

Impact of Tax Reforms on Economic Growth in Nigeria

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Abstract

This study attempts to evaluate the impact of tax reforms on economic growth in Nigeria. A time series data covering a period of 30 years (1985-to-2015) were collected from secondary sources, and used for the analysis. The hypothesis was tested using Ordinary Least Square (OLS) method, while chow test was employed as a statistical tool for data analysis. The paper reveals that recent tax reforms have no significant effect on economic growth, that reforms have significantly altered the way system, and their agencies function. It therefore, recommends that government should employ viable tax reforms to stimulate tax compliance and trigger macroeconomic variables.

1.0 Introduction

There have been calls from several quarters on the need to restructure the nation's tax system. Nigeria is a monolithic economy with strong dependence on the oil sector; this dependence makes the economy to be vulnerable to external manipulation and adversely affects the planning horizons in the country. Governments impose many types of taxes in most developed countries, individuals pay income taxes when they earn money, consumption taxes when they spend it, property taxes when they own a home or land, and in some cases estate taxes when they die. In the United States, federal, state, and local governments all collect taxes. Taxes on people's income play critical roles in the revenue systems of all developed countries. From the foregoing, non-oil revenue especially tax has been the mainstay of most developed countries, in contrast to developing countries that still depend on primary products. Also, indirect taxes appear to be in vogue in developed countries, due to higher return, lower administration cost and higher compliance rate, however, most developing countries still rely on direct taxes with lower compliance rate (Oloyele, 2010).

Taxation has rightly been identified as a major tool in the strengthening of domestic resource mobilization and consequently, the search for ways and means of expanding the tax base and also strengthening tax administration has been intensified. That taxation has been one of the most important weapon available to government for marshalling financial resources is undisputable (Atta-Mills, 2002: Teidi, 2003 and Oloyede, 2010).

The Nigerian Tax system has historically suffered from challenges ranging from poor compliance, inefficient tax administration, corruption and fraud. This state of affairs which led to several reforms initiatives culminated in the enactment of the FIRS (Establishment) Act and the positioning of the FIRS as an autonomous and modern tax agency.

This study focuses on the developmental implications of the tax reforms initiated in Nigeria. The specific objectives are twofold: First, the study seeks to evaluate the economic productivity of the

overall tax system. Second, the study attempts to explain the links of the tax reform measures to revenue performance and assesses ways of mobilizing additional revenue.

1.1 Objectives of the Study

The main objective of this study is to examine the impact of tax reforms on economic growth in Nigeria from 1985-2015.

Specific objectives of the study are to:

- i) Evaluate the impact of Value Added Tax on economic growth in Nigeria.
- ii) Examine the impact of reform-induced Company Income Tax on real gross domestic product (RGDP).
- iii) Examine the impact of reform in Personal Income Tax on economic growth.
- iv) Evaluate the impact the tax reform in trade taxes and growth in Nigeria
- v) Investigate the impact of tax variable son economic growth in Nigeria.

1.2 Research Hypothesis

In the course of this research paper, the following hypotheses were tested:

- H0₁: There is no significant positive impact between Value Added Tax and economic growth in Nigeria.
- H0₂: There is no significant positive impact between Company Income Tax and economic growth in Nigeria.
- H0₃: There exist no significant positive impact between Personal Income Tax and economic growth in Nigeria.
- H0₄: There exist no significant positive relationship between trade taxes and economic growth in Nigeria.
- H0₅: There is no significant positive impact between tax variables and economic growth in Nigeria.

This study tends to look at the structure of exchange rate between 1985 – 2015 years period. The study seeks to cover this period because the period consists of periods of stable and unstable economic development.

The variables considered in the study are Real Gross Domestic Product (RGDP), Value-Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT) and Trade Tax (TT). The study is restricted to the period 1985 – 2015. The study is constrained by the dearth of available databases. A lot of the data set were either not available, or where available but inconsistent. This is because variables are often expressed in varying denominations. Since the analysis covers a large scope in terms of the number of years, gathering background information about the variables was extremely difficult. Such difficulties were adequately catered for in the course of the research.

