Assessment of Value Added Tax and Its Effects on Revenue Generation in Nigeria

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Abstract

The paper examined the impact of value added tax on revenue generation in Nigeria. The Secondary Source of data was sought from Central Bank of Nigeria statistical Bulleting (2010), Federal Inland Revenue Service Annual Reports and Chartered Institute of Taxation of Nigeria Journal. Data analysis was performed with the use of stepwise regression analysis. Findings showed that Value Added Tax has statistically significant effect on revenue generation in Nigeria. The study recommends that there should be dedication and apparent honest on the parts of all agents of VAT with respect to the collection and payment and that government should try as much as possible to improve on the way of collecting value added tax.

Keywords: Value Added Tax, Revenue, Nigerian Economy,Taxation.

1. Introduction

One of the recurrent problems of the three-tier structure of the government in Nigeria is dwindling revenue generation as characterized by yearly budget deficits and insufficient funds for economic growth and development. This economic reasoning emphasized the revenue need of government and indicates that, apart from strengthening the existing sources of revenue, it is also necessary for government to diversify its revenue base in order to meet its constitutional responsibilities. Myles (2000) states that financial capacity of any government depends among other things, on its revenue base, the fiscal resources available to it and the way these resources are generated and utilized. It is therefore, the duty of the government to adequately mobilize potential revenue across the country to prevent economic stagnation. This mobilization involves the adoption of economically and politically acceptable taxes that would ensure easy administration, accounting, verification, auditing and investigation based on the equality, neutrality and other attributes of a good tax.

Consumption taxes have a wider coverage since the cause of adverse variance can be adequately controlled under proper administration (Leach, 2003). The revenue generated from consumption taxes can help to boost the financial base of any economy. This however involves exploiting the potential and adopting the type of consumption tax that will recognize the tax payers as utility minimizing individuals and safeguarding their evading behaviour. The essential consideration I choosing a consumption tax option from other tax options includes; assessment of administrative feasibility of each tax and determining its relative revenue potentials, its relative revenue potentials, its degree of voluntary compliance, its relative neutrality, its equity essential for regressively and the efficiency of these criteria, one can easily see under lying reasons why government replaced a Retail Sales Tax (RST) with value Added Tax (VAT) as consumption tax.

Thus, the introduction and full recognition of the potential value of VAT in revenue generation after planning its adoption into the Nigerian tax system has become a controversial issue that forms debate among several authors that the purpose of the introduction of the value added tax as on of the method of taxation in Nigeria economy has not yet been known. In view of this, the paper work intends to avert all the prevention deficiency deduced by the recent author and thereby revealed the benefits of the value added tax as our revenue generation in this country (Nigeria). This would be achieved by the effects or roles of VAT on Nigerian economy since it inception on January 1994 to date and how it has superseded its predecessor (sale Tax).

1.1 Statement of the Problem

In Nigeria, value added tax is one of the instruments the Federal government introduced to generate additional revenue. Yet, most prominent Nigerians and interest groups had spoken against its introduction. It would appear that VAT is froth with some problems. After its adoption into the Nigeria tax system, it has become a controversial issue that generates debate among several authors like Naiyeju and (2009) that the purpose of introducing value added tax as one of the methods of taxation in Nigeria economy has not yet known. For the purpose of these, this paper work shall examine the implication of value added tax on revenue generation in Nigeria and to provide reasonable solutions and recommendations that will be geared to reveal the benefit of VAT in Nigeria macro economy.

1.2 Objectives of the Study

The general objective of this study is to examine the impacts of value added tax on revenue generation in Nigeria. However, the specific objectives are:
To examine the relationship between value added tax and revenue generation in Nigeria
To establish the effects of value added tax on revenue generation in Nigeria

1.3 Research Questions

The following research questions are formulated to pilot this research work:
Are there any relationships between value added tax and revenue generation in Nigeria?
Does value added tax has effect on revenue generation in Nigeria?

1.4 Research Hypotheses

These research hypotheses were tested:
Ho: Value Added Tax has no significant relationship with revenue generation in Nigeria.
Ho: Value Added Tax has no significant effects on revenue generation in Nigeria.

