# TAX INCENTIVES AND REVENUE PRODUCTIVITY OF THE NIGERIAN TAX SYSTEM

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**Abstract:** *The desirability of using tax incentives to facilitate new investment is a necessary condition for developing an avenue for managing the unsustainable fiscal deficits in Nigeria. Thus, effective tax systems are not only central to promoting economic growth but also crucial for achieving macroeconomic goals. The study examines tax incentives and revenue productivity of the Nigerian tax system from 1981 to 2009 periods in order to identify the short-run performance of various taxes. On the whole, the study reports unsatisfactory level of total tax revenue productivity in the country. This may be as a result of institutional failing, corruption in the tax system and the negligence created by the management of both oil and non-oil revenue. The study also identified the seemingly lagging sources of Nigeria's Federal revenues and the non-buoyancy of the total tax revenue is a complete revelation of the poor tax effort in the Nigerian tax system. Reducing fiscal deficit in the budgetary process will put a check on expensive public expenditures. The study concludes that the report on total tax revenue buoyancy calls for serious attention and policy challenge, considering the enormous importance of generating resources and less dependence on external borrowing to facilitating economic growth and development. This can however be tackled by adopting sound policies that will reduce or eliminate the corruption prevalent in the tax system coupled with the inefficiency rocking the system.*

**Keywords:** Tax Incentives, Revenue Productivity, Tax Buoyancy, Tax Elasticity and Nigerian Economy

## 1.0 Introduction

Recently, in most developing economies, there are conscious reawakening on the part of governments and policymakers on the need to shift attention from deficit financing because of the disincentives created by the external debt problem, which tends to support debt overhanging hypothesis such that the accumulated external debt burden acts as a tax on future output which discourage economic growth and placed emphasis on measures and policies that facilitate economic development. Deficit financing are often embraced by most government as an article of faith in order to bring the basic needs of the electorates to bear. While the usefulness of this measure has been argued as a tool for accelerating growth and development (e.g., Thorton, 1990), but its destabilizing implication especially when not properly articulated is astronomical, thereby placing countries in debt net. Ariyo and Raheem (1990) and Ariyo (1993), noted that the level of fiscal deficit in Nigeria is no longer sustainable and it is not desirable to continue to incur budget deficit in financing public outlays. Instead, efforts should be made to mitigate expenditure or raise revenue.

One major concern of economists and keen observers in recent times is the rising magnitude of deficits financing by various organs of government. For instance, over 70 per cent of sub-Saharan African Countries are presently experiencing huge deficits in the management of their budgets. This is probably due to their inability to raise the required revenue for the execution of budgeted programme. According to

Shalizi and Square (1988), budget deficit in 25 countries increased from 4.2 per cent of GDP to 9.7 per cent. The magnitude of existing deficits provides a strong argument for, at least, monitoring tax efforts in the near future. Most of the problems besieging the Nigerian economy today could be adduced to fiscal deficits. This had acted to sustain the debt crisis, high inflation, poor investment performance and the realization Millennium Development Goals, vision 20:2020 and retarded growth. The deficit problem often occurs even when expenditure programmes are designed to coincide with the projected revenues, a heavy decline in realized revenue during a defined fiscal year or an unexpected hike in the prices of goods and services could attract a fiscal deficit that usually calls for borrowing either externally or internally, to meet obvious gaps between revenues and expenditures.

In order to avoid high fiscal deficits that may have destabilizing effects on economic activities, governments can either increase taxes to raise revenue to meet its programmed expenditures or reduce its expenditures to the size of its realizable revenues (CBN, 1998). Issues regarding the ability of a tax jurisdiction to raise revenue adequate enough for the execution of its planned programmes without resorting to deficit financing is of major concern to administrators and tax experts in both developing and developed economies.

Revenue adequacy is the basic elementary standard that a tax system ought to achieve. The existing budget deficits in many developing countries suggest that the tax systems are not revenue productive. Some may overlook this and attribute the cause of deficits to excessive spending, or temporary adverse economic conditions (Osoro, 1993). The importance of taxation as a veritable tool of economic growth and development depends on a proper tax system which has the capacity to generate revenue through tax. This implies that the tax system must be efficient and effective. This can be achieved through various tax incentives. Tax incentives have the potentials of attracting both local and foreign investment if properly harnessed. It is however regrettable that most developing countries have not been able to exploit the potent of tax incentives because of the need, perhaps, to meet the desires of the electorates and the poor management of tax system. However, to consider tax incentives as an influence to revenue generation implies that incentives may not be available to all citizens but rather must be tailored to crucial sector of the economy. This would emphasize to a large extent why in most developing country, where tax incentives are especially common, are targeted at attracting foreign direct investment and rarely to domestic investors.