There cannot be a better time to work on the critical problems of tax administration in the 21st century than now especially with the growing tax consciousness among the various governments in Nigeria. This research would contribute to the existing literature by focusing on tax administration in Nigeria with a view to identifying the critical problems that are confronting the tax system so that appropriate measures could be taken to tackle them. The work will be of immense benefit to students of tax policy, tax administration and taxation generally as it will provide them insight into the various challenges of tax administration. The findings and recommendations provided in the study will aside from helping to redefine the tax system, also give tax practitioners the much needed background for better performance.

This study is organised into five chapters of which chapter one is the introductory chapter with a general outlook of the work. Chapter two focuses on the theoretical framework and review of literature, chapter three is focused on the research methodology, while chapter four is concerned with the presentation of data and analysis of the regression results. Finally, chapter five summarises and concludes the work and some recommendations and suggestions also made.

2.0 REVIEW OF RELATED LITERATURE

2.1 Conceptual Clarification

2.1.1 The Concept of Tax

Taxation has been given various definitions by different authors. Some of these definitions are as follows:

Stein (1991) defines tax as a means by which the government raises revenue to meet its expenditure. It may also be used as a means of influencing or controlling the economy. Osita (2004) defines tax as the compulsory levy by government through the various agencies in the income, capital consumption of its subjects. Onaolapo (1988) defines taxation generally as how process or machinery by which communication or group of persons are made to contribute part of their income in some agreed quantum or method for the purpose of the administration and development at the society as a whole. Agyei (1983) defines taxation as transfer of resource from the private sector in order to accomplish some of the nation's economic and social goal.

Anyanwu (1997) defined taxation as a compulsory transfer or payment (or occasionally of goods and services) from private individuals, institutions or groups to the government. Taxation is simply a pecuniary burden placed on individuals, so as to support the government. The ultimate essence of taxation is the provision of adequate revenue for the government to carry out its statutory obligations for the economic well-being of the society (Appah, 2004) The government needs resources to finance its traditional functions. These functions include the stabilization of the economy, maintenance of government machinery, responsibility to external economics, and provision of basic infrastructures (Anyanwu, 1997; Abiola and Asiweh (2012).

Taxation is basically the process of collecting taxes within a particular location. In this regard, tax has been defined as - a monetary charge imposed by the government on person's entities transactions or properties to yield revenue. "It has also been defined as the enforced proportional contributions from persons and property, levied by the state by virtue of its sovereignty for the support of government for all public needs". (Olanmi, 2012) This definition is deductive in that, it limits the purpose of taxation to the support of Government.

Therefore, it is clear from the above definition that a tax is not a voluntary donation but a compulsory pecuniary burden imposed on persons, property and services for the support of government expenditure. Normally tax should be certain and orderly and are usually imposed by statute. But going by the provision of FIRS Act, —tax includes any duty, levy, or revenue accruable to the government in full or in part under this Act, the laws listed in the first schedule to this Act or any other enactment or law (FIRS, 2007).

Tax may also be defined as a pecuniary burden laid upon individual or property to support government expenditure. A tax is not a voluntary payment or donation, but an enforced and compulsory contribution, exacted pursuant to legislative authority and is any contribution imposed by government, whether under the name of duty, custom excise levy or other name. (FIRS, 2012)

From the above, tax is a compulsory levy imposed by the government on its citizens in order to provide public services and ensure their social and economic wellbeing or is a compulsory payment for which the government is not mandated to render commensurate services to taxpayer. Tax may be direct or indirect and may be imposed on individual basis, entities, assets and transactional basis.

2.2 Theoretical Framework

2.1.2 Optimal Taxation and Reform

The optional taxation approach emphasizes that to analyze the impact of tax reform its administration costs and its effect on social welfare must be evaluated. The analysis of optimal commodity taxation began with Ramsey (1927), but the subject expanded in the 1970s, following the Diamond-Mirrlees papers of 1971. The subject of optimal income taxation was created by Mirrlees (1971).

In the case of distribution, one should look for the sources of inequality (for example, land endowments or earned incomes) and should concentrate taxation there. In the case of externalities, one should attempt to tax or to subsidize directly the good or activity that produces the externality (Stein, 1988a). These efficiency results only require social welfare to be an increasing function of the individual welfare. In cases where equity and efficiency must be balanced, as in the design of direct and indirect taxes on consumers, the tax rates will depend on the exact form of the social welfare function (Newbery, 1988).

