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SCIENCES,****OSUN STATE COLLEGE OF TECHNOLOGY, ESA OKE****SEPTEMBER, 2016 EDITION**<http://ojass.oscotechesaoke.edu.ng/en/>**Vol. 3 No. 1****Page 203 - 214****Effects of Value Added Tax on Economic Growth in Nigeria**

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**ABSTRACT**

*To increase the revenue base of Federal Government, Value Added Tax (VAT) was introduced in 1993 in Nigeria. Hence, the paper investigated empirically, the effects of Value Added Tax (VAT) on Economic Growth from 1994 - 2013. Time series data sourced from Central Bank of Nigeria Statistical Bulletin Focused on Value Added Tax (VAT), Petroleum Profit Tax (PET), Company Income tax (C01), Excise Tax (EXC) and Gross Domestic Product (COT), Excise tax (EXC) and Gross Domestic Product (GDP). Ordinary least Square method was employed via Eview package to analyse the effects of VAT and other Tax components on Economic Growth (Proxied by GDP). VAT has a positive and significant effect on Economic Growth. The paper also established no causality between GDP and VAT. This paper therefore recommends enabling environment for the private sector to flourish as this will increase VAT revenue and consequently leads to Economic Growth.*

Keywords: Causality, Economic Growth

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## **INTRODUCTION**

Value Added Tax (VAT) is now a major source of revenue in many countries around the world. According to Emmanuel (2013) "VAT" was first introduced in 1954 by Maurice Laure in France. The introduction of VAT was hinged on the argument that it is better than sales tax and tariffs which encourage cheating and smuggling. Value Added Tax (VAT) is a tax on estimated value added to a product or service at each stage of its manufacturing or distribution and the additions are ultimately added to the final consumer. Final Consumer of products always bear the tax burden of the incidence because they cannot recover VAT they pay on goods and services. According to Emmanuel (2013), business can recover VAT they pay on goods and services because those goods are intermediate goods.

Value Added Tax (VAT) according to Ajakaye (2000) was introduced in countries like Benin republic, Cote d'ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger republic, Senegal, Togo, and Nigeria. The outstanding positive effect of VAT in virtually all countries where it has been introduced highly influenced the decision to introduce VAT in Nigeria in January 1994. VAT is a consumption tax that is relatively easy to administer and difficult to evade and it has been embraced by many countries worldwide (FIRS, 1993). Since the oil boom of early 1970s, revenue from oil has been the dominant source of government revenue in Nigeria. Instead of transforming or diversifying the revenue base, fiscal management has merely changed from one primary product to another. This overdependence on oil makes Nigeria economy susceptible to vagaries of the international oil market (Odusola.2006). The need to address this problem of near mono economy led to tax policy reforms. The

Value Added Tax (VAT) became a landmark source of revenue when it was introduced by Decree 102 of 1993 but VAT implementation started in January

1994. The rate was fixed at 5% for eligible goods. In theory, VAT was imposed generally on all goods and services but with exemptions on goods like; Medical and Pharmaceutical Products, Basic foods and Educational materials, Baby products, Agricultural Equipments and Veterinary Medicines, Agricultural fertilizers. Exempted services include; medical services, services by community bank now Microfinance bank and Mortgage institutions (FIRS 1999)

Value Added Tax (VAT) is now a major source of revenue in many countries around the world. Earlier studies on effects of taxation on the economic growth merged all various taxes together without singling out VAT, hence, the need to fill this gap. How and in what degree has VAT been affecting the Nigerian economy (to be proxied by GDP)? Is there any causality between these two economic variables? To find the answers to these and other similar questions, this paper is going to trace the effect of VAT right from the inception till 2013. Other forms of tax will also be looked at but searchlight will be beamed on VAT.

### **Scope of study**

The study concentrates on period when VAT commenced i.e 1994 to 2013. Time Series data obtained for this period covered twenty (20) years.

### **Research Questions**

Arising from the foregoing, the following research questions will be adopted:

- (i) What is the relative effect of Value Added Tax on Economic growth?
- (ii) What are the relative effects of other forms of taxes on Economic growth?
- (iii) What is the direction of causality between Value Added Tax and Economic Growth?

