VALUE ADDED TAX AND ECONOMIC GROWTH OF NIGERIA

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Abstract
This study investigated the impact of Value Added Tax on the economic growth of Nigeria using time series data from 1994 to 2017. The objectives of the study include; to empirically investigate the impact of value added tax on the economic growth of Nigeria. Relevant literature materials were reviewed to gain insight into the study and draw inferences. The statistical tools employed in the data analysis is simple regression analysis with the use of E-views version 9. The results from the models revealed a strong positive significant of Value Added tax on economic growth of Nigeria as proxy by GDP in Nigeria. The recommendation includes broadening the tax base and brings VAT administration closer to the people. Government was advised to utilize VAT proceeds to improve the standard of living of the populace by providing necessary infrastructure that will encourage people to contribute more to the economy.

Keywords: Economic Growth, Federally Collected Revenue, Gross Domestic Product, Inflation, Value Added Tax

Introduction

Every government requires revenue to execute its governance programmes. Sources of revenue from which government receives funds to execute its projects is taxes. Taxation is an instrument of fiscal policy vital in generating revenue to finance the activities of government, redistribute income, stabilize the economy as well as stimulate growth and development.

There are different forms of taxes levied by the government to generate revenue for its expenditure. One of such which is being investigated for this study is Value Added Tax. Since the introduction of Value Added Tax in 1994, it has been a major source of revenue for the Federal Government. Value Added Tax is already a significant source of non-oil revenue in Nigeria (Ajakaiye 2000; Adereti, Adesina, and Sanni 2011). VAT in Nigeria appears to be one of the lowest across the globe. In order to reduce the incidence of evasion and avoidance, the Federal Government introduced the Value Added Tax in January 1994 as a consumption tax to replace Sales Tax so as to improve its resource base in order to cope with its mountainous responsibilities. It can be seen that value added tax is a more effective and equitable way of sharing tax to various income categories in the economy.

Soyode and Kajola (2006) averred that value added tax is a consumption tax, the incidence of which is borne by the final consumer and it is relatively easy to administer and difficult to evade. Despite the lesser evasion problems associated with value added tax, Naiyeju (2010) stated that value added tax can lead to increase in prices thereby causing inflation in the country in addition to the high administrative cost due to the expanded base of the tax. Fijabi (2019) posited that VAT payment is borne by children and unemployed who can afford to purchase vatable goods. This is

subject to ability to pay.

Since the introduction of value added tax in Nigeria, it has contributed significantly to the collective indirect taxes collected by various governments. In Nigeria, the Federal Ministry of Finance has the responsibility of formulating and executing fiscal policy based on the state of the economy. As usually contained in budget speech, the goals of fiscal policy are to address the Gross National product (GNP), exchange rate, employment, prices, incomes, interest rates and inflationary rates. The essence of fiscal policy is ensuring economic stability and growth. Capital formation raises productivity. Economic growth can be defined as the increase in the output of an economy overtime. The best measure is the gross national product (GNP). Development is not limited to generation of income but includes accumulation of physical and human capital.

Statement of the Problem

There is no doubt that VAT as a source of revenue to the government from inception has been encouraging but there is need to do more considering the potential of informal sector that is left untapped and their level of awareness to remit such money to the government. Some of them have their own version of tax collection which does not go to the government, there is need to bring them to VAT bracket. Data management is an issue affecting the coverage of people who are not yet covered in VAT collection.

There is need to determine those areas that can generate growth and bring development to the nation so that people can feel the impact of VAT collection. The lack of data prevents policy makers from assessing the potential impact of tax system on economic growth.

As a result of the above discussion, this study seeks to answer the following questions:

- How does Value Added Tax impact Nigerian economy as proxy by Gross Domestic Product?
- To what extent does Value Added Tax affect Federally Collected Revenue?
- What is the relationship between Value Added Tax, Federally Collected Revenue and Inflation in Nigeria?
- What is the relationship between tax players and tax authorities? How can the coverage of tax payers be expanded to increase participation of informal sector?

Objective of the Study

The main objective of the study is to empirically investigate the relationship between value added tax and economic growth of Nigeria.

