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*Original Research Article*

# The implications of tax revenue on the economic development of Nigeria

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**Taxation is not a new phenomenon as the major sources of revenue to Nigerian government prior to the coming of the British colonial masters. However over the years concerned citizens have argued whether tax revenue has been effectively utilized for the economic development of Nigeria. This study therefore, examined the implication of tax revenue on the economic development of Nigeria from the 2000 to 2010.The study first traced the historical background of taxation in Nigeria, the meaning of taxation and the concept of economic development. Pearson product moment correlation formula was used to test the hypothesis of this study. It was discovered that there is no significant relationship between tax revenue and economic development in Nigeria. The study also shows that taxation apart from being a source of revenue to government is also used to achieve economic goals such as, correlation of adverse balance of payment, and also a means of tackling inflation and deflection. However, there are some problems and challenges facing tax collection in Nigeria as shown in this study. At the end, the following recommendations were made that taxation should be used effectively to pursue economic development. That Nigerian government should review her tax policies, sensitize the public on the need to pay taxes and set adequate regulatory and supervisory framework to ensure compliance and effective utilization of tax fund. Etc.**

**Key words:** Taxation, economic development, direct tax, indirect tax, revenue, cannon of taxation.

## INTRODUCTION

Sustainable economic development is one of the fundamental objectives which every government mostly in developing economy seeks to achieve. The pursuit of this goal underlines the rationale behind the identification of ways of raising revenue. Nigeria just like every numerous countries through which revenue is sourced in order to finance developmental projects in the economy.

Olu (2005) states that "the history of taxation in Nigeria dated back to 1861 when the British government first entered into Nigeria". Since then, there have been different tax reforms and laws in Nigeria both during the British rule and after independence in 1960.

Tax apart from being a major source of revenue to government serves as a mechanism for correcting inflation and deflection, balance of payment deficit and redistribution of income among others. (Ola, 2005).

Between 2005 and 2008, it was noted that tax revenue constitute 7% of the total federal government collected revenue of 12.2% while expenditure within these periods stood at 45.89% and 76.8% respectively (Obinna, 2004).

Despite the huge amount of money generated by government through tax revenue, development in Nigeria still remains a mirage as poverty, unemployment, low standard of living and poor infrastructural facilities still remain at a very high rate. The essence of taxation is to raise revenue for meeting part of government expenditure of providing economic and social benefits to the public and for the purpose of controlling the economy.

It is quite worrisome that despite numerous tax reforms in Nigeria no remarkable change has been recorded in Nigerian economy with regards to economic development and adequate utilization of tax revenue.

Consequently, many tax payers in Nigeria have argued that tax revenue has not been adequately utilized in the interest of the general public over the years. Hence, this paper is designed to investigate the relationship between tax revenue and economic development in Nigeria.

## Empirical review

This area of review briefly highlights the works of previous researchers related to this study.

Eugene and Skimmer (1996) in their study titled "Taxation and Economic Growth in Washington revealed that higher tax can discourage investment on the net growth in the capital through high statutory tax rates on corporations and individual income".

More so, the study showed that tax policy influences the marginal productivity of capital and labour by distorting investment from heavily taxed sectors into more highly taxed sectors with lower overall productivity.

According to Solow (1996), heavy taxation on labour supply can distort the efficient use of human capital by discouraging workers from employment in sectors with high social productivity but a heavy tax burden.

Moreover, a number of recent studies have used endogenous growth models to stimulate effects of a fundamental tax reforms on conclude that reducing the distorting effects of current tax structure would permanently increase economic growth. At one extreme, Lucca (1990) calculated that a revenue neutral income tax raise labour income taxes and increase growth rates negligibly. At the other side, Jones et al. (1993) calculated that eliminating all distorting taxes would raise average annual growth rates by a whopping 4-8 percentage points.

In addition, another study concluded in Britain in early 1960s; not a single executive out of the 181 replied that they abandoned the introduction of tax charges (Corner and Williams, 1965).

More recent studies suggested a larger impact of taxation on the discount rate used to evaluate private investment projects (Potherb and Summers, 1995). In general studies of taxation using cross-country data suggest that higher taxes have a negative impact on output growth although these results are not always robust to tax measures used. Skimmer (1988) used data from African countries to conclude that income, corporate and import taxes led to greater reductions in output growth than average export and sales taxes.

The above review shows no evidence of Nigerian case. Therefore, this study will be a step in the right direction towards closing this empirical gap.

## The concept of economic development

Jhingan (2002) defines economic development as a process where by the real per capita income of a country increases over a period of time.

Hogendorn (1992) conceives it as the totality of the underlying structural, institutional and qualitative changes that expand the country's capacities. According to him, economic development is measured in four ways using four indicators. This includes Gross National Product (GNP), Per Capita Income and Welfare. For an economic development to occur there must be an increase in real national income which is possible through increased investment. Also there must be changes in the standard of living of the people. Standard of living is determined using per capita income, because per capita income measures standard of living and vice versa.

