THE IMPACT OF REVENUE ELASTICITY OF VALUE ADDED TAX IN NIGERIA

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Abstract

The Objectives of this work is to find out the extent to which value added tax (VAT) has succeeded over sale tax in bolstering government revenue and also the revenue elasticity of VAT This was achieved by determining the nature of relationship between the VAT and government revenue, and the amount of revenue collected through VAT over the years under study. Regression analysis was used and it was found out that elasticity of VAT is greater than unity. Meaning that 1 percent increase in value added increases total revenue by 1.264 percent. The t-test and F-test also proved that VAT has a positive and significant contribution to total revenue. It was observed that company profit tax and customs and exercise duties have negative coefficients which show that their contribution to government revenue has been on the decrease. It was also observed that the negative coefficient psychologically affect the consumption expenditure of individuals and household. This lead to the recommendation that government should review the policies on trade in order to ensure positive contribution to total tax revenue.

Key Words: Value Added Tax, Revenue Elasticity

INTRODUCTION

Taxation can be said to be a means of transferring resources from the private sector to the public sector (Okonkwo, 1996). Taxation is often seen as the most important dependable and regular source of government revenue, which constitutes a veritable instrument for shaping and directing economic activities. An increase in tax, for instance, withdraws money from circulation in the private sectors. This might keep inflation under check. On the other hand, reduced taxation increase money supply and also stimulate investment activities. The reform initiated by the International Monetary Fund and world Bank in 1987, made the Nigerian government to set up two study groups in 1991 to appraise the Nigeria tax law and system.

The introduction of the Value Added Tax (VAT) was intended to replace the sales tax which due to some serious defects could not raise sustainable revenue for the government. The question is, to what extent has VAT succeeded over sales tax in bolstering government revenue? This work will answer this question by determining the nature of relationship between the VAT and government revenue and the amount of revenue collected through Value Added Tax over the years under study. This work will also find out if revenue elasticity of VAT is greater that unity. The degree of this relationship will be determined by calculating the revenue elasticity of VAT within the period under study. Revenue elasticity is useful for tax planning and for evaluating tax changes over a period.

Historical Development of Value Added Tax (VAT)

Sales taxation dated back to the 14th Century when it was first used in Spanish Acabala (Due, 1957). This is the oldest form of taxes known. Due to the decline of commercial activities in Spain, it was not adopted by other countries until Twentieth century. At this early stage France and Brazil experimented with restricted value added taxation. Today, several countries have adopted comprehensive value added

taxation, most of them in Europe and Latin America. The restricted form of VAT is used by twenty more countries, chiefly in Africa (Due, 1957). This VAT as was introduced by different countries at different times is shown in table 1.

TABLE I: Value Added Tax in Africa

Country	Introduction Date	Stage Levied	Tax Rate %
Algeria	1992	Retail	7, 13, 12, 20
Benin	1991	Wholesale	18
Cote d'Ivoire	1960	Wholesale	5, 11, 11, 25, 35
Ghana	March 1995	Retail	17, 5
Guinea	1960	Manufacturing	13, 6
Kenya	1990	Retail	5, 18, 30, 50, 75
Madagascar	1969	Retail	15
Malawi	1989	Retail	10, 35, 55, 85
Mali	1991	Retail	10, 17
Mauritius	1983	Wholesale	5
Morocco	1986	Retail	7, 14, 19
Niger	1986	Retail	10, 17, 24
Nigeria	January 1994	Wholesale Manufacturing/ Producer	5
Senegal	1961 – 1980	Retail	14
South Africa	1991	Retail	15
Tanzania	Mid 1994	Retail	
Togo	1984	Retail	5, 10, 14, 20, 30
Tunisia	1988	Retail	6, 17, 29
Zambia	August 1995	Retail wide sale	

Source: www.bized.ac.uk

It could be seen that Cote d'Ivoire and Guinea were the first countries that introduced VAT in Africa in 1960. Algeria and Mauritius maintained the same VAT rate of 5 per cent which is the least rate. While Malawi has the highest rate of 85.

The history of sales tax in Nigeria could be traced back to 1950s, when produce sales tax were imposed by the regional governments in Nigeria. Though these taxes did not last for long as they were swept away by the Federal Government in the mid 1970s. This change was attributed to the oil boom at that time. Another wave of sales taxation was witnessed in the late 70s and 80s. With dwindled revenue' resulting from the "Oil Glut" states had no choice but to look for other sources of revenue. However in 1986, the Federal Government in an attempt to harmonize the imposition of sales taxes in Nigeria and to promote inter-state trade unified the various forms through a decree known as the Sales Tax Decree No. 7 of 1986. The sales tax failed to achieve its aim, which was intended to improve the amount of revenue generated from indirect taxation.

