

# Effect of Corporate and Tertiary Education Tax on Nigeria Economic Growth

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## ARTICLE INFO

## ABSTRACT

The study investigates the effect of Company Income Tax and Tertiary Education Tax on Nigeria Gross Domestic Product (GDP). Time series data were sourced from annual reports and accounts of sampled firms, Central Bank of Nigeria Statistical Bulletin, Nigeria Stock Exchange Fact book, Federal Inland Revenue Service website and related journals. The tool employed for test of hypotheses was the Simple regression technique. Relationship between the model variables (including the dependent variables) was tested using correlation analysis. The outcome of the analysis depicts that company income tax and tertiary education tax significantly affects Nigeria Gross Domestic Product. In terms of the relationship between the model variables, it was found that the independent variable relate strongly and significantly with Gross Domestic Product. In conclusion, the researcher concludes that company income tax and tertiary education tax, both are major determinants of the growth or otherwise of Gross Domestic Product in most developing countries such as Nigeria. Hence, the implication is that company income tax and tertiary education tax are good predictors of Gross Domestic Product. The three tiers of government: Federal, state and local authorities, must strive to improve their internally generated revenue through non-oil tax sources; judging by the outcome of data analysis.

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## 1.0 Introduction

Tax systems are aimed at financing public expenditures, promoting equity, addressing social and economic concerns; set up to minimise taxpayers' compliance costs and government's administrative cost, while discouraging tax avoidance and evasion (OECD, 2014). It emphasized that taxes also affect the decisions of

households to save, supply labour and invest in human capital, the decisions of firms to produce, create jobs, invest and innovate, as well as the choice of savings channels and assets by investors.

Tax policy acts as a steering wheel with which government exert control over the economy; as tax has one simple purpose which is to raise

adequate revenues to fund government interest and at the same time do the least possible harm to the economy (Forbin, 2011). Government however, embarks on the construction of road networks, effective and efficient telecommunication, electricity, water supply and human resource development by establishing universities and college of technology (Adejare, 2015). The researcher states that Company which benefitting from the government must directly contributing to the government purse, this is where corporate tax comes in. Corporation tax is a tax on the taxable profits of limited companies and some organizations including clubs, societies, associations, co-operatives, charities and other unincorporated bodies.

Economic theory suggests that taxes that impair capital accumulation and productivity gains, such as corporate taxes, over time will have the most detrimental impact on the economy. The burden of taxes typically exceeds the revenue raised by government due to adverse effects on savings, investment, labour supply, and costs of compliance and administration (Price water house, 2010). It stated that the excess burden of taxation is the hidden cost of taxation on the economy, also referred to as a deadweight loss.

Tertiary Education Trust Fund (TET Fund) was established as an intervention agency under the TET Fund ACT - Tertiary Education Trust Fund (Establishment, etc) Act, 2011; charged with the responsibility for managing, disbursing and monitoring the education tax to public tertiary institutions in Nigeria. To enable the TET Fund achieve the above objectives, TETFUND ACT, 2011 imposes a 2 percent (2%) Education Tax on the assessable profit of all registered companies in Nigeria. The Federal Inland Revenue Service (FIRS) is empowered by the Act to assess and collect Education Tax. The Fund administers the tax imposed by the Act and disburses the amount to tertiary educational institutions at Federal and

State levels. It also monitors the projects executed with the funds allocated to the beneficiaries. The mandate of the Fund as provided in Section 7(1)(a) to (e) of the TETFUND ACT, 2011 is to administer and disburse the amount in the Fund to Federal and State tertiary educational institutions, specifically for the provision and maintenance of the following:

- Essential physical infrastructure for teaching and learning
- Instructional material and equipment
- Research and publication
- Academic staff training and development
- Any other need which, in the opinion of the Board of Trustees, is critical and essential for the improvement of quality and maintenance of standards in the higher educational institutions.