Moreso, economic welfare indicates the level of economic development attained by a country. Dowrick (1992) said that a country may have high Gross National Product with low standard of living and economic welfare. The further factor that measures economic development is social indicator. This includes health condition of the people nutritional condition of the people which depend greatly on the infrastructural development on a particular society. The extent to which this will occur depends on a great extent on taxation policy in any country.

## Meaning of tax

The term tax has been defined in various ways by different authors. Udu and Agu (2005) defined tax as a compulsory payment made by each eligible citizen towards the expenditure. They added that tax is levied by the specific benefit that individual tax payers may receive.

Anyamuocha (2003) said that taxation as a concept involves more than mere imposition of the compulsory payment of sum of money by the government or its agents. It involves the assessment of tax, imposition of compulsory sums of money by the government or its agents on individuals, firms, the collection and auditing of tax records.

Ugwuanyi (2004) defines tax as a compulsory contribution imposed by a public authority, irrespective of the exact amount of service rendered to the taxpayer in return. He added that it involves a compulsory levy from a

**Table 1.** Structure of Tax Revenue from 2000 to 2010 in Percentage year

| Year | % Direct Tax | % of indirect tax | Total [x] |
|---|---|---|---|
| 2000 | 22.8 | 58.3 | 81.1 |
| 2001 | 38.6 | 42.0 | 80.1 |
| 2002 | 44.4 | 34.2 | 78.6 |
| 2003 | 50.3 | 30.4 | 80.7 |
| 2004 | 66.8 | 10.9 | 77.7 |
| 2005 | 54.2 | 13.7 | 67.9 |
| 2006 | 56.9 | 13.0 | 69.9 |
| 2007 | 60.2 | 14.2 | 74.4 |
| 2008 | 53.7 | 23.0 | 76.6 |
| 2009 | 52.7 | 10.4 | 63.1 |
| 2010 | 60.1 | 11.9 | 72.0 |

**Source**: CBN Statistical Bulletin 2000-2010

person to the government to defray the expenses incurred on the common interest of all without references to special benefits conferred.

### Types of taxes in Nigeria

Basically, taxes are classified into: direct and indirect taxes.Udu and Agu (2005) states that when taxes are classified according to the method of payment, they are grouped into: direct tax and indirect tax.(Table 1)

### Direct tax

This is a tax levied directly on the tax payer or tax which is imposed directly on the individuals' income is called direct tax. They include income tax, estate tax, stamp duties etc (Anyamuocha 2003).

### Indirect tax

This is a tax that is imposed and collected indirectly from those who pay the taxes. Indirect taxes may be specific or ad volerem. It is specific if the tax is levied based on the unit of the commodities produced. While it is advolerem when it is levied based on the value of goods or services produced (Anyanwu, 1993). Indirect taxes include: export duties, excise duties import duties, sales tax, purchases tax, value added tax (VAT).

### System of taxation

According to Nwite (2004), there are three systems of taxation: proportional, progressive and regressive.

### Proportional Tax

In this system of taxation, the payers pay the same percentage or proportion of their income as tax. In other words, the tax rate is the same irrespective of the level of income or wealth. A proportional tax according to Nwite (2004) is one whose percentages rate remains the same as the tax base increases.

### Progressive Tax

A progressive tax is one whose percentage rate increases as the tax base increases. In other words, as the income of the person increases, the tax also increases gradually and vice versa. Those with a higher income pay a higher proportion. Progressive taxation is usually the system adopted with the taxation of personal income e.g. pay as you earn (PAYE).

### Regressive Tax

A regressive tax is one whose percentage rate decreases as the base increases. The burden of taxation falls more heavily on the lower income groups than on the higher income group.

### The incidence of taxation

Udude (2005) discussed incidence of tax and conditions under which tax could be shifted from one person to another. She defined tax incidence as the distribution of tax burden in terms of who pays the tax. The person whom the burden of payment eventually falls on is the person who bears the incidence of the taxation. Whereas, the person who initially pays the tax incurs its impact. The incidence of tax lies on the person on whom it rest after further shifting. The effect on prices, income output, employment, capitals and technological advances are regarded as economic effects which can be both direct and indirect in nature that is responses from tax payers and their result. She also discussed the short run (immediate incidence) and run (ultimate incidence). (Anyanwokoro, 1999)

Obinna (2004), defines tax shifting as the process by which market adjust tax. He mentioned three types of tax shifting to include: Forward shifting to consumers, backward shifting to producers and partial shifting (forward and backward). Tax is shifted forward when someone else pays the tax on product rather than the producer.

According to Anyanwuocha (2005) "the incidence of taxation refers to the burden of tax with reference to where this burden rests".

