VALUE ADDED TAX, REVENUE GENERATION AND GROWTH IN NIGERIA

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Abstract

This study examined the effect of VAT on Nigeria's revenue generation and economic growth. The study used an ex-post facto research approach and gathered data from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service reports, the Federal Office of Statistics, and the Federal Ministry of Finance for a period of twenty-five (25) years (1994-2018). The data was evaluated using the regression (i.e., OLS) approach, and the result indicated that the impact of VAT on economic growth, tax revenue generation in Nigeria was positive and significant. The study suggests that government should establish appropriate tax management to increase revenue, and that better economic policies and macroeconomic changes be implemented by the government.

Key words: Economic growth; Tax revenue; Value added tax.

1. Introduction

Globally, it is seen by many nations that taxation plays a major role in enhancing economic growth and development, because taxes support in many areas which include economic, political and social. Taxation helps the government according to Asada (2011) to enhance its revenue, production and consumption, equitable distribution of income and national resources allocation. It is difficult for tax payers to evade Value Added Tax (VAT) because it is a consumption tax that is relatively easy to administer; it is an indirect tax, that is imposed on goods and services, and final consumers bear the burden. Value Added Tax is a consumption tax described by Oraka, Okegbe and Ezejiofor (2017) to be a tax levied at each stage of consumption chain and borne by the final consumer of the product or services. In 1994, it was introduced in Nigeria to replace the sales tax. In addition, government introduced VAT to create more revenue that will enhance economic development and the rate started with 5% to be paid by the suppliers on the goods and services until they reach the customers who ultimately bear the burden. However, it was increased in the year 2020 to 7.5% in Nigeria. VAT remittance is based on regular monthly reforms. Generally, goods exempted

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from VAT includes; medical and pharmaceutical products, basic food items, educational materials, baby products, agricultural equipment, veterinary medicines. While services exempted from VAT includes; medical services, services by community now called microfinance bank, people's bank now called defunct and mortgage institutions, services from educational, learning, religious services, and exported services. VAT revenues are shared according to Odusola (2000) in ratio 15:50:35 among the Federal, State and Local Governments respectively. So far, evidence suggests that VAT revenue in Nigeria is already a significant source of revenue. In Nigeria, VAT revenue is generated and distributed to the state and local governments. Unlike oil revenue, which is subject to market forces over which the government has no control. This helps to reduce the country's reliance on oil revenue, ensuring long-term economic growth and development (Mukolu and Ogodor, 2021).

VAT is revealed by research, that it has significant effect on growth of every economy particularly Nigeria, it may have been affected by the recent economic recession. Thus, the study of effect of VAT on the Nigeria economic growth is important.

Statement of the Problem

In Nigeria, Adereti (2011) examined VAT and the study found that it is a source of revenue in Nigeria but studies remain difficult to provide empirical assessment on how it has effect on the economy. Most of the works done by previous researchers in this context according to Adereti (2011) was observed that they lumped up all the various taxes together without separating VAT. Some of them are Terzungwe and Eya (2017) and Okwara and Amori (2017) and to the best of our knowledge, the contribution of VAT to Nigerian economic growth has not been extensively explored by other researchers. It is imperative therefore to close this gap by examining VAT in Nigeria and its effect on economic growth.

Objectives of the Study

The study generally seeks to examine VAT and its effect on GDP in Nigeria, while the specific objective is to ascertain the extent to which VAT contributes to revenue generation in Nigeria

Research Hypotheses:

The research hypotheses for this study are stated as follows:

$H0_1$: In Nigeria, VAT effect on the economic growth is not significant.

$H0_2$: In Nigeria, VAT effect on revenue generation (RG) is not significant.

2. Literature Review

This section dealt with Conceptual review, Theoretical review, Empirical review as it relates to VAT in Nigeria.

