VALUE ADDED TAX AND ECONOMIC GROWTH IN NIGERIA

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Abstract
The study investigates Value Added Tax (VAT) and Economic Growth in Nigeria. The objectives of the study are to examine the impact of value added tax and economic growth and to determine the causal relationship between value added tax and economic growth in Nigeria. Secondary data sourced from Central Bank of Nigeria Statistical Bulletin was used for the study. The data properties were tested for unit root using Augmented Dickey-Fuller, Bound test co-integration was used to test for the long run relationship between the variables.

The result revealed that value-added tax positively and significantly impacted on economic growth of Nigeria both in the long-run and short-run. The causality test also indicated that there was a causal relationship between Value Added Tax and economic growth in Nigeria during the period under study. The study therefore recommended that government should increase the VAT rate and eliminate every VAT revenue leakage since it was found to have positive effect on economic growth in Nigeria.

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1. Background to the study

The need for tax payments has been a phenomenon of global significance as it affects every economy irrespective of national differences (Oboh & Isa, 2012). Tax revenue all over the world plays a vital role in the development of an economy; this facilitated many nations to introduce value added tax on goods and services. Tax imposition and its collection mostly depend upon a country’s economic structure, its developmental phase, growth of its service sector, extent to which the country has been industrialized, and its employment level.

Taxes therefore affect the expenditure size of government, the productivity and level of activities of businesses, the consumption pattern of individuals, the propensity to save and invest as well as the growth path of the economy. The economic growth of any nation depends on the amount of resources generated and under its control to finance its infrastructural need and meet its day-to-day expenditure. The resources needed are believed to be generated from external and internal - through a structured tax system. One of the precedences for the introduction of Value Added Tax (VAT) in Nigeria was based on the fact that taxation as an instrument of fiscal policy is vital in generating revenue to finance the activities of government, redistribute income, stabilize the economy as well as stimulate growth and development.

VAT is a tax on estimated market value added to a product or service at each stage of its manufacture or distribution and the additions are ultimately added to the final consumer. End users of products and services bear the tax burden or the incidence because they cannot recover the tax paid on the consumption of goods and services. On the other hand, businesses can recover VAT they pay on goods and services because those goods and services are like intermediate goods and services. They use them to produce further goods and services that will be sold to other businesses in the supply chain or directly to final consumers. Value added tax is levied at each stage on value added in the economic chain of supply and it is a constant rate. In Nigeria, the VAT rate was 5% and an attempt to raise it to 10% met stiff resistance from the Nigerian Labour Congress (NLC). However, on Thursday, November, 21, 2019, The finance bill 2019 was passed by the Senate after scaling through the third reading on the floor of the Senate and signed into Law by the President of the Federal Republic of Nigeria which hitherto, raising the revenue for government, by various fiscal measures, including increase in the rate of value added tax from 5% to 7.5% and became effective in February, 2020.
Value added tax 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. Kamruddin-Parvez (2012), on the other hand, said “Value Added Tax (VAT) is a type of consumption tax that is placed on a product whenever value is added at a stage of production and at final sale”. It is 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 the production or distribution chain. Similarly, Sanni (2012) said VAT is imposed on the supply of all goods and services other than those goods and services listed in the First Schedule to the VAT Act.

From the foregoing, VAT can be defined as a form of indirect tax that is charged and collected on the value added at each stage of the production and distribution process which is borne by the final consumer through the price he pays for the product.

Countries all over the world look for ways to boost their revenue, this facilitated many nations to introduce value added tax on goods and services. For instance, in Africa VAT has been introduced in Benin Republic, Cote d’Ivoire, Guinea, Kenya, Madagascar, Mauritius, Senegal, Togo and Nigeria in particular. Evidence suggests that in these countries VAT has become an important contributor to government revenue (Ajakaiye, 2000; Adereti, Adesina and Sanni, 2012).

Nigeria introduced VAT in 1993; however, its full implementation began on 1st January, 1994. This has attracted the attention of researchers and academia on its benefit to the economic growth of Nigeria. Economic growth measures the increase in the national income or total volume of production of goods and services of a country accompanied by improvements in the total standard of living of the people. Therefore, Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period of time to another.

**Statement of the problem**

Despite various governments’ efforts at enacting laws on VAT, Nigeria's economy is yet to feel the impact, enormous revenue that flows into the government treasury. Meanwhile, there are critics who argued that incidence of consumption tax (VAT) like other taxes are regressive.