**Adam Smith's cannon of taxation**

Lawal (2005) discussed explicitly the Adam smith's cannon of taxation which include: equality, economy, certainty, convenience, flexibility, neutrality.

**Equality**

People in the same income level and having equal responsibilities ought to pay the same amount that tax should be just and equitable based on their ability to pay.

**Economy**

A tax system should make tax collection economical. The cost of collecting tax should be relatively small compared to the total revenue derived from the tax.

**Certainty**

The tax payer should be fully aware of the rate of tax he is to pay and should also know when he is to pay. This helps to prevent tax avoidance and tax evasion.

**Conveniences**

This means that the amount of tax, the tax payable by a person and the timing of its payment should be made to suit the tax payer. The tax system should not pose much difficulty to the tax payer.

**Flexibility**

These cannon emphasized that tax system should not be rigid. It should be easy to change to suit the changing circumstance in the economy.

**Neutrality**

The tax system should interfere very little with the demand for and supply of goods and services. The tax system should not hamper production, willingness to work, save, or affect investment adversely.

**Qualities of a good taxation**

A good tax according to Udude (2005) must posses the following features:

**Stability**

A good tax system should be stable and not to be subjected to unnecessary changes due to political changes. That each new government should not repeal a whole sets of tax laws which have been introduced by its predecessors and introduce a whole set of new tax law.

**Flexibility**

A good tax system must be able to accommodate differences in the exercise of political choices in addition to reducing a possible conflict between economic efficiency and income redistribution.

**Incentive Effect**

A good tax system should provide incentive to work, to save, to invest in capital developments, to take risks and to innovate.

**Efficiency Effect**

A good tax system should be capable of encouraging people to use resources efficiently and allocate them to uses which best serve the needs of society.

Income effect: A good tax system should be capable of inducing a tax payer to work harder in order to restore parts of the income taken as tax.

**Redistribution Effect**

A good tax system must be structured in such a way to encourage a vertical redistribution of income between the poor and the rich. At some time it should maintain a horizontal equality, that is "treating like with like". Thus the distribution of tax burden should be equitable.

**Simplicity**

The tax payer should be in a position to comprehend the nature of his liability through an understanding of what is and what is not taxable.

**Minimum Sacrifice**

A good tax system should always aim at minimizing the

**Table 2.** Structure of Real GDP in Nigeria from 2000-2010

| Year | Real GDP |
|---|---|
| 2000 | 358.2 |
| 2001 | 430.9 |
| 2002 | 545.7 |
| 2003 | 1105.5 |
| 2004 | 1222.3 |
| 2005 | 723.5 |
| 2006 | 887.4 |
| 2007 | 976.2 |
| 2008 | 1145.8 |
| 2009 | 932.9 |
| 2010 | 774.3 |

**Source:** CBN Statistical Bulletin 2000-2010

**Table 3**.The real GDP is used to measure the level of economic development for this research

| Year | X | Y | XY | $X^2$ | $Y^2$ |
|---|---|---|---|---|---|
| 2000 | 81.1 | 358.2 | 29050 | 6577 | 128307 |
| 2001 | 80.6 | 430.9 | 34730 | 6496 | 185674 |
| 2002 | 78.6 | 545.7 | 42892 | 6177 | 297788 |
| 2003 | 80.7 | 1105.5 | 89213 | 6512 | 1222213 |
| 2004 | 77.7 | 1222.3 | 94972 | 6037 | 1494017 |
| 2005 | 67.7 | 723.5 | 48980 | 4583 | 523452 |
| 2006 | 69.9 | 887.4 | 62029 | 4886 | 787478 |
| 2007 | 74.4 | 976.4 | 72629 | 5535 | 5535.3 |
| 2008 | 76.7 | 1145.8 | 87882 | 5832 | 1312857 |
| 2009 | 63.1 | 932.9 | 38865 | 3981 | 870302 |
| 2010 | 72.0 | 774.3 | 55749 | 5184 | 599540 |
| TOTAL | 896.9 | 9102.1 | 676991 | 61850 | 6327163 |

**Source:** Own Computation
Using Pearson Correlation Coefficient Formular

sacrifice on the part of taxpayer since taxes are levied on income and wealth of persons.

### Problems of tax collection in Nigeria

According to Anyanwuocha (2005), a number of taxes difficult in Nigeria, they include;

### Subsistence production

It is difficult to estimate the income of many people in Nigeria who do not produce in a commercial basis thereby making tax collection difficult.

Inadequate Records of Incomes and Business Transactions: The literacy level in Nigeria is still low; this makes it difficult for many to keep records of income and business transactions which should be the basis of taxation. (Jhingan, 2002).

### Corruption

Some tax assessors and collectors are dishonest. There are cases where there has been bribery and corruption, sometimes they purposefully misappropriate fund, over-tax their opponents or under asses some people in order to get favour.