Other objectives that are noteworthy are:

- Whether revenue from Value Added Tax (VAT) has any significant impact on the federally collected revenue in Nigeria
- Whether there is relationship between Gross Domestic Product, Value Added Tax, Federally Collected Revenue and inflation in Nigeria
- Whether the incidence of Value Added Tax (VAT) is not progressive like other indirect taxes

Hypotheses of the Study

The following null hypotheses shall form the major focus of this study

H_{01}: Value Added Tax (VAT) has not made any significant impact on the Economic Growth as proxy by GDP in Nigeria

H_{02}: Value Added Tax (VAT) has not made any significant impact on Federally collected revenue of Nigeria
H_{03}: Federally Collected revenue has not made any significant impact on the Economic Growth as proxy by GDP in Nigeria
H_{04}: There is no relationship between Value Added Tax, Federally Collected Revenue, Inflation and Gross Domestic Product

Review of Related Literature
In this chapter, conceptual, theoretical framework and empirical framework of Value Added Tax will be looked at.

Conceptual Framework
Tax is a form of compulsory transfer of resources from the private sector to the public sector levied on all taxable individuals, businesses and institutions without any benefits in return for the tax paid. Value added tax is a tax on the value added at each stage of the production and distribution of goods and services. The basic idea of VAT appeared with a German business man, Von Siemens writing in 1920s. The first VAT appeared in France in 1948 which initially applied up to the manufacturing stage and gave no credit for tax on capital goods. It was converted to a consumption type VAT by 1954. Manufacturing level VATs were adopted by Cote d'Ivore in 1960 and Senegal later in the 1960s. Onwuchekwa and Aruwa (2014) asserted that tax is a compulsory payment made by all concerned to the government of a nation from which essential services are provided without giving an account how the fund generated was utilized. Ochiogu (2005) defined value added tax as an indirect form of taxation based on the general consumption behavior of the people. It is a tax on spending expected to be borne by the final consumer of goods and services. Value Added Tax (VAT) originated from the developed countries of Europe and Latin America. For more than 50 years, VAT had been adopted by a lot of developing countries as mentioned earlier. A recent IMF study concludes that VAT is an effective method to raise revenues and modernize the overall tax system but this requires that the tax be well designed and implemented (Ebrill, 2002). The concept of value added tax is a consumption tax that is levied at a particular stage in the sale of a product or provision of service. The idea of VAT introduction over sales tax was to broaden the revenue base of the country.
Unlike other forms of taxes, VAT was not well known in theoretical discussion. It is said to be a key component of the tax system in over 115 countries generating about one-fourth (25%) of the world's tax revenue.

Evolution of Value Added Tax in Nigeria
According to the Federal Inland Revenue Service (FIRS), VAT originated as a result of the report of a study group set up by the Federal Government in 1991 to review the entire tax system. According to Anyanwu (1997), based on the recommendations of the study group, the government decided to adopt the Modified Value Added Tax (MVAT) in principle with a lead period of 2 years during which necessary machinery will be set in motion for the introduction of the scheme. Consequently, the government approved as follows:

a) In order to avoid a multiplicity of tax structures, MVAT when introduced will replace sales tax in its entirety
b) MVAT will have a single rate
c) MVAT will cover manufactures and importers' level in respect of goods

d) MVAT will cover professional services excluding medical and pharmaceutical services; and
e) MVAT legislation will pay special attention to State-Federal fiscal relationship

The preparatory action programme included registration of companies to be covered by MVAT, design and production of necessary forms, education of participants, and preparation of relevant legislation. The Federal Government then abolished the sales tax and introduced the VAT system by the virtue of decree 102 of 1993 which took effect from 1st January, 1994.
VAT is charged at a flat rate of 5% on selected items of goods and services. As contained in the document, exemptions are granted in respect of medical and pharmaceutical products, basic food items such as maize, rice, wheat, milk, and fish infant food items, books, newspapers and magazines, educational materials (laboratory equipment). Baby products such as carriages, clothes and napkins, as well as sanitary towels, commercial vehicles and spare parts, tractors, public transport, passenger vehicles, motorcycles, tanks and other armored fighting vehicles and bicycles, agricultural equipment such as those for soil preparation or cultivation, harvesting or threshing, milking and dairy machinery, poultry keeping machinery, veterinary medicine equipment, fertilizers and farming equipment (Ajakaiye 2000).
The tax is collected on behalf of the government by business organizations that are registered with the Federal Inland Revenue Services (FIRS) for VAT service. These business organizations can claim credit for this tax (input tax) when goods are sold and services rendered. VAT returns are also rendered monthly to the FIRS by these registered agents. The 5% VAT is also called the output tax less the input tax and is equivalent to the VAT paid by the final consumer of the product that will be collected by the government.