The study, therefore attempts to examine and properly analyze the various tax incentives granted by the Nigerian government in order to promote economic activities and revenue productivity of Nigeria's tax system by focusing on how to solve the defects associated with tax incentives and revenue productivity in the tax system. The study is also important as it will help ascertain if fiscal authority is keeping track on tax mobilization with GDP growth and to identify those taxes which are income elastic or otherwise in order to raise overall tax revenue .The study adopts econometric methodology to estimate the relative impact of revenue productivity of the tax system and other variables on economic development. The aim was basically to shed more light on the role of tax incentives and revenue productivity of tax system and the need to adopt a more robust policy to attract more investment into the economy. In this regards, the study discusses tax incentives and the Nigeria economy; the impact of tax incentives and revenue productivity; some empirical evidence and theoretical issues.

## 1.1 Tax Incentives and the Nigeria Economy

 Taxation is very fundamental to sustainable development and the growth of emerging economies especially where natural resources are relatively scarce. Tax incentives are basically designed to attract new investment into the country and to expend existing ones in priori industries which is based on the

country development plan capable of stimulating economy growth. The broadening of a country's taxable capacity is often linked in economic literature to the generous incentives prevalent in tax system. The discussion of exemptions is important since they have a significant impact on the effective tax base. The provisions of generous exemptions often tend to erode the tax base, which in turn, affects income elasticity of a tax through tax-to-base elasticity (Osoro, 1993).

Tax incentives according to Kuewumi (1996) encompass all the measures adopted by government to motive tax payers to respond favorably to their tax obligations. It includes adjustments to tax policy aimed at lessening the effects of taxation on an industry, a group of persons or the provision of certain services. Such measures may subsume the adoption of benign low tax rate; the effective dissemination of fiscal information by tax authority; or the non-imposition of tax at all. Similarly, Phillips (1996) sees tax incentives as a deliberate reduction in tax liability granted by government in order to encourage particular economic units (e.g. corporate bodies to act in some desirable ways (e.g. invest more, produce more, employ more, export more, save more, conserve less, pollute less, and so on ). Any tax is amenable to being modified to create a tax incentive. The reduction in tax liability, which a tax incentive constitutes, can be achieved through a reduction in tax rate, reduction in tax base, and so on.

Nigeria's experience in the granting of tax incentives is traceable to the inception of British Administration in the territory, when all sorts of reliefs, allowances, and tax holidays were granted to British Companies and individuals as an attraction to establish trade links with the country. Specifically, tax incentives for industrial development came on stream in 1958 and included:

i.    Pioneer companies relief, which exempted companies operating in pioneer industries for up to 5 year from paying company income tax;
ii.   Companies Income Tax relief which gave capital allowances regarding investments in machinery, building, loss carry-forward facility, etc.;
iii.  Import duties relief which exempted selected pioneer companies from paying import duties on imported inputs; and
iv.   Approved user scheme, under which import duties were refunded to approved enterprises, which imports in the export-tuned production.

Generally, tax incentives have operated under the following sub-heads in Nigeria:

- Tax holidays
- Investment allowance
- Rural investment allowance
- Tax free interest
- Deductible capital allowance
- Research and development
- Tax-free dividends
- Tax treaties
- Reliefs and allowances; and
- Capital allowances

The chairmen of Federal Inland Revenue in a paper presented on the Nigerian Investor Business Forum, Berne Switzerland November, 2009 highlights the essence of tax incentives by emphasizing that tax incentives are special arrangements in the tax laws to: attract, retain or increase investment in a particular sector, stimulate growth in specific areas, assist companies or individuals carrying on identified activities with the underlying basis of ensuring the overall growth of the Nigerian economy and even development of all sectors. Current policy of Nigerian Government is to ensure: incentives are sector based and not

granted arbitrarily, the benefit to the Nigerian economy exceeds the cost of taxes foregone, and incentives are reviewed regularly to confirm if they are serving the expected purpose, while foreign investors enjoying incentives are expected to voluntarily plough back into the Nigerian economy.

