the study proceeds to conduct the Johansen multivariable co-integration test by first determining the number of co-integrating vectors in the model. When time series variables are non-stationary, it is important to ascertain if a meaningful long-run relationship exists between the non-stationary series. The variables are said to be co-integrated if a meaningful long-run relationship exists among them. The Johansen's co-integration test using both trace statistical maximum Eigen value is given in the tables below.

**Table 2: Johansen Co-Integration Test**

#### Unrestricted co-integration Rank Test (Trace)

| Hypothesized No of CE(S) | Eigen Value | Trace Statistic | 0.05 Critical Value | Prob** |
|--------------------------|-------------|-----------------|---------------------|--------|
| None                     | 1.000000    | 4.482451        | 3.841466            | 0.0393 |

Trace test indicates 1 co-integrating eqn(s) at the 0.05 level

\*denotes rejection of the hypothesis at the 0.05 level

\*\* MacKinnon-Haug-Michelis (1999) p-values

The co-integration result based on the trace test indicates that the variables are co-integrated at the 5% level. This implies that there is a long-run relationship between the variables in the model.

**Unrestricted co-integration Rank Test (Maximum Eigen Value)**

| Hypothesized No of CE(S) | Eigen Value | Trace Statistic | 0.05 Critical Value | Prob** |
|--------------------------|-------------|-----------------|---------------------|--------|
| None                     | 1.000000    | 3.981321        | 3.841466            | 0.0411 |

Max-Eigen value test indicates 1 cointegrating eqn(s) at the 0.05 level

\*denotes rejection of the hypothesis at the 0.05 level

\*\* MacKinnon-Haug-Michelis (1999) p-values

The co-integration result based on the maximum Eigen value indicates that the variables are co-integrated at the 5% level since there is one cointegrating vector. Thus, a meaningful long-run relationship exists between the variables.

**Pairwise Granger Causality**

To ascertain the nature of causality among the entire time series variable particularly between public generated revenue and the various income taxes we employ the pairwise Granger causality test. The results are shown in the table below.

**Table 3: PairWise Granger Causality**

| Null Hypotheses  | Obs | F-stat             | Prob              |
|--|-----|--------------------|-------------------|
| CIT does not Granger cause GDP<br>GDP does not Granger cause CIT | 30  | 5.69167<br>0.20892 | 0.0092<br>0.8129  |
| CED does not Granger cause GDP<br>GDP does not Granger cause CED | 30  | 2.57746<br>0.11473 | 0.0960<br>0.8921  |
| PPT does not Granger cause GDP<br>GDP does not Granger cause PPT | 30  | 14.4670<br>0.67803 | 0.00007<br>0.5167 |
| VAT does not Granger cause GDP<br>GDP does not Granger cause VAT | 30  | 0.32274<br>0.13811 | 0.7303<br>0.8724  |

**Source: Author’s Computations Using E-views 7.0**

The pairwise Granger causality test shown in table 4.3 shows that the probability value of CIT being 0.0092 falls short of the critical value of 0.05. Hence we accept the null hypothesis that company income tax does not Granger caused Gross Domestic Product (GDP), but Gross Domestic Product granger causes company income tax since the p-value of 0.8129 is higher than the critical value of 0.05. The table further shows that Custom and Excise Duties (CED) and Gross Domestic Product (GDP) granger causes one another and the same applies

to value-added tax (VAT) custom and excised and Gross Domestic Product (GDP). Finally, Petroleum Profit Tax (PPT) does not Granger caused by Gross Domestic Product (GDP). On the whole, the relationship between Custom and Excise Duties (CED) and Gross Domestic Product (GDP) on the one hand, and between Value-Added-Tax (VAT) and Gross Domestic Product (GDP) on the other hand are bi-directional, but between Company Income Tax (CIT) and Gross Domestic Product (GDP) on one hand and between Petroleum Profit Tax (PPT) and Gross Domestic Product (GDP) on the other hand is uni-directional flowing from Gross Domestic Product (GDP) to both Petroleum Profit Tax (PPT) and Company Income Tax (CIT).

### Co-Integration and Error Correction Model

Using the Partial Stock Adjustment Model (PSAM), we obtained the Error Correction Model that is expressed in Table 4

**Table 4: Error Correction Estimate**

| Variable | Coefficient | Std. Error | T-stat    |
|----------|-------------|------------|-----------|
| DCED     | 22.61035    | 17.08890   | 2.231461  |
| DCIT     | 1.897582    | 5.081004   | 2.136789  |
| DPPT     | 2.034256    | 2.118196   | 4.467890  |
| DVAT     | 4.236780    | 1.339379   | 3.245678  |
| ECM (-1) | -0.662940   | 0.285187   | -2.324580 |

$$R^2 = 0.841357$$

$$R^{-2} = 0.821435$$

$$S.E.E = 2153745$$

$$\text{Durbin - Watson stat} = 1.983298$$

Table 4 shows the error correction estimates with a coefficient of determination at 0.841357, showing that the various income taxes explain 84.1357 percent of the variation in Gross Domestic Product (GDP). Thus, judging by the  $R^2$  and  $R^{-2}$ , the estimated model has high explanatory power and commendable goodness of fit. The independent variables are correctly signed showing a positive relationship between federally collected taxes and Gross Domestic Product (GDP) in Nigeria. Furthermore, the coefficients of the variables are statistically significant at 5 percent. Essentially, the coefficients of the error correction model (ECM) are both negative and statistically significant, showing that an established long-run relationship can be attained. The speed of adjustment is at -0.662740, showing that 66.2740 percent of the deviation of Gross Domestic Product (GDP) from its long-run equilibrium value can be recognised per annum.