Objectives of the Value Added Tax
According to Nwezeaku (2005), the major objectives are:

- To eliminate or minimize the distortions to private savings and investment resulting from taxation by improving transparency and predictability and shifting its incidence towards expenditure rather than income
- To achieve greater fiscal flexibility in order to develop expenditure that can be maintained in the tax fluctuation in oil revenue by broadening the statutory base for taxation and its effective coverage.
- To distribute the burden of taxation more evenly across different goods and services through a broader coverage to avoid multiple taxation
- To consolidate and modernize the tax system in order to provide the base for strong revenue growth and flexible management in the economy
- To shift taxation towards consumption rather than income
- To reduce dependence on oil revenue
- To develop an approach to taxing luxury on consumption relatively higher and minimizing the impact on essential goods and services consumed by the low-income group

Theoretical Framework
Taxation forms the most important sources of revenue to the government. The value added tax (VAT) is one of such tax revenue sources today since its inception in 1994 in Nigeria. The theory of VAT can be traced to the works of Wilhelm von Siemens who proposed it as an alternative to

the German turnover tax. (Onwuchekwa and Aruwa, 2014). Due to its easy collection and administration, several countries across the globe including Nigeria adopted it as a source of revenue to the government. It becomes important to look at some theories of taxation since VAT is a sub set of taxation. This study is anchored on Benefits principle which is explained thus:

a) Benefit received theory (developed by **Erik Lindahl**) – the principle argue that people are motivated to pay taxes when they perceive that the money they pay to government is actually being used for their own benefit. This is based on the assumption that there is an exchange relationship between tax payers and the government. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefits received (Bhartia, 2009). Anyafo (1996), posited that taxes should be allocated according to benefits received. It is further argued that benefits received principle results in lower tax evasion. In Nigeria, citizens are not motivated to pay tax because they could not identify the use of tax paid by them.

Other theories considered are:

b) Cost of service theory – This is akin to benefits received theory. This implies that the cost of service will be borne by the citizenry. This is to say that citizens are not entitled to benefits and they must pay for the cost of any service received.
c) Faculty theories – This is also referred to as ability to pay theory (developed by **Arthur Cecil Pigou**). 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 in accordance with their ability to pay. It appears reasonable and just that taxes should be levied on the basis of the taxable capacity of an individual. The theory states that a tax payer should be taxed according to the ability to pay (Anyafo, 1996). On the other hand, Bhartia (2009), argued that a citizen is to pay taxes because he can, and his relative share in the total tax burden is to be determined by his relative paying capacity. The conclusion here is to maximize the distributive effects of taxes within the country.

Economic Growth Theory

According to Dwivedi (2004), economic growth is a sustained increase in per capital national output or net national product over a long period of time. Central Bank of Nigeria (2010) posited that economic growth is the amount of goods and services produced in the economy over time and that it is measured as the percentage increase in real gross domestic product. It implies that the rate of increase in total output must be greater than the rate of population growth. In another way, economic growth is the national output composed of goods and services which satisfy the maximum want of the maximum number of people. Economic growth can be determined by four important determinants viz human resources, national resources, capital formation, and technological development. The theory of economic growth was dated back to the period of Adam Smith. According to him, economic growth of a nation depends on the division of labour and is limited by the limits of division of labour. This view of Adam Smith was later overridden by the views of Ricardo, Malthus, and Mill. The growth theories proposed by these economists were referred to as classical theory of economic growth. During the 1930s and 40s, R.F. Harrod and Domar developed a ground breaking theory of economic growth – the capital accumulation theory of economic growth, popularly called Harrod-Domar theory of growth model. We look at the following theories of economic growth:

Harrod-Domar theory of Growth – these models are based on economic growth experiences of developed countries. They are primarily addressed to an advanced capitalist economy and attempt to analyze the requirements of a steady growth in such an economy. Harrod-Domar assigned a key role to investment in the process of economic growth with emphasis on the dual character of investment. Firstly, it creates income and secondly it augments the productive capacity of the economy by increasing its capital stock. The former may be referred to as the demand effect and the latter the supply effect of investment. To maintain a full employment equilibrium of income from year to year, it is necessary that both real income and output should expand at the same rate at which productive capacity of the capital stock is expanding. Invariably, it will adversely affect the economy by lowering incomes and employment in the subsequent periods and moving the economy into equilibrium level of steady growth.

