

Impact of Tax Revenue on Economic Growth in Nigeria

¹Okwara, Cornelius Collins & ²Amori, Ochuko Mary

¹Department of Banking & Finance, the Federal Polytechnic Ilaro,

²Department of Business Administration & Management,
The Federal Polytechnic Ilaro

Abstract

Over the years, the impact of taxes has not been felt by the tax payers and indeed causes serious doubts on the relevance of taxes paid to the Nigerian government. Therefore, this study examines the impact of tax revenue on the economic growth in Nigeria for the period of 1994-2015. Secondary data were used and sourced from journals, textbooks and Central Bank of Nigeria (CBN) statistical bulletin. The variables considered are: Gross Domestic Product (GDP) as a proxy for economic growth, Value Added Tax (VAT), and non-oil income (tax). To avoid spurious results, Ordinary Least Square (OLS) with the aids of Statistical Package for Social Sciences (SPSS) was used to test the significant impact of value added tax and non-oil income on Gross Domestic Product (GDP). The results revealed that non-oil income has significant impact on gross domestic product while value added tax has negative relationship and statistically insignificant for the period under review. The study concludes that tax revenue have significant impact on Nigerian economy growth. The paper therefore recommends that government should diversify the main revenue source from crude oil to other sectors of the economy such as agriculture, extractive industries in order to attract direct and indirect taxes.

Keywords: *Taxation, Economy, Value added tax, Gross domestic product*

Corresponding Author: Okwara, Cornelius Collins

Background to the Study

The recent economy recession contributed to inconsistencies in the Nigerian tax laws which had made it difficult for the tax authority to administer and tax payers to comprehend tax system, (Matthew, 2014). The intention of the federal government to maintain a uniform tax system proved abortive as a result of economy condition of each state which gives room for divergence system. In any economy, the usefulness of taxation in the activities of any government cannot be overemphasized. The main aim of any developing nation like Nigeria is to increase the rate of economic growth and per capital income which otherwise increases the standard of living thus taxation can be used as a stimulus to accelerate such growth. Tax is one of the major sources of government revenue however, not every government effectively exploits this opportunity as a means of revenue generation. Azubike (2009), posits that tax is a major player in every society of the world. It is an opportunity for government to generate additional revenue to discharge its pressing obligations. Also, it is one of the effective means of mobilizing a country's internal resources so as to promote economic growth.

According to Appah (2004), tax is a compulsory levy imposed on a subject or properties by the government to provide security, social amenities and cater for the wellbeing of the society. It is levies imposed by the government on incomes, profits and properties of both individuals and corporate bodies for the sole administration of that government which has no compensatory benefits. The main forms of tax collected are direct and indirect taxes. For the direct taxes, it is levied on individuals and factors of productions e.g. Personal Income Tax (PIT), Capital Gain Tax (CGT).

However, indirect taxes are levied on goods and services e.g. import and export duties. Thus, the consumers bear the ultimate burden. It is an important note that taxation supposed to be an instrument of social change which is not answering as much as it should be doing presently in Nigeria. The impact of tax payment is not felt by payee and some do not understand some tax laws and this indeed has put them into doubt and confusion which has definitely led to tax evasion and avoidance. Having realized that taxation is one of the most important sources of revenue for the various tiers of government and a major way of sourcing financial support to the Nigeria government at large, it is of paramount importance that tax evasion and avoidance is discouraged with every conceivable means.

This study therefore seeks to investigate the impact of tax revenue on economic growth in Nigeria (1994-2015). In order to achieve the above objective, this paper is divided into five different sections. Section one is the introduction which captures key elements relating to taxation and the growth of the Nigerian economy. Section two focuses on the conceptual, theoretical and empirical studies underlying taxation and how they relate with economic growth. Section three covers the research methodology. Section four focuses on data presentation, analysis and discussion of findings relating to this study. Section five is on the conclusion and recommendations emerging from the study.

Literature Review

Conceptual Framework

The conceptual review of taxation is drawn from the submissions of Anyaduba (2004), Dandago and Alabede (2001), Piana (2003) and others. According to Anyaduba (2004), taxation is one of the instruments employed by the government for generating public funds. It is the payment imposed by the tax authorities on the income, profit or wealth of individuals, group of persons, and corporate organizations. Dandago and Alabede (2001) see taxation as a compulsory but non-penal levy by the government through its agent on the profits, income, or consumption of its subjects or citizens. It is also viewed as a compulsory and obligatory contribution made by individuals and organization towards defraying the expenditure of government. Succinctly, taxation is describes as the transfer of real economic resources from private sector to finance public sector activities. This can be inferred that taxation is the transfer of financial resources from private economic agents such as households and corporate bodies to the public sector to finance the development of the society. Piana (2003) suggested that it is a result of the application of tax rate to a tax base.

