Effect of Value Added Tax on Revenue Generation in Nigeria

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Abstract

The study examined value added tax on revenue generationin Nigeria. Secondary data was sourced from the Federal Inland Revenue Service (FIRS) rangingfrom 2000 to 2018. In carrying out the study, Simple regression through Eview and analysis Granger causality test was employed for the analysis.The researcher conductedcointergration test and the trace test indicates 1 cointegrating equation at the 0.05 level.It was equallyrevealed that there is no causality among value-added tax and revenuegeneration. The study concluded that value-added tax has no significant effecton revenue generation and there is no long-run relationship among value-added tax and revenue generation in Nigeria during the study period. Thus, it is recommended thatthe fiscal policy should discourage tax avoidance by emulating measures for compliance of value-added tax, incorporate the informal sector into the tax net, and review value added tax exempted services in Nigeria

Keywords: Value Added Tax, Revenue Generation, Simple regression

1.   INTRODUCTION

Value-Added Tax (VAT) is a type of consumption tax that is placed on a product whenever a value is added at a stage of production and final sale. The amount of value-added tax that the user pays is the cost of the product, less any of the costs of materials used in the product that has already been taxed. Many VAT systems can be described as having a basic rate, special rates for some goods and services, and exemption status for certain economic activities or specific goods and services. Gendron (2005) defined Value added tax as a consumption tax, levied at each stage of the consumption chain andborne by the final consumer of the product or service. Value-added tax has become averitable source of revenue in many developing countries in Sub-Saharan Africa; it has beenintroduced in several countries. Nigeria can be traced to the report of the committee set up bythe Federal government in 1991 to review the entire tax system to expand thefinancial base for revenue generation to enhance the economic growth of Nigeria. Theintroduction of VAT in Nigeria through decree 102 of 1993 marks the phasing out for thesales tax Decree No. 7 of 1986. The Decree took effect from 1st December 1993, but byadministrative arrangement, invoicing for the purpose did not commence until 1st January1994

Value Added Tax (VAT) is one of the most popular taxes around the world. In sub-Saharan Africa for example, VAT has been introduced in Benin republic, Cote d‟ Ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger republic, Senegal, Togo and Nigeria. Evidence has shown in these countries that VAT has been an important contributor to total government revenue (Ajakaiye, 2000). According to the Organisation for Economic Co-operation and Development (OECD)'s Revenue Statistics in Africa 2019 report, Nigeria tax-to-Gross Domestic Product (GDP) in 2017 was 5.7%. this was a moderate increase from the figure reported in 2016 (5.3%). However, when compared with the same index across other African countries over the same period, it was apparent that Nigerian tax revenue generation was significantly low for the level of economic activities in the country.Even though the rationale behind the introduction of VAT in the country is laudable but its contribution to the overall revenue generated in Nigeria remains inadequate. The recent Finance Act introduces a change inthe VAT rate from 5% to 7.5%, an increment of 50%. This increment is expected to increase revenue significantly. The analysis below also adds credence to the issue in question.

Figure 1: Total Revenue Generation
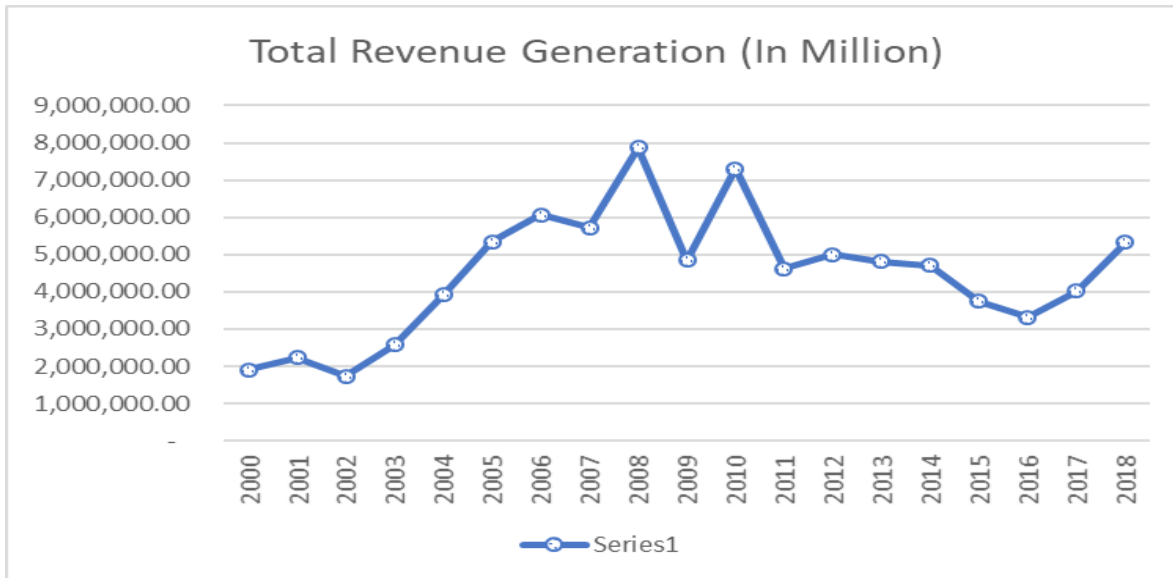
Source: Author's computation (2020)