2. Literature Review

Bird (2005) defined value added tax as a multi stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered" which is eventually borne by the final consumer but collected at each stage of production and contribution chain. This definition brings out the three characteristics of value added tax which are:

VAT is consumer tax
VAT incidence is on the final consumer
VAT is a multi-stage tax

Jones (2003) also describes VAT as a tax levied at each stage which supplies changes hands. In the case of manufactured items, this could be at the primary producer, manufacturer, wholesaler and retailer stages. It is ultimately borne by the consumer who being registered for VAT purposed is unable to reclaim it. The above definitions of VAT by Jones suggest that there are intermediaries through which goods must pass before they reach the final consumer. Each time goods are passed from one stage to the other, intermediary value is added to it. it is this value that is being taxed and borne by the final consumer. Adesola (2000) described value added tax as a consumer tax and is charge before selling the good. He said, value added tax is often defined as the sum of wages and profit. VAT has become a veritable source of revenue in many developing countries in Sub-Saharan Africa; it has been introduced in several countries (Whenkroff, 2003). Its adoption in Nigeria can be traced to the report of the committee set up by the Federal government in 1991 to review the entire tax system with a view to expanding the financial base for revenue generation.

This became necessary because sales tax could not guarantee wider and better tax administration, as many states were resentful of its uniform nature due differences in their political orientation. The rationale behind the adoption of VAT in Nigeria can be summarized as the need to achieve:

Simplification of indirect tax system
Enhancement of tax neutrally in international trade
Reduction in tax evasion
Expansion of tax base promotion and investment.

These points are further amplified by Gendron (2005) who argues that consumption tax, such as VAT, it increasing being favoured as a tax base over income and allied items. Nairayan (2003) further supports the introduction of VAT in Nigeria s an instrument for the balance of payments engineering, by encouraging exports through zero-rating of exporting goods.   VAT was adopted in Nigeria in 1994 and prospective VAT payers, manufacturers, wholesalers, importers suppliers of taxable goods and services were required by decree No 102 of 1993 to register with the Federal Inland Revenue Services (FIRS) which centrally administers VAT. In the country, VAT is a gross product type of tax imposed on the destination principle. At the moment, there are seventeen categories and goods and twenty-four categories of services that attract VAT. The goods and services exempted by the decree are purely those that bother on people welfare and whose requirements are necessary for improving human development. These include medical and pharmaceutical products, basic food items, educational materials, agricultural services and equipment, etc. However, there is much confusion over which goods or services should be in the exemption list.

Furthermore, Nigeria adopts the same 5% VAT charges on all goods and services, either domestic or imported. It was increased to 10% on May 23, 2007. But, Nigerians rejected the hike in the VAT rate and the Nigeria Labour congress went on five days strike which eventually jeopardized the economy. And this made the Federal government to reverse to the old VAT rate. Nigeria also imposes a zero rate on report commodities with a view to encouraging favourable balance of trade. It would seem, however, that the benefits of VAT outweigh its demerits. What is only required is a measure of commitment and transparency in the mobilization and allocation of VAT proceeds. At the moment, the proceeds are shared among the three tiers of government as shown in Table 2 below:

Table 1: Sharing Formula of VAT form 2001 – 2010

YEAR	FIRS	FGN	STATE	LOCAL GOVT.
1994	20% of Gross proceeds		80% of the proceeds	
1995 (Jan-March)		50% of the proceeds	25% of the proceeds	25% of the proceeds
1995 (April-Dec)		40%	35%	25%
1996-1997		35%	40%	25%
1998		25%	45%	30%
1999		15%	50%	35%
2000-2010		15%	50%	35%

Source: CBN Statistical Bulletin, 2010

3. *Methodology*

This paper work embraced the use of Secondary data as its main sources of information. The required data were obtained from written work such as textbook, annual reports by recognized agencies such as: Central Bank of Nigeria (CBN), statistical Bulleting for the years, Federal Inland Revenue Service, conference report, chartered institute of Taxation of Nigeria journals and internet materials. The study covered federation revenue generated from value added tax in Nigeria economy. Emphasis was placed on the impact of VAT on revenue generation in Nigeria macro economy. The study covered the frame of 2001 to 2010 accounting years. The data for the analysis the Total Federal Collected Revenue (TFCR), Value Added Tax (VAT), Petroleum Profit Tax, Company Income Tax and Education Tax.

For the analysis of data that is useful for hypothesis testing, the tool used was inferential statistical analysis which was stepwise regression analysis.