TET Fund ensures that funds generated from education tax are utilized to improve the quality of education in Nigeria without direct contract awarding by:

- Providing funding for educational facilities and infrastructural development
- Promoting creative and innovative approaches to educational learning and services
- Stimulating, supporting and enhancing improvement activities in educational foundation areas like Teacher Education, Teaching Practice, Library Development, etc.
- Championing new literacy-enhancing areas such as scientific, information and technology literacy.

Economic growth is the basis of increased prosperity while investment in new capital (both human and physical), the implementation of new production techniques and the introduction of new products are the fundamentals of the growth process (Myles, 2000). Gale and Samwick (2014) emphasized that while the rate cuts would raise

the after-tax return to working, saving, and investing, they would also raise the after-tax income people receive from their current level of activities, which lessens their need to work, save, and invest. Consequently, the first effect normally raises economic activity (through so-called substitution effects), while the second effect normally reduces it (through so-called income effects). In addition, Gale and Samwick (2014) opines that if they are not financed by spending cuts, tax cuts will lead to an increase in federal borrowing, which in turn, will further reduce long-term growth. Secondly, tax rate cuts financed by immediate cuts in unproductive spending will raise output.

The main purpose of the study is to examine the Effect of Corporate and Education Tax on Nigeria Economic Growth. The relationship between corporate tax, education tax and gross domestic product is also investigated in Nigeria. The remainder of the study is arranged into four sections. The researcher conducts a review of existing related literature in Section 2, Section 3 explains the methodology employed for data collection, classification and analysis, Section 4 discusses the empirical findings while Section 5 summarizes.

## 2.0 Review of Related Literature

Corporate tax and growth theory explains in clearer terms and considers the growth rate function first developed by Solow (1956):

$$Y_i = \alpha_i K_i + \beta_i L_i + \mu_i$$

Where:

$Y_i$  denotes real GDP growth rate in country  $i$ ,

$K_i$  is the net investment rate expressed as a fraction of GDP or the change over time in the capital stock,

$L_i$  is the percentage growth rate in the effective labor force over time,

$\mu_i$  measures the economy's overall productivity growth.

The coefficients  $\alpha_i$  and  $\beta_i$  measure the marginal productivity of capital  $K$  labor respectively.

Forbin (2011) emphasized that this framework underscores the five different mechanisms (corresponding to each of the five variables on the right hand side) through which taxes in general affect economic growth (Engen and Skinner, 1996). However, corporate tax policy can stifle productivity growth by discouraging research and development (R&D) and development of venture capital for industries highly dependent on advanced technology, two activities whose effects on productivity is crucial. Furthermore, taxing sectors unequally could lead to distortion of investment from heavily taxed sectors to those taxed less, in which case a corresponding inefficient allocation of labor is possible. In so doing, tax policy alters marginal productivity of labor (Harberger, 1966).

Dackehag & Hansson (2015) observes that more recently, researchers have turned to analyze how the tax structure, rather than the overall tax level, affects economic performance. For instance, several papers have investigated how taxation on corporate and individual (labor) income influences growth. Taxation of dividend income may also influence growth via its impact on investments and firm behavior. Within the academic community, there is conflicting views about the impact taxation of dividends has on firm behavior and, hence, on economic performance. The researchers opines that in line with the "traditional view", taxation of dividends is distortionary and increases the cost of equity; while, according to the "new view", taxation of dividends does not influence the marginal cost of capital and consequently has no impact on investment decisions. Findings reveal that taxation of dividend income negatively influences economic

growth, a result that corroborates the old view of dividends taxation as distortionary and also has some policy implication for the European countries in question.

Engen and Skinner (1996) opine that tax reforms are sometimes touted as having strong macroeconomic growth effects. Using three approaches, the researchers consider the impact of a major tax reform; a 5 percentage point cut in marginal tax rates on long-term growth rates. The first approach examines the historical record of the U.S. economy to evaluate whether tax cuts have been associated with economic growth. The second considers the evidence on taxation and growth for a large sample of countries. Evidence from micro level studies of labor supply, investment demand, and productivity growth was used. The results suggest modest effects, on the order of 0.2 to 0.3 percentage point differences in growth rates in response to a major tax reform. Nevertheless, even such small effects can have a large cumulative impact on living standards.