Newbery and Stein (1988) have analysed tax reform in a normative framework provided by the theory of optimal taxation. The analysis attempts to account for the impact of tax reform on tax-induced losses in the efficiency of resource allocation and on vertical equity norms. The former dimension of the reform is captured by the responsiveness of taxpayers to tax-induced relative price changes, and the latter on the particular specifications of a social welfare function. Optimal tax reforms in this context tend to be those that minimize efficiency costs (excess burden) of taxation and pay attention to income inequality. An interesting feature of these reforms is that they seldom endorse a uniform pattern of tax rates. The Ramsey rule, for example, calls for a highly differentiated structure of taxation by varying the tax rate inversely with the elasticity of demand and supply.

2.3 Empirical Studies

Several empirical studies have been conducted on the impact of taxes on economic growth. The empirical studies of Anyanwu (1997), Engen and Skinner (1996), Tosun and Abizadeh (2005) and Arnold (2011) provided different explanations of taxes on economic growth. 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 a major reform. They stated that such small effects can have a large cumulative impact on living standards. Tosun and Abizadeh (2005) in their study of 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 on economic growth, shares of the payroll and goods and services taxes have shown a relative decline. Arnold (2011) in their study found that short term recovery requires increase in demand while long run growth requires increase in supply. As short term concessions can be hard to reverse, this implies that policies to alleviate this crisis could compromise long run growth.

The tax system in Nigeria is made up of the tax policy, the tax laws and the tax administration. All of these are expected to work together in order to achieve the economic goal of the nation. According to the Presidential Committee on National tax policy (2008), the central objective of the Nigerian tax

system is to contribute to the well-being of all Nigerians directly through improved policy formulation and indirectly through appropriate utilization of tax revenue generated for the benefit of the people. In generating revenue to achieve this goal, the tax system is expected to minimize distortion in the economy (Presidential Committee on National tax policy, 2008).

James and Abiola (2012) on the study of the impact of tax administration on government revenue in a development economy with a case study of Nigeria economy, applied descriptive statistics method to analyse 93 usable response, the study found out among other things that increasing tax revenue is a function of effective enforcement strategy. The research study further recommended that the government should review and restructure the nation's tax policy and administrative system.

In a bid to empirically investigate the impact of tax reform on Nigeria's economic growth, Okafor, (2012) employed the use of ordinary least square, where economic growth was proxied by the Gross Domestic Product (GDP) and tax reform proxied by the various income tax-petroleum profit tax (PPT), value-added tax (VAT), custom and excise duties (CED) and company income tax (CIT). The regression result showed goodness of fit and all the income taxes have positive coefficients showing that tax reform can stimulate economic growth.

In an empirical work titled, "Value-added Tax and Economic Growth of Nigeria", Adereti,. In a closely related approach Ogbonna and Appah (2012) using time series analysis and employing the scope (1981-2007) empirically investigated the impact of tax reform on economic growth in Nigeria. Because the time series variables were non-stationary at levels, they employ the methodology of co-integration and error correction modeling. The use of Augmented Dickey fuller showed that the variables were stationary after first difference. The partial stock adjustment model was used in estimating the ECM. The results showed that changes in all the income taxes have positive coefficient. This implies that tax reform will stimulate economic growth. The use of Granger causality showed that all the income tax granger causes the GDP.

3.0 METHODOLOGY

3.0 Introduction

3.1 Research Design

This study adopts the ex-post factor method of research. This is because data needed for analysis already exists **than cross-sectional data being used**. Data relating to revenues from different tax components and GDP will be collected for the years 1985 – 2015. The study uses the Ordinary Least Square Estimation Technique to examine the relationship between taxation and the Nigerian Economy which will be measured using its Gross Domestic Product (GDP).

3.2 Sources of Data

The source of data used in this study is the Secondary sources. Secondary sources refer to the publications of other agencies or bodies that collected data for purposes different from which the researcher intend to use it for. The sources consist of published documents such as annual reports and accounts, journals, magazines and periodicals.