The case is not achieved in Nigeria, the more tax received in Nigeria, the less development is achieved in terms of government investment in infrastructures that are supposed to serve as catalyst for economic growth.

The Solow model of long run growth – Solow postulated a continuous production function linking output to the inputs of capital and labour which are sustainable. He showed in his model that with efficient variable technical there would be a tendency for capital-labour ratio to adjust itself through time in the direction of equilibrium ratio.

In Nigeria, lack of or inadequate infrastructure can affect sustainable survival of business entities hence the need to make judicious use of revenue accruable to government.

Joan Robinson's model of capital accumulation – Joan Robinson in her book "The Accumulation of Capital" built a simple model of economic growth based on the capital rules of the game. The model shows that where net national income is the sum of the total wage bill plus total profits expressed as follows: $Y = wN + pK$

Empirical Studies

Tax is a compulsory transfer of resources or wealth from private sector. It is recognized that VAT rate all over the world is not the same. This is subject to the relationship between the government and the populace. The reaction of people to tax raised and the level of development achieved by the government could be a major determinant in the success of VAT. From various studies reviewed, no mention was made on expanding the tax bracket of people involved in VAT collection There is still a large bracket of people who are not yet covered under VAT and there are a lot of people who are not aware ofs VAT collection in Nigeria since its inception.

Umeora (2013), in his study on the effects of value added tax (VAT) on economic growth and total tax revenue in Nigeria, showed that VAT has significant effect or impact on economic growth (GDP) and total tax revenue. Similarly, Onwuchekwa and Aruwa (2014), whose study was on the value added tax and economic growth in Nigeria, showed that VAT contributes significantly to the total tax revenue of government as well as economic growth in Nigeria.

Emmanuel (2013), investigated the effects of VAT on economic growth and total tax revenue in Nigeria. The study used Simple Linear Regression method to analyze time series data relating to

VAT, Gross Domestic Product (GDP) and Total Revenue for the period 1994 to 2008. The research also employed the use of SPSS for computation. The results of his findings revealed that VAT has significant effect on GDP and also on Tax revenue

Onodugo (2013), employed the Ordinary Least Square (OLS) method simple regression analysis to evaluate the contribution of VAT to resource mobilization. The study examined the relationship between VAT and real Gross Domestic Product (RGDP), VAT and Current Revenue (CREV), VAT and Internal Revenue (INREV). Their findings showed Value Added Tax significantly contributed to resource mobilization and capitalization in Nigeria.

Onwuchekwa and Suleiman (2014), on the other hand investigated the effects of value added tax on the economic growth of Nigeria. The study made use of the ordinary least square method in analyzing data for a period of 20 years. The result showed that VAT significantly contributes to total revenue of government and the economic growth of Nigeria.

Chigbu and Ali (2014), empirically analyzed the relationship between VAT and economic growth in Nigeria. Using the Engle and Granger co-integration technique on annual data covering 1994 – 2012. The result of the findings showed that VAT has positive effect on economic growth in Nigeria. The results also showed the absence of long run and short run relationship between VAT and economic growth. The study recommended that government should put in place measures to enhance productivity so as to increase the contribution of VAT to economic growth in Nigeria.

Okubor and Izedonmi (2014), examined the contribution of VAT to the development of the Nigerian economy. They employed time series data on the GDP, VAT Revenue, Total Tax revenue and Total Federally Collected Revenue from 1994 to 2010. They used both simple regression analysis and descriptive statistical method. The result showed that VAT revenue and total revenue account as much as 92% significant variations in GDP in Nigeria. Also, a positive and significant correlation exists between VAT revenue and GDP. The authors were of the opinion that both economic variables fluctuated greatly over the period with only VAT revenue being more stable. The study recommended that all identified loopholes be plugged for VAT revenue to continue to contribute significantly to economic growth in Nigeria.

Akor and Ekundayo (2016) studied the impact of indirect tax revenue on economic growth of Nigeria. They made use of secondary data from Central Bank of Nigeria statistical bulletin between 1993 and 2013. The study adopted value added tax and custom and excise duties as proxies for indirect taxes and real gross domestic product as proxy for economic growth of Nigeria. They used correlation and the error correction model regression to analyze the data. They claimed that value added tax has a negative significant on real gross domestic product while custom and excise duties has a negative and weak significant impact on real gross domestic product.

Methodology

The study employed a time series data covering a period of 1994 – 2017. Data were obtained from various CBN statistical bulletins, the Federal Inland Revenue Service (FIRS) and Nigerian Bureau of Statistics.