Pesendorfar (2008) opines that taxation influences the behavior of economic agents and, as a consequence, a country's economic activity and growth. The nature and size of the impact depends on the object or activity taxed as well as on the tax rate and the design of the tax. In a recent survey of 21 countries, the OECD sets up a ranking of tax categories based on their effects on wealth and GDP growth. The study investigates to what extent this ranking reflects the taxation-growth relationship in Austria. To this end, a comparison of the Austrian tax structure against the tax structure in the countries posting the highest GDP per capita levels and growth rates was conducted. An assessment of the individual tax categories' impact on the key explanatory variables of economic growth was done. The investigation is based on the central assumption that tax revenues are kept constant and that reducing the revenues from one tax category requires increasing those

from another tax source. The analysis shows that the high level of labor taxes, including social security contributions, negatively affects the growth potential in Austria. The relative share of revenues from property taxes, which, according to the OECD survey, hamper economic growth least, is lower in Austria than in almost all other OECD countries. Although the share of revenues from consumption taxes in Austria is comparable to that in the countries posting the best GDP per capita figures, tax rates are necessarily higher because the Austrian VAT system grants numerous exemptions and has a set of reduced rates. The substantial reduction of the tax burden on businesses brought about by the 2004/2005 tax reform improved the conditions for economic growth. The low degree of progressivity of taxes on labor income fosters productivity and economic efficiency rather than the redistribution of income.

In Adejare (2015), the study empirically analyses the effect of corporate tax on revenue profile in Nigeria and also examines the impact of corporate tax revenue on economic growth in Nigeria. Secondary data were obtained from Central Bank of Nigeria Statistical Bulletin from 1993 to 2013. Multiple regressions analysis was employed to analyze the relationship between the dependent variable (Gross Domestic Product (GDP)) and independent variables (company income tax, value added tax, petroleum profit tax and inflation). It is therefore concluded that corporate income tax has positive significant impact on revenue profile in Nigeria with the Adjusted R<sup>2</sup> of 95.3% which directly enhanced growth in Nigeria. Government derives revenue from corporate tax in discharging their obligation by providing funding for infrastructure, education and public health this invariably enhance economic growth in Nigeria. It is recommended that government should reduce corporate tax rate rather than eliminate corporate tax in Nigeria, lower corporation tax will increase the demand for labour which in turn raises wages



and increases consumption. Therefore, a reduction in the corporation tax rate will reduce the incentives to shift profits out, protecting the Corporation Tax base. Tax reductions will also increase the level of investment in the country.

Myles (2000) emphasized that the development of endogenous growth theory has opened an avenue through which the effects of taxation on economic growth can be explored. Explicit modelling of the individual decisions that contribute to growth allows the analysis of tax incidence and the prediction of growth effects. The paper reviews the theoretical and empirical evidence to assess whether a consensus arises as to how taxation affects the rate of economic growth. It is shown that the theoretical models isolate a number of channels through which taxation can affect growth and that these effects may be very substantial. Although empirical tests of the growth effect face unresolved difficulties, the empirical evidence points very strongly to the conclusion that the tax effect is very weak.

Gale and Samwick (2014) examines how changes to the individual income tax affect long-term economic growth. The structure and financing of a tax change are critical to achieving economic growth. Tax rate cuts may encourage individuals to work, save, and invest, but if the tax cuts are not financed by immediate spending cuts they will likely also result in an increased federal budget deficit, which in the long-term will reduce national saving and raise interest rates. The net impact on growth is uncertain, but many estimates suggest it is either small or negative. Base-broadening measures can eliminate the effect of tax rate cuts on budget deficits, but at the same time they also reduce the impact on labor supply, saving, and investment and thus reduce the direct impact on growth. However, they also reallocate resources across sectors toward their highest-value economic use, resulting in increased efficiency and potentially raising the overall size of the

economy. The results suggest that not all tax changes will have the same impact on growth. Reforms that improve incentives, reduce existing subsidies, avoid windfall gains, and avoid deficit financing will have more auspicious effects on the long-term size of the economy, but may also create trade-offs between equity and efficiency.

