# Tax Revenue and Economic Growth in Nigeria. (An Econometric Approach)

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***Abstract***
*The study examined tax revenue and economic growth using an econometric approach. The specific objectives were: to examine the effect of taxation, domestic investment, government expenditure on economic growth in Nigeria. Exploratory design was employed to identify the factors that contribute to tax revenue on economic growth in Nigeria. Secondary sources of data was employed which includes Central Bank Statistical Bulletin .In analyzing the data gathered for this work, multiple regression model was employed to establish the relationship between dependent and independent variables. The study empirically examined the effect of the tax revenue on economic growth in Nigeria. The result revealed the positive relationship that existed between tax revenue and economic growth using GDP as an index economy. The study recommended that funds generated from the public should be properly utilized so that the growth of Nigeria economy will be positively affected. Also investment opportunities should be available in order to fostering economic growth. Therefore, government should increase its spending and also spend more s this will promote investment.*

***Keywords:*** *Tax revenue, taxation, domestic investment, government expenditure, GDP*

## Introduction

In Nigeria, tax revenue has accounted for a small proportion of total government revenue over the years. For development and growth of any society, the provision of basic infrastructure is quite necessary. This perhaps explains why the government shows great concern for a medium through which funds can be made available to achieve their set goals for the society (Fagbemi, 2010). Government use tax proceeds to render their traditional functions, such as the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic maintenance (Aabi, 2011).

Every modern state or nation requires a lot of revenue to be able to provide and maintain essential services for its citizen. One ready means of revenue for the government is through the imposition of the tax by government is not a new phenomenon. There is hardly any government today that does not rely on taxation. Therefore, the tax system is one of the most powerful levies available to any government to stimulate and guide its economic and social development. The Federal Board of Inland Revenue (FBIR) which is vested with the power to administer the act and carry out all the act which may be deemed necessary and expedient for the assessment and collection of tax and shall for all amount so collected in a manner to be prescribed by the Federal Minister of Finance.

Tax revenue mobilization as a source of financing development activities in Nigeria has been a difficult issue primarily because of various forms of resistance, such as evasion, avoidance and other form of corrupt practices. In this case, taxation is one of the most important sources of revenue for the various tiers of the government and a major way of sourcing financial support for the Nigerian government at large. It is of paramount importance that taxation plays a role in the economy. Tax revenue has been seen as major source of government revenue all over the world. Government use tax proceeds to render their traditional functions, such as the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic maintenance.(Edama,2012) The role of taxation in promoting economic growth in Nigeria is not felt, primarily, because of its poor administration. The major challenges facing tax administration in Nigeria include frontiers of professionalism, poor accountability, lack of awareness of the general public on the imperatives and benefits of taxation, corruption of tax officials, tax avoidance and evasion by taxing units, high rate of tax, poor method of tax collection etc. There is also the problem of accuracy of tax statistics, taxes can inhibit investment rate through high tax rates such as corporate and personal income. The specific objectives are:

1) To examine the effect of taxation on economic growth
2) To investigate the relationship between domestic investment and economic growth
3) To examine the relationship between government expenditure and economic growth in Nigeria.

**Theoretical Framework and Literature Review**

According to Kubel and Nwokah (2018), a tax revenue theory may be derived on the assumption that there need not be any relationship between tax paid and benefit received from state activates. The theory of tax revenue states that social and political objectives should be the major factors in selecting taxes. The theory advocated that a tax system should not be designed to serve individuals but should be to cure the ills of society as a whole. This is basically an exchange relationship between tax payers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received. A country's tax system is a major determinant of other macroeconomic indexes. Specifically, for both developed and developing economics, there exists a relationship between tax structure and the level of economic growth. Indeed, it has been argued that the level of economic development has a very strong impact on a country's tax base and tax policy objectives vary with the stages of development FIRSl, 2015). According to Olopade (2010), growth means an increase in economic activities. Economic growth represents the expansion of a country's potential GDP or output. Rostow-Musgrave model (1999) carried out a research on growth of public expenditure when they focused mainly on the utilization of taxes as the major revenue source, concluded that, at the early stages of economic development, the rate of growth of public expenditure will be very high because government provides the basic infrastructural facilities and most of these projects are capital intensive, therefore, the spending of the government will increase steadily. The main purpose of tax is to raise revenue to meet government expenditure and to redistribute wealth and manage the economy (Jhingan, 2004). Tax can be used as an important tool in the following manner;

**(a)** Optimum allocation of available resources

Tax is the most important source of public revenues. The imposition of tax leads to diversion of resources from the taxed to the non-taxed sector. The revenue is allocated on various productive sector in the country with a view to increasing the overall growth of the country. Tax revenues may be used to encourage development activities in the less development areas of the country where normal investors are not willing to invest.