According to Brautigam (2008) a well-designed tax system may assists in prioritizing government's spending in developing countries, build stable institutions and improve democratic accountability. The motive of tax is to finance the activities of public sector so as to achieve economic and social goals in the country. Nzotta (2007) identified four key issues which assisted taxation to play its functions in any society. Firstly, tax is a compulsory payment made by the citizens to the government which is meant for common use. Secondly, tax imposes a general obligation on the tax payer. Also, there is a presumption that the contribution made by tax payer on public revenue may not be equivalent to the benefits received. Finally, taxes are not imposed on a citizen by the government because of the specific services rendered to him or his family. Therefore, it is obvious that a good tax system plays many roles in the process of economic growth of any country which does not exempt Nigeria, (Appah, 2010).

Objectives of the Study

Though, the structure of taxation in the many developing countries differs to each other, but the objectives of taxation are virtually the same in these countries. Cutt (1969) therefore identified some of the objectives of taxation:

- i. **Revenue Generation:** The main aim of tax system is to raise revenue required to meet government expenditure such as the provision of goods and services which members of the public cannot afford. Others include security, maintenance of laws and order, health services, education etc.
- ii. **Income Redistribution:** In modern days, the great emphasis was placed on the redistribution of income. This can be classified into two distinct forms. Firstly, the doctrine that taxation should be based on ability to pay and is summarized by the saying that "the greatest burdens should be borne by the broadest backs." The second form presumed that the present distribution is unjust and concludes that this should therefore be undone. This second principle sees confiscation as a legitimate objective of taxation.

- iii. **Price stability:** One of the motives of government for taxing its citizens is to provide a reasonable degree of price stability in the country (Summerfield, 1980). Most spending by the public and private sectors without taxes generate high demand, which leads to inflation. In such a situation, the main role of taxation is to reduce private expenditure in order to increase government's spending without causing inflation. Thus, taxation is basically a deflationary measure. On the other hand, when aggregate demand is lower than the deserved level, government has two options which are to increase government spending with increasing taxes or to reduce taxes while leaving government spending stable.
- iv. **Economic growth and development:** The sole management of the economy rests on the federal government in which taxation plays an important role. To maintain reasonable price stability, governments are determined to promote the near-full employment of all the resources of the country (including human resources) and ensure a satisfactory rate of economic growth. Economic growth and development programmes are geared towards raising the standard of living of the masses in the country through improvement of their economic and social conditions. Taxation discourages, postpones or reduces consumption and encourages saving for private investments which is only possible when the basic necessities of life including security, law and order, education and communication are provided by government, hence, the plans of developing countries are considered to be important.

Challenges of Tax Administration in Nigeria

In the study of Soyode and Kajola (2006), the challenges facing tax administration in Nigeria was identified as follows:

Tax Evasion: Tax evasion is a deliberate and willful practice of not disclosing full taxable income so as to pay less tax. In other words, it is a contravention of tax laws whereby a taxable person neglects to pay the tax due or reduces tax liability by making fraudulent or untrue claims on the income tax form, (Samuel and Tyokoso, 2014). Tax is evaded through different methods such as refusing to register with the relevant tax authority, failure to furnish a return, statement or information or record keeping required, making an incorrect return by omitting or understating an income liable to tax refusing or neglecting to pay tax; overstating of expenses so as to reduce taxable profit or income, which will also lead to payment of less tax than otherwise have been paid; A taxpayer hides away totally without making any tax return at all and entering into artificial transactions.

Tax Avoidance: This can be describe as the arrangement of tax payers' affairs using the tax shelters in the tax law, and avoiding tax traps in the tax laws, so as to pay less tax than he or she would otherwise pay. That is, a person pays less tax than he ought to pay by taking advantage of loopholes in a tax levy (Samuel and Tyokoso, 2014). Tax avoidance can arise in various ways: incorporating the tax payer's sole proprietor or partnership into a limited liability company; the ability to claim allowances and reliefs that are available in tax laws in order to reduce the amount of income or profit to be charged as tax.