### 3.0 Methodology

#### Data

Data series were collected for Company Income Tax, Education Tax and Gross Domestic Product from the Central Bank Statistical Bulletin for the periods under consideration and website of Federal Inland Revenue Service for the relevant years under consideration.

**Table 1:** Description of Variables under Study

ACRONYM	DETAILS	DESCRIPTION
GDP	Gross Domestic Product	Monetary measure of the market value of all final goods and services produced in a period
CT	Corporation Tax	Corporation Tax is charged on all profits wherever arising, of companies resident in the State, with some exceptions, and non-resident companies who trade in the State through a branch or agency.
TEDUTAX	Tertiary Education Tax	Tertiary education tax is imposed on every Nigerian resident company at the rate of <b>2%</b> of the assessable profit for each year of assessment. The tax is payable within two months of an assessment notice from the FIRS. In practice, many companies pay the tax on a self-assessment basis along with their CIT.

Source: Authors Arrangement

$$GDP_{t_i} = \beta_0 + \beta_1 CT_{t-i} + \beta_2 TEDUTAX_{t-i} + \epsilon_t \dots\dots\dots(1)$$

Where,

CT = Corporation Tax

TEDUTAX = Tertiary Education Tax

$\beta_0$  = Coefficient (constant) to be estimated

t = Current period

t-i (i = 1) = One year lag period

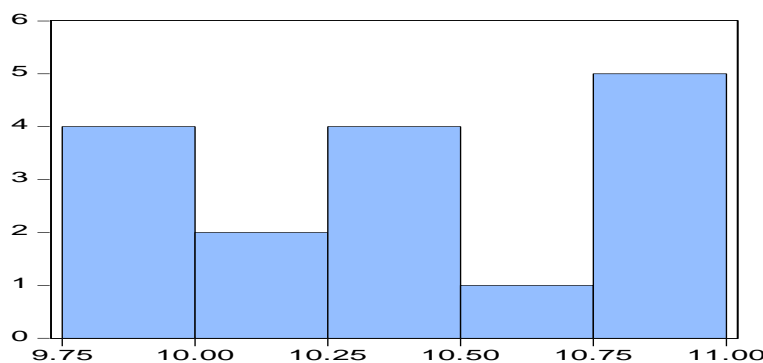
$\epsilon$  = Stochastic disturbance (error) term

The effect of Corporation Tax/Company Income Tax and Tertiary Education Tax and Gross

Domestic Product is tested using the multiple regression analysis; while correlation analysis is employed to examine the relationship between the variables of the study. The nature and significance for interpretation of the result for test of hypotheses is provided by EViews Statistical software. The Null Hypothesis states that CT and TEDUTAX have no significant effect on GDP in Nigeria. The coefficient is significant if the p-value is equal to or less than 0.05 (Inyama, 2014). This serves as the decision rule for the test of hypothesis

### 4.0 Discussion of Findings

#### 4.1 Descriptive Statistics of the Variables and Graphical Representations



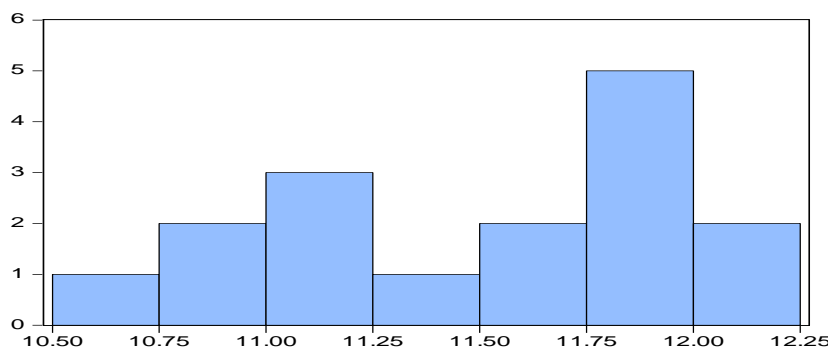
Series: LOGGDP01	
Sample 2000 2015	
Observations 16	
Mean	10.39628
Median	10.35031
Maximum	10.95973
Minimum	9.826954
Std. Dev.	0.417049
Skewness	0.071023
Kurtosis	1.534643
Jarque-Bera	1.444965
Probability	0.485546