This source is important because it gives future researchers the opportunities to replicate the research work. However, most authorities warn that "the data collected from this source must be used with caution, because it may not give the exact kind of information needed". Therefore, the data may need to be refined after they are generated to suit the researcher's need, since it was initially collected for different purposes by others. The advantages of using secondary data are that it saves time and money.

For the purpose of this study, time series data were used. The data covers a period of 30 years (1985-2015). The data were sourced from secondary sources such as publications of the Central Bank of Nigeria (CBN) like the statistical bulletin, Bullions, occasional papers, Economic and Financial Review

and Annual Reports. Also, the IMF data base will be used as a data source. Other sources of data that will be used are journal research papers and academic works directly related to the study.

3.3 Method of Data Analysis

We tested the above using the Ordinary Least Square (OLS) method. Hence the multiple regression technique is used to estimate the parameters the objectives being to minimize the error term with a view of finding the regression equation that explains the data. This is preferred for its unbiasedness, consistency, efficiency and simplicity.

Thus, the ordinary least square method is used to collect and measure the impact of the tax reforms on economic growth in Nigeria. The dependent variable is real gross domestic product, while Company Income Tax (CIT), Personal Income Tax (PIT), Trade Tax (TT) and Value Added Tax (VAT) are the explanatory variables.

The statistical criteria for evaluating the parameter estimates of the regression models is the Chow Test, named after Gregory Chow. This test enables us to establish whether or not there is structural change in economic growth since the tax reforms. The period under the study spans from 1980 to 2015. Under the analysis, the period was divided into two distinct periods: pre-reform era (1980-2000) and post-reform era (2001-2015).

3.4 Specification of Models

The identified relationship between tax policy and economic growth can be investigated in a number of ways.

However, a number of recent studies have adopted the use of an endogenous growth model to stimulate the impact of a fundamental tax reforms on economic growth. As Ogbonna and Ebimobowei (2012) remarked, all these studies conclude that reducing the distorting effects of current tax structure – being a representative of the fiscal structure – of a modern economy, it can be shown that income growth can affect different taxes differently.

To demonstrate the transmission effects of tax Policy changes on economic growth and in line with Tosun and Abizadeh (2005), assume that there are two tax structures (tax A and tax B) that enhance income growth. Consequently, the share of these taxes in total tax revenues can be written as:

$$t^{\alpha} = t^{\alpha} A(Y)/T \quad - \quad - \quad - \quad - \quad - \quad - \quad - \quad (1)$$

$$t^{\beta} = t^{\beta} A(Y)/T \quad - \quad - \quad - \quad - \quad - \quad - \quad - \quad (2)$$

Where: $t^{\alpha} = t^{\beta}$ represent the share of taxes A and B on the level of income (Y); A,B are bases of tax A and B; t^{α}, t^{β} are the average tax rates for tax A and tax B; are functions of the level of income. Since: t^{α} and t^{β} sum up to unity (i.e : $t^{\alpha} + t^{\beta} = 1$), it means that the total tax revenue (T) equal to $t^{\alpha} A(Y) + t^{\beta} B(Y)$.

Consequently, it could be seen that both tax shares will depend on the tax rates, tax bases and income, which can be written as:

$$T = f [(t^{\alpha}, t^{\beta}, A(Y), B(Y)] \dots\dots\dots 3$$

Recall that for a given tax rates, change in tax share will depend on the relative change in the tax bases. As a result, income growth will change the tax structure when it affects the bases of different taxes. Although, tax rates can changed exogenously through major tax reforms, it can also change endogenously.

A new growth theory which provides a theoretical framework for analyzing economic growth that is determined by system governing (or within) a production processes rather than by forces outside of economic system.

