ASSESSING THE ‘VALUE’ IN VALUE ADDED TAX: EVIDENCE FROM NIGERIAN ECONOMY

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Abstract
Value Added Tax (VAT) in Nigeria is a consumption tax that was established by the Value Added Tax Act of 1993. It is a Federal Tax which is managed by the Federal Inland Revenue Service (FIRS) of Nigeria. The essence of this paper is to re-evaluate the effectiveness and efficiency of the administration of VAT in Nigeria, as well as to appraise the benefits inherent in the adoption of VAT with respect to its impact on Nigerian economic growth within the period 1994-2014. To effectuate the objectives of the study, relevant secondary data were sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin, Federal Inland Revenue Service (FIRS), and other relevant government agencies. The empirical analysis was based on multiple regression technique. Economic growth was proxy by Gross Domestic Product and the result shows that there is no significant relationship between Value Added Tax and Economic growth, there is a significant relationship between values added tax and the total revenue generated in Nigeria and that VAT administration in Nigeria is effective and not efficient. We recommended inter alia that the government should increase VAT rate for luxury goods such as tobacco, by so doing VAT will be made progressive with greater impact on the rich than the poor. More so the bracket of goods and services on which VAT is charged should be expanded, thus leading to an increase in VAT revenue.

Keywords: Value Added Tax (VAT); Value; Effectiveness; Nigeria

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INTRODUCTION
One of the major challenges faced by developing nations (Nigeria inclusive), is how to improve the internal mobilization resources for the production/procurement of public goods. This challenge is even more severe for Nigeria, a nation which derives over 70% of its revenue from sale of crude oil. The changing global oil market is currently putting the nation’s oil and gas sector on its toes as Nigeria struggles to maintain its hold as the sixth exporter of oil in the world. Besides, there are fears that the spate of oil discoveries in new oil fields in the world has intimidating implications for Nigeria’s might among exporters of oil in the world. For instance, countries like Ghana, Liberia, Sierra Leone, Kenya, Uganda and Tanzania have discovered large oil reserves and some have commenced production. In the face of this foregoing uncertain future of Nigerian oil resources, the need to strengthen other sources of revenue cannot be over emphasized. One of such sources is taxation.

Taxation environments as well as its systems of administration in Nigeria have been in the spotlight in recent times. This accounts for the extensive research that has been conducted on the subject matter. Revenue from taxation is one of the major sources of revenue of all governments (Federal, State and Local) in Nigeria. When it is accurately administered, taxes collected come back to taxpayers in form of social amenities.
One of the relatively new and important developments in the tax system is the emergence of value added tax (VAT). VAT originated in 1954, and was found to be an effective tool for boosting the revenue of government. Value added tax (VAT) is a consumption tax, levied at each stage of the consumption chain and borne by the final consumer of the product or service. The administration of VAT is relatively easy, unselective and difficult to evade [1].

Thus far, VAT has been embraced by over 136 countries, in the world with over fifteen (15) countries in Africa. The spread of the VAT has been the most important development in taxation over the last fifty years. Largely unheard of, outside of France, in the 1950s, the rate of diffusion of VAT has been largely unparalleled. VAT is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service [2]. Richard et al. [3] defined VAT as a broad-based tax levied at multiple stages of production (and distribution) with –crucially- taxes on input credited against taxes on output. Commenting on the relevance of VAT, maintained that VAT is a key source of government revenue in more than 120 nations, and about 70 percent of the world’s population now live in countries that charge VAT.

VAT was introduced in Nigeria on January 1, 1994 to replace the sales tax. The VAT rate was pegged at 5% though there have been unsuccessful attempts to increase the rate. The introduction of VAT in Nigeria was greeted with extensive criticisms by the citizens of Nigeria. This arose from the fear of grand design by the government to further milk the already poor masses of Nigeria. There was usually the suspicion that Nigerians would end up contributing money into private pockets. Many studies were conducted on the contributions of Value added tax revenues to the economy by using Gross Domestic Product as macro level indicator both in developed and developing countries. Notable among them are: Unegbu et al. [4], Wawire et al. [5] and Adereti et al. [2].