Figure 1 reveals the total revenue generated in Nigeria from oil revenue and non-oil revenuefrom 2000 to 2018. Thus, oil revenue has been the major source of revenue generation sinceits discovery in 1956. From the graph, it can be observed that the revenue generated has beenfluctuating from 2000 to 2018. However, the year 2008 – 2009 and 2011 – 2016 experiencea significant fall in total revenue generated in Nigeria due to many factors where oil sources ofrevenue have accounted for the major issue. This then urges the government to diversify itsrevenue base to other sectors of the economy.
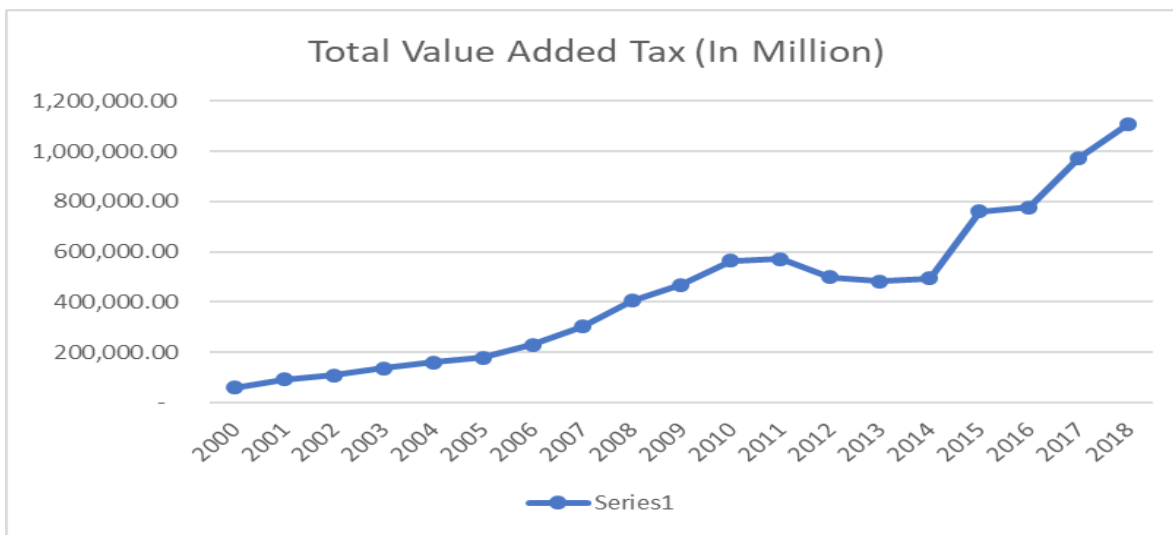
Figure 2: Total Value Added Tax

Figure 2 shows the value-added tax and in Nigeria. From the graph, it was observedthat value-added tax has been experiencing a significant increase from 2000 to 2011 whichlater decline in 2012. 2014 to 2018 recorded significant growth in VAT generation. It could be as a result of different policies put in place by the governmentin curbing hike in prices of goods and services. The upwardmovement of indirect taxes such as value-added tax and customs duty in the recent year wasdue to the fall in oil prices which has led the government to diversify its revenue base in Nigeria.

It is on the premise of the above that the study sets out to determine if VAT contributes to revenue generation in Nigeriaand to examine the effect of Value-Add Tax on revenue generation in Nigeria.