**(b)** Reduction of inequalities income and wealth

Through reducing inequalities in income and wealth by using an efficient tax system.

**(c)** Acceleration of economic growth and price stability

Tax policy may be used to handle critical economic situation like depression and inflation. In consumption and reduce the savings to increase the aggregate demand and vice versa.

**(d)** Control mechanism

Tax policy is used as a control mechanism to check inflation. Tax revenue is the only effective weapon by which private consumption can be curbed.

Tax and tax administration are fundamental components of any attempt in nation building and this is particularly the case of any developing or transitional nation like Nigeria. As Brautigam (2017) noted that taxes build legitimacy and consent. Nigeria which was colonized by the British just like some other African countries gained her independence by an act of the British parliament on 1 October, 1960 and became a republic within the common wealth (Fagbemi, Uadaile, and Noah 2010). However, the tax system of Nigeria dated back to 1904 when the personal income tax ordinance was introduced in the northern part of the area before the unification of the area by the colonial masters. It was later implemented through the Native Revenue Ordinance to the western and eastern regions in 1917 and 1928, respectively. Couple with other amendments in the 1930s, it was later incorporated into Direct Taxation Ordinance No.4 of 1940. Since then, different governments have continued on the improvement of the tax system in Nigeria (Arowomole and Oluwakayode, 2016). Although the Nigerian tax system has undergone several reforms geared toward enhancing tax collection and administration with minimal enforcement cost, one of the major setbacks faced by the Nigerian economy is the tax system presently in operation. This also has contributed to the non-voluntary compliance of the taxpayers due to the meager nature of the system leading to an extensive practice of tax evasion and avoidance. It has been a major impediment to economic growth, where tax evasion and avoidance are now prevalent (Ezeoha and Ogamba, 2010) Some of the major tax reforms put in place by the government in addressing the problems of tax administration in Nigeria include: The introduction of taxpayer's identification number (TIN) which became effective since February 2008, automated tax system (ATS) that facilities tracking of tax positions and issues by individual taxpayer, E- payment system (EPS) which enhances smooth payment procedure and reduces the incidence of tax touts, Enforcement scheme (especially purpose tax officers), this is a special tax officers scheme in collaboration with other security agencies to ensure strict compliance with payment of taxes. (Odusola, 2016).

Tax revenue refers to a more or less compulsory, none returnable contribution from private individuals, institutions or groups to the government. It may be levied on wealth or income, or in the form of a surcharge on prices. Urban tax can be seen as compulsory transfer or payment of money (or occasionally of goods and services). It may be levied in order to raise revenue and to regulate the production of certain commodities. The base of a tax is the legal description of an object with reference to which tax applies. For instance, the base of an excise duties is the production or packaging or processing of goods while the base of an income tax is thee income to the tax payer so defined in terms of certain laid down rules for this purpose (Fagbemi, 2010). Urban tax is the transfer of payments from the private sector to the public sector. It constitutes the principal sources of revenue to finance government expenditure and also acts as an instrument of fiscal policy. They are tax payable by the recipient or beneficiary of a deceased property. Urban tax may be categorized on the basis of burden or incidence, viz;

taxes imposed on net income; taxes imposed on property; and taxes imposed on production or sale of goods. Urban taxes depend on whether persons or things are taxed. In Nigeria, urban taxes are categorized into direct taxes and indirect taxes. Direct taxes are made up of personal income, company income tax, expenditure tax, profit tax etc, while indirect taxes are taxes levied upon persons or groups whom they are not intended should bear the burden or incidence. Examples of indirect taxes are excise duties, sales tax, etc (Oboh, Yeye and Isa, 2012). The urban tax is potentially an attractive means of financing government. As a revenue source, it can provide local governments with access to a broad and expanding tax base. At present, however, yields of urban taxes in developing countries like Nigeria are extremely low. Its contribution to total public sector tax revenues is negligible and its share of municipal revenues is typically less than 30 percent. In part, these low yields reflect failures in the administration of the tax. To an extent, these administrative failures can be addressed through procedural reforms which include improved property tax base coverage, validation accuracy and collection efficiency that minimizes reliance and providing incentive to agencies responsible for tax administration (Nzotta, 2007).