Our data were divided into two periods: pre-reform era (1985-2000) and post-reform era (2001-2015). To estimate the impact of tax reforms on economic growth, we specify the models below:

3.4.1 Model 1

$$RGDP_{1980-2015} = \alpha_0 + \alpha_1 CIT_{1985-2015} + \alpha_2 PIT_{1985-2015} + \alpha_3 TT_{1985-2015} + \alpha_4 VAT_{1985-2015} + \mu_t \quad (1)$$

Where

RGDP = Real Gross Domestic Product (1985-2015)

CIT = Company Income Tax (1985-2015)

PIT = Personal Income Tax (1985-2015),

TT = Trade Tax (1985-2015)

VAT = Value Added Tax (1985-2015)

μ_t = error term

3.4.2 Model 2

$$RGDP_{1985-2000} = \beta_0 + \beta_1 CIT_{1985-2000} + \beta_2 PIT_{1985-2000} + \beta_3 TT_{1985-2000} + \beta_4 VAT_{1985-2000} + \pi_t \quad (1)$$

Where

RGDP = Real Gross Domestic Product (1985-2000)

CIT = Company Income Tax (1985-2000)

PIT = Personal Income Tax (1985-2000),

TT = Trade Tax (1985-2000)

VAT = Value Added Tax (1985-2000)

π_t = error term

3.4.3 Model 3

$$RGDP_{2001-2015} = \Omega_0 + \Omega_1 CIT_{2001-2015} + \Omega_2 PIT_{2001-2015} + \Omega_3 TT_{2001-2015} + \Omega_4 VAT_{2001-2015} + \varphi_t \quad (1)$$

Where

RGDP = Real Gross Domestic Product (2001-2015)

CIT = Company Income Tax (2001-2015)

PIT = Personal Income Tax (2001-2015),

TT = Trade Tax (2001-2015)

VAT = Value Added Tax (2001-2015)

φ_t = error term

3.5 Procedure for Testing of Hypotheses

3.5.1 Broad Statement of the Hypothesis

Null Hypothesis

H_0 = Tax reforms has no impact on economic growth in Nigeria

H_0 = Tax Reforms = 0

Alternative Hypothesis

H_0 = Tax reforms has impact on economic growth in Nigeria

H_0 = Tax Reforms \neq 0

3.5.2 Assumptions of the Chow Test

The assumptions underlying the Chow test are two folds:

- (a) $U_{1t} \sim N(0, \sigma^2)$ and $U_{2t} \sim N(0, \sigma^2)$, that is the error terms are normally distributed with the same (homoscedastic) variance σ^2 and
- (b) U_{1t} and U_{2t} are independently distributed.

3.5.3 Procedures of the Chow Test

Step I

Combining all the observations, we estimate Model 1 and obtain its residual sum of squares (RSS), say, S_1 with degree of freedom, $df = (n_1 + n_2 - k)$, where k = number of parameters estimated and n_1 and n_2 are the observations.

Step II

Estimate models 2 and 3 individually and obtain the RSS, say, S_2 and S_3 , with $df = (n_1 - k)$ and $(n_2 - k)$, respectively. Add these two RSS, $S_4 = S_2 + S_3$ with $df = (n_1 + n_2 - 2k)$

Step III

Obtain $S_5 = S_1 - S_4$

Step IV

Given the assumptions of the Chow test, it can be shown that

$$F^* = \frac{S_5/k}{S_4/(n_1 + n_2 - 2k)}$$

3.6 Choosing the Desired Level of Significance

The research thesis adopted a 5% level of significance. This implies that we allow 5% error of every 100% decision taken.

3.7 Decision Rule

This will be used to test whether or not the explanatory variables usually exert any significant influence on the dependent variables. If the F computed exceeds the critical F value at the chosen level of significance (5%), we reject the hypothesis that the regression models 1 and 2 are the same. In other words, we reject the hypothesis of structural stability.

3.8 Statistical Tests

Student t- statistics: This measures the original ratio of an estimated coefficient to its standard error, it is used to test the hypothesis that a coefficient is equal to zero. The decision rule is that a variable is statistically significant if the value of t- calculated (t- cal) is greater than the value of t – obtained in a statistical table (t-tab). In other words, if the null hypothesis (H_0) is accepted, their parameters are not significantly different from zero ($H_0, \beta_0 = \beta_1 = 0$). We will therefore reject the alternative hypothesis (H_1).

F – Statistics: This measures or shows the fitness of the mode. It reveals that all the slope coefficients are simultaneously significant and different from zero. The decision rule is that at a particular level of significance (5%). If the value of the F- observed is greater than F- Critical, the model is F_t , thus the null hypothesis is rejected and the alternative hypothesis accepted.