The main objective of this study therefore, is to investigate the impact of Value Added Tax revenue as it relate to the economic growth in Nigeria taking into consideration the different associated variables. The remaining part of this paper is classified into four sections as follows: Section 2 Literature Review and Hypothesis Formulated; Section 3 Methodology and Model Formulation; Section 4 Analysis of Findings and section 5 Conclusion and Recommendation

LITERATURE REVIEW AND HYPOTHESIS FORMULATION

The main purpose of tax in any country is to raise revenue to meet government expenditure and to redistribute wealth and management of the economy [2,6,7]. According to Nzotta [8], four key issues must be understood for taxation to play its functions in the society. First, tax is an obligatory commitment made by the natives to the legislature and this commitment is for general basic use. Furthermore, a tax forces a general commitment on the tax payer. Thirdly, there is an assumption that the commitment to the general population income made by the tax payer may not be
comparable to the banquet got. At last, a tax is not forced on a native by the administration since it has rendered particular administrations to him or his family. In this way, it is clear that a decent tax structure assumes a numerous part during the time spent financial development of any country which Nigeria is not a special case [9].

According to Aneke [10], taxes serves as an instrument of monetary strategy utilized by government to deal with the financial development of the state. The tax framework is an open door for government to gather extra income required in releasing its present commitment. Taxes are one of the most important sources of government revenue.

**Concept of Value Added Tax in Nigeria**

According to Ola [11], value added is the difference between “the increase in the value of goods or services in the process of their production of delivery”. Bhartia [7] provided another definition of value added tax as: “VAT is a tax not on the total value of the good being sold, but only on the value added to it by the last seller. The seller, therefore, is liable to pay a tax not on its gross value, but net value: that is the gross value minus the value of inputs”.

Nigeria operates a federal system of government hence the fiscal operations has serious implications on the tax system as administered in the country. The government’s fiscal power is based on the three tier structure of Federal, State and Local Government each which has different tax jurisdictions. The introduction of VAT in Nigeria through Decree 102 of 1993 marks the phasing out of Sales Tax Decree No. 7 of 1986. The Decree took effect from 1st December 1993, but by administrative arrangement invoicing for tax purpose did not commence until 1st January 1994. The tool that introduces Value Added Tax spells out goods and services that attract VAT. It illustrates, for instance that food items do not attract VAT, besides, sellers of goods on which VAT is paid must first of all register with Federal Inland Revenue Service, the goal is to confirm that the five per cent (5%) VAT is paid on goods and services it was believed by many Nigerians that the tax was introduce as a means of avoiding taking loans from international agencies [12].

Onwuchekwa et al. [1] observed that the Value Added Tax was introduced in Nigeria for several reasons, among which the following are.

1. To widen the countries revenue base thereby making it less dependent on oil export
2. To expand the levy base with an equal burden on imported and domestically produced goods and services. The old sales tax places locally manufactured good at disadvantage relative to imported ones.
3. It would diminish the incidence of taxation towards expenditure rather than income
4. Through Value Added Tax, it was believed that the harmonization of our tax system would be achieved especially with these flat rates of 5% throughout the
5. It makes it easier to claim credit for input tax, since a registered person must hold tax invoice.
6. It makes it easier for the collection of tax on behalf of the Government by businesses or organizations, registered with the federal inland revenue Services for VAT purposes.
7. The introduction of VAT has bought fairness to all taxpayers, because a number of goods and services which were not previously covered by the sales taxes were brought together under the VAT regime.
8. To under the base of the tax system in the country, because VAT is the only tax impose on a wide range of goods and services without undue attention being given to the place of manufacturer of item (local or imported) or the peculiar nature of the commodity. (Luxury and harmful products).
9. To help the common people, traders industrialists and also the government. It is indeed a move towards efficiency; healthy competition and farmers in the tax system.