## Growth Proxies

Table 5: Percentage (%) Growth Rate of Key Variables

| Years | GDP   | PPT    | CIT   | VAT   | CED    |
|-------|-------|--------|-------|-------|--------|
| 2000  | 43.46 | 370-   | 15.37 | 21.34 | 15.47  |
| 2001  | 3.12  | 21.70  | 30.21 | 58.10 | 68.08  |
| 2002  | 46.29 | -44.88 | 28.39 | 18.43 | 6.33   |
| 2003  | 22.78 | 95.19  | 28.84 | 25.60 | 7.77   |
| 2004  | 34.45 | 101    | 13.93 | 19.72 | 11.10  |
| 2005  | 27.70 | 53.90  | 30.12 | 18.00 | 7.18   |
| 2006  | 27.40 | -0.20  | 49.95 | 20.76 | -23.67 |
| 2007  | 11.27 | -16.12 | 34.74 | 34.34 | 35.85  |
| 2008  | 17.62 | 82.06  | 26.53 | 28.50 | 12.39  |
| 2009  | 1.71  | -54.4  | 42.80 | 19.84 | 4.73   |
| 2010  | 18.18 | 57.59  | 10.91 | 17.35 | -89.29 |
| 2011  | 2.36  | 107    | 7.04  | 16.69 | 5.76   |
| 2012  | 6.29  | 44.8   | 38.30 | 28.43 | 16.31  |
| 2013  | 12.78 | 105.9  | 48.84 | 25.60 | 17.27  |
| 2014  | 14.45 | 103.6  | 53.63 | 29.72 | 31.60  |
| 2015  | 17.70 | 63.90  | 20.16 | 28.00 | 17.18  |
| 2016  | 18.40 | 40.20  | 59.95 | 40.76 | 43.67  |

The table shows changes in key variables. The GDP recorded positive performance over the years using 2000 as the base year. In 2000, the percentage was 43.46 and dropped to 3.12 and rose to 46.29 and dropped again to 22.78 in 2003. However, in 2004, there was significant growth and declined progressively to 2011 positively. This is assumed to be attributed to various reforms that occurred in the various federally collected taxes over the years. However, the figures picked up again in 2012, and the GDP growth rate moved from 2.36 in 2011 to 6.29, then to 12.78 in 2013 and grew up to 18.40 in 2016

Petroleum Profit Tax (PPT) growth rate profile also showed mixed performance. The negative growth profile was recorded in 2002, 2006, 2007 and 2009 with the corresponding percentages of -44.88, -0.20, -16.12, and -54.4 respectively. Positive growth rates were also recorded in other year. This can be attributed to global oil price which the nation has no control over. However, from the period 2010 to 2016, PPT has maintained positive growth, but still showed fluctuating performance.

Company Income Tax (CIT) growth rate performance was positive throughout the period covered by the study. Also, Value Added Tax (VAT) maintained the same positive growth rate with the highest growth rate of 58.10 in 2001

followed by 34.34 in 2007. CIT and VAT are the only two variables that did not record any negative growth rate. Their performances throughout study indicate fluctuating statistics. It should also be noted that their growth rates rose respectively to 64.78 and 44.64 for CIT and VAT in 2016. This could be attributed to the concerted effort being made by the present administration to deemphasise oil but explore tax revenues to the fullest.

Custom and Excise Duty (CED) presented a mixed performance growth rate profile (positive and negative). The negative growth rate profile was recorded in 2006 and 2010 with a corresponding percentage of -23.67 and -89.29 respectively. While others displayed positive growth rate with 43.67 as the highest in 2016. These show the contributions of the indicants to the general Gross Domestic Product (GDP) which represents the growth rate in the country. Apart from the negative performance of 2006 and 2010, all the other years in the study period recorded positive but fluctuating results.

## **5.0. CONCLUSION AND RECOMMENDATIONS**

The objective of this paper was to empirically investigate the short and long run relationship of the various federally collected taxes revenues on Economic Growth of Nigeria using the Gross Domestic Product (GDP) as the proxy for economic growth, for the period covering the year 2000 to 2016. To carry out this exercise, an annual time series data from Central Bank of Nigeria spanning for years was employed. The Johansen co-integration test showed that a meaningful long-run relationship exists between tax reform and Gross Domestic Product (GDP) in Nigeria. Essentially Custom and Excise Duties (CED) and Value-Added Tax (VAT) granger cause Gross Domestic Product (GDP).

This goes to show that any tax reforms were undertaken to improve the tax system, by reducing tax avoidance and evasion, reducing the tax burden, blocking revenue leakages and by scaling down Company Income Tax (CIT) from 30 to 20percent will improve the ability of the government to generate more revenue through taxation. This has the potential to improve both the quantity of revenue available for public expenditure and de-link Nigeria's public expenditure from the vagaries in the international oil market, thereby hedging the economy away from oil price volatility.

However, to consolidate the benefits derivable from taxes, effort should be made to achieve full autonomy for the Federal Inland Revenue Service (FIRS) while tackling the hydra-headed monster of multiple-taxation. Promotion of accountability and transparency in government business will also serve to restore the confidence of the taxpayer in the tax system. Essentially, Customs and excise duty and VAT granger cause Gross Domestic Product (GDP) and provide handles for the government to maximise tax revenue. Thus, the

administration of VAT and CED should be improved upon with focus directed towards reducing evasion and avoidance. Furthermore, all loopholes through which government loose revenue should be securely blocked as the current fight against corruption should be sustained so that gains accruing from the tax policies will not end up in individual pockets.

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