A cursory look at previous studies conducted on the effects of value added tax on economic growth revealed that there are mixed findings from researchers. For instance, authors like Manukaji and Nwadialor (2016) adopted the OLS method used for the
study, Afolayan and Okoli (2015) employed the ECM and Granger causality test, Ofishe (2015) used OLS technique and found out that VAT had positive and significant effect on economic growth in Nigeria, while Yelwa and Awe (2016) used OLS and Granger causality technique, Denies (2010) discovered that VAT does not have any impact on the economic growth of Nigeria. However, in view of the research problem, the research questions are: What is the impact of consumption tax on economic growth in Nigeria? and What is the causal relationship between consumption tax and economic growth in Nigeria? The general objective of the study therefore is to examine the relationship between consumption tax and economic growth in Nigeria between 1994 and 2017. The specific objectives are to examine the impact of consumption tax and economy growth in Nigeria over the period as well as determine the causal relationship between consumption tax and economic growth in Nigeria.

To achieve the objectives of this study, the following hypotheses were formulated:

H0₁: There is no significant relationship between consumption tax (VAT) and economic growth in Nigeria over the period.

H0₂: There is no causal relationship between consumption tax (VAT) and economic growth in Nigeria over the period.

This study covered consumption tax and economic growth proxied by Gross Domestic Product (GDP) for the years 1994 to 2017. The years 1994 to 2017 are relevant to the study because they covered the years of the VAT experience in the country from its inception to 2017. This, it is hoped, will give a picture of the manner in which VAT has contributed to economic development in Nigeria.

The significance of the study hinges on the fact that extensive studies have been done on various aspects of the operations of consumption tax (VAT) in Nigeria, but not much had been done in study of VAT contribution to GDP, particularly up to 2017. This study is therefore imperative to adding to whatever studies already existed in the past on VAT. It will also help to increase awareness of what the government can do to improve the effectiveness of VAT in Nigeria. Furthermore, this study will serve as a bundle of literature to other researchers and students and policy makers in the area of value added tax.

2. Literature review

Development of VAT in Nigeria

The history of VAT in Nigeria dates back to 1991 when the Federal Government felt there was a need to review the entire system of taxes in the country with a view to
expanding the financial base for revenue generation (FIRS, 1999; Abdul-Rahman, Joshua & Ayorinde, 2013). Abdul-Rahman, et al. (2013) further argued that this became necessary because sales tax could not guarantee wider and better tax administration, as many states were resentful of its uniform nature due to differences in their political orientation. Sanni (2012), in his own contribution, said “before the advent of VAT, sales tax was under the jurisdiction of the States and generally poorly administered with marginal contribution in terms of revenue”. The rationale behind the adoption of VAT in Nigeria can be summarized as the need to achieve:

i. Simplification of indirect tax system
ii. Enhancement of tax neutrality in international trade
iii. Reduction in tax evasion, and
iv. Expansion of tax base promotion and investment.

A committee was set up and charged with the responsibility of carrying out the review (Soyode & Kajola, 2006; Gyang, 2012; Unegbuv & Irefin, 2011). The committee completed its work on November 15, 1991 and made the following recommendations, among others:

i. The Government should introduce Modified Value Added Tax (MVAT) in Nigeria;

ii. The Government should allow a lead time period of two years between 1991, when the study group submitted its report, and the time the MVAT will be implemented in Nigeria to allow for adequate preparation for the scheme;

iii. MVAT, when introduced, should:
   a. Replace sales tax in its entirety
   b. Have a single rate
   c. Cover manufacturer’s and importer’s level in goods
   d. Cover professional services excluding medical and pharmaceutical services, and
   e. Pay special attention to State-Federal fiscal relationship.

The Federal Government, therefore, decided to abolish the sales tax and introduced the VAT system by virtue of Decree No. 102 of 1993, which took effect from January 1, 1994 (Okoye and Ezugwu, 2012).

**VAT as a replacement of sales tax**

VAT is a replacement of the then existing Sates Tax which operated under the Federal Government legislated Decree No. 7 of 1993, but was operated on the basis of residence.
The rationale behind replacing Sales Tax with the Value Added Tax was formed by a number of factors and considerations, notably:

(i) The base of the States’ Tax in Nigeria was narrow. It covered only nine categories of goods plus sales and services in registered hotels, motels, and similar establishments. The narrow base of the tax negated the fundamental principle of consumption tax which by nature is expected to cut across all consumable goods and services. VAT base is broader and includes most professional services and banking transactions which are high profit-generating sectors.