Role of Value Added Tax and Economic Growth

According to Chartered Institute of Taxation of Nigeria, the main advantage of VAT system is that it leads to equity in the business sector and economic growth in the following ways:

i. Investment decisions made without the consideration of tax advantages and these will lead to an event spread of investors in all sectors of the economy as opposed to a more tax-friendly retail sector under the Sales Tax system.

ii. Input tax credit mechanism which will effectively make all input available to registered businesses free of any tax. It should be noted here that allowable input are limited to the input and expenses wholly and exclusively incurred to undertake a taxable activities. What can be claimed is not limited to the raw material used for the production of a product but also includes office supply etc., and this is particularly evident in the service sector where office charges such as electricity, stationery and office equipment are common.

iii. Promotes export for better balance of payment account because Goods and Service Tax removes the competitive disadvantage and gives a boost to exports in global markets. Exporters are in the privileged pedestal of always being refunded as export will be zero-rated. This means they will be able to claim all their input VAT but will charge zero per cent (0%) on their export leaving them in a constant refund position.

iv. Capital of business will be enhanced as VAT will provide registered business with short term finances as the due date for submission of returns and payments of VAT and Economic Growth paper longer than that of the sales tax system. This pipeline theory is good for business as we now see economic meltdown in the world due to the credit crunch in the western world, which has led to less finance loans available.
v. Foreign Direct Investment (FDI) is dependent on the fiscal structure of any country. For Nigeria to be rated highly as a good country to do business in, our tax structure needs to be fair, competitive and better to other countries. With Value Added Tax we will have that luxury.

vi. Reduces the cost of doing business: under Value Added Tax, a registered business selling a variety of goods and services will only deal with one office and will be required to file in at a regular limited interval a simple return on one page with twelve boxes.

Generally, many studies were conducted on the contributions of Value added tax revenues to the economy by using Gross Domestic Product as macro level indicator both in developed and developing countries. Among them Unegbu et al. [4], Wawire [5] and Adereti et al. [2] was the common. To the extent of the researcher’s knowledge, with the exception of Alemu [13] that uses micro economic sectors to empirically evaluate the contributions of VAT for the Nigerian economic development and social spending however, their scholarly contribution in this regard was unnoticed of the role of VAT on economic growth.

Most of the previous authors’ investigations were on the contributions of VAT to economic growth and their findings suggest that VAT has a positive relationship with economic growth and these countries that adopted VAT has benefited from it. They reasoned that VAT yields sufficient amount of revenue for the government and it enhances economic growth in general. So this study rests its major interests on evaluating the role of VAT on economic growth both theoretically and empirically.

According to Okoli et al. [14] and Alemu [13], Different scholars have used different explanatory variables to attempt some empirical measurements of tax efforts in various countries. Such variables include agricultural output-GDP ratio, per capital income, mineral exports-GDP ratio, the degree of openness of the economy, money-GDP ratio, etc. Using mining-GDP, agricultural output-GDP ratio, and export – GDP ratio as determinants of tax share in GDP to measure tax efforts,

The Table 1 below gives the breakdown of Federal Government of Nigeria revenue for the past 21 years (1994 – 2014).

**Table 1:** Federal Government Revenue From 1994 – 2014.

<table>
<thead>
<tr>
<th>Year</th>
<th>Oil Revenue (₦' Billion)</th>
<th>Non-Oil Revenue (₦' Billion)</th>
<th>VAT Revenue (₦' Billion)</th>
<th>Total (₦' Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>160.19</td>
<td>41.72</td>
<td>5.03</td>
<td>201.91</td>
</tr>
<tr>
<td>1995</td>
<td>324.55</td>
<td>135.44</td>
<td>6.26</td>
<td>459.99</td>
</tr>
<tr>
<td>1996</td>
<td>408.78</td>
<td>114.81</td>
<td>11.29</td>
<td>523.60</td>
</tr>
</tbody>
</table>
The above Table 1 shows that VAT contribution to Government revenue has grown progressively over the years, from N5.02 Billion in 1994 to N388.85 Billion in 2014.