Urban tax in Nigeria is an underutilized revenue source for local authorities. Potentially, urban tax could be increased by 60 percent through effectively improving four critical ratios of coverage, valuation tax rates and collections. Improved urban tax could contribute critical resources necessary to enable local authorities to provide the level and quality of services required to sustain and promote further economic and social development in Nigeria. The best system is that which has the best or the least economic effects. Tax influence on the ability to work, to save and to invest, can affect the volume of production by combing consumers demand and investment. Person's ability to work will be reduced by taxation which its efficiency. This applied to direct taxes on small income and indirect tax on necessaries (Okpe, 2010). Disincentive of high income taxes may reduce the volume of production hereby increasing the inflationary pressures. Inflation may be the result of excessive pressure of demand upon resources to satisfy consumer's needs and also resources for investment.

Action may be necessary to restrain the rate of investment, example making inflation resources less favorable on direct tax upon investment or restricting all sources of credit. However, variations in the structure and amount of taxation may have powerful anti-inflationary effects it is unlikely, at least in the short run, to be of much value in stimulating the level of effective demand. A reduction in the standard rate of income tax may not produce immediate increase in spending, particularly where only relatively few tax payers earn much income upon which tax is levied at this rate. Similarly reduction in direct taxes on goods with inelastic demand would not produce more spending (Salami, 2011). The case might be different with goods with elastic demand example motor cars, if the proceeds of taxation are well spent, the stimulus to production due to this expenditure may be far stronger than the check production due taxation. On the other hand, a reduction of income tax rate serves to raise the level of national income (Lakan, 2016). Tax reduction leads to an increase in people disposal income and to increase in initial consumption spending. This tax - cut may involve in an expansion to private sector of on economic system. Both the United States of America (USA) and Japan used this tax-cut mechanism repeatedly to increase their employment and income levels, a remarkable example of modern physical policy at work. The ideal distribution is that which caused a given amount of production to yield maximum of economic welfare. This is distributed according to needs or according to capacity to make use of income. Taxes on commodities of wide consumption are generally regressive since the larger the person's income. The smaller the proportion of its spending on any one of such commodity. But taxes on luxuries are essentially progressive as between rich and poor. In a two economy, it is said that consumption plus savings is equal to national income. It therefore becomes imperative to discuss the tax effects on them (Sikka and Hamphon, 2015).

**Empirical Literature**

Aabi (2011) did a study on value added tax and economic growth in Nigeria. He analyzed time series data on the gross domestic product (GDP), VAT revenue, total tax revenue and total (federal government) revenue from 1994 to 2008 using both simple regression analysis and descriptive statistical method. The findings of the study showed that VAT revenue accounts for as much as 95percent significant variations in GDP –Nigeria. A positive and significant correlation exists between VAT revenue and GDP. Both economic variables fluctuated greatly over the period through VAT revenue was more stables. No causality exists between the GDP and VAT revenue, but a lag period of two years exists and also, this could be true as VAT is not easily evaded as it is collected at source on the consumption of goods and services. The study will further verify to see if the result will comply with the above findings. Sikka and Hamphon, 2015 examined the relationship between company income tax and Nigeria's economic development for the period 1981 to 2007. They used GDP to capture the Nigeria economic which was measured against total annual revenue from company income tax for the same period. They employed the use of chi-square and multiple regression analysis method to analyzed data obtained from both primary and secondary sources. Their variables included various taxes regressed against GDP with an R-squared of 98.6percent and an adjusted R squared of 98.4percent, revealing that company income tax's impact on GDP is very high and impressive. It further showed that there is a significant relationship between company income tax and Nigerian economy development and that tax evasion and avoidance are the major hindrance to revenue generation. Overall the study examined company income tax which calls for the need to see the impact of all tax revenues on the Nigerian economy. Edama (2012) reported that in Nigeria, the role of tax revenue in promoting economic activities and growth is not felt primarily because of its poor administration, perception and often an undesirable imposition which bears no relation to the responsibilities of citizenship or the service provided by the government. Their study revealed that an efficient and effective tax administration results in increased revenue yield, but this is not possible because of the presence of evasion and avoidance due to loop holes in the tax laws.

**Research Methodology**

The focus of this study has been on the effect of tax revenue on economic growth in Nigeria. In this study, the exploratory design is employed to identify the factors that contribute to tax revenue on economic growth in Nigeria. Secondary source of data was employed and it consists of already existing data used for some other work but was found to be useful in the study. Based on the objectives of this study, the secondary sources include Central Bank Statistical bulletin, publications and internet connectivity.