Research Design

The research methodology here refers to the method employed in gathering and analyzing data used in the study. This is clearly stated so as to enhance test of the hypotheses designed for this study. The study adopted the time series design procedure. This is to enable us establish possible impact of value added tax (VAT) on economic growth as proxy by GDP over a time period. Ndiyo (2005), opined that time series design is a better representation of periodic multiple observations of items at different times. This design method was considered most appropriate for this study.

Data Collection

The data for this study was collected using secondary sources. Information from the secondary sources includes review of previous studies and findings on the subject matter from text books, magazines, and journals. Data was collected on VAT and Gross Domestic Product (GDP), Federally Collected Revenue, and inflation in Nigeria over a period of 24 years i.e 1994 through 2017.

Model Specification

Following the model used by Onogbu et al (2013) in their study of the impact of value added tax and economic growth in Nigeria, this study adopts a modified version in order to take care of those variables not captured in the previous study. The modified version is stated as follows:

$LNGDP = \alpha + \alpha 1LNVAT1 + \alpha 2LNFCR1 + \alpha 3LNINFL1 + \mu 1$

$GDP = X_{0+} X_1 VAT + FCR + INFL + e$ …….. (1)

Where:

GDP1 = Gross Domestic Product

$X_0\alpha$ = Constant parameter

$\alpha 1 - \alpha 3$ = Coefficient of independent variables

VAT = Value of Value Added Tax

FCR1 = Federally Collected revenue

INF1 = Inflation rates

$\mu 1$ = error term

$GDP = X_0 + X_1 VAT + e$ …… (2)

$FCR = X_0 + VAT + e$ ……(3)

The models above could be restated in the logarithm form as follows:

$LOG\ GDP = Log\ X_0 + X_1\ LogX_1\ VAT + LogX_2\ FCR + LogX_3\ INF + e$ …… 1

$LOG\ GDP = Log\ X_0 + X_1\ LogX_1\ VAT + e$ ……..2

$LOG\ GDP = Log\ X_0 + X_1\ VAT\ log$

$LOG\ FCR = Log\ X_0 + LogX_1\ VAT + e$ ……..3

Data Analysis

The technique for the analysis of the impact of VAT on the economic growth in Nigeria centres on the time series analysis. The variables collected were tabulated while the regression and correlation analysis were adopted to test for significance in the hypotheses formulated for this study. Regression analysis is a statistical tool for the investigation of relationship between two or more variables. The investigation seeks to ascertain the causal effect of one variable upon the other. To explore such issues, data on the underlying variable of interest are put together by the researcher and regression is used to estimate the quantitative effect of the causal variables upon the variable that they influence. The researcher also assesses the statistical significance of the

estimated relationship. This is the degree of confidence that the relationship is close to the estimated relationship between variables, measures it, and makes prediction about values of one variable and from given values of the other(s) (Nworuh 2001). This study uses the simple and multiple regression models for data analysis.

Regression analysis with a simple explanatory variable is termed "simple regression". The task of regression analysis is to produce an estimate of these two parameters a and b, based on the information contained in the data set. Linearity assumption is common in regression studies but is by no means essential to the application of the technique and be relaxed where the researcher has no reason to suppose "apriori" that the relationship between the dependent and independent variable can be expressed as follows:

$Y = a + bx + e$

Where Y is the independent variable

a, b are known parameters to be estimated

e is the random term and comprises factors that are unobservable, or at least unobserved

The method of least square is used to find a and b parameters. The multiple regression is statistically stated as follows:

$Y = X_1 + X_2 + X_3 + \ldots\ldots X_n + e$

One of the methods of testing whether series are stationary or not is Dickey Fuller (DF) (1979). The DF test is very important in terms of measuring the degree of stationarity of series but it does not consider an auto correlation in disturbance terms. DF test is termed invalid if disturbance terms contain auto correlation. The co integration is an important statistical tool for estimating the pattern of relationship that exists between time series variables.

T-Static: T-Static is used for hypotheses testing. The hypotheses testing with a regression coefficient, seeks to formulate a null hypotheses and then decide whether to accept or reject it. The underlying assumption that the variable x and y has a joint normal distribution can be shown that when $p = 0$

Decision rule: H_o is accepted at the 5% significant level; if $(t) < 0.05\ (n-2)$ i.e. if the t calculated is less than the table value, otherwise the null hypothesis is rejected in favour of the alternative, H_1.