The stepwise regression equation used for the prediction can be expressed as:

$$Y = a + b_{1x1} + b_{2x2} + b_{3x3} + b_{4x4} \text{---------- } \mu$$

Where; Y = Total Federally Collected Revenue

a = constant

$b_i\text{-}b_4$ = Partial regression coefficient attached to variable x_1, x_2, x_3 and x_4

$x_1\text{-}x_4$ = Independent variables that significantly contributed to the variance of total federal collected revenue.

X_1 = Value Added Tax

X_2 = Petroleum Profit Tax

X_3 = Company Income Tax

X_4 = Education Tax.

μ = error term (Unexplained variance)

4. Result and Discussions

In order to test the significance of hypothesis one, the findings showed in table 2 revealed that value added tax, petroleum profit tax, company income tax and education tax were the variables selected on the basis of highest partial correlation to meet the entry probability requirement of less or equal to 0.05 (≤ 0.05). The result depicts the relationship between the dependent variable (total federally collected revenue) and each independent variables (value added tax, petroleum profit tax company income tax and education tax) that meet the entry probability requirement of less or equal to 0.05 ($P\leq0.05$). The result further showed that the four variables, value added tax, petroleum profit tax company income tax and education tax had a strong positive correlation of 0.971 with the dependent variable, total federal collected revenue. This means that the four variables together had a strong relationship with the total federal collected revenue in Nigeria. The relationship between total federal collected revenue and the independent variables vale added tax petroleum profit tax and company income tax with the effect of education tax partial out was also stated as 0.957, this indicating a gradual decline in the relationship by 0.014 (0.971-0.957), which means despite the decline in the relationship as a result of partialling out the effect of education tax there exist still a strong relationship between total federal collected revenue in Nigeria and the independent variables value added tax, petroleum profit tax and company income tax.

In addition, the result showed that value added tax and petroleum profit tax had a 0.934 positive relationship with the total federal collected revenue in Nigeria while partialling out the effects of company income tax and education tax. A reduction in the relationship by 0.023 (0.957-0.934) can again be deduced while maintaining the positive relation. However, the net result still indicated that value added tax had a 0.928 positive relationship with the total federal collected revenue in Nigeria while partialling out the effects of petroleum profit tax, company income tax and education tax leading to a reduction in the relationship by 0.006 (0.934-0.928). The findings shows that value added tax had greater relationship with total federal collected revenue in Nigeria followed by petroleum profit tax, company income tax and education tax.

Hypothesis two was designed to test the effect of the value added tax on the total federal collected revenue in Nigeria. The result presented in table 2 showed that value added tax, petroleum profit tax, company income tax and education tax had on R^2 of 0.942 on the total federal collected revenue of Nigeria which implies that value added tax, petroleum profit tax, company income tax and education tax can jointly predict 94.2% of the variation in total federal collected revenue. To further affirm the significance of this test, the result also showed that the regression sum of square is greater than the residual sum of square which means that the independence variable accounted for the better part of the variation in Nigeria total revenue. The result further revealed a R^2 value 0.915 joint contribution of value added tax, petroleum profit tax and company income tax to Nigeria's total revenue with the contribution of education tax partial out.

This implies that value added tax, petroleum profit tax and company tax has jointly accounted for 91.5% contribution of Nigeria's total revenue. Again the significant of the R^2 was tested with the ANOVA where by F. value of 21.561 which was statistically significant at 0.001 confirms the strength of the contributions of value added tax, petroleum profit tax and company tax account for a high explanation of the Nigeria's total revenue, thus affirming the model as a viable tool for measuring the country's total revenue.

In addition to that, the result shows the contribution of value added tax and petroleum profit tax with the effects of company income tax and education tax partial out. Finding indicates that value added tax and petroleum profit tax had a R^2 value of 0.873 on Nigeria's total revenue, which means that 87.3% of the country's revenue can be explained by value added tax and petroleum profit tax. The R^2 was tested at 24.032 F-value which was statistically significant at a low P of 0.001 an indication of the good job value added tax and petroleum profit tax have done in explained the variation in the total revenue of the country. The result further revealed that the regression sum of squares is slightly higher that the residual sum of squares, this again affirmed the model as a viable tool in measuring the country's total revenue. The result also shows the contribution of value added tax, when the effects of petroleum profit tax, company income tax and education tax partially removed. The finding indicates that value added tax had a R^2 value of 0.861 on total federal collected revenue in Nigeria and this means that 86.1% of total revenue in Nigeria can be explained solely by value added tax. The R^2 was tested at 49.714 F-value which was statistically significant at a low P of 0.000, an indication of the significant effect of value added tax in explaining the total federal collected revenue in Nigeria.