According to Metcalf [15] one argument against VAT is that it increases the size of the public sector. While many researchers considered this to be true, the available evidence does not offer much support for this claim. Holcombe [16] found that the growth in tax collections relative to GDP is not appreciably different between the VAT and non-VAT.

Similarly, Dongwon et al. [17] examined the claim that the adoption of a value-added tax (VAT) increases the size of government. Using a panel of 29 OECD countries over a period of 38 years (1970–2007), their analysis suggests that introducing the VAT, despite the fact that it is a relatively efficient tax in comparison to the income tax alternative, had little impact on government growth due to two factors: (1) the substitution of the VAT for other tax sources, and (2) the low price elasticity of demand for public goods. Their findings also imply that the demand for government spending
markedly influences the tax structure of society. Using a broad concept of tax costs, introduction of a VAT increases social welfare because it reduces compliance costs, rent-seeking, and efficiency costs. Accordingly, increased usage of VATs during the 20th century should be understood as a collective choice to accommodate growing demands for public expenditure.

Relatedly, Holcombe [16], avers “Most developed economies rely on a Value Added Tax (VAT) for a substantial share of their tax revenues, so it is natural that the United States would look toward the possibility of a VAT at a time when huge budget deficits are forecast as far out as the forecasts go. While one can debate the merits of a VAT in other countries, the tax is not a good fit for the United States”.

Holcombe [16], went further to outline the negative aspects of VAT to USA to comprise:

1. It taxes a base that has traditionally belonged to state governments, its introduction would bring with it intergenerational inequities;
2. It has a cumbersome administrative structure that would impose large compliance and administrative costs, and it would slow economic growth; and
3. Because of slower economic growth, tax revenues from existing tax bases will fall if a VAT is introduced.

Holcombe’s [16] study projects that if a VAT were introduced in 2010, by 2030 the net effect on tax revenues would be small, because revenues collected by the VAT would be mostly offset by declines in revenues from other tax bases. Meanwhile, the introduction of a VAT would slow GDP growth, so government spending as a share of GDP would rise.

Thus, the two hypotheses tested in this paper are:

**Hypothesis 1**: Ho: Value Added Tax has no significant influence on the Nigerian Economy.

**Hypothesis 2**: H0: Value Added Tax has not contributed to the total revenue generated by the Nigerian government.

**RESEARCH METHOD AND MODEL SPECIFICATION**

To determine the impact of Value Added Tax on the Nigerian economy this paper centered on all Vatable manufacturing, service providers, and SMEs in Nigeria. The sample of the study also doubles as the population. The secondary sources of data consulted for this research work includes CBN statistical bulletins up to year 2015, Journals, World Bank data bank and Nigerian Chambers of Commerce and Industry.
The relevant statistics required for this research work, such as Value Added Tax (VAT) statistics, Gross Domestic Product (GDP), Total Government Revenue (TGR), Total Consumption Expenditure (TCE), Gross Fixed Capital Formation (GFCF) and Labour Force Participation Rate (LFPR) were obtained from Central Bank of Nigeria (CBN).

The hypotheses were tested using inferential statistics which include regression tests and the test of correlation. A multiple regression analysis which is estimated with the Ordinary least Square (OLS) was employed to explain the impact of Value Added Tax on Economic Growth, while the test of correlation measures the degree of relationship between Value Added Tax on Economic Growth [18]. The statistics that was used to analyses the relationship between the dependent variables and their validity includes: R-Square ($R^2$) or the Square of Correlation Co-efficient, Adjusted R-Square ($R^2$), the F-Statistics, the 'T' Statistics and the Durbin–Watson Statistics.

Using the Cobb-Douglas production function the model for this study is stated as follows:

$$RGDPG = f (VAT, TGR, TCE, GFCF, LFPR)$$

(1)

Where $f$ is a functional relationship.