No doubt, that incentives are desirable elements in a tax system. However, the incessant changes occasioned by their applications create loopholes and complicates the tax system. Tax incentives tend to increase the required dosage of tax effort and, and therefore, to place an extra cost on tax administration. For instance, tax allowances; deductions and credits do inflict loopholes on the tax system, which clever tax payers may exploit. It may cost tax administration some extra funding to detect and investigate such practices; without additional finance tax administration gathers the dust of inefficiency and ineffectiveness. Tax incentives can therefore widen the scope for corrupting the tax system (Kuewumi, 1996).

As a veritable means of inciting or encouraging corporate bodies to expand and improve on their level of productivity by reducing or totally eliminating tax liability, it can further be argued that tax incentives now play a significant role in attracting investment decision than in the past years. This is made possible due to the advent of trade linearization, greater capital flow, decline in trade barriers, technological improvement, improvement in transportation and communication, substantial growth in common markets and tax reforms with flexible tax system. This will no doubt incite investment in the current global world than in the past. Thus, the benefits out-weight its cost. However, the effective use of tax incentive to encourage investment decision is hindered by some factors which may be political or economical. For instance, a country characterized by social insecurity and dysfunctional legal system may respond poorly to the effective use of tax incentive to facilitate investment decision.

Another factor that affects the effective use of tax incentive to encourage business decision is corruption. Corruption is a common feature of the developing economies and it manifest in several forms. This factor could be responsible for the less competiveness of tax incentives in developing economies. This means that the effective use of tax incentive to stimulate economic growth is tied to sound social-economical and political factors. Transparency and proper accountability on the part of tax administrators and tax payers, flexible and effective tax system, less restriction on the conditionality attached to tax incentives making it more competitive, comprehensive and stable tax policy, and fighting corruption in the system through strong political will, will go a long way to solve the defects associated with the tax incentives and revenue productivity in the tax system. Ghana appears to have a relatively well-administered incentives scheme. Incentives are quite clearly defined in law and require parliamentary approval (Kusi, 1998).

## 1.2 Impact of Tax Incentives on Revenue Productivity

The most important argument central to the influence of tax incentives on the economy is the issue of revenue productivity. It has been contented that the revenue sacrifice through tax incentives will be compensated for in the long run through growth in the tax capacity of the favoured tax base. This is so because tax cuts induce tax payers to be more tax compliant through reduced tax rates which make tax evasion and tax avoidance unattractive. Also, incentives such as capital allowance reliefs and low tax rates or the non-taxation of dividends and interest on deposits and loans, can spur people to capital formation, thus encouraging the growth of the tax base. Information on the responsiveness of tax revenue to economic growth is a crucial ingredient in economic planning, especially when we realize that inflationary problems are generated when budgetary deficits are financed through monetary expansion.

The example of the tax history of the United States according to Kuewumi (1996) illustrates the effects of incentives on tax revenue. Under President Hoover, the US slashed tax rates five times in the 1920s. Rather than contract government revenue, the measure raised the number of effective tax-payers and

tripled tax receipts. Similarly, President F. Kennedy's tax cuts, which started in 1962, contributed so much to enhancing the level of industrial and commercial activities that Federal tax revenues rose by about 50% from the pre-tax-cut base.

On the other hand, tax incentives exhibit the capacity to erode the statutory tax base. This situation according to Kuewumi (1996) poses a danger to compliance, especially when incentives are seen as subsidies. By carrying with them the disadvantages of tax expenditure, tax incentives can be identified as a source of inefficiency and non-productivity of enterprises. Most tax incentives are either politically motivated or frost with elements of personal interests. For example, most incentives initiated in the oil sector in Nigeria are either influenced by top military officers, traditional rulers or top government officials with substantial investment interests in the sector. In an attempt to uplift its popularity, governments or public office seeking individuals could propose tax cuts to attract the support of the electorate. Ronald Reagan while attempting to implement his vote attracting political campaign promises in 1981 started the implementation of his Economic Recovery Tax Act (ERTA), which proposed massive tax cuts across the for both personal and corporate taxpayers. Reagan's initiatives regarding tax incentives could not assist America's recurring budget deficits nor aided the economy to be more productive. In fact, it cost the US about N800 billion in tax revenues.