Figure 1: Representation of Gross Domestic Product

Source: EView 8.0 Statistical Software.

The mean value for Gross Domestic Product is 10.39628 while the median is 10.35031. The standard deviation is 0.417049 which is not volatile while the insignificant Jarque-Bera

Statistic of 0.485546 depicts a normal distribution of the time series data. The GDP graph shows some fluctuations resulting from instability in economic indices.



Series: LOGCIT01	
Sample 2000 2015	
Observations 16	
Mean	11.50478
Median	11.57277
Maximum	12.14873
Minimum	10.72673
Std. Dev.	0.467119
Skewness	-0.236498
Kurtosis	1.684252
Jarque-Bera	1.303279
Probability	0.521191

Figure 2: Representation of Company Income Tax

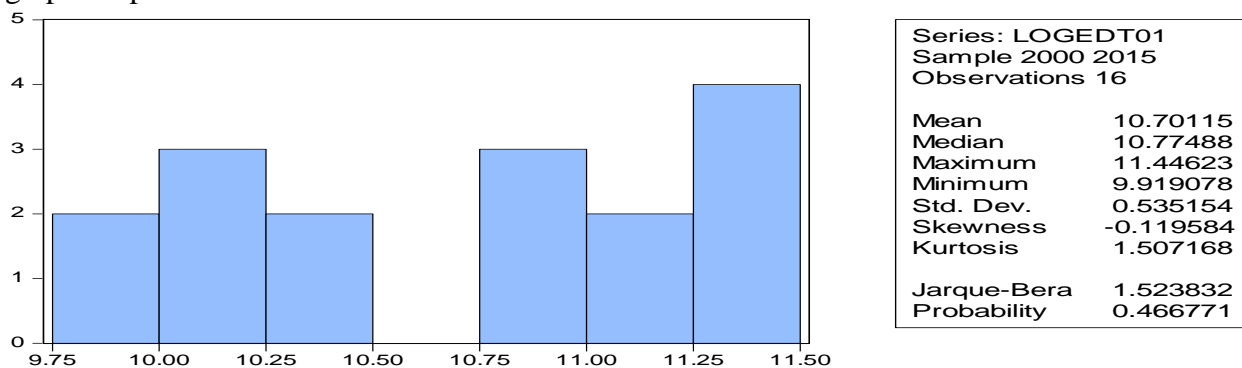
Source: EView 8.0 Statistical Software.

The mean value for Company Income Tax is 11.50478 and the median is 11.57277. The

standard deviation is 0.467119. The insignificant Jarque-Bera Statistic of 0.521191 shows a normal

distribution of the time series data for CIT. The CIT graph depicts some form of fluctuations

caused by inconsistent and unrelated CIT figures.