Conceptual Review

VAT as a tax levied at each stage of production is described by Jones (2003) when supply changes hands, thus manufactured items could be at the primary producer, wholesaler and retailer stages. Jones added that VAT is borne by consumers and the stages are intermediaries through which goods must pass before the final consumer is reached. The value now added is the involvement of the intermediary that is, the goods passing one hand to another and the value is what is being taxed and borne by the final consumer. It is a government-imposed consumption tax on products purchased and services supplied. The establishment of a value added tax (VAT) is one of the measures to reduce tax evasion in Nigeria in order to improve government revenue (VAT). As a result, value added tax is a consumption tax levied on a product at each level of the production chain where value is added, (Cole, Aroyewun, Soetan and Akintola, 2021). Value Added Tax is a consumption tax described by Oraka, Okegbe and Ezejiofor (2017) to be a tax levied at each stage of consumption chain and borne by the final consumer of the product or services. VAT as described by Adesola (2000) is charged on consumer goods and services before the goods are sold. In many developing countries in Sub-Saharan Africa, VAT has become a reliable source of revenue; it has been implemented in a number of countries (WhenKroff, 2003). According to Olatunji (2009), Nigeria's journey to a VAT system began in November 1991, when the advice of a study committee on indirect taxation was accepted.

Theoretical Review

While VAT is a part of Nigeria's whole tax system, it is crucial to understand the fundamental theories of taxes. The following are some of the VAT theories discussed in this work: Socio Political theory, Expediency theory, Benefit received theory and Faculty theory

Socio political theory: According to this taxation theory, the primary considerations in taxing should be social and political purposes. The notion proposes that a tax system should not be designed to benefit individuals, but rather to address the problems that plague society as a whole. Wagner, a proponent of this idea, argues that each economic problem should be examined in the context of its social political setting, and a suitable solution should be developed as a result.

Expediency theory: This idea contends that any tax proposal must satisfy the test of practicability, with the authorities' decision being based only on this factor. According to Bhartia (2009), the state's economic and social aims should be considered as a result of the tax system's relevance, not the other way around.

Benefit received theory: It is argued by this theory that there is essentially an exchange relationship between payers of tax and the state. The state produces certain goods and services to the public according to Bhartia (2009) and they added to the cost of the supplies in relation to the benefits received. In contention to this view, Anyanfo (1996) stated that taxes should be related to the benefits received from government expenditure.

Faculty theory: It is argued by this theory according to according to Ayanfo (1996), that tax should be imposed based on the individual ability to pay, thus this attempt in maximizing a clear value judgement about the distributive effects of taxes. However, this was contended by Bhartia (2009) that the individual relative payment capacity is determined by his ability to pay and his relative share in the total tax burden.
Hence, out of all the theories highlighted above, benefit received theory tends to show a link between VAT and economic growth and this study is anchored on this theory.

Empirical Review

Awe (2018) examined VAT in Nigeria and the study focused on its effect on economic growth for the period 1994 to 2016. OLS was employed by the study to analyze data from secondary source and found that VAT, custom and excise duties had no significant effect on economic growth. In addition, the study showed absence of causality among the variables.

Adegbite (2018) used data obtained from CBN statistical bulletin to examine VAT and its effect on Nigeria economy for the period of 1994 to 2010. The multiple regression analysis output from the study revealed a negative effect between income and aggregate consumption because the rise in the VAT rate led to decreased in people's dispensable income. In addition, it was found by the study that a change in the VAT rate has a substitution effect in reducing the income tax rate and offset the decrease in people's income as a result of rises in the rate of VAT and changes in aggregate consumption.

Between the period 1999 and 2013, the study by Oraka, Okegbe, and Ezejiofor (2017) collected data and examined VAT effect on the Nigerian economy. The data were collected from the CBN Statistical bulletin, Federal Inland Revenue Service, Federal Ministry of finance and were analyzed using simple regression analysis. The study found that VAT revenue and total government revenue was having 92% variations in the GDP, and thus suggesting VAT revenue having significant effect on Nigeria economic development.

Between the period 1994 and 2014, Nasiru, Haruna and Abdullahi (2016) collected data from CBN, National bureau of statistics and examined VAT effect on the Nigeria economic growth. The data were analyzed by the study using Johansen (1988) co-integration test and found that VAT had significant effect on the growth of Nigerian economy.

Secondary data were used by Oseni (2016) to examine VAT effect on profile of government's revenue generation in Nigeria. Based on the result of the analysis, the study found that VAT had positive effect on the profile of government revenue generation in Nigeria economic growth and development.