Coefficient of Determination: This is denoted by R^2 . It measures the proportion or percentage of the total variation in the dependent variable that is explained by variation in the independent variable. This will be obtained with the computation of the F- statistic to ascertain the validity of R^2 .

Durbin Watson (DW): The DW test shows the presence of serial correlation between the error terms. As a rule of thumb, if the value of d^* is less than 2, there is evidence of positive serial correlation. Consequently, we reject the hypothesis of zero auto correlation of the error terms. If d^* is greater than 2 ($d^* > 2$), there is evidence of negative auto – correlation of the error terms. If d^* equals 2 ($d^* = 2$), presence of zero autocorrelation of the error terms.

3.8.1 ADF Tests

Whistler, White, Wong and Bates (2001) observe that for a time series Y_t , two forms of ADF test exists. These are based on t – test of significance of the coefficient associated with the lagged value of the series (Y_{t-1}) in any of the following two forms of ADF regression equations:

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \sum_{j=1}^p Y_j \Delta Y_{t-j} + e_t \text{ --- (4.4)}$$

$$\Delta Y_t = \alpha_0 + \alpha_1 Y_{t-1} + \alpha_2 t + \sum_{j=1}^p Y_j \Delta Y_{t-j} + e_t \text{ --- (4.5)}$$

Where \sum_t for $t = 1, \dots, N$ is assumed to be Gaussian white noise. Equation (4.4) is with constant, no trend while equation (3) is with both constant and trends. The number of Lagged term p is chosen to ensure the errors and uncorrelated. If, $\alpha_1 = 0$, the time series is non-stationary, so that standard asymptotic analysis cannot be used to obtain the distribution of the test statistics (Whistler et al, 2001). In this study, the two forms of ADF tests were carried out, using the unit root test procedure in Eviews 8.0.

Having ascertained that all the series in the economic model are non-stationary in their level, but stationary in their first difference, it became obvious that least square technique would not be appropriate for the estimation of the economic model. Thus, bearing in mind the need to accommodate the interdependence of relationships between most economic variables, the economic model was re-conceptualized as a vector autoregressive system (4), allowing for the possibility of co-integration among the endogenous variables.

$$\Delta Y_t = \beta x_t + \sum_{i=1}^4 \theta_i \Delta Y_{t-1} + \pi Y_{t-1} + e_t \text{ --- (4.6)}$$

Where;

X is vector of deterministic variables, constant (c) and / or trend;

Y is vector of endogenous variables

β , θ and π are matrices of coefficients to be estimated, while

e is vector of stochastic residuals.

Terms in B give the influence of the associated deterministic variables, while θ represent short-term elasticity of response. And, where evidence of $r < 5$ co-integrating relations exists, by Granger causality theorem, $\pi = \beta^1$; in which case B is the co-integrating vector (containing the long-run elasticity) while elements of are the adjustment parameters in the vector error correction model.

3.9 Justification of Research Methods Used and Techniques

In this research, both the historical and descriptive research methods were adopted due to the nature of the study. Historical research is relevant because it provides basis for appreciating the past, evaluating the present and predicting the future. And the descriptive method is used in other to assess specific phenomenon before generalization.

The technique employed for the analysis of data in this study is regression. Regression is employed in the study to forecast relationship between variables and estimate the influence of each explanatory variable to the dependent variable.

4.0 DATA ANALYSIS AND DISCUSSION OF FINDINGS

4.1 The Empirical Results

4.1.1 Unit Root Test

The Augmented Dickey Fuller (ADF) was adopted to test for stationarity. The results of the ADF test are shown in table 4.1. A test of the time series properties of the data shows that all but one of the variables has unit roots.

Table 4.1: Unit Root Test Result

Variables	At level	1 st difference	Order of integration
CIT	-2.095045	-5.566871*	1 (1)
IT	-2.287962	-5.146254*	1 (1)
PIT	-1.829094	-11.22740*	1 (1)
VAT	-2.360261	-4.654385*	I(1)
RGDP	-1.463149	-2.686449**	I(1)

*, **, *** significant at 1%, 5% and 10% level respectively.