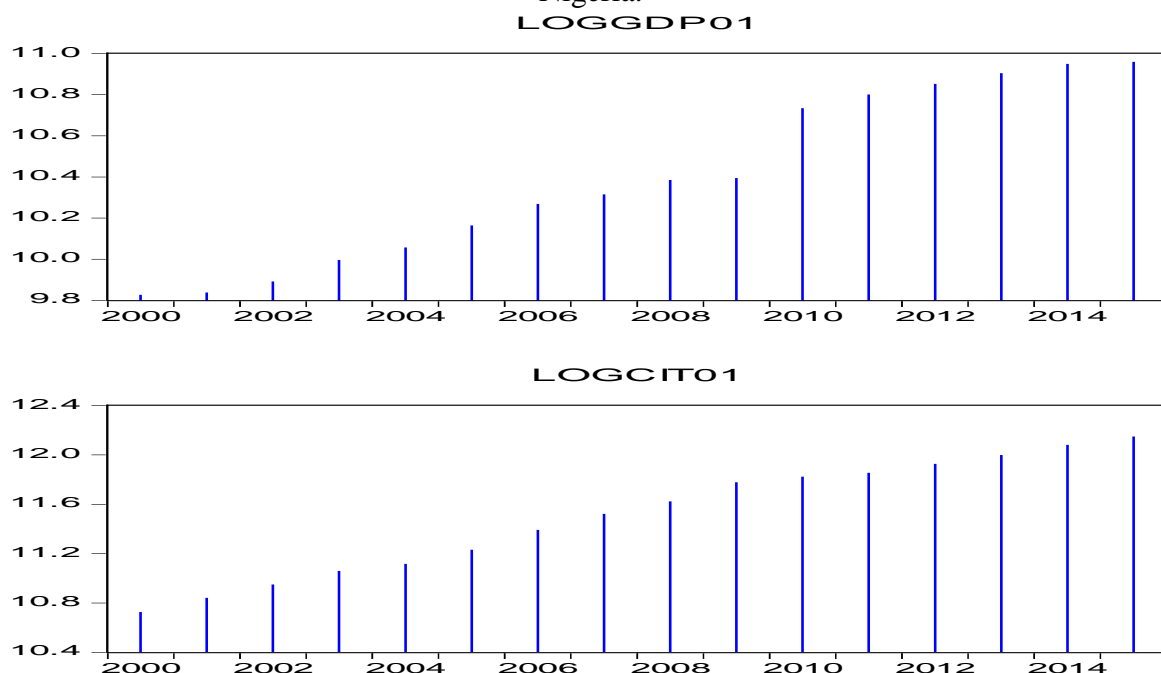
**Figure 3:** Representation of Tertiary Education Tax

Source: EView 8.0 Statistical Software.

The mean value for Tertiary Education Tax is 10.70115 while the median is 10.77488. The standard deviation is 0.535154 which is not very volatile also while the insignificant Jarque-Bera Statistic of 0.466771 reveals a normal distribution of the time series data for Tertiary Education Tax. The Tertiary Education Tax graph shows some level of fluctuations resulting from unsteadiness in Tertiary Education Tax revenue.

The tables attached to the figures above reveal that the skewness coefficient of the variables (Gross Domestic Product, Tertiary Education Tax, Company Income Tax) is substantially less than one (1). When this is the case, it confirms the normal frequency distribution of all the time series data. The Kurtosis coefficients of GDP, CIT and EDT are all below three (3), which lends credence to the fact that the frequency distribution of the variables-are-very-normal

**Test of Hypothesis One:** Company Income Tax has no significant effect on Gross Domestic Product in Nigeria.



**Figure 4:** Graphical Representation of Company Income Tax and GDP.

**Table 2:** Regression Analysis Results

Dependent Variable: Gross Domestic Product

Method: Least Squares

Date: 10/15/16 Time: 03:41

Sample: 2000 2015

Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LogCIT	0.871378	0.051969	16.76712	0.0000
C	0.371267	0.598359	0.620476	0.5449
R-squared	0.952564	Mean dependent var		10.39628
Adjusted R-squared	0.949176	S.D. dependent var		0.417049
S.E. of regression	0.094020	Akaike info criterion		-1.774145
Sum squared resid	0.123757	Schwarz criterion		-1.677571
Log likelihood	16.19316	Hannan-Quinn criter.		-1.769199
F-statistic	281.1363	Durbin-Watson stat		1.026014
Prob(F-statistic)	0.000000			