(ii) Only locally manufactured goods were targeted by the Sales Tax Decree, although this might not have been the intention of the then effective law. VAT is neutral in this regard. Under VAT, a considerable part of the tax to be realized is from imported goods. This means that under the new VAT, locally manufactured goods will not be placed at a disadvantage relative to imports.

(iii) Since VAT is based on the general consumption behaviour of the people, the expected high yield from it will boost the fortunes of the state governments with minimum resistance from the payers of the tax.

The nature of the VAT

Value Added Tax is a consumption tax that has been embraced by many countries worldwide. Because it is a consumption tax, it is relatively easy to administer and difficult to evade. The yield from VAT is a fairly accurate measurement of the growth of an economy since purchasing power (which determines yield) increases with economic growth.

VAT is a self-assessment tax that is paid when returns are being rendered. In-built is the refund or credit mechanism which eliminates the cascading effect that was a feature of the retail sales tax. The input-output tax mechanism in VAT also makes it self-policing because of the need to obtain receipts at each stage of the transaction. Although VAT is a multiple stage tax, it has a single effect and does not add more than the specified rate to the consumer price no matter the number of stages at which the tax is paid.

2019 Finance bill on VAT

The Bill amends section 2, 4, 10, 15, 46 and the First Schedule of the VAT Act and proposes the following:

• Services will be deemed to have been provided in Nigeria and therefore subject of VAT where the recipient is in Nigeria, regardless of whether the services were rendered within or outside Nigeria. However, where the recipient of a service is
outside Nigeria, such service shall be deemed “exported service” and hence not chargeable to VAT.

- On the other hand, the Bill further clarifies that services rendered to the fixed bas or permanent establishments of non-resident persons do not qualify as exported service and are therefore subject to VAT.

The proposed definition of “exported service” in the Bill suggests that the service provided must flow directly from the Nigerian resident to the person resident outside Nigeria. This means that exported service as contemplated by the Bill, does not include a transaction where the service in question flows from Nigerian resident to another Nigerian resident to another Nigerian resident third party on behalf of or for the benefit of non-resident persons in Nigeria. This also includes the following:

- Exemption of companies with annual turnover of less than Twenty-Five Million Naira (N25,000,000.00) from the requirement of filing VAT returns;
- Removal of the requirement for foreign entities carrying on business in Nigeria to register for VAT in Nigeria and include VAT charges in their invoices;
- Specific description of what constitutes basic food items, within the meaning of the VAT Act, for VAT exemption purposes;
- The definition of goods and services has been expanded to cover intangible items that a person has ownership interest in, or derives benefit from, and which can be transferred to another person, other than land;
  - Exemption of locally manufactured sanitary pads, tampons, and towels from VAT; and
  - Exemption of nursery, primary, secondary, and tertiary education tuition levies from VAT.

**Empirical review**

Several empirical studies have been conducted on the impact of taxes on economic growth. Okafor (2012) investigated the impact of income tax revenue on the economic growth of Nigeria as proxied by the gross domestic product (GDP). The study adopted the ordinary least square (OLS) regression analysis technique to explore the relationship between the GDP (the dependent variable) and a set of federal government income tax revenue over the period (1981-2007). The regression results indicated a very positive and significant relationship between the components of tax revenue and the growth of Nigeria's economy.

Adereti, et al. (2011) studied value added tax and economic growth in Nigeria. Time series data on the Gross Domestic Product (GDP), VAT Revenue, Total Tax Revenue and Total (Federal Government) Revenue from 1994 to 2008, sourced from
Central Bank of Nigeria (CBN) were analyzed using both simple regression analysis and descriptive statistical method. Findings showed that the ratio of VAT Revenue to GDP averaged 1.3% compared to 4.5% in Indonesia, though VAT Revenue accounts for as much as 95% significant variations in GDP in Nigeria. A positive and significant correlation exists between VAT Revenue and GDP. Both economic variables fluctuated greatly over the period, though VAT Revenue was more stable. No causality exists between the GDP and VAT Revenue, but a lag period of two years exists.