Source: output of EVIEWS 8.0 Econometric software

The result presented in Table 4.1 shows that none of the variables is stationary at its ordinary level. In the table, the ADF test is used to test for the presence of unit roots in the variables. The results indicate the presence of a single unit root in all the variables. That is, none of the variables is integrated of order zero, but they are all integrated of order one, I(1).

The findings above suggest that the variables are 1 (1) variables, as confirmed by a test on the difference of the variables. This is carried out to assess the possibility of co-integration in the data and to ensure consistency in the econometric modelling.

4.1.2 Econometric Results

The table below shows the regression results of the specified empirical model;

Table 4.2: Regression Result

Dependent Variable: D(RGDP)

Method: Least Squares

Date: 03/08/16 Time: 22:57

Sample (adjusted): 1986 2015

Included observations: 30 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	819137.1	238450.2	3.435254	0.0021
D(CIT)	-66.42287	245.3502	-0.270727	0.7888
D(IT)	-6.947652	114.8957	-0.060469	0.9523
D(PIT)	18.03540	85.88877	0.209986	0.8354
D(VAT)	72.36921	177.5138	0.407682	0.6870
R-squared	0.716659			
Adjusted R-squared	0.700675			
F-statistic	53.10588			
Durbin-Watson stat	2.632696			

Source: Econometric Analysis 2016

Results obtained as shown in Table 4.2 indicate the impacts of tax reforms of company income tax, trade tax, personal income tax and value added tax on economic growth. The estimated econometric model above revealed that dependent variable Real Gross Domestic Product (RGDP) has an autonomous value 819137.1. Reforms in Personal Income Tax (PIT) and Value Added Tax (VAT) have positive impacts on Real Gross Domestic Product (RGDP). A unit change increase in PIT will result in over 18.04 units increase in RGDP. In the same vein, a unit change in VAT will lead to a 72.4 increase in RGDP.

On the other hand, Company Income Tax (CIT) and Trade Tax (IT) exert negative influences on Real Gross Domestic Product (RGDP). A unit change in each of these variables will result in a decrease (66.42 and 6.95 respectively) in RGDP.

This result indicates that each component of the explanatory variables had variant impact on the dependent variable: personal income tax and value added tax contributed positively to RGDP, while company income tax and trade tax retard RGDP in Nigeria for the period under consideration (1985-2015).

The coefficient of determination (R^2) is 0.72 and when it was adjusted for the degree of freedom, the adjusted coefficient of determinant (R'^2) is 0.70 was derived. This means that about 72% of the total

systematic mean variation of the dependent variable is explained by the explanatory variables. The remaining percent is explained by other elements not included in the model, but taken care of by the error term, hence the regression model is a good fit.

At 5% significant level, the regression passed the overall significance test (F-test). This is an indication that none of the estimated coefficient is equal to zero and that there is a linear relationship between the dependent variable and the explanatory variables. The Durbin-Watson statistics of 2.63 suggests a mild presence of autocorrelation with no serious consequences.

The t-values obtained show that all macroeconomic variables employed (company income tax, trade tax, personal income tax and value added tax) are statistically insignificant under the 5% and 10% levels of significance. This shows that in spite of the reforms in the tax system, their impacts have been insignificant or not properly felt. There is thus, need to return to the drawing board to proffer policies in the tax system that will enhance economic growth.

4.1.3 Test of Hypotheses

In testing whether tax reform have impact on economic growth or not., we adopt the Chow Test. We adopted 1999 as the breakpoint, since the reforms were majorly enforced in 2000. The result below was obtained.

Table 4.3 Chow Test

Chow Breakpoint Test: 1999

Null Hypothesis: No breaks at specified breakpoints

Varying regressors: All equation variables

Equation Sample: 1986 2015

F-statistic	2.946266	Prob. F(5,20)	0.0375
Log likelihood ratio	16.55730	Prob. Chi-Square(5)	0.0054
Wald Statistic	14.73133	Prob. Chi-Square(5)	0.0116

Source: Econometric Analysis 2016

From the table above, the F-Statistic of 2.9462 was obtained. Using 5% significance level, we obtained a critical value of 11.2496. Since Calculated F is less than Tabulated F, we conclude that the tax reforms have not significantly triggered economic growth in Nigeria.