It is important to note that the parameter of Gross Domestic product (GDP) shall proxy the measurement of economic growth.

### **Objectives of the Study**

The main objective of this study is to measure the Effect of Value Added Tax (VAT) on Nigeria Economic Growth between the periods of 1994 till 2013. However, the specific objectives are:

- (i) To determine the significant effects of Value Added Tax (VAT) on Economic Growth (GDP).
- (ii) To examine the relative significant effects of other forms of Tax on economic growth (GDP)
- (iii) To examine the direction of causality between Value Added Tax (VAT) and economic growth.

### **Statement of Hypothesis**

Ho (Null): Value Added Tax has no significant effect on the economic growth

H1 (Alternative): Value Added Tax has a significant effect on economic growth.

### **Conceptual and Empirical Framework**

Value Added Tax (VAT) according to Okele (2003) was intended by government to shift her revenue priorities away from crude oil sales, oil royalties and petroleum profit tax, all which are vulnerable to international petroleum price fluctuation to more stable internally generated revenue service. Internally generated revenue was seen as the heart of efficient fiscal policy.

Resources needed for the society shall be taken from various enterprises and be made available for public goods. Osakwe (1999) stressed that, the introduction of value Added Tax requires a lot of preparations and enlightenment on the part of government because of the complexity of the tax and the need for co-operation of the tax payers. He added that "the Pay as You Earn (PAYE) is about the only effective taxation Nigeria has whereas the rich in the informal sector hardly pay taxes.

Casanegra (1986) while commenting on the importance of V AT said that it has assumed added impetus during the 1970s and 1980s during which time many developing and transitional countries have enacted Value Added Taxes (V AT) as part of their fiscal structures. He added that V AT system has formed a major innovation in their tax system during this period.

According to Bird (2005) the main reason for the rapid worldwide adoption of V AT has been attributed to the early adoption by European Union in

propagating the message of VAT to developing nations. The support and advocacy of this form of taxation by the international Monetary Fund (IMF) and other countries in Latin America encouraged and facilitated the adoption of VAT by countries with much less developed economic and administrative structures than those in EU member states.

Some of the strongest evidence for a nexus between taxation and growth is reported in the work of Plosser (1993). Plosser regressed the rate of growth of per capital GDP on the ratio of tax revenues to GDP for OECD countries and finds a significant negative relationship. The limitation of this finding is that the OECD countries concentrated more on income tax as its major source of tax revenue.

Due (1981) and Tanzi (1999) as related by Stephen (2013) made some strong arguments in favour of VAT. He argued that if there is too much resistance to raising income tax rates, the administration might consider the introduction of value added tax as a source of revenue and engine of growth. 'Due (1981) advised the Reagan Administration of the US to correct fiscal deficit by imposing VAT.

Adari (1997) focused on the introduction of Value Added Tax (VAT) in Kenya which replaced sales tax in 1990. The study analyzed the structure, administration elasticity coefficients were less than unity implying a low response of revenue from VAT to changes in GDP. This suggested the laxity and deficiencies in VAT administration.

In the work of Emmanuel (2013), he showed evidence that VAT revenue is already a significant source of revenue in Nigeria. Firstly, he assumed that the government pursued an active fiscal policy involving the re-injection of the VAT increased government spending in combination with a presumed non-cascading treatment of VAT.

Olaoye (2009) examined 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 recommended the need for government to increase awareness of people on the existence of VAT.

Adereti (2011) examined the nexus between value added tax (VAT) and Gross Domestic Product (GDP) in Nigeria between 1994 and 2008. They used time series data of GDP and VAT revenue for the period and did simple analysis using descriptive statistical method. Their findings show that the ratio of VAT revenue to total tax revenue averaged 12.4% which they considered low compared to 30% in Ivory Coast, Kenya and Senegal and 19.71% in Mexico. Their study also shows that a positive and significant correlation exist between VAT revenue and GDP. The study also observed that there is no casualty existing between GDP and VAT revenue.