There is a high incidence of tax evasion and tax avoidance in Nigeria: Many people make false declaration of income. This is very common with self employed individuals. This is also true of some firms, especial the small ones. While some try to avoid tax payment entirely by looking for loopholes in the tax law. (Anyanwokoro, 1999)

### High cost of collecting tax

This is a major problem militating against tax collection in Nigeria. Lack of qualified personnel in the Federal and State Inland Revenue Offices is also a major problem facing tax collection in Nigeria.

Lack of necessary working facilities; The federal and state offices lack necessary working materials that could enhance their work.

## METHODOLOGY

### Model specification

The researcher used product moment correlation to determine the relationship between tax revenue and economic development in Nigeria.

Pearson product moment model was used. The formula is as follows.

$$R = \frac{N\epsilon xy - \epsilon y\epsilon x}{\sqrt{(N\,\epsilon x^2 - (\epsilon x)^2\,(N\epsilon Y^2 - (\epsilon y)^2)}}$$

Where: r = the correlation coefficient
X = the independent variable [tax revenue]
Y = dependent variable [Real GDP]
N = Number of years.

### Description of research variables

The research variables are dependent and independent variables. Tax revenue is assessed to be the independent variable ["X"] of this study. While economic development [Real GDP] is used as dependent variable.(Table 2 and 3)

### Test of reliability

T – Test is used to assess the significance of the explanation provided by the model used. Hence, T- Test is used to test the reliability of the instrument.

$$t = r\sqrt{\frac{n-2}{1-r^2}}$$

Where, r = Correlation coefficient
N = Number of years
n-2 = Degree of freedom

**Decision**

Reject mill hypothesis [Ho] if the calculated value and accept alternative hypothesis [Hi] OR
Accept the null hypotheses [Ho] if the calculated value and reject alternative hypotheses [Hi]

Test of research hypotheses and analysis

Ho: There is no significant relationship between tax revenue and economic development of Nigeria
Hi: There is significant relationship between tax revenue and economic development of Nigeria.

$$r = \frac{n\sum xy-(\sum x)(\sum y)}{\sqrt{n\sum x^2-(\sum(x)^2 \text{ x } n\sum y^2-(\sum y)^2}}$$

$$r = \frac{11(676991)-(896.9)(9102.1)}{\sqrt{11(61850)-(804429)\text{ x }(69598793-8284822)}}$$

$$r = \frac{744689-8169367}{\sqrt{-18592\text{ x }61313971}}$$

$$= \frac{-71678}{-136.35\text{ x }78303} = \frac{-71678}{-106766}$$

r = 0.067

Finding the value of t, we have;

$$t = r\sqrt{\frac{n-2}{r-r^2}}$$

$$t = 0.067\sqrt{\frac{11-2}{1-(0.067)^2}}$$

$$t = 0.067\sqrt{\frac{9}{1-0.004489}}$$

$$t = 0.067\sqrt{\frac{9}{0.995511}}$$

$$t = 0.067\sqrt{\frac{9}{0.995511}}$$

t = 0.067 x 9.04058

t = 0.6057

The tabulated value at 10 degree of freedom is: t 0.005 = 3.169

**Decision rule**

At 10% degree of freedom, the tabulated value which is 3.169 is greater than the calculated value 0.6057. Therefore, we accept the null hypothesis (H0) and reject the alternative hypothesis.
Hence, we conclude that there is no significant relationship between tax revenue and economic development of Nigeria.

**Conclusion**

In conclusion, this study shows that there is no significant relationship between tax revenue, and economic development of Nigeria. This indicates that despite the huge amount of money generated from tax revenue, economic development is still a mirage. It is evident from the result of this study that the real GDP in Nigeria. Thus, tax revenue has not been effectively utilized to achieve economic development of Nigeria between the period of review 2000 and 2010 inclusive.

**Recommendations**

Based on the findings of the study, the following recommendations were made:

Tax revenue should be used effectively to pursue economic development by investing in key sectors of the Nigerian economy which will transform the economy positively.

Nigerian government should review her tax policies so as to come up with a tax system that would not discourage investment, reduce incentive to work or distort market mechanism.

Tax revenue should not be spent on unproductive sectors of the economy that have no direct impact or bearing on the economy.

Tax policies should be used strategically to address the economic problems distorting Nigeria economy such as: poverty, unemployment, economic, instability, balance of payment, problems, inflation and deflation.

Revenue realized from taxes should be earmarked for tangible project which will be monitored adequately in order to ensure transparency and accountability in taxation system.

Government should sensitize the masses on the need to pay tax so as to avoid tax evasion and avoidance.

The general public should be made to know what the revenue realized from tax is used for so that they will be encourage to cooperate with the taxation laws / payment.

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