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

This study has been carried out with the main objective of investigating into the relationship between tax policy (reforms) and economic growth in Nigeria. Using time-series data from 1985 to 2015, the study finds statistical evidence that long-run relationship exists between economic growth and tax components. To capture these effects, the Chow test was carried out. The results obtained show that the reforms have not adequately enhanced economic growth in Nigeria and contravene the hypothesis that improvement in tax bases are necessary conditions for enhance economic growth and development in Nigeria.

This goes to show that tax reforms have significantly altered the way the system and their agencies function resulting in improved impacts on economic growth. The reform process has indeed, charted a road map to drive the Nigerian economy to international relevance, as it is to provide adequate revenue for the government to undertake socially desirable expenditure that will translate to economic growth in real output and per capita basis.

However, the desired revenue cannot be generated from the tax reform processes in Nigeria except government review obsolete laws and rates to align with current macroeconomic target for the promotion of fiscal responsibility and sustainability; a corrupt-free and efficient administrative machinery with personnel who are well trained, well-equipped and motivated would enable Nigeria to make appreciable progress in revenue generation; there should be harmony in the objectives of tax reforms with other industrial and macro-economic objectives; and above all accountability and transparency on the part of government officials in the management of tax revenues for the benefit of the citizens and Nigeria in general.

5.2 Conclusion

The study reveals that expansion of government expenditures amid low revenue growth in the period leading to 1983 led to serious fiscal imbalances in the Nigerian economy. This development created the need for a larger share of the private sector's resources to be ceded to the government as taxes to finance the increased expenditures. Since 1983, therefore, the tax system of Nigeria has undergone a fundamental reform, aimed at improving revenue generation and maximizing the efficiency of collection. Tax reform has thus been used as an instrument for raising the revenue productivity of the tax system.

Nigeria's tax system is characterized by unnecessarily complex, distortionary and largely inequitable taxation laws that have limited application in the informal sector that dominates the economy. Among the other problems relating to taxation can be added the low yield of revenue, disregard for the true principle of federalism, endemic institutional and management concerns at sub-national levels, weak tax assessment, corrupt processes, and the prevalence of multiplicity of taxes. The tax authorities include the need not only to build, but also to utilize institutional and human capacity, funding and logistics as well as finding solutions for tax evasion, fraud and mismanagement of collected revenue, improving voluntary compliance, and quick adjudication on legal matters. For the tax system to be efficient and effective, the tax authorities must produce officials that are well-paid, well-motivated, properly organized, adequately equipped, well-disciplined and professionally inclined. The system needs to adhere to simple, clear and unambiguous tax laws; assessment and collection procedures must be straightforward, transparent and client-friendly. Nigeria must train special tax judges and establish special tax tribunals; ensure that tax compliance costs are minimal; and to adopt the attitude of 'the taxpayer being the king'.

5.3 Recommendations

In the light of the finding the following recommendations were made; although these recommendations are not conclusion, but are supplement to the already suggested measures by the federal and state government.

1. Nigeria's economic history of volatile revenue flows has shown that it is time for the country to undertake serious efforts to diversify its revenue structure. The diversification experience of Indonesia to safeguard its economy against oil-related volatility could be relevant for Nigeria, and calls for exploiting the potential of such broad-based revenue sources as income tax and VAT. For stability and sustainability, the revenue structure should be largely domestically driven and should principally be derived from value-added production activities rather than from the current service-oriented operations.

2. VAT, one of the most dependable revenue sources in Nigeria today, has the potential to become the main source if it is properly harnessed. This can be achieved only if the Federal Inland Revenue Services is autonomous, void of the unnecessary encumbrances and bureaucratic bottlenecks it is currently faced with. To be able to function effectively, the FIRS should be ratified by law and supported with adequate resources; their tools and techniques should be modernized.
3. In line with the current globalization trend, government should provide various tax incentives to attract investors. This is all the more expedient, given the government's commitment to attract foreign investors as well as to increase saving and investment.
4. Tax administration can achieve good results only if the following conditions are met: simple tax rules and procedures, low tax burden, convenience to taxpayers.

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