Simple linear regression was used by Adegbie, Folajimi, Jayeoba, and Kwabai (2016) to test the VAT effect on the growth and development of Nigeria economy. According to the result of the analysis from the study, it was observed that VAT has significant effect on the growth of Nigeria economy. Contribution to growth also affects the development of the economy.

The period between 1994 and 2012 was used to assess how VAT affects economic growth in Nigeria by Ofishe (2015) and the study collected data from the CBN statistical bulletin, the Federal Inland Revenue service (FIRS), Federal ministry of statistics. The result of the ordinary least square regression used in the study revealed VAT had positive significant effect on total revenue in Nigeria.

The regression result in the study by Afolayan and Okoli (2015) indicated that the annual revenue generated is insufficient to reflect economic growth due to VAT administration issues and that the income generated from VAT together with other sources of income was not utilized as expected.

The study by Izedonmi and Jonathan (2014) found a significant effect between the roles of VAT and economic growth of Nigeria. Secondary data were used by the study and regression approach provided the result in the study.

3. Methodology

An ex-post facto research approach was adopted for this study because the data obtained are already in existence and cannot be manipulated or altered. The study collects data covering 1994 to 2018 and examines VAT and GDP effects on Nigerian economy. This study made use of secondary data which were collected from CBN statistical bulletin, FIRS reports, Federal office of statistics and federal ministry of finance and ordinary least square analysis was employed by the study to analyze the data.

Model Specification

Econometric models were formulated through the use of Ordinary Least Squares regression (OLS):

$GDP = f(VAT)$ …… *(1)*

$TREV = f(VAT)$ …… *(2)*

The functional models are represented in equation 2 and 3 respectively:

$GDP = b_0 + b_1 VAT + e$ …… *(3)*

$TREV = b_0 + b_1 VAT + e$…… *(4)*

Where b_0 and b_1 = constants

GDP = Gross domestic product

VAT = Value added tax

e = Error term

TREV = Total Revenue

A priori Expectation

This section explains the expected signs of the variables in the model and also reveals how the independent variable relate to the dependent variables in the model.

Variable	Expected sign
VAT	+

The a priori expectation is expressed as:

Model 1: $\frac{GDP}{VAT} = b1 > 0$

Model 2: $\frac{TREV}{VAT} = b1 > 0$

4. Results and Discussion

Table 1: Summary of the Descriptive Statistics of the Study variables

	GDP	TREV_BILLIONS	VAT_BILLIONS
Mean	41913.82	4558.394	3168.774
Median	28662.47	2167.880	1105.668
Maximum	134635.7	12175.88	9989.907
Minimum	1762.813	116.6120	82.00000
Std. Dev.	40381.57	4460.309	3539.088
Skewness	0.778058	0.464574	0.748075
Kurtosis	2.355682	1.507471	1.796588
Jarque-Bera	2.954833	3.219746	3.840279
Probability	0.228227	0.199913	0.146587
Sum	1047845.	113959.8	79219.35
Sum Sq. Dev.	3.91E+10	4.77E+08	3.01E+08
Observations	25	25	25

Source: Eviews, 9.0, 2019

The Table 1 showed that GDP at basic price had averaged value of N41.9 Trillion, VAT collected by FIRS for the period shows averaged value of N3.2 trillion. In addition, it was revealed by the Table 1 that all the series of the variables selected are positively skewed,

kurtosis statistics shows that the series was platykurtic (lowly peaked) as the statistics were below three (the threshold), implying that the series had no lower tendency of having outliers.

Table 2: OLS Result for Model 1

DependentVariable:GDP_AT_BASIC_PRICE_BILLIONS

Method: Least Squares

Date: 07/01/19 Time: 15:13

Sample: 1994 2018

Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6776.236	2634.129	2.572477	0.0170
VAT_BILLIONS	11.08870	0.560767	19.77416	0.0000

R-squared	0.944447	Mean dependent var	41913.82
Adjusted R-squared	0.942031	S.D. dependent var	40381.57
S.E. of regression	9722.533	Akaike info criterion	21.27890
Sum squared resid	2.17E+09	Schwarz criterion	21.37641
Log likelihood	-263.9862	Hannan-Quinn criter.	21.30594
F-statistic	391.0175	Durbin-Watson stat	0.656228
Prob(F-statistic)	0.000000		