Tax Revenue as a catalyst for Nigerian Economy Growth

It is evident that the taxes generated as revenue has not reached the level of income from oil sector despite the efforts of Nigerian government. Its implementation has been a bane due to lack of commitments to target objectives, leakages, wastages, endemic corruption and the vast unorganized informal sector. A comparative review of tax revenue as a percentage of Gross Domestic Product (GDP) of some African countries between the period 2009 and 2012 indicate that Nigeria has the lowest tax revenue as a percentage to GDP (World Bank, 2014). According to Dwivedi (2004), economic growth is a sustained increase in per capita output or net national product over the period of time. It implies that the rate on increase in total output must be greater than the rate of population growth. Economic growth can be determined by four essential determinants such as; human resources, national resources, capital formation and technological development.

Desai, Foley and Hines (2004), postulate that governments have at their disposal many tax instruments that can be used to finance their activities. These taxes include personal and corporate income taxes, sales taxes, value added taxes, capital gain taxes and numerous others. It is not uncommon for a country to impose all of these taxes simultaneously. In determining tax instruments to be used and the rates to be imposed, governments are typically influenced by their expectations of the effects of taxation on investment and economic activities; including Foreign Direct Investment (FDI). They stated that high corporate income tax rates are associated with low levels of FDI. Also, the high tax rate on company income tax is associated with reduced foreign direct investment by multinational organizations. Ogbonna and Appah (2012), investigated the impact of tax reforms on economic growth of Nigeria for the period 1994 – 2009.

The study adopted petroleum profit tax, company income tax, value added tax, education tax, personal income tax and customs and excise duties (independent variables) and Gross Domestic Product (GDP) as the dependent variable. The Augmented Dickey-Fuller was used to examine the unit root test and the Johansen's Co-integration test and Error correction technique was also adopted to run the regression analysis. It was discovered that there is a positive relationship between tax revenue and economic growth of Nigeria. They argued that 54% variation in the dependent variable (GDP) is as a result of change in tax revenue and that there exists long run equilibrium relationship between GDP and the independent variables. The Augmented Dickey- Fuller test conducted on the variables showed that all the series were stationary at 1(1) and that the series were significant between 1 and 5 percent except for companies' income tax and customs and excise duties that were significant at 5percent. In the study of Ogbonna and Ebimobowi (2012), on the impact of tax revenue on economic growth of Nigeria using relevant descriptive statistics and econometric analysis. It concluded in the various results that tax revenue is positively and significant related to economic growth. Also, tax revenue improves the revenue generating machinery of government to undertake social desire that will translate to economic growth in real output. However, in his view so far represented the most comprehensive assessment of the impact of tax revenue on Nigeria economic growth.

Theoretical Framework

This study reviews three theories of taxation: the cost of service theory, the benefit theory and the socio-political theories of taxation. According to the cost of service theory, the cost incurred by government in providing certain services to the people must collectively be met by the people who are the ultimate receivers of the service (Jhingan, 2009). This theory believes that tax is similar to price. So if a person does not utilize the service of a state, he should not be charged any tax. Some criticisms have been leveled against this theory. According to Jhingan (2009), the cost of service theory imposes some restrictions on government services. The objective of government is to provide welfare to the poor. If the theory is applied, the state will not undertake welfare activities like medical care, education, social amenities, etc. Furthermore, it will be very difficult to compute the cost per head of the various services provided by the state, again, the theory has violated the correct definition and tenets of tax, finally the basis of taxation as propounded by the theory is misleading. The limitations inherent in the cost of service theory led to the modernization of the theory. This modification gave birth to the benefit received theory of taxation. According to this theory, citizens should be asked to pay taxes in proportion to the benefits they receive from the services rendered by the government.

The theory assumes that there is exchange relationship or *quid pro quo* between tax payers and government. The government confers some benefits on tax payers by providing social goods which the tax payers pay a consideration in the form of taxes for using such goods. The inability to measure the benefits received by an individual from the services rendered by the government has rendered this theory inapplicable (Ahuja, 2012). The socio-political theory of taxation 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 used to cure the ills of society as a whole (Bhartia, 2009). This study is therefore anchored on this theory.

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.

Methodology

An Analysis of Tax Revenue from 1994-2015 as it Affected Economic growth

The data used for this study was gathered from secondary source such as textbooks, journals and Central Bank of Nigeria (CBN) statistical bulletin, 2015. The variables considered are: Gross Domestic Product (GDP) as proxy for economic growth, Value Added Tax (VAT) and Non-oil revenue. The Ordinary Least Square (OLS) estimator with the aids of Statistical Package for Social Sciences(SPSS) was employed to test the significant impact of tax revenue variables on economic growth in Nigeria for the period 1994-2015.