As a result of these difficulties associated with sales tax, it became imperative that a new tax system should be developed to achieve the following objectives;

1.   Estimate distribution in the tax system by improving the transparency and predictability.
2.   Shift the incidence of tax to consumption rather than income.
3.   Generate revenue in the country so as to reduce the country's dependence on the oil revenue.
4.   Improve the incentives given for export products.
5.   Generate revenue from professional services such as banking transactions and other high profit-generating sectors of the Nigerian economy.

6.   Tax imported goods so that locally manufactured goods will not be placed at a disadvantaged position relative to imported goods.

Based on these objectives, the Nigerian government in 1991 set up a study group to review the entire tax system and recommend a tax system that will achieve the above stated objectives. The group came up with a general guideline which introduced Value Added Tax (VAT) in Nigeria. It can be said that VAT was officially promulgated in August 1993 under Decree 102 of Value Added Tax, though the effective date of operation was January 1, 1994.

The Value Added Tax (VAT) is not a tax on the total value of the good sold but only on the value added. The value that a firm adds by the virtue of its own activities to it by the last sector. The sector is liable to pay a tax not on its gross value, but net value, that is the gross value minus the value of the services and materials purchased from other firms. According to Adade (1994), although it is called a value added tax, the total value added in the country is not the base on which the tax is levied. In Nigeria, as in other countries, the practice is to tax imports and exempt exports. This makes the VAT base equal to domestic retail sales but not the same as value added in the country. Musgrave and Musgrave (1989) classified VAT into three:

1.   ***GNP (Gross National Product) Type:*** Here, the tax base for any firm is sales minus materials, only the value of non-capital purchases from other firms is deducted such that for the economy as a whole the value added tax becomes equal to the GNP.

2.   ***Income Type:*** This form allows the firm to deduct the full value of its non-capital purchases from other firms and depreciation on the capital purchases from other firm. The tax base becomes the total sales minus materials, minus depreciation for each firm such that for the economy as a whole, the tax base is the NNP (Net National Product). This is the greatest appeal to governments.

3.   ***Consumption Type:*** The tax base here is the sum of wages, profits and depreciation less investment. That is, the definition of value added as net of all fixed capital purchases instead of net of depreciation. The firm is thus allowed to deduct from the gross value of its product not only the capital inputs purchased from other firms, but also the capital equipment so purchased.

Since the introduction of VAT in January 1994, it has enjoyed unprecedented growth and has therefore, become an important part of the fiscal system. Alade (1994) averred that in 1995, VAT accounted for approximately 15.3 per cent of the total non-oil tax revenue of the government. In 1996, the proportion increased to 20.5 per cent, representing a growth to 1.5 percent from the previous 1.0 percent of the GDP.

Value Added Tax (VAT) Administration in Nigeria

Federal Board of Inland Revenue (FEIR) is the federal government agent the collect taxes. The Federal Inland Revenue Service (FIRS) does the day-to-day administration of the vested power upon FBIR. The FIRS has six operational units and one of them is VAT directorate. The direct responsibility of executing the VAT administration is reposed upon the VAT directorate of the Federal Inland Revenue Services. The headquarters is located in Abuja with a network of zonal and local VAT offices throughout Nigeria, The VAT zonal co-coordinator receives returns and reports from their respective local VAT offices for onward reports of activities and performance to the VAT director at the headquarters in Abuja. The net proceed from the tax accrues solely to the State Government after deducting twenty per cent (20) to cover the cost of administration.

Value Added Tax Base

On the issue of tax base, Alade (1994) stated three approaches to the estimation of VAT base: aggregate approach, the sector approach and the input-output method.

1.   ***The Aggregate Approach:*** This computes the tax base by subtracting exports and adding imports to GDP to show the consumption base following the destination principle. The base is further adjusted by subtracting gross capital formation since consumption type of VAT allows companies to have input tax credit for capital investment. Zero rated consumption expenditure and exempted commodities final consumption expenditure are all subtracted from the tax base, while expenditure on business inputs purchased by exempted sectors are added. Finally, the base is adjusted for small business exemptions.

$$GDP = C + 1 + G + E - M$$

$$B = GDP - (E-M) - P - Z - X - D - (S-B) - N$$

Where

GDP	Gross Domestic Product
C	Private Consumption Expenditure
I	Gross Private Domestic Expenditure
G	Government Expenditure
E	Exports
M	Imports
P	Private Expenditure Abroad
Z	Zero Rated Consumption Expenditure
X	Exempt Final Consumption Expenditure
D	Imported Rent for Owners occupied dwelling
B	Business Inputs Purchased by Exempted Sectors
N	New Residential Construction
S	Small Business Exemptions
B	Aggregate Tax Base

The potential VAT base B" where t is VAT rate.