Another politically motivated introduction of tax incentives is Mr. Jacques Chirac who promised to cut taxes during his campaign to become the President of France. On assumption of office, he realized that his vote seeking and investment attracting tax cuts was a mirage and that the problem of France was not a dearth of tax incentives but the prevalence of huge tax evasion which ranged from 175 billion Francs to 235 billion Francs annually (Tax News, 1996: 14). Tax incentives make tax laws more complicated and difficult to interpret with the end product of constraining appropriate monitoring of the response of the investment initially intended to be boosted through tax incentives. Thus, the use of the tax system for special tax preferences should be carefully evaluated. Using the system to provide tax incentives (tax expenditures) usually causes a serious drain on the national treasury by conferring windfall gains on existing activities or by shifting resources to tax-preferred activities ( Kusi, 1998). Another factor that plays out is the contentious issue of equity and efficiency in tax system.

## 2.0 Theoretical and Empirical Issues

The evolutionary pattern of taxes, otherwise known as tax structure development is cardinal to the assessment of the growth and performance of the various strands of taxation in virtually all economies of the world. In most part of Africa, the bulk of income tax revenue comes from large business firms and from government employees. The extension of the tax to small traders, artisans or professional persons meets with serious administrative difficulties as there is no way of ascertaining income where no proper books are kept, and no regular accounts are prepared or audited (Kaldor, 1970). The theory of tax structure development is a representation of an historical legacy, exhibited in the policy and practices of several nations of the world overtime. Tanzi (1969); Webber and Wildavsky (1986); and Peters (1991) reviewed the experience of several nations of the world with respect to the introduction, stoppage or re-enforcement of various tax handles according to the dictates of economic condition.

The theory of tax structure development as advanced by Hinrichs (1966); Thorn (1967); Braun (1975); Webber and Wildavsky (1986) and several others posits that at the early stages of economic development, the basic features of taxation are the narrowness of personal income tax base, the operation of poll tax, the scarcity of train tax administrators and the commanding height of indirect taxation on foreign trade in the tax structure. In addition, the tax revenue to GDP ratio is low. However, these basic features move in opposite directions as the positive measures by government propel the economy sooner or later beyond

the stagnation level. Over-time, therefore, some taxes are likely to grow in importance while others are almost certain to decline. Personal Income Tax (PIT) provides a good example of the former since PIT revenue is expected to increase as per capita income rises. Consequently, the progressive tax system revenue has a high degree of elasticity in terms of income.

Citing Hinrichs (1966) Odle (1977) noted that indirect taxation was not the most important source of revenue (and, instead non-tax sources and direct taxes usually were) because monetization, trade, transport, commercialism and urbanization were in an infant stage. Later, when the monetary, trading and transportation systems are developed, internal and external forms of indirect taxation attain increasing importance. In those economies, which are open, indirect taxation becomes the dominant source of revenue. With further progress in the organization of economic activities, production and sales establishments become larger and more permanent and the scope of indirect taxation may be broadened (Musgrave and Musgrave, 1982). The administration of income tax as a global personal tax on income becomes possible. Thus, there is good reason to expect that economic development will bring with it an increase in the share of direct taxes.

Tanzi (1987) on tax structure development contented that tax bases grow more than proportionately to the growth of income as countries develop. In other words, he is of the opinion that the capacity to tax grows with the growth of income. Reason that direct tax revenues are potentially more elastic than indirect tax revenues. Wilford and Wilford (1978) concluded that direct revenues have the inbuilt significant long-term flexibility. Seemingly so, because, import taxes according to theory is expected to become inelastic as the economy progresses. Diejomaoh (1976) citing Due (1770) and others indicated that as development proceeds, import taxes will become an income inelastic revenue source. This is because changes in the economic structure, especially with increased industrialization, lead to a shift in import structure, so that import of LDCs become increasingly composed of raw materials and capital goods.

## 3.0 The Empirical Model and Methodology.

### Buoyancy and Elasticity of Tax

The aim of this study is not only to discuss tax incentives and productivity of the tax system but also to assess the revenue productivity of the Nigerian tax system from 1981 to 2009. Estimate of tax elasticities or revenue productivity are traceable to the works of Sahota (1961), Prest (1962), Singer (1968), Mansfield (1972), Khan (1973), and Wilford and Wilford (1978). Recent applications of the model include Omoruyi (1983), Ehdaie (1990), Osoro (1993), Kusi and McGrath (1994), Ariyo (1997), Chipeta and Kusi (1998).