Model Specification

To investigate the impact of tax revenue on Nigerian economy growth, the following model was employed:

Mathematically,

$$Y = f(X_1, X_2, X_3, \dots, X_n)$$

Where; Y represent dependent variable and X_1 , X_2 and X_3 are explanatory variables

In econometric term

$$GDP = f(VAT, CIT, NOIL)$$

$$GDP = \beta_0 + \beta_1 VAT + \beta_2 NOIL + \mu$$

GDP = Gross Domestic Product (GDP)

VAT = Value Added Tax (VAT)

NOIL = Non-oil revenue (tax)

β_0 = Constant term

β_1, β_2 = Coefficient of explanatory variables

μ = Error term

APrior Expectation

$$\beta_1 \text{ and } \beta_2 > 0$$

The economic expectations of all explanatory variables such as value added tax, company income tax and non-oil revenue are expected to be positive greater than zero which indicate positive increase on economic growth in Nigeria.

Results and Interpretations

Table 1: Model Results

| Statistic/Co-efficient | Results |
|------------------------|-----------|
| β_0 | -4566.091 |
| β_1 | -20.619 |
| β_2 | 30.866 |

Source: Author's computation derived from SPSS Version 20

The OLS model is given as:

$$GDP = \beta_0 + \beta_{1VAT} + \beta_{2NOIL} + \mu$$

$$-4566.091 - 20.619VAT + 30.866NOIL + \mu$$

The implication of the econometric model is that holding all the explanatory variables constant, the Gross Domestic Product (GDP) stood at -4566.091. However, value added tax indicate negative units which means any unit decrease in value added tax at - 20.619 will leads to decrease in gross domestic product while non-oil income (tax) signifies positive unit at 30.866 which states that any unit increase in non-oil income (tax) will influence Gross Domestic Product (GDP) in Nigeria.

Table 2

| T- value | Probability value |
|------------|-------------------|
| VAT -0.464 | 0.648 |
| NOIL5.539 | 0.000 |

Source: Author's computation derived from SPSS Version 20

The t-statistic result (probability level) on VAT and NOIL signify 0.648 and 0.000 respectively. This states that only non-oil income (tax) has significant impact on gross domestic product in Nigeria at 5 percent level of significance while Value Added Tax (tax) is statistically insignificant for the period under review.

Table 3

| Statistic | Results |
|---|---------|
| Correlation (R ²) | 0.951 |
| Coefficient of Determination (Adjusted R ²) | 0.946 |
| Durbin Watson (DW) | 1.494 |
| ANOVA (F) | 183.586 |
| Probability value | 0.000 |

Source: Author's computation derived from SPSS Version 20

The coefficient of determinant R² is 0.951 which indicates that 95.1% of the variation in GDP is explained by the explanatory variables such as value added tax and non-oil income (tax) while the remaining 4.9% unexplained variation is being influenced by other variables outside the model but captured by the error term.

The adjusted R² in the regression line shows 0.946 which means that 94.6% of the variation explained the fitness and generality of the model. The value is expected to be the same or very close to R² The Durbin Watson statistics in the model is 1.494. This falls within the range 0 and 2. A value ranges from zero to two indicates a strong positive correlation while a value from two to four imply a strong negative correlation which signify absence of autocorrelation.

The F statistics in the regression line shows 183.586 with p-value of 0.000. Therefore, the p-value is less than critical value. This can be easily inferred that tax revenues have significant impact on economic growth in Nigeria.

Conclusion

The role of taxation in developing a nation's economy has been described as irreplaceable. Some economic analyst suggested that taxation remains a strong socio-political and economic tool for economic growth and national prosperity. Though, the issue of tax leakages is a global concern which Nigerian situation cannot be exempted as a result of the scale of corruption practices in Nigeria. Taxation is one of the most reliable sources of income which contribute to economic development. From the findings, the study therefore concludes that tax revenues have significant impact on Nigerian economy growth for the period under review.

Recommendations

Based on the findings, the following recommendations were suggested:

- i. There is need for government to clearly state the basic objectives of its tax system and the relationship between these objectives. This will give the tax administrators a sense of direction and educate the tax payers on the reasons to pay tax as at when due.
- ii. Strict penalties should be meted to people who avoid and evade tax payments in order to minimize the incidence of tax evasion and tax avoidance.
- iii. Government should diversify the main revenue source from oil to other sectors of the economy such as agriculture, extractive industries in order to attract direct and indirect taxes.
- iv. Government should organize intensive training for all tax officials so as to identify the loopholes in tax payment system and to carry out their job effectively.
- v. Finally, government should ensure effective utilization of the income accrued taxation to encourage continuity in tax payment by the tax payers.