According to Alade (1994), the tax base allows adjustments to be made on the economy as a whole but not on the individual sectors that make up the economy.

2.   ***The Sector Approach:*** This computes the base by summing "the value added" generated by each sector, the value of sales (gross product plus imports minus exports) by sector is calculated following the destination principle. The sales figure is adjusted by excluding sales of exempted and zero related commodities.

The measurement of VAT base can be deducted as follows:

Tax base by sector $= Y - X - I - K + T$

Where

Y = Sales (Gross product by sector adjusted for imports, exports and inventories) X = Sales of zero rated or exempted goods.

I = Purchase of intermediate goods.

K = Purchase of capital goods.

T = Purchases of inputs to produce exempted goods.

3. ***The Input-Output Approach:*** The value of goods and services purchased by consumers automatically captures the destination principle of the VAT since; it excludes exports while imports are included. The VAT base is calculated using the value of sales to final consumers. The approach allows the analysis of incidence and the price impact of VAT on consumers. The estimation of the VAT base by this method depends mainly on information on domestic consumptions contained in the final demand matrix of the input-output tables. The VAT base using the approach is:

B   = $\sum$-X-Z-B-O

Where

B	=	VAT base.
$\sum$	=	Gross expenditure by final consumers.
Z	=	Zero rated goods and services.
X	=	Exempt goods and services.
B	=	Adjustment for exempt business activities.
O	=	other adjustments.

Alade (1994) used this approach extensively in estimating VAT revenue at different tax rates in Nigeria from the year 2000 to 2005.

Value Added Tax Revenue

Alade (1994) gave an insight to the determination of expected VAT revenue. In her work, "Approaches to modeling VAT revenue forecast", she used three approaches to determine the potential VAT base (Bt) where t = VAT rate. These approaches she tagged: the aggregate approach, the sector approach and the input-output method. She also calculated compliance rate, K.

K   =   Actual VAT collection in a given year
            Expected VAT collection at 100 compliance

Where K   =   Compliance rate; with these three variables, determine the expected VAT revenue is the summation of all adjusted tax base for all commodities purchased by personal and government sectors multiplied by VAT rate; she expressed VAT revenue expected for commodity as

follows: .

$R^{\checkmark}_i = B^{\checkmark}_i K_i \cdot t_i$

Where

R$^{\checkmark}$ =   VAT revenue from commodity

B$^{\checkmark}$ =   VAT base for commodity.

K_i =   VAT compliance rate for commodity

t_i =   VAT rate for commodity i

Computation of the VAT in Nigeria

Nigeria has a flat rate of 5 per cent on VAT. According to Ijewere (1993), four methods used in calculation which yield identical results are:

1.   VAT flat rate of 5 per cent on the sum of wages and profits.
2.   VAT calculated on the difference between output and input of the business. This type could also be known as the business transfer tax.
3.   VAT calculated separately on wages and on profits.
.4.   VAT calculated separately on output less VAT calculated on input. This is also called the invoice or credit method. The value added tax is levied and collected at each stage of the production and distribution process.

Example of invoice or credit method used in calculating VAT in Nigeria is seen in Table II.

TABLE II: **Calculating of VAT Using Invoice or Credit Method**

Registered Persons	Sales Price (₦)	VAT Paid (Input Tax)	VAT Collected (Output Tax)	VAT Payable to Govt.
Wheat Farmer	2,000.00	-	₦100.00	₦100.00
Floor Miller	3,000.00	₦100.00	₦150.00	₦50.00
Bakery	4,000.00	₦150.00	₦200.00	₦50.00
Bread Retailer	5,000.00	₦200.00	₦250.00	₦50.00
Final Consumer	5,250.00	-	-	-

From the table above, it could be seen that the farmer did not acquire his input by purchasing it, therefore, there is no VAT on input but VAT on output is 5 of N2, 000 which is N100. The miller sod at the value of N3, 000 and the output VAT tax is 5 of N3, 000 which is N150, whole the input tax is N100. This process confirmed until the commodity gets to the final consumer who paid N5, 250, the N250 is therefore the VAT payable and it is paid by the final consumer.