**Model specification**

The objective of the study is to establish the relationship existing between tax revenue and economic growth in Nigeria. Based on this, the model below has been developed for the study.

GDP = f(TR, DINV, GOVTE)

Where:

| | | |
|---|---|---|
| GDP | - | Gross domestic product |
| TR | - | Tax revenue |
| DINV | - | Domestic investment |

GOVTE - Government expenditure

Therefore, the functional relationship is linearised into ordinary least square (OLS) model

$$GDP = b_0+b_1TR+b_2DINV+b_3GOVTE+Ut$$

Where:

Dependent variable = GDP
Independent variables = TR, DINV, GOVTE
Regression constant = $b_0$
Regression coefficient= $b_1$-$b_3$
Stochastic error term = Ut

**Techniques of data analysis**

In analyzing the data gathered for this work, multiple regression model was employed to establish the relationship between dependent and independent variables.

**Results and Discussion**

The empirical results of the estimated equation are presented below:

**TABLE 1:** Empirical results

Dependent variable: LGDP

| Variable | Coefficient | Std. error | t-stat. | Prob |
|---|---|---|---|---|
| C | 77985.76 | 112381.1 | 0.693940 | 0.4941 |
| LTAX | 5.495458 | 4.120735 | 1.333612 | 0.0547 |
| LDINV | 35.09926 | 7.285329 | 4.817800 | 0.0000 |
| LGEXP | 7.186164 | 1.738707 | 4.133050 | 0.0000 |

$R^2$ = 0.933790
$R^2$(adj) = 0.894065
SER = 566553.4
f-Stat = 23.50590
DW = 1.998228

The coefficient of multiple determination ($R^2$) is 0.933790 and an adjusted $R^2$ of 0.894065. The $R^2$ (93%) of variations in the observed behaviour of GDP is jointly explained by the independent variable. TAX DINV, GEXP, this shows that the model fits the data well and has a tight fit. Also, the f-statistic is used to test for the significance of such good or tight fit. The model reports on effectively high f-statistic value of 23.50590 which when compared with the table value. Using this criterion, therefore tax (5.49%), DINV (35.09%) and GEXP (7.18%) will prop up the economy more than proportionate percentage point. The constant term indicates that if all the variables are held constant, the economy will be improved by 77985.76. The DW statistic (1.998228) is used to test for the serial correlation in the residuals of the model. The decision rule is that if the calculated DW falls outside du and 4-u then there is a serial correlation in the residuals. This shows that DW calculated (1.998) falls in the acceptance region; representing the region of no autocorrelation. This region is represented by the shaded region of the DW – graphs showing the residual terms in the model. This means that the estimated equation is well behaved. The model therefore can be applied in the Nigeria economy for policy formulation in the short – run.

**Conclusion/Recommendations**

The study empirically examined the effect of tax revenue on economic growth in Nigeria. The result reveals the positive relationship that existed between tax revenue and economic growth using GDP as an index. Examining the results further revealed that tax revenue impacted positively on the growth of Nigeria economy. All these results were rather surprising as tax revenue promotes economic growth. This is very interesting and a significant departure from the theoretical expectation. The reason for this may have been that government has spent more on the growth of our economy. Based on the analysis, the findings of the result conforms to the works of various scholars who posit that tax depends on the extent of how it is properly managed. The extent of how the tax law is interpreted and implemented as well as the publicity brought into it will determine how a particular tax is able to meet its objectives. Tax revenue mobilization is a source for financing development activities in Nigeria. It is one of the most important sources of revenue for the various tiers of the government at large, it is of paramount importance that taxation plays a role in the economy. Every modern state or nation requires a lot of revenue to be able to provide and maintain essential services for its citizen. Also revealed that domestic investment positively affected the performance of Nigeria economy. The finding is in line with the view of Lakan (2016) who posit tax increases investment opportunities and efficiency since it will mean disposal which will mean a positive economy. Investment creates employment opportunities which leads to economic growth. Also revealed that government expenditure positively affected the performance of Nigeria economy. Government expenditure has been more productive as compared to other sectors, and this relationship is stronger for relatively poorer states. It is an important factor that catalyzes the growth of Nigeria economy. Government uses tax to render their traditional functions, such as the provision of public goods, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic maintenance. It is concluded that the revenue impacted positively on the growth of Nigeria economy. The study recommended that funds generated from the public should be properly utilized so that the growth of Nigeria economy will be positively affected. Also investment opportunities should be available in order to fostering economic growth. Therefore, government should increase its spending and also spend more s this will promote investment.

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