Akwe (2014) analyzed the impact of Non-oil Tax Revenue on Economic Growth from 1993 to 2012 in Nigeria. These data were analyzed using the Ordinary Least Squares Regression. The result from the test revealed that there was a positive impact of Non-oil Tax Revenue on economic Growth in Nigeria.

Onaolapo, et al. (2013) 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 Bulletin (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.

Ogbonna and Ebimobowei (2012) investigated the impact of petroleum profit tax on the economic growth of Nigeria. To achieve the objective of the paper, relevant secondary data were collected from the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS) from 1970 to 2010. The secondary data collected from the relevant government agencies in Nigeria were analyzed with relevant econometric tests of Breusch-Godfrey Serial Correlation LM, White Heteroskedasticity, Ramsey RESET, Jarque Bera, Johansen Co-integration and Granger Causality. The results show that there exists a long run equilibrium relationship between economic growth and petroleum profit tax. It was also found that petroleum profit tax does Granger cause gross domestic product of Nigeria.

Smith, et al. (2011) analyzed the contribution and performance of VAT in Bangladesh compared to other developing countries. The results showed that the performance of VAT was quite satisfactory in the initial years; afterwards, VAT collection remained stagnant at a certain level. The study found out that the stagnation happened as a result of: relatively small number of VAT tax-payers, general lack of awareness, and a weak monitoring system.

Manukaji and Nwadialor (2016) investigated the impact of VAT on economic growth in Nigeria (2005 to 2014). The study used data from CBN statistical bulletin. OLS method was used in the study. The outcome showed that VAT positively
contributed to the overall government revenue leading to increase in economic growth of Nigeria.

Aperé and Durojaiye (2016) in their study empirically analyzed the association between VAT, total government revenue and GDP from 1994 and 2014. Using simple regression, the result showed a meaningful positive association between VAT, total government revenue and GDP over the period under review.

Afolayan and Okoli (2015) in their empirical study carried out an analysis of how VAT has impacted on Nigeria’s economic growth from 1994 to 2012 by employing the ECM and Granger causality test. The results revealed an insignificant positive relationship between VAT revenue and RGDP. Granger Causality test established that the association connecting VAT and real GDP was unidirectional.

Ofishe (2015) in his study used OLS technique to empirically analyse the impact of VAT on economic growth in Nigeria (1994 to 2012). The result demonstrated that VAT meaningfully impacted on economic growth and total tax revenue in Nigeria.

3. Research methodology

Source of Data

For the purpose of this study, secondary data were utilized which were collected from various publications of the Central Bank of Nigeria (CBN) Statistical Bulletins and annual reports. The data were collected on Value Added Tax (VAT) and Real Gross Domestic Product (GDP) of Nigeria over the period 1994 to 2017 since VAT was introduced in Nigeria in 1994.

Method of data analysis

For the purpose of this study, data analysis was carried out using the Autoregressive Distributive Lag (ARDL) computed using the E-Views Econometric Software. Before carrying out the ARDL analysis, the unit root test properties of the variables were ascertained (Dang, 2013). The Augmented Dickey-Fuller (ADF) Unit Root Tests (Gujarati & Porter, 2009) was conducted to ascertain the stationarity of the data before performing the test.

After the ADF test showed that the variables are stationary at different stages, the bounds test approach to cointegration was conducted, to ascertain if the variables have a long-run relationship. In order to test the fitness of the model to the data, the following residual tests were conducted which included the Breusch-Godfrey Serial Correlation Test, Jacque-Bera Normality Test and Breusch-Pagan-Godfrey Heteroskedasticity test.
Model specification

In order to analyze the effect of consumption tax (VAT) on economic growth (proxied by RGDP) in Nigeria the equation 3.1 is expressed in an implicit form;

$$\textit{RGDP} = f(\textit{VAT})$$  \hspace{1cm} 3.1

Equation 3.2 expressed in an explicit form became:

$$\textit{RGDP}_t = \beta_0 + \beta_1\textit{VAT}_t + e_t$$  \hspace{1cm} 3.2

Equation 3.3 expressed in log form became;

$$\log \textit{RGDP}_t = \beta_0 + \beta_1 \log \textit{VAT}_t + e_t$$  \hspace{1cm} 3.3

Where:

$\beta_0$ in the regression stand for the intercepts of relationship in the models

$\beta_1$ stands for the regression coefficients for the model.

$e$ = for the error terms

$t = \text{i}th$ of the observation of the time series data (1994-2017)

Log is the natural logarithm.