Coefficient of Determination

This coefficient is expressed as R^2, is a number indicating the proportion of the variation in the dependent variable, which is explained by the independent variable(s). In effect, it tells how the regression equation fits the data.

Total variation = explained variation + unexplained variation

Decision Rule: When R^2 is 0.50 and above, the relationship is said to be strong and significant and good for policy decisions.

Results and Discussion of Findings

This section contains the presentation, analysis, and interpretation of the data collected for this research work. Consequently, it entails the application of statistical techniques to provide the basis for the testing of the research hypotheses.

Data Analysis

Unit Root Test

ADF test is a critical tool used to identify the underlying time series model. The ADF is unit root test for stationarity. Unit roots can cause unpredictable results in time series analysis. The augmented Dickey–Fuller (ADF) statistic, used in the test, is a negative number. The more negative it is, the stronger the rejection of the hypothesis that there is a unit root at some level of confidence.

$GDP = \alpha + \alpha 1VAT1 + \alpha 2FCR1 + \alpha 3INFL1 + \mu 1$

Test of Hypotheses

Four hypotheses were specified for this study. These hypotheses covered the scope of the research.

Hypothesis I

H_{01}: Value Added Tax (VAT) has not made any significant impact on the Economic Growth as proxy by GDP in Nigeria

Table 4.6

Dependent Variable: GDP
Method: Least Squares
Date: 06/20/19 Time: 08:00
Sample: 1994 2017
Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.410548	0.141467	45.31494	0.0000
VAT	0.340377	0.011601	29.34052	0.0000

R-squared	0.975081	Mean dependent var	10.53780
Adjusted R-squared	0.973948	S.D. dependent var	0.455804
S.E. of regression	0.073569	Akaike info criterion	-2.301530
Sum squared resid	0.119073	Schwarz criterion	-2.203359
Log likelihood	29.61836	Hannan-Quinn criter.	-2.275485
F-statistic	860.8663	Durbin-Watson stat	0.380673
Prob(F-statistic)	0.000000		

Source: Author's computation using E-View 9.0 Significant at 5%

The table above is used to analyze the hypothesis relating to GDP and VAT

The F statistic test was used to determine the overall significance of the model with the following decision: If the probability of the F-statistic obtained from the result is below or at 5% of level of significance, the study would reject the null hypothesis, H_0.

In the Table above, the R-squared and co-efficient of determination of 0.975081 indicates that about 97.51% of the systematic variations in the dependent variable (GDP) has been explained by the changes in VAT revenue (VATR). The adjusted R-squared shows that after adjusting for the degree of freedom the model could explain about 97.39% of the systematic variations in GDP which is high for forecasting. On the basis of the overall statistical significance of the model as indicated by the F-statistic, we observe that the model was statistically significant since the calculated F-value of 860.8663 with a probability value of 0.0000 is greater than the critical F-

value. It was observed that changes in VAT revenue have a significant impact on GDP as indicated by the p-value of 0.05. The t statistic (29.34052) with p-value is significant at 5%. This shows that significant relationship exists between VAT and GDP. This means that VAT has significant impact on economic growth as proxy by GDP.
Therefore, we reject the null hypothesis and declare that VAT has a significant effect on economic growth.

Hypothesis II
H_{02}: Value Added Tax (VAT) has not made any significant impact on the Federally Collected revenue of Nigeria
Dependent Variable: FCR
Method: Least Squares
Date: 06/20/19 Time: 08:01
Sample: 1994 2017
Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.496464	0.741888	-3.365016	0.0028
VAT	0.864299	0.060838	14.20652	0.0000

R-squared	0.901709	Mean dependent var	7.983624
Adjusted R-squared	0.897241	S.D. dependent var	1.203566
S.E. of regression	0.385815	Akaike info criterion	1.012739
Sum squared resid	3.274775	Schwarz criterion	1.110910
Log likelihood	-10.15287	Hannan-Quinn criter.	1.038784
F-statistic	201.8251	Durbin-Watson stat	0.794412
Prob(F-statistic)	0.000000		

Source: Author's computation using E-View 9.0 Significant at 5%

The table above is used to analyze the hypothesis relating to Federally Collected revenue and VAT
The coefficient of determination (R-Squared) is 0.901709 which means that 90.17% of changes in the dependent variable (FCR) can be explained by VAT proceeds. This indicated more than 80% level of reliability. The positive regression coefficient of VAT (0.864299) met the expected apriori statement showing a direct relationship between Federally Collected revenue and VAT. The t-statistic (14.20652) with its associated p-value of 0.0000 is significant at 5% level of significance which implies that we should reject the null hypothesis that states VAT has no significant impact on Federally Collected revenue and conclude that VAT has significant impact on Federally Collected revenue.