Empirical Literature

Income Tax Revenue Elasticity

Income Tax Revenue Elasticity

Creedy and Gemmell (2001) used a model to illustrate individual and aggregate income tax revenue. The model considered an individual with gross income of y_i and facing a multi-step income tax function, such that if $0 < y_i \leq a_1$, the tax paid is $Ty_i = 0$; if $a_1 < y_i \leq a_2$; $Ty_i = t_i (y_i - a_i)$; if $a_2 < y_i \leq a_3$, $Ty_i = t_i (a_2 - a_1) + t_2 (yi - a_2)$, and so on. Hence, if y_i falls into the kth tax bracket, so that $a_k < y_i < a_k t_i$, and $a_0 = t_0 = 0$, income tax can be expressed for $k \geq 1$ as:

$$Ty_i = t_k (y_i - a_k) + \sum_{j=0}^{\kappa-1} t_j (a_j + 1 - a) - t_i (y_i - a'_k) \text{------------} (1)$$

Where $a'_k = \sum_{j=1}^{k} aj (t_i = t_j - 1)/t_k$

The function in (1) is equivalent to a single step tax structure having a marginal rate t_k, imposed on the individual's income in excess of an effective threshold of a'_k. For this tax function, the individual elasticity, $\eta Ty, y_i$ is.

$$\eta Ty, yi = 1 \pm \frac{(a^1 k)}{yi - a^1 k} (1 - na'_k y_i) \text{-----------------------------} (2)$$

This shows that the elasticity must exceed unity if the elasticity is of effective allowance, $\eta a1kyi < 1$; letting $Ty = \sum_{i-1}^{N} Ti$ and $Y = \sum_{i=1}^{Nyi}$

Creedy and Gemmell (2001) also used regression of the form:

Log a'_{kj} = a + Blogyi to obtain annual estimates of $\eta a'_{kyi}$ in equation (2) when data on allowance and deduction are given. From their analysis, the elasticity of allowance with respect to income decline sharply from 0.45 in 1989 to around 0.2 in 1994, thereafter stabilizing and rising slightly to, around 0.25 in 1998.

Osoro (1993) used traditional way in estimating tax elasticity. He estimated the elasticity of particular tax, k with the following model;

$$T_k = a_k Y^{\beta k}_{ck} \quad \text{-------------------} (1)$$

$$\text{Log } T_k = \text{Log } a_k + \beta \log Y + u_k \text{---------------} (2)$$

Where l is tax revenue, Y is GDP, and U is a stochastic disturbance term. Ordinary least square is used to estimate the coefficient A and B (Osoro, 1993).

The model measures tax buoyancy since the equation is in double log form. It provides an estimate of tax buoyancy because it measure percentage response in the left-hand side variable. To estimate income elasticity an adjustment should be made to exclude discretionary change in tax base and tax rates. When the adjustment is made, equation (2) can now be represented as:

$$\text{Log } AT_k = \text{Log } a_k + B_k \text{ Log } Y + U_k$$

Where a_k provides an estimate of the elasticity of the kth tax.

Model Specification

This study used the concept of elasticity as explained by (Osoro, 1993). It assumed that change in total revenue as a result of change in VAT or other taxes are automatic. That is, they are not as a result of deliberate effort of the government to bring the change by increasing either the rates rules or the base of the tax. He used this model to estimate revenue elasticity and buoyancy of income tax, company tax and excise duty tax in Tanzania over a period. The figures were analyzed which covered the non-VAT period (1973 – 1993) and buoyancy VAT period (1994 – 2004).

In comparing the impact of total tax without VAT (t_p) on the total revenue, dummy variables used where "I" is assigned to tax with VAT while "O" is assigned to tax without VAT. The regression function is represented thus:

$$TR \quad = \quad a_0 + a_1 t_r + a_2 t_p + U_t$$

Where

TR	=	Total government revenue
tr	=	Tax with Value Added Tax
tp	=	Tax without Value Added Tax
U_t	=	Stochastic disturbance term

Different impacts of tr and tp are determined by their coefficients a_1 and a_2 respective.

$$A_1 \quad = \quad \frac{\delta TR}{\delta \text{ try}} \quad = \quad \text{elasticity of tr}$$

$$a_2 \quad = \quad \frac{\delta TR}{\delta tp} \quad = \quad \text{elasticity of tp}$$

If $\frac{\delta TR}{\delta tr} > 1$ then the growth of tax with VAT is elastic, but if

$0 < \frac{TR}{\delta tr} < 1$, the growth of tax with VAT is inelastic.