RGDP is used as the dependent variable (₦’ billion).

VAT is the independent variable (₦’ billion).

APriori expectation

The coefficient of consumption tax (VAT) is expected to be positive i.e. $\beta_1 > 0$. This implied VAT was expected to have a positive effect on RGDP.

In order to achieve the objective of determining the causality between VAT and Economic Growth, the causality model is as stated below:

In Granger’s test, Granger causality relationship is expressed in two pairs of regression equations by simply twisting independent and dependent variables. Therefore, the equation becomes:

$$\textit{RGDP}_t= \phi_1 + \sum \phi_j \textit{RGDP}_{t-j} + \sum \phi_j\textit{VAT}_{t-j} + e_{1t}$$  \hspace{1cm} 3.4

$$\textit{VAT}_t = \beta_2 + \sum \beta_j \textit{VAT}_{t-j} + \sum \beta_j \textit{RGDP}_{t-j} + e_{2t}$$  \hspace{1cm} 3.5

$\phi$ is the coefficients to be determined.

$\beta$ = as defined earlier

$\Sigma$ represent summation.
4. Results and outcomes

Unit root test

This test was based on two forms which were at level and first difference respectively and it was carried out using Augmented Dickey-Fuller (ADF) test. Result (Table 1) of the ADF test conducted on the variables revealed that LOGRGDP was not stationary at level but became stationary at first difference which also mean that it was integrated of order one I (1). On the other hand, LOGVAT became stationary at level which implied that the variable was integrated of order zero I (0).

### Table 1

**Augmented Dickey-Fuller (ADF) Unit Root Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Augmented Dickey-Fuller (ADF) Unit Root Test</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level (intercept and trend)</td>
<td>1st difference (intercept and trend)</td>
</tr>
<tr>
<td></td>
<td>T-Statistic</td>
<td>Probability value</td>
</tr>
<tr>
<td>LOGRGDP</td>
<td>-2.421</td>
<td>.363</td>
</tr>
<tr>
<td>LOGVAT</td>
<td>-3.932</td>
<td>.000</td>
</tr>
</tbody>
</table>

*Source: Authors’ Computation (2019).*

Lag Length Determination

Result (Table 2) revealed that one lag was the optimum lag length based on the three criteria.

### Table 2

**Optimum Lag Length Selection**

<table>
<thead>
<tr>
<th>Lag</th>
<th>AIC</th>
<th>HQIC</th>
<th>SIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-.011</td>
<td>.008</td>
<td>.088</td>
</tr>
<tr>
<td>1</td>
<td>-7.376*</td>
<td>-7.318*</td>
<td>-7.077*</td>
</tr>
<tr>
<td>2</td>
<td>-7.187</td>
<td>-7.090</td>
<td>-6.690</td>
</tr>
<tr>
<td>3</td>
<td>-6.959</td>
<td>-6.823</td>
<td>-6.262</td>
</tr>
<tr>
<td>4</td>
<td>-6.917</td>
<td>-6.742</td>
<td>-6.021</td>
</tr>
</tbody>
</table>

*indicated optimum lag length
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

*Source: Authors’ Computation (2019).*
Bounds Test

Since the variables were mixture of I (0) and I (1), the bounds test approach to cointegration as suggested by Pesaran, Smith and Shin (2001) was applied. The result of the bounds test (Table 3) showed that the value of $F$-statistic lies above the 95% upper bound value (6.617) of Pesaran test statistic, an indication that the null hypothesis, that there was no long-run association among the variables was rejected. This guaranteed the conduct of error correction needed for the estimation of long-run dynamics.

Table 3

<table>
<thead>
<tr>
<th>Model</th>
<th>ARDL</th>
<th>F-stat.</th>
<th>Diagnostic Tests</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGRGDP = f(LOGVAT)</td>
<td>ADL (1,0)</td>
<td>8.358</td>
<td>Chi-square (2) (Normality)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chi-square (1) (Heteroscedasticity)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Chi-square (1) (Autocorrelation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>.800 [.670]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.057 [.304]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.254 [.263]</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Lower bounds I(0)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Upper bounds I(1)</td>
<td></td>
</tr>
<tr>
<td>5%</td>
<td></td>
<td>5.693</td>
<td>6.617</td>
<td></td>
</tr>
<tr>
<td>10%</td>
<td></td>
<td>4.461</td>
<td>5.254</td>
<td></td>
</tr>
</tbody>
</table>

Source: Author’s Computation (2019).