### **Theoretical Framework**

Adam Smith the father of Economics gave four cannons of taxation in his book *The Wealth of Nations* (1776) as cited by Jhingan (2003). The cannons are:

- (a) *The subject of every state ought to contribute towards the support of the government, as nearly as possible in proportion to thier ability.*
- (b) *The tax payable must be certain and devoid of arbitrariness or capriciousness*
- (c) *Tax should be levied at the time it is convenient for the payer to pay.*
- (d) *There must be efficiency in tax administration.*

On the theory of growth, Jhingan (2003) discussed Harrod - Domar models of economic growth. The models are interested in discovering the rate of income growth necessary for a smooth and un-interrupted working of the economy. The effectiveness of VAT depends on smooth investment. Harrod & Domar lay 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 regarded as the "demand effect" and the latter "supply effect" of investment. Hence, as long as net investment is taking place, real income and output will continue to expand.

### **Research Methodology**

The time series data from inception of VAT in 1994 to 2013 were obtained from Central Bank of Nigeria Statistical Bulletin and Central Bank of Nigeria Annual reports and statement of account (of various issues) and the Gross



Domestic product (GDP). The Gross Domestic product (GDP) proxied the measurement of economic growth. The value added tax (V A T) data and other tax components data were also sourced for. The ordinary least square (OLS) method was employed to analyse the data via Econometric view (Eview) package. . The granger causality test was also conducted.

### Model Specification

$$GDP = f (VAT, PET, COT, EXC)$$

GDP = Gross Domestic Product (a proxy of economic growth.

VAT = Value Added Tax

PET = Petroleum Profit Tax

COT = Company Income Tax.

EXC = Excise Duties.

Ut = Extraneous variables.

YEAR	VAT	PET	COT	EXD	GDP	
1994	7261	42803	12275	18295	89986322	
1995	20761	42858	21878	37364	193321155	
1996	31000	7667	22000	55000		
	270271913					
1997	34000	68574	26000	63000	280197258	
1998	36900	68000	33300	57700	270843086	
1999	47100	164300	46200	87900	3194014497	
2000	58500	525100	51100	101500	458212729	
2001	91800	639200	68700	170600	472508660	
2002	108600	392200	89100	181400	691238125	
2003	-	136400	688500	114800	195500	848703157
2004	159500	1183500	113000	217200	1101106691	
2005	178100	1904900	140300	232800	1457223912	
2006	221600	2938300	244900	177700	1856459473	
2007	289600	1500600	275300	241400	2067531767	
2008	404500	2812300	416800	281300	2429632929	
2009	468400	1256500	568100	297500	2471266988	
2010	562900	1944100	657300	309200	3398475413	
2011	649500	3976300	700500	438300	3754365470	
2012	7101500	43655390	8485700	4749200	405449994	
2013	8220500	5034000	9569000	5078000	4467201870	

Source: CBN Statistical Bulletin (2010, 2011, 2012 and unpublished 2013) in N'000.

**Definition of variable as given by price water house cooper (2013):**

Gross Domestic Product (GDP): This is the socio - economic indicator that is used to measure economic growth of a country, It is the value of all final goods and services produced within a geographical boundary of a given nation during a specified period of the year.

Value Added Tax (VAT): This is 5% levy chargeable on the supply of taxable goods and services except items specifically stated as exempt or zero rated.

Petroleum profit Tax (PET) is levied on the income of companies engaged in upstream petroleum operations. A new tax regime will take effect upon the passage of the Petroleum Industry Bill.

Companies' Income Tax (COT): is levied on profit accruing in, derived from, brought into or received in Nigeria. Any company doing business in Nigeria whether resident (registered in Nigeria) or non resident (foreign company registered outside Nigeria) are liable to this tax.

Excise Tax (EXC): is a percentage levied on manufactured, sale or use of locally produced goods.

The hypothesis is thus re - stated as:

Ho:  $b_1 = 0$  VAT has no significant effect on economic growth

Ho:  $B_1 = 70$  V AT has a significant effect on economic growth.

Where  $B_i$  are the coefficient of the variables.

Taking the logarithm of the above model will give.