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APPENDIX I
Descriptive Statistics

| | Mean | Std. Deviation | N |
|------|------------|----------------|----|
| GDP | 28156.2505 | 31252.85992 | 22 |
| VAT | 141.7005 | 134.63578 | 22 |
| NOIL | 1154.8050 | 1073.72950 | 22 |

Correlations

| | | GDP | VAT | NOIL |
|---------------------|------|-------|-------|-------|
| Pearson Correlation | GDP | 1.000 | .933 | .975 |
| | VAT | .933 | 1.000 | .964 |
| | NOIL | .975 | .964 | 1.000 |
| Sig. (1-tailed) | GDP | . | .000 | .000 |
| | VAT | .000 | . | .000 |
| | NOIL | .000 | .000 | . |
| N | GDP | 22 | 22 | 22 |
| | VAT | 22 | 22 | 22 |
| | NOIL | 22 | 22 | 22 |

Model Summary^b

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | |
|-------|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|
| | | | | | R Square Change | F Change | df1 |
| 1 | .975 ^a | .951 | .946 | 7288.00731 | .951 | 183.586 | 2 |

Model Summary^b

| Model | Change Statistics | | Durbin-Watson |
|-------|-------------------|---------------|---------------|
| | df2 | Sig. F Change | |
| 1 | 19 ^a | .000 | 1.494 |

ANOVA^a

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|-----------------|----|----------------|---------|-------------------|
| 1 | Regression | 19502380355.964 | 2 | 9751190177.982 | 183.586 | .000 ^b |
| | Residual | 1009185960.611 | 19 | 53115050.558 | | |
| | Total | 20511566316.575 | 21 | | | |

a. Dependent Variable: GDP

b. Predictors: (Constant), NOIL, VAT

Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|--------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -4566.091 | 2312.739 | | -1.974 | .063 |
| | VAT | -20.619 | 44.442 | -.089 | -.464 | .648 |
| | NOIL | 30.866 | 5.573 | 1.060 | 5.539 | .000 |

Coefficients^a

| Model | | 95.0% Confidence Interval for B | |
|-------|------------|---------------------------------|-------------|
| | | Lower Bound | Upper Bound |
| 1 | (Constant) | -9406.710 | 274.528 |
| | VAT | -113.637 | 72.400 |
| | NOIL | 19.202 | 42.530 |

a. Dependent Variable: GDP

Residuals Statistics^a

| | Minimum | Maximum | Mean | Std. Deviation | N |
|----------------------|--------------|------------|------------|----------------|----|
| Predicted Value | -3382.0803 | 88505.6406 | 28156.2505 | 30474.32983 | 22 |
| Residual | -16921.80664 | 8964.75781 | .00000 | 6932.27771 | 22 |
| Std. Predicted Value | -1.035 | 1.980 | .000 | 1.000 | 22 |
| Std. Residual | -2.322 | 1.230 | .000 | .951 | 22 |

a. Dependent Variable: GDP

Appendix II
Data Presentation

| YEA R | GDP | VAT | NOIL | YEAR | GDP | VAT | NOIL |
|------------------|------------|------------|-------------|-------------|------------|------------|-------------|
| 1994 | 1399.70 | 5.03 | 41.72 | 2005 | 14610.88 | 87.45 | 785.10 |
| 1995 | 2907.36 | 6.26 | 135.44 | 2006 | 18564.59 | 110.57 | 677.54 |
| 1996 | 4032.30 | 11.29 | 114.81 | 2007 | 20657.32 | 144.37 | 1264.60 |
| 1997 | 4189.25 | 13.91 | 166.00 | 2008 | 24296.33 | 198.07 | 1336.00 |
| 1998 | 3989.45 | 16.21 | 139.30 | 2009 | 24794.24 | 229.32 | 1652.65 |
| 1999 | 4679.21 | 23.37 | 224.77 | 2010 | 54612.26 | 275.57 | 1907.58 |
| 2000 | 6713.57 | 30.64 | 314.48 | 2011 | 62980.42 | 318.00 | 2237.88 |
| 2001 | 6895.20 | 44.91 | 903.46 | 2012 | 71713.94 | 347.69 | 2628.78 |
| 2002 | 7795.76 | 52.63 | 500.99 | 2013 | 80092.56 | 389.53 | 2950.56 |
| 2003 | 9913.52 | 65.89 | 500.82 | 2014 | 89043.62 | 388.85 | 3275.12 |
| 2004 | 11411.07 | 96.20 | 565.70 | 2015 | 94144.96 | 261.65 | 3082.41 |

Source: CBN Statistical Bulletin 1994 - 2015