In the assessment of tax revenue productivity or performance, two measures are normally utilized. These are buoyancy of tax revenue and income-elasticity of tax (Asher, 1989; Osoro, 1991).The former could be defined as the positive response of tax revenue to the combined effects of automatic growth, i.e. growth emanating from economic activities and the growth resulting from discretionary changes in tax rates and rules. The latter refers to changes in tax revenue due to changes not only in income but also other discretionary changes in tax revenue due to changes in tax policy. Most of the studies so far undertaken have directed their attention at the built-in flexibility of the tax structure either with the application of discretionary measures or when the rates are constant. Examining the income elasticity of the Indian tax structure, Sahota (1961) utilized the regression equation below

$$Y = aX^b$$

Or

$$Log \ Y = Log \ a + b \ log \ X$$

Where the coefficient 'a' denotes the level of the `tax yield on Y when the independent variable X is zero, and the coefficient 'b' gives the elasticity. According to him, the b coefficient signifies the percentage of change in the independent variable X. this model is the basic performance or productivity approach to determining the elasticity or otherwise of individual tax sources and the tax structure as a whole with respect to tax bases and GDP. Though several refinements have been embarked upon, they could be regarded as cosmetic as they have not drastically altered the intention or end product of the above model.

The productivity or performance model adopted in this study is akin to that employed by Kusi (1998) for the estimation of the Ghanaian tax system. The point of departure of the present study is the replacement of buoyancy for elasticity in the decomposition process of tax to base and base to income thereby eliminating the elasticity approaches which require the isolation of the impact of discretionary tax measures. This approach was preferable, partly for the peculiar reasons advanced above and mostly because discretionary tax change is a pervasive phenomenon in Nigeria's budgetary process.

Pervasive because in 1987, the company income tax rate was reduced from 45% to 40%, capital allowances and tax free dividends provided for manufacturers. In 1993, excess duty was abolished, except those on tobacco and alcohol, while annual income under N 5,000 because tax free with the highest marginal rate stepped down from 45% to 35%. Excise duties were re-introduced on some products in 1994 and value-added tax came into effect the same year. Also, withholding tax rents, interest, and dividends among others was raised from 5 percent to 10 percent in the same 1994 budget. This pervasion in the Nigeria tax system has a long history from 1980 to date.

The productivity or performance model was directed at investigating the buoyancy of the Nigeria tax system, through a detailed assessment of the contributions of individual taxes to total tax collections and to GDP. The choice of buoyancy criterion is informed by the apparent deficiencies observed in purging tax revenues of the impact of discretionary tax changes through the proportional adjustment method which was originally developed by Prest in (1962) and the dummy variable technique utilized by, Khan (1973).

Like the Sahota (1961) model, proxy bases were also adopted for the buoyancy methodology, due mainly to the decomposition of income buoyancy into tax-to-base buoyancy and base-to-income buoyancy. The proxy base taken for petroleum profit tax was total value of crude oil, and for Company Tax it was Corporate Current Income. The proxy base for customs and excise duties is a combination of the total value of imports, exports and manufacturing, while the proxy bases taken separately for excise and imports duties were total value added tax was the total consumption expenditure.

The model utilized in our evaluation of the performance or ability of the Nigerian tax system to generate expected revenue is the buoyancy criterion. The buoyancy of each tax was broken into two components: the buoyancy of the tax to base and the buoyancy of base to income. The model was applied to a time-series data from 1981-2009, covering the pre-and post structural adjustment programme periods. Proxy bases for the total value of import and the total value of manufacturing were chosen for import and excise duties respectively. Ordinary Least Squares (OLS) technique was utilized in estimating the equations.

### 3.1    Model Specification

Following our discussions on the performance or productivity model, the buoyancy of individual taxes is decomposed into the product of the buoyancy of the tax to its base, the buoyancy of the base to income and the buoyancy of the tax to income (GDP). The performance model is specified as

$\text{Log } (T_t^*) = \text{Log } c + b_i \text{Log}(B_t) + e_t$

Where: $\delta \text{Log } (T_t^*)/\delta \text{Log}(B_t) = $ Buoyancy of the tax to its base.