$RGDP$: Real Gross Domestic Product
$VAT$: Value Added Tax
$TGR$: Total Government Revenue
$TCE$: Total Consumption Expenditure
$GFCF$: Gross Fixed Capital Formation
$LFPR$: Labour Force Participation Rate

Putting the above equation in an econometric (linear) form, we have:

$$RGDP = \alpha_0 + \alpha_1 VAT + \alpha_2 TGR + \alpha_3 TCE + \alpha_4 GFCF + \alpha_5 LFPR + \mu$$

(2)

Taking the natural logarithm of both sides of equation (2) and assuming linearity among the variables gives:

$$\ln RGDP_t = \alpha_0 + \alpha_1 \ln VAT_t + \alpha_2 \ln TGR_t + \alpha_3 \ln TCE_t + \alpha_4 \ln GFCF_t + \alpha_5 \ln LFPR_t + \mu_t$$

(3)

Where $\alpha_0$ is the intercept term
$\alpha_{1-5}$ represents the slope coefficients
$\mu$ represents the stochastic error term

**A Priori Specification**

The expected signs of the coefficient of the explanatory variables are:
The above a priori expectations imply that the sign of the intercept $\alpha_0$ is expected to be positive. This means that when other variables in the model are held constant or set at zero the intercept becomes the value of economic growth rate (Table 2).

**ANALYSIS OF FINDINGS**

**Table 2:** Result Summary (Modelling Gross Domestic Product by Ordinary Least Square Method).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVAT</td>
<td>-0.073464</td>
<td>0.160654</td>
<td>-0.457278</td>
<td>0.6540</td>
</tr>
<tr>
<td>LTGR</td>
<td>0.199315</td>
<td>0.088930</td>
<td>2.241252</td>
<td>0.0406</td>
</tr>
<tr>
<td>LTCE</td>
<td>0.334895</td>
<td>0.153751</td>
<td>2.178170</td>
<td>0.0458</td>
</tr>
<tr>
<td>LLFPR</td>
<td>1.947173</td>
<td>0.662241</td>
<td>2.940280</td>
<td>0.0101</td>
</tr>
<tr>
<td>LGFCF</td>
<td>0.153107</td>
<td>0.119069</td>
<td>1.285868</td>
<td>0.2180</td>
</tr>
<tr>
<td>C</td>
<td>-3.184029</td>
<td>2.604056</td>
<td>-1.222719</td>
<td>0.2403</td>
</tr>
</tbody>
</table>

**ANALYSIS OF REGRESSION RESULT**

The coefficient of the constant is -3.184029. It implies that when the independent variables are held constant, the value of the Real Gross Domestic Product will be -3.184029.
The coefficient of Value Added Tax (VAT) shows a negative value of -0.073464 implying that a unit increase in VAT will bring about a unit decrease in the Real Gross Domestic product by -0.073464.

Total Government Revenue (TGR) shows a positive value of 0.199315, implying that a unit increase in the TGR will cause the Real Gross Domestic Product to increase by 0.199315 units.

The coefficient value of Total Consumption Expenditure (TCE) reflects a value of 0.334895 expressing a positive relationship between TCE and RGDP. The positive sign shows that one unit increase in TCE will increase the GDP by 0.334895.

The coefficient value of Gross Fixed Capital Formation (GFCF) reflects a value of 0.153107 expressing a positive relationship between GFCF and GDP. The positive sign shows that one unit increase in GFCF will increase the GDP by 0.153107.

Labour Force Productivity Rate (LFPR) shows a positive value of 1.947173, implying that a unit increase in the LRPR will cause the real gross domestic product to increase by 1.947173 units.

In our model, $R^2=0.993493$, which implies that approximately 99.34% of the variation in the dependent variable (RGDP) is caused by the explanatory variables included in this model.

The F-calculated is 458.0705 while the P-value is 0.000000. Since the calculated value is greater than the P-value, we reject $H_0$ and accept $H_1$. Therefore the entire model is statistically significant (Table 3). Hence, the explanatory variable has significant influence on the dependent variable.