Hypothesis III
H_{03}: Federally Collected revenue has not made any significant impact on the Economic Growth as proxy by GDP in Nigeria

Dependent Variable: GDP
Method: Least Squares

Date: 06/20/19 Time: 08:02
Sample: 1994 2017
Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.789594	0.271651	28.67496	0.0000
FCR	0.344230	0.033661	10.22623	0.0000

R-squared	0.826191	Mean dependent var	10.53780
Adjusted R-squared	0.818291	S.D. dependent var	0.455804
S.E. of regression	0.194297	Akaike info criterion	-0.359198
Sum squared resid	0.830533	Schwarz criterion	-0.261027
Log likelihood	6.310374	Hannan-Quinn criter.	-0.333153
F-statistic	104.5758	Durbin-Watson stat	0.432941
Prob. (F-statistic)	0.000000		

Source: Author's computation using E-View 9.0 Significant at 5%

The coefficient of determination (R-Squared) is 0.8262 which means that about 82.62% of changes in the dependent variable (GDP) can be explained by FCR proceeds. The positive regression coefficient of FCR (0.344230) met the expected apriori statement showing a direct relationship between GDP and Federally Collected revenue. The t-statistic (10.22623) with its associated p-value of 0.0000 is significant at 5% level of significance which implies that we should reject the null hypothesis that states Federally Collected revenue has no significant impact on GDP and conclude that Federally Collected revenue has significant impact on GDP as proxy on economic growth.

Hypothesis IV

H_{04}: There is no relationship between Value Added Tax, Federally Collected Revenue, Inflation and Gross Domestic Product

Dependent Variable: GDP
Method: Least Squares
Date: 06/20/19 Time: 08:03
Sample: 1994 2017
Included observations: 24

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.003460	0.178238	33.68235	0.0000
VAT	0.427289	0.031277	13.66135	0.0000
FCR	-0.093478	0.036256	-2.578285	0.0179
INFLATION	0.037754	0.030587	1.234326	0.2314

R-squared	0.984647	Mean dependent var	10.53780
Adjusted R-squared	0.982344	S.D. dependent var	0.455804
S.E. of regression	0.060566	Akaike info criterion	-2.619157

Sum squared resid	0.073365	Schwarz criterion	-2.422814
Log likelihood	35.42988	Hannan-Quinn criter.	-2.567067
F-statistic	427.5505	Durbin-Watson stat	0.917753
Prob. (F-statistic)	0.000000		

Source: Author's computation using E-View 9.0 Significant at 5%

The coefficient of determination (R-Squared) is 0.9846 which means that about 98.46% of changes in the dependent variable (economic growth) can be explained by the explanatory variables (VAT, INF, and FCR). The t-statistic for VAT and Inflation showed positive figures with level of significance at 5% but Federally Collected revenue showed a reverse t-statistic result of -2.578285 but it was significant at 5% level. The coefficient of -0.093478 indicates the change in real gross domestic product as a result of a unit change in FCR. This coefficient implies that FCR has a negative but significant effect on real gross domestic product of Nigeria. The F-statistics is 427.5505 with a probability value of 0.000000. Since the p. value is less than 0.05 level of significance, we conclude that all the explanatory variables have overall significant effect on the dependent variable (economic growth).

Summary of Findings

This Study sought to empirically analyze and investigate the impact of VAT on economic growth (GDP) between 1994 and 2017 using the correlation and regression model in examining the variables in our hypotheses. The empirical result shows that the value of VAT has a significant impact on economic growth (GDP) in Nigeria. The findings revealed the following:

1. The analyses show that there is a very strong and positive association between VAT and Gross Domestic Product (GDP). The result of long run relationship among the variables shows that there exists long run positive and statistically significant relationship between VAT and GDP which is in conformity with the work of Okubor and Izedonmi (2014), Onwuchekwa and Suleiman (2014), Chigbu and Ali (2014) that showed positive and statistically significant relationship between VAT and GDP.
2. We also found that the Value Added Tax has significant relationship with Federally Collected revenue. Onwuchekwa and Aruwa (2014), whose study was on the value added tax and economic growth in Nigeria, showed that VAT contributes significantly to the total tax revenue of government as well as economic growth in Nigeria.
3. We also found that there is a strong relationship between Gross Domestic product and Federally Collected revenue.
4. The study also showed the interrelationship among the independent variables (VAT, FCR and Inflation) against the gross domestic product (GDP).