The Buoyancy of the base to income is also derived using a single equation model:

$\text{Log } (B_t) = \text{Log } C + q_i \text{Log } (GDP_t) + W_t$

Where: $\text{Log } (B_t)/\text{Log } (GDP_t) = $ Bouyancy of the tax base to income

The Buoyancy of the tax to income is obtain as:

$E_T = [(\delta \text{Log } (T_t^*)/\delta \text{Log}(B_t)][\delta \text{Log } (B_t)/\delta \text{Log} GDP_t]$ i.e

$\text{Log } E_T = \text{Log } a + W_i \text{Log} GDP + U_t$

From the presentation above, we introduced the following equations based on the relationship between the various Federal tax sources and their bases and of the relationship or responsiveness of individual tax sources and bases respectively to the Gross Domestic Product (GDP).

1. $\text{Log}(PPT) = \text{Lop } a_0 + b_1 \text{Log}(TVOIL) + W_t$
2. $\text{Log}(TVOIL) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
3. $\text{Log}(PPT) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
4. $\text{Log}(CEXD) = \text{Log } a_0 + b_1 \text{Log}(TVMXM) + W_t$
5. $\text{Log}(CEXD) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
6. $\text{Log}(TVMAN) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
7. $\text{Log}(CIT) = \text{Log } a_0 + b_1 \text{Log}(COCY) + W_t$
8. $\text{Log}(COCY) = \text{Log } a_0 + b_1 \text{log}(GDP) + W_t$
9. $\text{Log}(VAT) = \text{Log } a_0 + b_1 \text{Log}(CEXP) + W_t$
10. $\text{Log}(CEXP) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
11. $\text{Log}(TTR) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
12. $\text{Log}(TVMXM) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
13. $\text{Log}(CIT) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$
14. $\text{Log}(VAT) = \text{Log } a_0 + b_1 \text{Log}(GDP) + W_t$

where:

| | | |
|---|---|---|
| PPT | = | Petroleum Profit Tax |
| CEXD | = | Customs and Excise Duties |
| COCY | = | Corporate Current Income |
| CEXP | = | Consumption Expenditure |
| TVMAN | = | Total Value of Manufacturing |
| TVOIL | = | Total Value of Oil |
| GDP | = | Gross Domestic Product |
| TTR | = | Total Tax Revenue |
| CIT | = | Company Income Tax |
| VAT | = | Value Added Tax |
| TVMXM | = | Total Value of Imports, Exports and Manufacturing |

| $a_0$ | = | Autonomous term (intercept) |
|---|---|---|
| $b_i$ | = | Coefficient of Buoyancy |
| $W_t$ | = | Stochastic Error Term (Gaussian white noise) |

The expectation is that over this period not only the intercept but also the slope of the function may change.

## 4.0   The Empirical Results.

### Analysis of Performance (Buoyancy) Model Results

This section discusses results from the estimations conducted on the model. The data used for this study was subjected to a buoyancy test to determine the leading or lagging tax revenues with respect to their contributions to total tax collections. The choice of the buoyancy criterion was a fall-out of the frequent discretionary tax measures, whose impact were difficult to qualify due to the dearth of data, thereby hindering an elaborate venture into the assessment of the elasticity of Nigerian tax sources. As it is common with time series studies, some of the equations exhibited the presence of auto-correlated disturbances through their Durbin-Watson statistic. The equations were re-estimated and rid of first-order serial correlation through the Cochrane- Orcutt iterative process which resulted in estimates with smaller sampling variances. The estimates of tax buoyancies in Nigeria over the 1981-2009 periods are presented below.

**Table 1            Estimates of Tax Buoyancies (1981-2009)**

|  | Buoyancy | $R^2$ | D.W | T-Scores |
|---|---|---|---|---|
| Petroleum Profit Tax | -9.59 | 0.58 | 2.36 | -3.21 |
| Customs & Excise Duties | -11.77 | 0.60 | 2.01 | -2.16 |
| Company Income Tax | -11.65 | 0.64 | 2.11 | -2.13 |
| Value Added Tax | 2.55 | 0.97 | 2.26 | 4.26 |
| Total Tax Revenue | -1.66 | 0.10 | 2.05 | -0.90 |

**Table 2            Estimates of Buoyancies of Tax Bases**

|  | Buoyancy | $R^2$ | D.W | T-Scores |
|---|---|---|---|---|
| Total value of crude oil | 1.08 | 0.82 | 2.21 | 14.46 |
| Total value of exports, |  |  |  |  |
| Imports & manufacturing | 1.76 | 0.97 | 2.01 | 1.13 |
| Total value of corporate |  |  |  |  |
| Current income | 3.11 | 0.99 | 1.96 | 35.73 |
| Total consumption |  |  |  |  |
| Expenditure | 1.23 | 0.99 | 1.93 | 1.52 |