2.   LITERATURE REVIEW

2.1   Conceptual Framework

2.1.1   Concept of Value Added Tax

Revenue generation refers to all the money raised to the government of a country within a given period thereafter used to improve the economic and social well-being of its citizenry. Ahmed (2010) defined revenue generation as all amounts of money received by a governmentfrom all sources. Soyode and Kajola (2006) also opined that revenue generations are optionsavailable to the government for raising funds for building resources away from the other sectorsof the economy. Revenue bases are not mainly limited to oil and non-oil bases but other meansavailableto the government in raising fund financing their activities. Revenue generationcomprises taxes, gifts, fines, fees, grants, mining, license and internal revenue, interest andrepayment, rent on government property, armed forces, and miscellaneous(Okwori&Sule,2016). The tax revenue consists of direct and indirect taxes. The direct taxes include personalincome tax, corporate tax, capital gain tax, petroleum profit tax while indirect taxes include;custom and excise duties, value-added tax (Chaudhry& Munir, 2010).

According to Akhor and Ekundayo, (2016), Value added tax is a form of indirect tax applied at each stage of production to the value-added. VAT is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Each person is required to charge and collect VAT at a flat rate on all invoiced amounts on all goods and services produced in Nigeria. It was believed by many Nigerians that the tax was introduced as a means of avoiding taking loans from international agencies and came into effect on January 1, 1994 to replace the Sales Tax (Ochei, 2010). Taxable persons are obliged to register under VAT Act. The tax is at a single rate of taxable goods and services. Supply of all goods and services except those specifically exempted are subject to VAT. Non-resident companies, which transact business in Nigeria, are also required to register for VAT and render VAT returns using the address of the company in Nigeria with whom they have a subsisting contract.

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 is 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 a charge before selling the good. He said value added tax is often defined as the sum of wages and profit. VAT has been a veritable fiscal measure of revenue generation in Nigeria. VAT does not contribute to revenue generated in Nigeria

2.2   Empirical Framework

Akhor and Ekundayo, (2016), examined the impact of indirect tax revenue on economic growth in Nigeria. The study uses value-added tax revenue and custom and excise duty revenue as independent variables and economic growth was proxy with the real gross domestic product as the dependent variable. The study employed secondary data collected from the Central Bank of Nigeria statistical bulletin for the period covering 1993 to 2013 for the empirical analysis using the convenient sampling techniques. The result revealed that value-added tax had a negative and significant impact on real gross domestic product. On a similar study conducted by Okwara and Amori (2017),on the effect of taxrevenue on the economic growth in Nigeria. The authors used statistical tool to analyze the impact of non-oil revenueand value-added tax on real gross domestic products. Findingsshowed that non-oil revenue impacted significantly whilethe value-added tax has negative and

insignificantly related toeconomic growth. Oseni (2017) conceptually examine the effects of Value Added Tax (VAT) ongovernment revenue generation profile in Nigeria. The paper concluded that value-added tax has a positive effect on government revenuegeneration profile in Nigeria thereby contributing to its economic growth and development. Olaoye (2009) studied the administration of VAT in Nigeria intending to seekways of improving government revenue generation base to improve the economy.The study recommended that the government should increase people's awareness of theexistence VAT.Rostami et al, (2012) examined the impact of fiscal policy on economicgrowth in Iran with emphasis on the role of value-added tax. They found that value-addedtaxes have a significant effect on real output for Iran which means value-added taxes as a fiscalpolicy tool have useful performance in Iran. Wambai and Hanga (2013) on taxation andsocial development in Nigeria: tackling Kano's hidden economy, they found that taxpayers'attitude towards governance affects their tax compliance behaviour; they recommended a taxsystem that concentrates on establishing simplicity, predictability, and good governance.

Adereti (2011) explored value-added tax and economic growth in Nigeria, their resultfound a positive and significant correlation between values added tax and gross domesticproduct. Babalola and Aminu (2011) examined the relationship between fiscal policy andeconomic growth considering Nigeria adopting the Engle-Granger approach toCo-integration test, stated that productive expenditure was found to be statisticallysignificant.Okoye and Gbegi (2013) opined that most economy relies on income from taxation for itsdevelopment and that in addition to its use as a means of raising government revenue, it isalso often used as an instrument of regulating the economy; redistribute wealth and inducingpreferred modes of behaviour, particularly consumption patterns and investment choices.Their empirical study revealed that revenue generated through VAT has a significantinfluence on wealth creation in Nigeria and on the total revenue generated in Nigeria. In theirrecommendation, they pointed out that Federal Inland Revenue Service should pay attentionto the informal sector of the economy by creating VAT offices at the local communities to generate more revenue and to fully achieve the objectives of wealth creation throughVAT. In Kenya experience, Njogu (2015), investigated the effect of the value-added tax on economicgrowth from 1990 to 2014. The study concluded that there exists a significant negativerelationship between VAT rates and GDP. The findings equally indicated that there exists aninsignificant positive relationship between value-added tax rates and consumer price index. Italso revealed that there exists a significant positive relationship between VAT rates andthe unemployment rate during the study period. Conclusively, the empirical reviewed shows that indirect tax and revenue generation in Nigeriahas been few in the literature. However,this necessitated the investigation of indirect tax andrevenue generation in Nigeria and to extend the period covered by the previous researchers.