**Table 3: Co-integration Test Result.**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVAT</td>
<td>0.127978</td>
<td>0.245768</td>
<td>0.520729</td>
<td>0.6120</td>
</tr>
<tr>
<td>LTGR</td>
<td>0.265900</td>
<td>0.064749</td>
<td>4.106613</td>
<td>0.0015</td>
</tr>
<tr>
<td>LTCE</td>
<td>0.217512</td>
<td>0.117605</td>
<td>1.849508</td>
<td>0.0892</td>
</tr>
<tr>
<td>LLFPR</td>
<td>1.989618</td>
<td>1.178357</td>
<td>1.688468</td>
<td>0.1171</td>
</tr>
<tr>
<td>LGFCF</td>
<td>0.275577</td>
<td>0.132850</td>
<td>2.074347</td>
<td>0.0602</td>
</tr>
</tbody>
</table>
### Interpretation

Co-integration connotes the possibilities of a long run relationship between two or more variables even though there may be variation in the short run. Thus, the co-integration test result under the deterministic trend assumption reveals evidence of co-integrating relationship. This is made evident from a long run covariance estimate of 3.0, a positive coefficient of all independent variables and a $R^2$ of 99.7%.

In effect, the co-integrating results indicate a remarkable evidence of the existence of a long-run relationship between growth rate of gross domestic product and Value Added tax.

### CONCLUSIONS AND RECOMMENDATION

The overall result as reflected in our OLS estimation shows a negative coefficient value of -0.073464, while $P=0.6540$ (i.e. $P>0.05$) This negativity could be as a result of the increasing cost of living over the years allowing consumers’ purchasing power to suffer a free fall with attendant avers implication on the GDP and possible revenue leakage owing to poor VAT administration. Therefore, based on the foregoing, the null hypothesis ($H_0$) should be accepted and the alternate hypothesis ($H_1$) should be rejected as there is no significant relationship between Value Added Tax and Economic growth.

As for the second hypothesis, which states that the Value Added Tax has not contributed to the total revenue generated by the Nigerian government? The result shows that the overall result as reflected in the OLS estimation shows a positive value of 0.199315, while $P=0.0406$ (i.e. $P<0.05$) This positivity is as a result of the fact that as Value Added, the amount realized by the Nigerian government is a plus and not a minus. It can also be deduced from the OLS table that Value Added Tax contribute approximately 20% to the total government revenue and this seemingly low contribution could be attributed to the fact that VAT rate is fairly low as compared to other African
countries. Thus, the null hypothesis ($H_0$) was rejected while the alternative hypothesis ($H_1$) was accepted as there is a significant relationship between values added tax and the total revenue generated in Nigeria.

**RECOMMENDATIONS**

Based on the findings of this paper, the overall results suggest the following basic policy recommendations:

1. The insignificant and negative relationship between Value Added Tax and Economic Growth in Nigeria is suggestive of poor VAT administration which has resulted in revenue leakages. To this effect, there is urgent need for reengineering of the entire VAT system with emphasis on implementation.
2. Funds generated from VAT should be employed in ventures that will better the lots of the tax payers by way of provision of social amenities and affordable housing. Only in doing this can the government encourages the tax payers to be faithfully committed to paying more VAT and there will be a fall in the rate of default.
3. There has been pressure on the part of government to increase the rate of VAT in Nigeria from 5% to 10% or 15%. It is our view that such increase will further worsen the economic fortune of the populace since Nigerian is currently experiencing recession. To achieve increase in revenue from VAT, we urge the government to on the convers, increase VAT rate for luxury goods such as tobacco. VAT will be made progressive with greater impact on the rich than the poor.
4. The bracket of goods and services on which VAT is charged should be expanded, thus leading to an increase in VAT revenue.
5. Penalty for failure to remit VAT collected on behalf of the government should be made stringent and implemented. This will help to curb any maladministration associated with VAT in Nigerian.

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