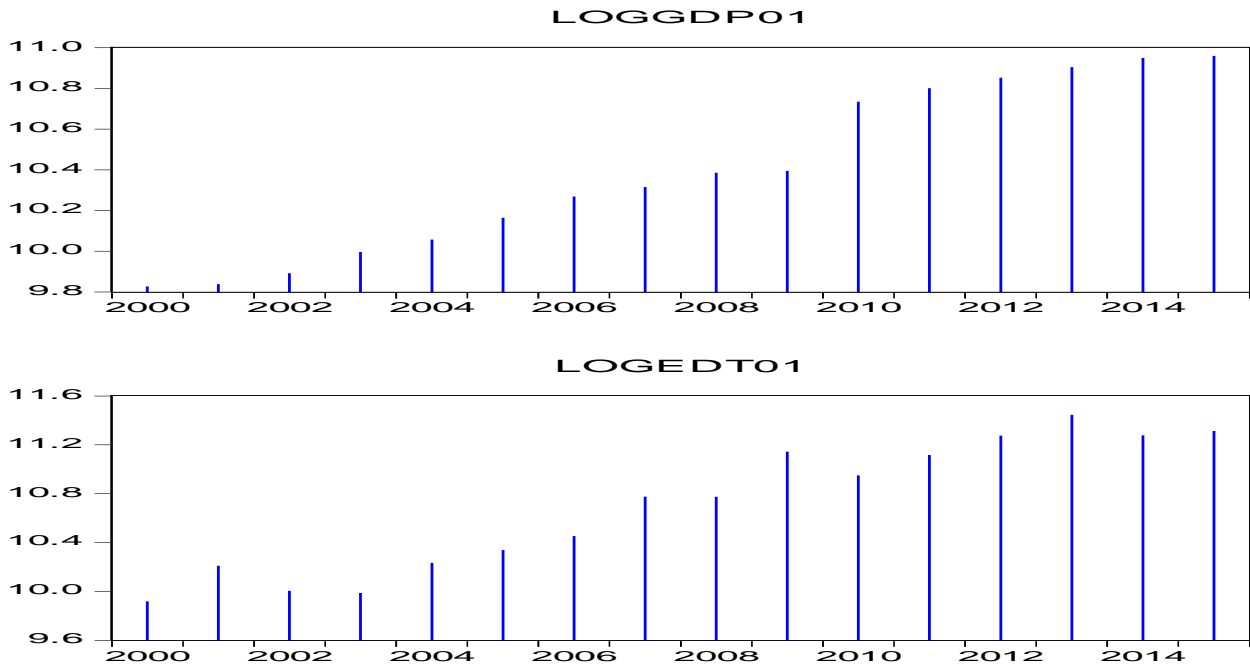
Source: EView 8.0 Statistical Software.

Table 2 discloses the regression analysis of the effect of Company Income Tax on Gross Domestic Product in Nigeria. The table shows that Company Income Tax has a positive and significant effect on Gross Domestic Product in Nigeria. The decision rule is that the null hypothesis will always be rejected when the t-statistic is above two (2). In this case, the t-statistic is 16.76712 which is well over 2.0. Therefore, the null hypothesis is rejected and the alternate accepted.

The adjusted R-Squared is 0.949176. This means that about 95% of the variations in Gross Domestic Product could be explained by Company Income Tax while about 5% of the variations in GDP could be attributable to other factors not considered in this work. The F-statistic of 281.1363 shows a significant probability value of 0.000000 which means that the effect of Company Income Tax on Gross Domestic Product in Nigeria may not have occurred accidentally. This means that the interactions between CIT, TEDT and GDP are sustainable at the long run.