Long-Run Estimate

The result (Table 4) of long-run estimation showed that LOGVAT was statistically significant (conformed to a priori expectation). From the estimated coefficient of .352, it implied that a-one-per cent increase in value-added tax would result in approximately 35% increase in real gross domestic product in Nigeria. This is an indication that an increase in value-added tax would also contribute to economic growth in Nigeria in the long-run.

Table 4

Results of Long-Run Model

<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>LOGVAT</td>
<td>.352</td>
<td>.012</td>
<td>29.076</td>
<td>.000</td>
</tr>
<tr>
<td>C</td>
<td>8.817</td>
<td>.071</td>
<td>124.939</td>
<td>.000</td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2019).
**Short-Run Estimate**

The result (Table 5) of short-run dynamics depicted that the coefficient of LOGVAT was .107 with probability value of .000 (conformed to a priori expectation). This result implied that a one per cent increase in value-added tax would result in 11% increase in gross domestic product in Nigeria in the short-run. This result was an indication that an increase in value-added tax would result in an increase in real gross domestic product in the short-run.

The ECM was negative and highly significant, which further lent credence to co-integration between the variables under investigation. The feedback coefficient was -.304 which suggested that about 30% disequilibrium was corrected in the current year. Hence, when real gross domestic was above or below its equilibrium level, it adjusted by approximately 30% within the first year to ensure full convergence to its equilibrium level.

<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>DLOGVAT</td>
<td>.107</td>
<td>.018</td>
<td>5.949</td>
<td>.000</td>
</tr>
<tr>
<td>ECM (-1)</td>
<td>-.304</td>
<td>.051</td>
<td>-5.995</td>
<td>.000</td>
</tr>
<tr>
<td>R – Squared = .643</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F – Statistic = 18.047</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin – Watson Statistic = 1.442</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Authors’ Computation (2019).

**Granger Causality Test**

Results (Table 6) of causality test revealed that bidirectional causality existed between value-added tax and economic growth in Nigeria during the period under study. Based on this finding, null hypothesis two was rejected and the study concluded that there existed a causal relationship between value-added tax and economic growth in Nigeria at 5% critical level.
### Granger Causality Result (Lag 1)

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Obs. 23</th>
<th>F-Statistic</th>
<th>Probability</th>
<th>Decision</th>
<th>Direction</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOGVAT does not Granger Cause LOGRGDP</td>
<td>16.259</td>
<td>.000</td>
<td>Rejected</td>
<td>Causality</td>
<td></td>
</tr>
<tr>
<td>LOGRGDP does not Granger Cause LOGVAT</td>
<td>10.292</td>
<td>.004</td>
<td>Rejected</td>
<td>Causality</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors’ Computation (2019).

### Discussion of Findings

The study focused on the relationship between value-added tax and economic growth in Nigeria between the period of 1994 and 2017. From the result, LOGVAT had positive and significant effect on LOGRGDP in the long-run while it had a positive and significant effect on LOGRGDP in the short-run. This finding implied that value-added tax had contributed immensely to economic growth in Nigeria. The finding was in line with the finding of Adereti, Sanni and Adesina (2011), Umeora (2013) and Onwuchekwa and Aruwa (2014) who found that value added tax contributed significantly to economic growth in Nigeria while the finding was not in conformity with the findings of Izedonmi and Okunbor (2014) who found in their study that value-added tax does not impact on economic growth in Nigeria.

### 5. Conclusion

The study sought to examine the effect of value-added tax on economic growth in Nigeria for the period of 1994 to 2017. Results revealed that value-added tax had a positive and significant effect on economic growth in Nigeria both in the long-run and short-run respectively. In addition, the Granger causality test indicated that there was a causal relationship between value-added tax and economic growth in Nigeria during the period under study.
Based on the findings, the study therefore recommended that the government should increase the VAT rate since it was found to have positive effect on economic growth in Nigeria. The VAT act should also be reviewed to enlarge its scope of coverage, as a means of increasing revenue generation, It should also be done in such a way that it will strengthen the collection machinery, remove loopholes and make room for a more efficient VAT system and the government should ensure that revenue collected through consumption tax (VAT) is effectively utilized for infrastructural developments that are visible for tax payers to see and appreciate.

References