2.3   Theoretical Framework

2.3.1   Convenience Theory

This theory was propounded by Adam Smith, the capitalist patriarch. The theory states that tax is a compulsory levy which must be borne by all eligible to bear the burden. Thetheory, however, prescribes here that the payer nonetheless should be helped to carry his cross without mush sweat grouse (Akpa, 2018).

2.3.2   The Harrod-Domar Model Theory

According to Jhinga (2008), the Harrod-Domar model of economic growth is based on the experiences of advanced economies. They are primarily addressed to an advanced capitalist economy and attempt to analyze the requirements of steady growth in such an economy. Both of them are interested in discovering the rate of income growth necessary for the smooth and uninterrupted working of the economy. Though their models differ in detail, yet they both agree. Harrod and Domar assign a key role to invest in economic growth. But they emphasize the dual character of investment. Firstly, it creates income and secondly, its augments the productive capacity of the economy by increasing its capital stock.

2.3.3   Diffusion theory of taxation

According to diffusion theory of taxation, under perfect competition, when a tax is levied, it gets automatically equitably diffused or absorbed throughout the community. Advocates of this theory describe that when the state imposes a tax on a commodity, it automatically passes on to consumers. Every individual bears the burden of

tax according to his ability to bear it. For instance, a specific tax is imposed on, cloth manufacturer. The manufacturers, therefore, raise prices of a commodity according to their capacity and thus share the burden of the tax. In the words of Mansfield: 'a tax laid on any place is indeed like a pebble falling into a lake and making circles till one circle produces and gives motion to another". This quotation explains that just as a pebble gets diffused in a lake, similarly a tax imposed on a commodity is also absorbed and its burden is felt equally among a various section of the commodity.

2.3.4   Benefit Theory of Taxation

According to this theory, the state should levy taxes on individuals according to the benefit conferred on them. The more benefit a person derives from the activities of the state, the more he/she should pay to the government. If under the benefits theory of taxation," we conceive taxes as payments made in exchange for government benefits, perhaps the state should be obliged to confer personal tax benefit on residents who contribute to their tax coffers. The benefits theory would imply that a resident should be able to collect personal tax benefits to the extent that her tax payment to the source state exceeds the monetary value of any source state government benefits she already receives, including infrastructure, regulated labour, and capital market, and so on (Amadi and Alolote, 2019)

2.3.5   Ability to Pay Theory

According to Amadi and Alolote (2019), the most popular and commonly accepted principle of equity or justice in taxation is that citizens of a country should pay taxes to the government under their ability to pay, rather than the benefits principle. The "ability to pay principle" generally dominates modern equity discussions. Under the ability to pay principle, people with higher incomes should pay more taxes than people with lower incomes. It appears very reasonable that taxes should be levied based on the taxable capacity of an individual. For instance, if the taxable capacity of a person A is greater than person B, the former should be asked to pay more taxes than the latter.

3.   METHODOLOGY

The design of this study is structure to use simple regression through econometrics statistical technique. This enables the researcher to determine the effect of value-added tax on revenue generation in Nigeria for the period ranging from 2000 to 2018. The data used in the analysis are secondary data which include value-added tax and total revenue which were obtained from the publication of Federal Inland Revenue Services, bulletin, journals and Internet. The following regression model was estimated:

$TR_{it} = \beta0_{it} + \beta_1 (VAT)_{it} + e_{it}$

Where:

TR = Total Revenue (dependent variable)
VAT = Value Added Tax (independent variable)
$\beta0$= Contant term
$\beta1$ = Coefficient of the parameter estimates
e = Error Term

Total Revenue Generated and VAT Income

Years	Total Tax Revenue (In millions)	VAT (In millions)
2000	1,906,159.70	58,469.60
2001	2,231,532.90	91,757.90
2002	1,731,800.00	108,600.00
2003	2,575,100.00	136,400.00