**Test of Hypothesis Two:** Tertiary Education Tax has no significant effect on Gross Domestic Product in Nigeria.



**Figure 5:** Graphical Representation of Tertiary Education Tax and GDP

**Table 3:**Regression Analysis Results

Dependent Variable: Gross Domestic Product

Method: Least Squares

Date: 10/15/16 Time: 03:50

Sample: 2000 2015

Included observations: 16

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LogEDT	0.740306	0.065064	11.37816	0.0000
C	2.474152	0.697073	3.549343	0.0032
R-squared	0.902413	Mean dependent var		10.39628
Adjusted R-squared	0.895443	S.D. dependent var		0.417049
S.E. of regression	0.134854	Akaike info criterion		-1.052781
Sum squared resid	0.254598	Schwarz criterion		-0.956207
Log likelihood	10.42225	Hannan-Quinn criter.		-1.047836
F-statistic	129.4625	Durbin-Watson stat		1.969173
Prob(F-statistic)	0.000000			

Source: EView 8.0 Statistical Software.

Table 3 indicates that Tertiary Education Tax has a positive and significant effect on Gross

Domestic Product in Nigeria. The decision rule is that the null hypothesis will always be rejected

when the t-statistic is above two (2). The t-statistic is 11.37816 which is above 2. Therefore, the null hypothesis is rejected as well and the alternate accepted routinely.

The F-statistic is 129.4625 with a significant probability value of 0.000000 which also means that the short run cointegration is sustainable in

the long run. The Adjusted R-squared is 0.895443 which implies that about 90% of the changes in Gross Domestic Product could be explained by variations in Tertiary Education Tax while about 10% of the variations could be accounted for by the error term and other unexplained variables.

**Table 4:** Correlation Analysis Results

	LOGGDP01	LOGCIT01	LOGTEDT01
LOGGDP01	1.000000		
LOGCIT01	0.975994	1.000000	
LOGTEDT01	0.949954	0.971294	1.000000

Source: EView 8.0 Statistical Software.

Table 4 reveals that the relationship between Company Income Tax, Tertiary Education Tax and Gross Domestic Product is very strong. The strength of the relationship between Company Income Tax and Gross Domestic Product stands at 97.60% while that of Tertiary Education Tax and Gross Domestic Product stands at 94.99%. Relationship between CIT and TEDT stands at 97.12%.

## 5.0 Summary

One strong finding from all of the analysis is that not all tax changes will have the same impact on growth; reforms that improve incentives, reduce existing subsidies, avoid windfall gains, and avoid deficit financing will have more auspicious effects on the long-term size of the economy, but in some cases may also create tradeoffs between equity and efficiency (Gale and Samwick, 2014). In this study, the analysis of data reveals that Tertiary Education Tax and Company Income Tax both have positive and very significant effect on growth of Gross Domestic Product. On the relationship between the variables, the independent variables (CIT and TEDT) have very strong association with the dependent variable (GDP).

The findings therefore reveal that non-oil revenue contribute significantly to the growth of Gross Domestic Product in Nigeria. The relevant institutions for tax administration in Nigeria must therefore ensure that Company Income Tax and Education Tax are maximally collected as at when due. This is because no institution or individual ordinarily enjoy payment of tax which reduces distributable income of the payer. However, tax evasion and avoidance is on the increase in Nigeria as companies and individuals device new strategies to ensure that they evade or avoid tax. This could be blamed on the present economic recession ravaging Nigeria presently. It can also be partly blamed on the inability of the tax authorities such as Federal Inland Revenue Service (FIRS) and State Board of Internal Revenue (SBIR) to identify, assess, pursue and collect appropriate tax revenue from those that the burden had fallen on.

Considering the impact of these non-oil revenue sources to national economy, more incisive strategies must be adopted economically to reduce the cost of collection and administration of tax revenue in Nigeria. The researcher also discovered that the Federal, State and Local government tax authorities are sometimes confused as to who

should collect what tax. A comprehensive list of taxes collectable by Federal, State or local government tax authorities should be specified and published to avoid conflict of interest and double taxation. Actual and perceived bottlenecks in tax revenue collections at all levels should be tactically removed. This could be achieved through the amendment of existing tax policies, strengthening the institutions and machineries for tax collection, introducing transparency in the remittance of tax collected and keeping relevant and appropriate records to show tax due, tax collected, and tax liability at every point in time.

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