In order to identify the variable that contributed most to the variation in Nigeria's total federal collected revenue, the individual effect of the fousr independent variables above were considered using R^2 change (Rc^2) which is the difference between the R^2 with i^{th} independent variable and R^2 without i^{th} variable where the ith is the variable that enter the equation next. In this study, table 1 revealed that the R^2 for value added tax is 0.861 while that of petroleum profit tax is 0.12 (0.873-0.861) while company income tax is 0.42 (0.915-0.873) and that of education tax is 0.27 (0.942-0.915). From this, value added tax attracted the greatest importance. The implication of this result is that value added tax has contributed most to total federal collected revenue in Nigeria thus justifying the fact that value added tax has a significant effect on total federal collected revenue in Nigeria and an improved strategy such as monitoring aimed at improving the value added tax which will boost the total federal collected revenue in the country. This agrees with the position of Adekanola (2007) who observed that value added tax in this part of the world is seen largely as a major source of nations collected revenue.

5. Conclusion and Recommendation

The result of the study revealed that value added tax is beneficial to the Nigeria economy. This can be understood from the behaviour of the variables in this research, which shows that value added tax is statistically significant to revenue generation in Nigeria. From the findings, for Nigeria to attain its economic growth and development, she must be able to generate enough revenue in order to meet up with the challenges of her expenditures in term of provision of social amenities and the running costs of the Government. The result of this study indicates that if more goods and services are taxed, the revenue base of the country will increase. We still recommend that the value added tax bases be widened to bring the informal sector into the value added tax net so as to stem possible evasion even by the so faithfully complying under the old rate.

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Table 2: Model Summary

Model	R	R Square	Adjusted R square	Std Error of the Estimate
1.	928[a]	.861	.844	1141.42328
2.	934[b]	.873	.837	1168.56224
3.	957[c]	.975	.873	1031.40178
4.	971[d]	.942	.896	932.20947

a. Predictors (constant), value added tax
b. Predictors (constant), value added tax, petroleum profit tax.
c. Predictors (constant), value added tax, petroleum profit tax, company income tax.
d. Predictors (constant), value added tax, petroleum profit tax, company income tax, education tax.
e. Dependent variable: Total federal collected revenue.
   Source: Data Analysis, 2012.

Table 3: ANOVA

Model	Sum of Squares	df	Mean square	f	Sig.
1. Regression	64769853.218	1	64769853.218	49.714	.000[a]
Residual	10422776.826	8	1302847.103		
Total	75192630.044	9			
2. Regression	65633866.113	2	32816933.057	24.032	.001[b]
Residual	9558763.931	7	1365537.704		
Total	75192630.044	9			
3. Regression	68809892.239	3	22936630.746	21.561	.001[c]
Residual	6382737.805	6	1063789.634		
Total	75192630.044	9			
4. Regression	70847557.567	4	17711889.392	20.382	.003[d]
Residual		5	869014.495		
Total		9			

a. Predictors: (constant), value added tax
b. Predictors: (constant), value added tax, petroleum, profit tax.
c. Predictors: (constant), value added tax, petroleum profit tax, company income tax.
d. Predictors: (constant), value added tax, petroleum profit tax, company income tax, education tax.
e. Dependent variable: Total Federal Collected Revenue
   Source: Data Analysis, 2012.

Table 4: Coefficients

Model	Unstandardized Coefficients B	Std Error	Standardized Coefficients Beta	t	Sig.
1. (Constant)	2032.136	606.029		3.353	.010
Value added tax	11.301	1.603	.928	7.051	.000
2. (constant)	2091.903	624.971		3.347	.012
Value added tax	6.310	6.486	.518	.973	.003
Petroleum profit tax	.697	.876	.424	.795	.002
3. (Constant)	2074.306	551.709		3.760	.009
Value added tax	-11.758	11.921	-.966	-.986	.002
Petroleum profit tax	.879	.781	.534	1.126	.003
Company Income tax	19.210	11.118	1.393	1.728	.005
4. (Constant)	1431.420	651.855		2.196	.008
Value added tax	-12.924	10.801	-1.061	-1.196	.005
Petroleum profit tax	1.456	.800	.885	1.820	.008
Company income tax	9.006	12.057	.653	.747	.009
Education tax	76.470	49.939	.536	1.531	.006

a. Dependent variable: Total Federally Collected Revenue.
   Source: Data Analysis, 2012.