On the other hand, if $\frac{\delta TR}{\delta tp} > 1$, the growth of tax without VAT is

Elastic, but if $0 < \frac{\delta TR}{\delta tp} < 1$, the growth of tax without VAT is inelastic.

In the second model, the period of VAT (1994 – 2004) was used to determine the elasticity of each of the taxes on total revenue. That is, the degree of the responsiveness of change in total revenue as a result of a small change in the various taxes. The elasticity estimate will be determined by estimated regression line.

$$TR = b_0 + b_1 XVAT + b_2 XC_t + b_3 Xd_t + b_4 XPP_t + U_t$$

Where

TR	=	Total Government Revenue
XVAT	=	Value Added Tax
X_{Ct}	=	Company Profit Tax
Xd_t	=	Custom and Excise Duties
XPP_t	=	Petroleum Profit.
U_t	=	Stochastic Disturbance Term.
b_0	=	Estimate of intercept

The coefficient of elasticity of the specific taxes will be determined by estimating b_1, b_2, b_3, and b_4 with the elasticity. The work will be able to quantify the impact of each of the taxes on total revenue.

Analysis of data
Model

TR	=	$a_0 + a_1 tr + a_2 tp + U_t$
TR	=	-388.554 + 1.087 +0.156
		. (-2.861) (15.235) (2.183)
F	=	234.172;
R^2	=	.938; $R^2 = .934$
DW	=	1.471
Standard Level	=	0.05

The coefficient of total tax with VAT (tr) is 1.087 while the coefficient of total tax without VAT (tp) is .156. This implies that total tax with VAT adds more to total revenue than total tax without VAT. 1 per cent increase in tax with VAT increased total revenue by 1.087, while I per cent increase in tax without VAT increased total revenue by 0.156. Meaning that the introduction of VAT increased government revenue significantly. The t-test is conducted at 95% and 32 degree of freedom. The calculated (t*) is 15.237 for (t_r) and 2.183 for (t_p) and the value of $t_{0.05}$ is 1.69. It is seen that the value of t* in both tax with VAT and tax without VAT is greater than the value of t. Therefore we say that both tr and tp make positive and significant contribution to the government revenue.

F ratio for the test of significant is used for (tr) and (tp).
F = 243.172 while $f_{0.05}$ at 32 degree of freedom is 4.14, both independent variables make significant contribution to total revenue. Both the unadjusted R^2 and adjusted R^2 measure the goodness of fit of the regression $R^2 = .938$.

$R^2 = .934$ with R^2, 93 per cent of the dependent variable is explained by the independent variables. The Durbin Watson (DW) statistic is used to test for the first order serial correlation in the errors of a time series regression model under the classical linear model assumption. DW = 1,471; this indicates a lack of serial correlation in the residuals and confirms that the equation of total revenue could be used for forecasting purposes.

Model 11

TR   = $b_0 + b_1 vat + b_2 ct + b_3 dt + b_4 ppt + u_t$

TR   = $422.619 + 1.264_{vat} - 0.143_{ct} - 0.83_{dt} - 0.154_{ppt}$

         (-951)   (0.808)   (-0.114)(-0.136)   (-0.99)

F   = $(16.517), R^2 (.917), R^2 = .861.$

DW = 1.622, confidence level = 0.05.

The elasticity of the specific taxes is estimated by the coefficient. The elasticity of VAT = 1.26, company tax = 0.143, customs and excise duties = -0.83 and petroleum profit tax = 0.154. To determine the degree of these elasticity;

When $0 \geq \Sigma > 1$ it is elastic.

      $\Sigma < 1$ It is inelastic.

      $\Sigma = 1$ It is unitary elastic.

Relating this to the taxes;

$$\frac{\delta TR}{\delta_{vat}} = 1.264$$

$$\frac{\delta TR}{\delta_{ct}} = -0.143$$

$$\frac{\delta TR}{\delta_{dt}} = -0.83$$

$$\frac{\delta TR}{\delta_{ppt}} = 0.154$$

It can be seen that its only VAT that is elastic which means that 1 per cent increase in value added tax increase total revenue by 1.264 per cent. This met the expectation of the government in the introduction of VAT since it contributes positively and significantly to the total revenue. This is in line with the findings of Alade (1994).