**Table 3**        **Estimate of Tax Buoyancies of Individual Tax Revenues to Their Respective Bases**

|  | Buoyancy | $R^2$ | D.W | T-Scores |
|---|---|---|---|---|
| Petroleum Profit Tax | 0.69 | 0.14 | 2.05 | 0.64 |
| Customs & Excise Duties | -0.67 | 0.40 | 2.01 | -0.81 |
| Company Income Tax | -2.60 | 0.88 | 2.28 | -0.84 |
| Value Added Tax | 1.10 | 0.98 | 1.95 | 20.85 |

From table 1, the coefficients of all the equations results regarding individual tax sources were all significant except total tax revenue equation at the standard 5 per cent level. The $R^2$s are also high and the Durbin-Watson statistics after necessary corrections were within acceptable limits. The results indicate that the buoyancy for petroleum profit tax, custom and excise duties, and company income taxes were above unity but negative. This means that they are less than unity in absolute term or practical sense. The negative value reported by PPT is akin to the results obtained by (Ariyo, 1997). Of these sources, only the value added tax exhibited buoyancy in excess of unity (2.55), thereby signaling its prospects of boosting the buoyancy of total tax revenues in the future. Total tax revenue displaced a surprising result with a negative buoyancy of -1.66, indicating that Nigeria total revenue is negatively responsive to changes in both GDP and discretionary tax measures. The negative correlation between GDP, discretionary tax measures and total tax revenue coupled with the weak buoyancy performance of the other individual taxes apart from VAT, may be due to Nigeria's poor tax effort coupled with tax evasion, annually reoccurring exemptions or incentives and the inefficiency of tax administration. These problems are clear signals of the international inclination of Nigeria's tax system. This position is further supported by the fact that over 75% of the tax receipts from petroleum are derived from crude oil export. In spite of these low buoyancies, foreign related tax sources such as the PPT and customs and excises duties were arguably relevant in Nigeria's tax equation.

The insignificant of the total tax revenue and the poor goodness of fit coupled with the negative buoyancy of 1.66, the Nigerian tax system could correctly be referred to as not buoyant. However, the results of petroleum profit tax, customs and excises duties, company income tax and value added tax are indications that the tax system as a whole has the potential to be better productive if identified lapses such as corruption and / or collusion by assessors and assesses, smuggling, laxity in the recording of oil sales and the collection of tax proceeds, adequate funding of tax department, etc., are properly addressed.

A close examination of the results reported in table 2 revealed that all the statistics are significant. Contrary to the results reported in table 1, all the tax bases had buoyancies exceeding unity. This is an unambiguous indication of the productivity of the tax bases, which should naturally culminate in buoyant individual tax revenues in the absence of such problems as tax evasion, misguided tax exemptions and corruption in the administration of tax system.

There is no major dichotomy between the results in table 3 and that of table 1, as a matter of fact, the former results confirms the results of the latter. All the individual taxes exhibited buoyancies below unity, except with value added tax which displaced buoyancy of 1.1 and highly significant at 1 per cent level. The poor performance of petroleum profit tax, customs and excises duties, company income tax is an indication that upward performances by industries, the petroleum sub-sector, imports, exports etc., were sporadically halted by negative developments both internally and externally. For instance, in 1986, as a result of the sharp decline in crude oil prices, government revenue from oil fell sharply but the short fall

was almost completely offset by the receipts from the special levy on personal and corporate incomes, the 30 percent import surcharge and the reduction in petroleum subsidy. Consequently, federally collected revenue declined by a modest of 2.3 percent (CBN, 1986:83)

The influence of tax bases on revenue collections from some major tax revenue at the federal level were boosted in 1990 when both imports and exports increased steadily with exports taken the lead. Total export earnings increased from N51,609.1 million in 1989 to N106,626.5 million in 1990, an increase attributed largely to a combination of larger oil shipments resulting from upward revision of Nigeria's OPEC Quota following the Gulf crisis as well as significant increase in the average realized price of crude oil. Such development was expected to impact positively on Nigeria's tax ratios. According to Ekpo and Ndebbio (1996:16) the ratio of tax revenue to gross domestic product, which average less than 10% before 1971, rose to 18.8% in 1974 and remained at almost 18%. By 1980, it increased to 21.6%. The ratio started to decline in 1981 due mainly to negative fluctuations in crude oil prices at the international market. At the worst of the depression, it stood at about 9.8%. This was partly due to the decline in company income taxes, personal income taxes, etc., caused by the down ward trend in economic activities. However from 1987, the increase in productive activities as well as efforts by government to enhance its revenue position-coupled with increased petroleum earnings assisted in raising slightly the share of tax revenues in national product.