Source: Eviews, 9.0, 2019

The OLS result in Table 2 showed that there exists a positive relationship between VAT and GDP. Specifically, a unit increase in VAT will increase GDP by 11.088 unit. This result conforms to a priori expectation. The t-statistics is 2.57 which indicate that value added tax

is statistically significant at 5% conventional level. In measuring the explanatory power of the model, the adjusted R-squared showed that VAT explains up to 94% systematic variation in economic growth. This leaves 0.06% unexplained variation which may be captured by institutional factors. The F-statistics which measures the robustness of the variables put together indicates a high level of significance at 1% and thus shows that the explanatory variables have been well and carefully selected. The table showed that there is the presence of autocorrelation in the model as indicted by the D-W statistics value of 0.66 since it is less than 1.5. The model selection criteria values with 21.27, 21.37 and 21.30 indicates that the model selection is good.

Table 3: OLS Result for Model 2

Dependent Variable: TREV_BILLIONS

Method: Least Squares

Date: 07/01/19 Time: 15:35

Sample: 1994 2018

Included observations: 25

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1061.074	595.9798	1.780385	0.0882
VAT_BILLIONS	1.103683	0.126875	8.698956	0.0000

R-squared	0.766904	Mean dependent var	4558.394
Adjusted R-squared	0.756770	S.D. dependent var	4460.309
S.E. of regression	2199.753	Akaike info criterion	18.30670
Sum squared resid	1.11E+08	Schwarz criterion	18.40421
Log likelihood	-226.8337	Hannan-Quinn criter.	18.33374
F-statistic	75.67184	Durbin-Watson stat	2.123953
Prob(F-statistic)	0.000000		

Source: Eviews 9.0, 2019

The OLS result in Table 3 showed that value added tax has a positive relationship with tax revenue generated in Nigeria. Specifically, a unit increase in VAT will increase tax revenue by 1.103 unit. This result conforms to a priori expectation. The t-statistics is 1.78 which indicate that value added tax is statistically significant at 5% conventional level, and measuring the explanatory power of the model, the adjusted R-squared showed that value added tax explains up to 76% systematic variation in tax revenue generated. This leaves 24% unexplained variation which may be captured by institutional factors. The F-statistics which measures the robustness of the variables put together indicates a high level of significance at 1% and thus shows that the explanatory variables have been well and carefully selected.

It was showed by the table that there is absence of autocorrelation in the model as the D-W statistics value of 2.12 is less than 2.5, thus we can conclude that there is no level of autocorrelation problem in the model. The model selection criteria value with 18.30, 18.40 and 18.33 indicates that the model selection criteria is good.

Hypothesis One

H_0: In Nigeria, VAT effect on the economic growth is not significant. The result of the analysis indicates that the null hypothesis fails at 5% level of confidence, thus it should not be accepted. This result agreed with the findings of Ramot and Ichihashi, (2012), Popoola (2009), Saheed, Abarshi, and Ejide (2014) who found VAT effect on economic growth in Nigeria to be positively significant.

Hypothesis Two

H_0: In Nigeria, VAT effect on revenue generation is not significant. The result of the analysis indicates that the null hypothesis fails at 5% level of confidence, thus it should not be accepted. This result supports the findings of Tomljanocich (2014), Worlu and Emeka (2012), Uremadu and Ndulue (2011) who found a positive significant effect of VAT on revenue generation in Nigeria.

5. Conclusion and Recommendations

This study examines VAT and its effect on Nigeria economic growth. The study employed OLS to analyze data through the use of Eviews 9.0 and the result shows that VAT had positive significant effect on the Nigeria economic growth. Also, it was revealed that VAT had positive significant effect on total tax revenue generated in Nigeria. Therefore, it is concluded by the study that VAT system in Nigeria has significant effect on economic growth within the period studied. The outcomes of this study contributed immensely to the existing literature that had similar findings.

It is recommended specifically for policy formulations in Nigeria that:

i. Government needs to ensure proper management of tax system to enhance its revenue.

ii. Friendlier economic policies and macroeconomic adjustments should come up by the government.

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