The Findings

The elasticity of company profit tax is in the negative. Meaning that 1 per cent increase in company profit tax will bring about 0.143 decreases in total revenue. This negative sign of the elasticity of company profit tax can be attributed to some economic policies. For example, the introduction of second-tier foreign exchange market (SFEM) in 1986 resulted in depreciation of naira which lead to high cost of plants, equipment spare parts.

Customs and excise duties also have negative elasticity. 1 per cent increase in customs and excise duties decrease total revenue by 0.83 per cent. Though, the rate of decrease is very low, the negative effect can also be attributed to tax policies in Nigeria. For instance, the new tariff structure which responded more to the demands of trades liberalization as against providing adequate protection to local industries.

The elasticity for petroleum profit tax is .154. This implies that 1 per cent increase in petroleum profit tax, increases total revenue by .154 per cent. The degree of elasticity is inelastic. The low, contribution of petroleum profit tax is not far from the fact that some refineries in Nigeria are in poor condition and this gave rise to massive importation of refined petroleum into the country.

F value = 16.517. The value is high and it shows the model adequately explained the contribution of taxes to total revenue. The f-test is used to find out if the variables make significant contribution to total revenue. F = 16.519 while F0.05 = 3.48; F > F0.05, therefore, the independent variable make significant contribution to the dependent variable.

R2= .917, which implies that 91 per cent of the independent variable is explained by the dependent variable. When R is unadjusted R-2 = .86. For the adjusted R-2, 86 per cent of dependent variable is explained by the independent variable. This is high since only 14 per cent is unexplained which may be attributed to the error term (Ut). DW is 1.622; this shows a lack of serial correlation in the residuals and confirms that the equation could be used for forecasting purposes.

Implication for consumer behaviour

The negative elasticity of profit tax to total revenue could also be attributed human behaviour. The effect of the Second-tier foreign exchange market (SFEM) in 1986 which resulted in depreciation of naira that lead to high cost of plant, equipment, company spare parts and the like, adversely affects the final consumer. In order words the high cost of these equipment's will increase the cost of production, which in turn increases the price of the final goods produced. Also the negative elasticity of customs and excise duties due to some tax policies on trade liberalization adversely affect the local industries. Inadequate protection of local industries affects both the individuals and the society as a whole, and the inelasticity of petroleum profit tax mainly as a result of the poor condition of some refineries in Nigeria has an adverse effect on individuals.

The implication of these to consumers is that foreign goods will become relatively cheaper when compared with the locally produced goods. This will divert the choice of consumers to foreign goods instead of local ones. This implies that the local industries will run out of business and many people will also loss their jobs. The psychological states like anxiety, depression and criminal behaviour begin to manifest among those who lost their jobs and their dependants. It is also remarkable to note that the policy in favour of foreign goods leads to psychological dependence on foreign goods by the customers which explain why all forms of substandard goods from abroad are imported into the country. More importantly, this dependence on foreign goods have traumatized the Nigerians psychologically to the extent that most Nigerians hardly believe that we have what it takes to develop our country by ourselves. (Obi- Nwosu 2008).

Recommendation

This work recommended that, the Government should review (VAT) rate in order to increase government revenue (to at least 10). Also, Government should check tax evasion and tax avoidance as well as corrupt practices of the tax officials in order to ensure high productivity of taxes. Government should review some of the trade policies that act negatively on company profit tax and customs and excise duties in order to ensure positive contribution to total revenue.

Also effective economic policies should be established in order to motivate household develop interest in the consumption of local goods.

Conclusion

The introduction of VAT in 1994 was to improve government generated revenue. This work has investigated the extent the aim of government has been achieved. It was seen that VAT makes a positive and significant contribution to the total revenue of the government. This is shown by the elasticity of value added tax.

The elasticity of VAT is greater than unity. Specifically from the analysis, 1 per cent increase in value added tax increases total revenue by 1.264 per cent. It was found that the tax revenue before VAT did not add much to the government revenue. This is shown in its elasticity which is less than unity though it has a positive contribution. Also tax revenue after the introduction of VAT (1994 - 2004) has a greater contribution to total government revenue since its coefficient of elasticity is greater than unity.

Company profit tax and customs and excise duties showed negative coefficient which indicate that the contribution of these taxes to total revenue has been decreasing overtime. Also the contribution of petroleum profit tax to the total revenue is very small despite the high demand of the product. The reason for this is not far from the problem of refineries in Nigeria.

Finally, there is need to say that value added tax in Nigeria is a positive step to increase government revenue. Therefore, one can say that VAT has effectively replaced sales tax.

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