Conclusion and Recommendation

Conclusion

This study showed that value Added Tax impacts significantly on the economic growth of the Nigerian economy. We found that VAT has a strong relationship with federally collected revenues and affects government spending to a larger extent. Government expenditure has an important role in stimulating growth in Nigeria. Positive change in VAT revenues to the federal, State and local governments has direct effects on the pattern of expenditure of these

units and thus the growth rate of the national economy.
It is therefore concluded that the lack of synchronization between the expenditure pattern of government and VAT revenues constitutes a major limiting factor to the growth of the national economy. The three tiers of government that participate in sharing of VAT revenue should look inward to channel this revenue to productive use that is visible to the populace. This way, people will appreciate payment of this tax and will encourage more people to contribute.

Recommendations
Based on the empirical findings from the study, the following recommendations are made for the purpose of effective policy formulation in the area of economic management, accounting, and financial management:

1. To broaden the tax base and to bring VAT administration closer to the taxpayer, new local VAT offices should be established all over the country.
2. The government should strengthen tax administration to ensure more efficient tax collection, through training of staff, awareness campaigns and computerization of customs tariff.
3. Government on its part should use VAT proceeds to improve on the standard of living of the populace and improve on infrastructures such as transport, power, communication and information technology so as to strengthen the productive capacity and motivate taxpayers in paying their taxes. Government should be able to provide details of projects carried out with VAT revenue, this will encourage citizens to want to contribute more.
4. Instead of increasing VAT rate, government should look into other areas where there is leakage such foreign product delivery that does not attract VAT (Amazon and others). Banks skhould be involved in charging VAT on such transaction before payment is settled.
5. VAT rate differentiation can be introduced to take more from the rich. Regular items consumed by the less privileged can attract normal 5% while the luxurious goods consumed by the rich can attract 10%
6. Prosecution of corrupt tax officials and tax payers that default on tax payment should be intensified.
7. There is leakage of VAT in informal sector due to lack of data. There are so many small businesses that are supposed to be involved in charging and collecting VAT for the government. It will be a big surprise to know how much is being lost in this area.

Contribution to Knowledge
This study has revealed the contribution of VAT to revenue bucket of the country and its impact on the economic growth of Nigeria. A terrible vacuum would have been created in government revenue bucket if VAT had not been introduced, our debt profile would have been worse off. This study will be of great value to the following:

1. The tax collection agency, FIRS
2. Researchers in private and public institutions who may need the material for further studies
3. Bureaucrats in government who require material to take decisions
4. Industry captains and leaders who want to partner with the government in provision of infrastructure

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APPENDIX I

YEAR	FCR N'BILLION	GDP N'Billion	INFLATION %	VAT N'Billion
1994	201.91	19,979.12	57	19,900.00
1995	459.99	20,353.20	51.6	20,761.00
1996	523.60	21,177.92	14.3	31,000.00
1997	582.81	21,789.10	10.2	34,000.00

1998	463.61	22,332.87	11.9	36,900.00
1999	949.19	22,449.41	10.2	47,100.00
2000	1,906.16	23,688.28	14.5	58,500.00
2001	2,231.60	25,267.54	16.5	91,800.00
2002	1,731.84	28,957.71	12.1	108,600.00
2003	2,575.10	31,709.45	23.8	136,400.00
2004	3,920.50	35,020.55	10	159,500.00
2005	5,547.50	37,474.95	11.6	178,100.00
2006	5,965.10	39,995.50	8.5	232,700.00
2007	5,727.51	42,922.41	6.6	312,600.00
2008	7,866.60	46,012.52	15.1	401,700.00
2009	4,844.59	49,856.10	13.9	481,400.00
2010	7,303.67	54,612.26	11.8	564,890.00
2011	11,116.85	57,511.04	10.3	659,160.00
2012	10,654.75	59,929.89	10.3	710,560.00
2013	9,759.79	63,218.72	14	795,600.00
2014	10,068.85	67,152.79	15	794,000.00
2015	6,912.50	69,023.93	9	778,000.00
2016	5,679.03	67,931.24	15.7	811,000.00
2017	7,317.70	68,490.98	16.5	957,000.00

Source: Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics