

Economic Effects of Value Added Tax (VAT) in Nigeria

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Abstract

This research work focused on the economic effects of VAT in Nigeria. Two hypotheses were formulated and tested using Ordinary Least Squares (OLS) regression method and the results showed that VAT has no significant impact on economic growth in Nigeria and that VAT have positive significant impact on employment as a development index. The study however concluded that VAT as a source of government revenue can be used as a tool to achieve full employment economy.

Keywords: VAT; Employment Rate; GDP; FIRS; Government Revenue

Introduction

The integration of the world economy has profound implications on the patterns of taxes. Developing countries used to rely heavily on trade taxes, seigniorage and financial suppression as the main sources of fiscal revenue. Common amongst these taxes is the fact that they are associated with a relatively low cost of collection and enforcement – trade taxes are collected at centralized port of entry, and seigniorage and financial repression act as an implicit tax. Greater trade integration has implied a drastic cut in tariffs, reducing thereby the revenue of trade taxes. Successful macro stabilizations and greater financial openness sharply reduced the revenue from seigniorage and financial repression. While most of these developments enhanced efficiency, they also exposed developing countries to the challenge of finding alternative means of financing fiscal needs (Joshua & Yothin, 2005). Hence the rationale behind all nation's Government to employ VAT as a better means to fiscal revenue.

VAT is basically a multiple stage tax, of which, a person has to pay tax at every stage of production and distribution. Hence, tax would be charged at every phase of value addition. Since, the tax is charged on commodities purchased for consumption, it is therefore a consumption tax. From a buyer's perspective, it is a tax charged on purchase price while from a seller's perspective; it is levied on value added to any product, service or material at a stage in production supply chain. The variance between tax charged on purchase price and value added to any product is paid to the government and the balance is reserved by the producer to cover-up for the changes they have incurred in purchasing inputs.

VAT is similar to sales tax in the manner that it is charged only on end consumer. However, it differs in the aspect that sales tax is only collected when the product is purchased by final consumer while in case of VAT; taxes are paid each time a purchase is made in the supply chain. Though the concept of VAT was initially perceived in the early 1950s in France and Japan, yet it was implemented for the first time in 1960s in Brazil (Qamruz, Okasha, & Muhammad).

The idea of VAT in Nigeria came from the study group set up by the Federal Government in 1991 to review the tax system of Nigeria. VAT was proposed and a committee was set up to carry out feasibility studies on its implementation. In January, 1993, the then government agreed to introduce VAT by the middle of the year. It was later shifted to 1st September, 1993 by which time the relevant legislation would have been made and proper ground work done. The implementation however, did not commence until January 1994 after the endorsement of the Value Added Tax Decree No. 102 of 1993. According to the decree, a 'VATable' organization is an existing manufacturer, distributor, importer or supplier of goods and services (FIRS, 1993).

As stated by (Daily Trust, 2015), *the rationale behind replacing Sales Tax with VAT was informed by a number of factors and considerations, notable among these are:*

- ✚ The base of the Sales Tax in Nigeria as operated under Decree No. 7 of 1986 is narrow. It covers only nine categories of goods plus sales and services in registered hotels, motels and similar establishments. The narrow base of the tax negates 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.
- ✚ Only locally manufactured goods were targeted by the Sales Tax Decree of 1986, although this might not have been the intention of the law. VAT is neutral in this regard. Under VAT; a consideration 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.
- ✚ Since VAT is based on the general consumption behaviour of the people, the expected high yield from it will boost the revenue collectible by governments with the minimum resistance from taxpayers, hence the need to explore impact VAT have had on selected macroeconomic variables in Nigeria.

Statement of Problem

VAT is seen as consumption tax added to a product's sales price, it's usually added at every chain of production starting from the manufacturer. In Nigeria, most manufacturers are established in the outskirts of the city or inside a bush where people are rarely found. This practice is common among bread bakeries, most bread bakeries in Nigeria is illegal (they are not a registered as manufacturing company with (Corporate Affairs Commission) CAC/they are not registered with Manufacturers' Association of Nigeria). This indulgence by some manufacturing companies in Nigeria is all in a bid to avoid tax. With this problem at heart, how can a Government such as Nigeria realize what should be from tax when every manufacturer tries to avoid tax? This problem compelled us to consider empirically, if the VAT realized in Nigeria since year 2000 has been significant enough to influence volume of output in the economic sector, focusing on economic growth and development.

Objectives of the Study

This study will ensure to:

1. Determine the extent to which VAT significantly influences economic growth in Nigeria.
2. Ascertain the magnitude to which VAT significantly influences employment in Nigeria.

Hypotheses

1. H_0 : VAT has no significant impact on economic growth in Nigeria.
2. H_0 : VAT has no positive significant impact on employment as a development index.

Theoretical Review

Key Features of the Nigerian VAT as stated by (Ajakaiye, 1999)

According to the Federal Inland Revenue Service (FIRS), the idea of introducing VAT in Nigeria originated from the report of a study group set up by the federal government in 1991 to review the entire tax system. Subsequently, a committee was set up to carry out feasibility studies of its implementation.

It should be noted that the committee was not requested to carry out any analysis of the impact of the tax. Neither was there an active debate among the various interest groups such as the organized private sector, labour unions and academics as well as other professionals through which certain aspects of the impact might have been considered and taken into account in its design and implementation.

Eventually, government agreed to introduce VAT but the actual implementation did not until January 1994 after the promulgation of the Value-Added Tax Decree No. 102 of 1993. According to the decree, a VATable organization is an existing manufacturer, distributor, importer or supplier of goods and services. The following are the main features of the Nigerian VAT. First, it is a single rate (5%) VAT, which makes it easier to administer.

Second, it adopts the input-output tax mechanism, which makes it self-policing. Specifically, although it is a multiple stage tax, it is expected to have a single effect on consumer prices and should not add more than the specified rate to the consumer price no matter the number of stages at which the tax is paid. In essence, it is the official view that the VAT should not be cascading whatsoever since the tax liability of a VATable organization is the difference between VAT on output and VAT on inputs. In other words, the credit method of collection should eliminate any cascading effects.

Third, all goods are VATable with the exception of the following:

- Medical and pharmaceutical products;
- Basic food items such as peas, beans, yam, cassava, 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, and poultry keeping machinery;
- ✚ Veterinary medicine equipment; and
- ✚ Fertilizers and farming transportation equipment.

Similarly, all services are subject to VAT except:

- ✚ Medical and health services;
- ✚ Services by community banks, people's banks and mortgage institutions (interest earnings on loans by commercial banks and premiums paid to insurance companies are not VATable);
- ✚ Performances conducted by educational institutions as part of learning;
- ✚ Social services such as orphanages, charities and fire-fighting;
- ✚ Pure postal services;
- ✚ Religious services;
- ✚ Non-commercial cultural services;
- ✚ Overseas air transportation; and
- ✚ Public telephone and telegram services (excluding business or commercial services).

The following other goods and services are also exempted from VAT: salt, water, salary or wages from employment, director's emoluments, hobby activities, private transactions such as sale of domestic or household articles, vehicles, personal effects or private motor vehicles, and residential house rent. For avoidance of doubts, these goods and services are exempted from VAT but their inputs are VATable and they cannot claim credit for such input taxes.

On the other hand, all exports are zero-rated, implying that exporters do not collect VAT on exports but they can claim credit for VAT paid on their inputs. All imports are VATable, whether imported raw materials or finished goods. Moreover, VAT on imports is calculated on the total value of the total cost, insurance and freight (CIF) plus customs duties and all other charges on imported goods.

Amounts expressed in foreign currency are converted into naira using the exchange rate adopted by the Nigerian Customs Service (NCS). Between January 1994 and August 1995, the NCS used the exchange rate prevailing on the date the good was cleared from the ports. In this connection, it is recalled that by the beginning of 1995, when the exchange rate depreciated by over 70% in the autonomous foreign exchange market (AFEM), the organized private sector put enormous pressure on the government to review this procedure for computing VAT liability on imports so that by August, the NCS was directed to use 65% of the prevailing exchange rate on the date of clearance of imports to determine the VAT liability on all categories of imports.

Fourth, with effect from 1 January 1995, all ministries, parastatals and other agencies of government as well as religious and other organizations and similar persons that are normally exempted from income tax are expected to pay VAT on their consumption in addition to the

contract price of items consumed by them. For the contractors to render monthly returns, all government agencies must obtain receipts from the FIRS for the VAT paid on behalf of the contractors.

It may be pertinent to mention that this way of broadening the base of VAT is consistent with the policy of exemptions, especially the provision that all inputs used for the production of VAT exempted goods are themselves VATable.

Empirical Review

Ajakaiye (1999) conducted a study which analysed the impact of value added tax on key sectoral and macroeconomic aggregates using a CGE model considered suitable for Nigeria. His study showed evidence that VAT revenue is already a significant source of revenue in Nigeria. For example he stated that in 1994 (the year of inception) actual VAT revenue was N8.19 billion as against a projection of N6 billion. In 1995 actual VAT revenue was N21 billion as against a projection of N12 billion. In the study Ajakaiye used three scenarios to approximate the presumed Nigerian situation. First, he assumed that the government pursued an active fiscal policy involving the reinjection of the VAT via increased government spending in combination with a presumed non-cascading treatment of VAT. Then he assumed two other simulations considered as active fiscal policy combined with a cascading treatment of VAT and a passive fiscal policy combined with a non-cascading treatment. The result of the study, as it turned out, was that the scenarios of a cascading treatment of VAT with active fiscal policy not only had the most harmful effects on the economy; it was also the one that most closely approximated to the Nigerian situation.

Adereti et. al (2011) empirically investigated the contribution of Value Added Tax (VAT) to GDP in Nigeria from 1994-2008. Time series data of GDP and VAT revenue for the period was used and simple Regression analysis and descriptive statistical method was also employed by them. Findings for their study showed that VAT revenue to total tax revenue averaged 12.4% which they considered low compared to 30% on Ivory Cost, Kenya and Senegal and 19.71% on Mexico. VAT Revenue to GDP averaged 1.3%. Their study also shows that a positive and significant correlation exist between VAT revenue and GDP. The study also observed that there is no causality existing between GDP and VAT revenue.

Owolabi and Okwu (2001) made empirical study of contribution of Value Added Tax (VAT) to the development of Lagos State economy. They employed the tools of simple Regression Models to evaluate the effect of the contribution of VAT revenue to the economic growth of Lagos State, Nigeria. Development indicators such as infrastructural development, environmental management, education sector development, Youth and social development, Agricultural sector development, health sector development and transportation sector development was adopted. Lagos state economy was disaggregated into seven strategic economic sectors and simple regression models were specified to enhance isolated analysis of each sector. The analysis showed that VAT revenue contributed positively to the development of

the respective sectors. However, the positive contributions were statistically significant only in Agricultural sector development.

Olaoye (2009) studied the administration of VAT in Nigeria with the objective of seeking ways of improving government revenue generation base in order to improve the economy. The study among other things, recommended on the need for government to increase awareness of people on the existence VATs.

Ekeocha (2010) did a simulation study advocating VAT rate from present 5% to 15%. He justified the study by noting that for most countries the tax system wants to shift emphasis from direct to indirect taxation by “gradually increasing VAT to a rate that will not affect aggregate consumption”. He further argued that increasing the rate will upward effect of increasing the country’s revenue base.

Umeora (2013) investigated the effects of Value Added Tax (VAT) on economic growth (GDP) and total tax revenue in Nigeria using simple linear regression method to analyze time series data relating to VAT, GDP and Total Revenue for period 1994 – 2010. The results showed that VAT has significant effect on GDP and also on Total Tax Revenue.

Knowledge Gap

Of all reviewed studies in the empirical review, no author checked the effect of VAT on development and economic growth (using employment rate and percentage change in GDP). This research will explore these areas of interest as percentage change in GDP should be the most appropriate index for measuring economic growth not GDP in monetary values.

Research Methodology

Ex-post facto research design was employed by the researchers. This aims at determining or establishing or measuring the relationship between one variable and another or the impact impact of one variable on another. The source of data for this study is secondary, from UK government database, worldbank database and CBN Statistical Bulletin, 2015.

Ordinary least squares regression method is employed by the researcher to test the hypotheses with the aid of SPSS version 22.0. This will be expressed in a simple regression equation:

$$Y = b_0 + b_1X + \mu$$

Where Y = the variable we are trying to predict; b_0 = the intercept; b_1 = the slope; X = the variable we are using to predict Y; and μ = the error term

The intercept is the value of the dependent variable when the independent variable is equal to zero while the slope of the regression line represents the rate of change in Y as X changes. Because Y is dependent on X, the slope describes the predicted values of Y given X.

We adopt the above model to this study thus;

$$\text{GDP\%} = b_0 + b_1\text{VAT} + \mu \dots\dots\dots \text{Eqn. 1}$$

$$\text{Empl} = b_0 + b_1\text{VAT} + \mu \dots\dots\dots \text{Eqn. 2}$$

Where GDP% = economic growth percentage; VAT = Value added Tax; Empl = Employment rate in Nigeria

Data Presentation and Analysis

DECISION RULE: Reject H_0 if p-value $\leq .05$, otherwise do not reject H_0

First Model: $GDP = b_0 + b_1VAT + \mu$

In the SPSS output (see table 2a in the Appendix), the R of .192 shows that there is a weak positive relationship between the dependent variable and the explanatory variable as the R is very far from 1. The R^2 of .037 shows that 3.7% of the variation in GDP is explained by the VAT (see table 2a in the Appendix). The Anova Table (see table 2b in the Appendix) shows the overall significance of the model. In this study, the model is non-significant ($Sig. > .05$).

Table 2c (See Appendix) shows the intercept, the slope and standard error. The intercept of 9.891 shows the value of VAT when the dependent variable is constant (zero) while the slope of -.011 shows the value of the dependent variable as the explanatory variable changes, the slope of -.011 shows that at every percentage increase in VAT, GDP will decrease by 1.1%. After substituting the intercept, the slope and the standard error with its values from analysis in table 2a, 2b, 2c (See Appendix), we will have $GDP = 9.891 - .011VAT + 7.527$

Second Model: $Empl = b_0 + b_1VAT + \mu$

In the SPSS output (see table 3a in the Appendix), the R of .635 shows that there is a fairly positive relationship between the dependent variable and the explanatory variable. The R^2 of .403 shows that 40.3% of the variation in employment rate is explained by VAT (see table 3a in the Appendix). The Anova Table (see table 3b in the Appendix) shows the overall significance of the model. In the referred table, the model is very significant ($Sig. < .05$).

Table 3c (See Appendix) shows the intercept, the slope and standard error. The intercept of 50.911 shows the value of VAT when the dependent variable is constant (zero) while the slope of .002 shows the value of the dependent variable as the explanatory variable changes, the slope of .002 shows that at every percentage increase in VAT, Employment in will increase by 0.2%. After substituting the intercept, the slope and the standard error with its values from analysis in table 3a, 3c (See Appendix), we will have $Empl = 50.911 + .002VAT + 7.527$

Decision

Hypothesis I: VAT has no significant impact on economic growth in Nigeria

The P-value on which basis we can reject the null hypothesis that VAT has no significant impact on economic growth in Nigeria is .492. Since the p-value $> .05$, we fail to reject the null hypothesis and state that VAT has no significant impact on economic growth in Nigeria.

Hypothesis II: VAT has no positive significant impact on employment as a development index

The P-value on which basis we can reject the null hypothesis that VAT has no positive significant impact on employment as a development index is .011. Since the p-value $< .05$, we reject the null hypothesis and state affirmatively that VAT have positive significant impact on employment as a development index.

Discussion of Findings

The result of the first hypothesis testing does not in all mean that VAT does not contribute to growth in the economy, rather it posits that VAT contributes insignificantly to the growth in our economy which means if Value added Tax is abolished in Nigeria, the impact won't be felt in the size of our GDP. This result is contrary to the findings of Umeora (2013) who used real GDP to measure economic growth. The difference in our results can simply be traced to our measuring variables, we used percentage change in GDP to measure economic growth while Umeora (2013) like most authors measuring the relationship between VAT and economic growth used GDP amount value as an index of economic growth.

The result of hypothesis II testing shows is in line with theoretical standpoints that VAT realized by the Government is put into productive expenditures that will improve employment rate in the country.

Summary of Findings, Conclusion and Recommendation

After subjecting the hypotheses under tests, the following were found:

1. VAT has no significant impact on economic growth in Nigeria.
2. VAT have positive significant impact on employment as a development index in Nigeria

Considering our test results, we conclude that in all, VAT has no much effect on economic growth but on development, the target of reduction of unemployment and creating a full employment economy can be pursued with the economic policy measure "value added tax", but there's the price of inflation.

Therefore, other researchers in this line of interest should find out empirically, the kind of relationship that exists between VAT and inflation or the effect of tax on inflation.

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APPENDIX I

Table 1 Value Added Tax, % change in GDP and Employment Rate of Nigeria from

Year	VAT	GDP%	Employment
2000	30.64	5.318	51.70000076
2001	44.91	4.411	51.5
2002	52.63	3.785	51.20000076
2003	65.89	10.354	50.90000153
2004	96.2	33.736	50.59999847
2005	87.45	3.445	50.70000076
2006	110.57	8.211	50.90000153
2007	144.37	6.828	51
2008	198.07	6.27	51.09999847
2009	229.32	6.934	51.29999924
2010	275.57	7.84	51.40000153
2011	318	4.887	51.59999847
2012	347.69	4.279	51.70000076
2013	389.53	5.394	51.79999924
2014	388.85	6.31	52

Source: CBN Statistical Bulletin, 2015, World Bank Database

Table 2a Model Summary

Equation 1	Multiple R	.192
	R Square	.037
	Adjusted R Square	-.037
	Std. Error of the Estimate	7.527

Table 2b ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	28.347	1	28.347	.500	.492
	Residual	736.615	13	56.663		
	Total	764.962	14			

Table 2c Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	9.891	3.459		2.859	.013
	VAT	-.011	.015	-.192	-.707	.492

APPENDIX II

Table 1a Model Summary

Equation 1	Multiple R	.635
	R Square	.403
	Adjusted R Square	.357
	Std. Error of the Estimate	.339

Table 1b ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Equation 1	Regression	1.011	1	1.011	8.773	.011
	Residual	1.498	13	.115		
	Total	2.509	14			

Table 1c Coefficients

		Unstandardized Coefficients		Beta	t	Sig.
		B	Std. Error			
Equation 1	(Constant)	50.911	.156		326.342	.000
	VAT	.002	.001	.635	2.962	.011