2004	3,920,500.00	159,500.00
2005	5,347,500.00	178,100.00
2006	6,069,800.00	230,400.00
2007	5,727,500.00	301,700.00
2008	7,866,600.00	404,500.00
2009	4,844,600.00	468,400.00
2010	7,303,700.00	562,900.00
2011	4,628,500.00	571,390.00
2012	5,007,700.00	498,700.00
2013	4,805,600.00	481,580.00
2014	4,714,600.00	493,953.00
2015	3,741,800.00	759,431.00
2016	3,307,500.00	777,504.00
2017	4,027,940.00	972,346.00
2018	5,320,520.00	1,108,038.00

Source: Federal Inland Revenue Service (2000 – 2018)

4.   RESULTS AND DISCUSSION

Table 1:

	TR	VAT
Mean	4477840	440193.1
Median	4714600	468400
Maximum	7866600	1108038
Minimum	1731800	58469.6
Std. Dev.	1681238	304348.1
Skewness	0.12935	0.62676
Kurtosis	2.548205	2.548129
Jarque-Bera	0.214577	1.405605
Probability	0.898267	0.495196
Sum	85078953	8363670
Sum Sq. Dev.	5.09	1.67
Observations	19	19

Source: Author's computation (2020)

Table1 presents the descriptive statistics for both the dependent and explanatory variables of the study. The number of observations for the study reflects a value of 19 indicating that the number of observation for the study is made up of 19 years (2000 – 2018). The table also shows the mean of TR and VAT as 4477840 and 440193.1 respectively. One important observation is that both the independent variable and the dependent variable have mean value higher than that of its standard deviation.

Table 2

Dependent Variable: TR

Method: Least Squares

Date: 03/11/20 Time: 13:43

Sample: 2000 2018

Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
VAT	7.50289	1.165286	6.438666	0

R-squared	-1.569649	Mean dependent var	4477840
Adjusted R-squared	-1.569649	S.D. dependent var	1681238
S.E. of regression	2695045	Akaike info criterion	32.50292
Sum squared resid	1.31000	Schwarz criterion	32.55263
Log likelihood	-307.7778	Hannan-Quinn criter.	32.51134
Durbin-Watson stat	0.306249		

Source: Author's computation (2020)

Hypothesis Testing

The formulated hypothesis is stated thus: $H0_1$: Value added tax does not affect revenue generation

Decision Rule: if the p-value is less than the 5% critical value the null hypothesis is rejected. Based on the decision rule, for $H0_1$ since the p-value is greater than the critical value the null hypothesis is accepted. Table 2 reveals a statistically insignificant relationship between value-added tax and revenue generation, while the value-added tax has a significant relationship with revenue generation. The estimate of this equation reveals a positive intercept which stands at 4477840. This implies that when TR is zero, all the explanatory variable would stand at 4477840. Finally, the test of goodness of fit reveals that the estimated relation has a positive fit. While both the R2 and adjusted R2, which stand at -1.56% and -1.56% % respectively, revealed that about -1.56% of total variations in TR can be explained by the regressors (VAT);

Table 3: Pairwise Grange Causality

Null Hypothesis:	Obs	F-Statistic	Prob.
VAT does not Granger Cause TRG	17	0.18603	0.8326
TRG does not Granger Cause VAT		0.08483	0.9192

Source: Author's computation (2020)

Pairwise Granger causality test displayed in table 4 depicted that total revenue generatedand value-added taxes freely move to each other. That is, there is no uni or bi-directional relationship among them. Meanwhile, the value-added tax is expected to granger cause revenue generation as a result of VAT is one of the sources of revenue generation. This could be due to inadequate collection of VAT, non-inclusion of the informal sector and other value added exempted services from the tax net, and tax avoidance.

5.   CONCLUSION AND RECOMMENDATION

This study examined the effects of value-added tax on revenue generation in Nigeria where value-added tax and total revenue generated was used as the proxy for revenue generation. However, the result revealed that value-added tax can influence revenue generation. It also revealed that revenue generation, the value-added tax does not Granger cause each other, that is, they freely move to each other. The study concluded that value-added tax has no significant effect on revenue generation in Nigeria. Thus, it is recommended that the fiscal policy should discourage tax avoidance by emulating measures for compliance of value-added tax, incorporate the informal sector into the tax net, and review value added tax exempted services in Nigeia.

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