Regarding manufacturing or the industrial sector, the growth, which started in 1996, was not sustained in 1998 to 2000, due to the frequent policy reversals, such as the change of the deregulation policy to that of "guided" deregulation during the military administration of late General Sanni Abacha. In the year 2000, the manufacturing sector performed below expectations. The poor performance was attributed mainly to the continued weak demand for local manufactures, owing partly to the influx of imports, which were relatively cheaper. In addition labour lay-offs, particularly in the private sector contributed to the weak aggregate demand (CBN, 2000:46).

On the whole, we could safely infer from the findings that the major failure of federal tax revenue sources to achieve buoyancy are as a result of the fluctuating fortunes of manufacturing, exports and imports, consumption and total value of crude oil which is highly dependent on the developments in the international oil market. The non-buoyancy results of the individual taxes and the overall total tax revenue is similar to the result obtained by Twerefou,and et la(2010) in the short-run in their estimation of Ghanaian's tax buoyancy and elasticity except for VAT.

## 5.0 Conclusion

In this study, tax incentives and development in the Nigerian tax revenue productivity were exhaustively examined, specifically to determine the role of tax incentive in economic development and the productivity or performance of the Nigerian tax system. The study revealed that a well articulated tax incentives will not only promote increase economic activity in the country but also stimulate foreign investors into the economy thereby improving revenue productivity and tax base of Nigeria's tax system. Buoyancy of four major taxes in Nigeria was estimated in attempt to determine the productivity of the tax system. The buoyancy results revealed the choice of the VAT as a major consumption based tax in Nigeria as appropriate. This support the thinking that it will in the future constitutes a veritable base or source for revenue generation in the country. Despite the non-productivity of the tax system as revealed by the total tax revenue buoyancy, excess taxable capacity still exist based on the buoyancy of individual

tax bases and there is scope for improving the tax system in the long-run. This is very important in other to enhance revenue generation through taxation to bridge the wide annual differentials between public revenues and public expenditures in Nigeria.

The study has also identified the seemingly lagging sources of Nigeria's Federal revenues and the non-buoyancy of the total tax revenue in the short-run is a revelation that the Nigerian tax system has a poor tax effort and reducing fiscal deficit in the budgetary process will put a check on expensive public expenditures. The poor buoyancy of Petroleum Profit Tax, Customs and Excises duties and company Income tax revealed the presence of mitigating factors in the Nigeria tax systems. This includes corruption and inefficiency of the tax system.

The report on total tax revenue buoyancy calls for serious attention and policy challenge, considering the importance of generating resources and less dependence on external borrowing to facilitating economic growth and development. This can however be tackled by adopting sound policies that will reduce or eliminate the corruption prevalent in the tax system coupled with the inefficiency rocking the system. On the whole, we therefore recommend the following as a proper guide to improving tax revenue productivity and incentives:

- Policy inconsistencies and reversal construed to meet the desires of the political class in power, who also double as importers, exporters and manufacturers should be discouraged.
- The practice of excluding vatable items to suit some sectors of the economy should be discontinued.
- Privatization and commercialization exercise should be encouraged and properly guided toward success in other to minimize governmental expenditures.
- The industrial sector should be reorganized and refocused to impact substantially on the local economies and on the lives of the people, such that they are economically empowered to improve on their current consumption levels, which probably is well below their current potentials.
- Minimization of tax evasion and tax avoidance, appropriate policing of exports and imports and the need to realize the importance of placing the nation's interest first and before that of the individual.
- The frequent alterations in tax rates, base or the structure of incentives and tax policy objectives should be genuinely done away with.
- Prudent management and productive use of financial resources should be encouraged and public waste of funds should be drastically reduced or cut-out.

Finally, the non-availability of required data and the reliability of some sectoral data posed some limitations to the accurate assessment of some aspects of the productivity of the Nigerian tax system. We hope that future research will be able to overcome these limitations not addressed explicitly by this study.

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