$\text{Log (ODP)} = \beta_0 + \beta_1 \text{ LOG (V AT)} + \beta_2 \text{ LOG (PET)} + \beta_3 \text{ LOG (COT)} + \beta_4 \text{ LOG (EXC)} + U_t$

Model 1

Dependent Variable: (ODP)

Method: Least square

Date: 10/05/ 2014 Time 07:25

Included observation: 20



Variable	Coefficient	Std error	T-statistic	Prob
C	4.087949	3.483313	1.173581	0.2589
LOG (VAT)	2.778065	1.602596	1.733478	0.1035
LOG (PET)	0.741760	0.284166	2.610308	0.0197
LOG (COT)	-1.705971	1.020415	-1.671840	0.1153
LOG (EXC)	-0.930987	0.930343	-1.000692	0.3326
R-squared	0.849383	Mean dependent var	15.58437	
Adjusted R-squared	0.809219	S.D dependent Var	1.969802	
S.E of regression	0.860380	Akaike info criterion	2.749433	
Sum squared Resid	11.103981	Schwarz criterion	2.998366	
Log likelihood	-22.49433	F-statistic	21.14763	
Durbinwatson	1.840640	Prob F statistic	0.000005	

$$\text{LOG (ODP)} = 4.088 + 2.778\text{LOG (VAT)} + 0.7418\text{LOG (PET)} - 1.706\text{LOG (COT)} - 0.931\text{LOG (EXC)}$$

SE	= 3.483	1.603	0.284	1.020
	0.930			
t	= 1.174	1.733	2.610	1.672
	- 1.000			

The result shows that 2.778 increase in Gross domestic (GDP) is influenced by a unit increase in Value Added Tax (VAT).

0.7418 increases in GDP are caused by a unit increase in petroleum Tax. The result shows a negative relationship between Company Income Tax (COT) and GDP. Excise duties also have a negative impact on GDP. A decrease of 0.931 in GDP is influenced by a unit increase in excise duties. Also, there should be an increase in company income tax and excise duties for only the commodity that attracts relatively higher income elasticity of demand. Hence, the Null hypothesis is rejected

The R<sup>2</sup> which measures the goodness of fit of the regression was observed to be 0.8494 this shows that about 84.94% of the variation in the dependent variables is linked with the explanatory variables or the regression. The

explanatory variables are Value Added Tax, Company Tax and Excise Duties while 15% is left unexplained.

The Durbin Watson Statistics of 1.84 which is very close to 2 also proves the significance of the entire regression which shows little or no auto-correlation among the extraneous variables.

## Model 2

Pairwise Granger Causality Test

Date: 10/ 15/ 14 Time: 08: 18

Sample: 1994 - 2013

Lags 2

Null hypothesis	Obs	F statistic	Probability
VAT does not Granger cause GDP	18	3.83795	0.04899
GDP does not Granger cause V AT		5.30962	0.02063

There is no direct causality between GDP and V AT revenue. The reason could perhaps be attributed to other related macroeconomic variables. The Lag period of two years in table means that any action taken on any of the variables will take two years to become effective.

## CONCLUSION

Value Added Tax (VAT) was introduced in 1993 by Nigerian Government to shift her revenue priorities away from crude oil sales, petroleum profit tax and oil royalties all which are vulnerable to international petroleum price fluctuation to a more stable internally generated revenue service.

The multiple regression analysis via Econometric view package (E-view) has been used to express the effects of Value Added Tax (VAT), Petroleum Profit Tax (PET) Company Income tax on GDP

The findings revealed a positive relationship between Value Added Tax (VAT) and economic growth.

The regression result confirms the negative relationship between Company Income Tax and economic growth. The excise duty has a negative impact on

Economic Growth. It shows a positive relationship between Petroleum Profit Tax and Economic Growth. The Excise Duty also has a negative impact on Economic Growth.

Pairwise Granger Causality Test was also conducted to examine the direction of causality between Value Added Tax (VAT) and economic growth. The result showed no causality.

## RECOMMENDATIONS

Sequel to the results of this empirical investigation; the following recommendations are put forward for policy formulations. Though VAT has a positive effect on the economy, more effort should be gingered to exempt infant industries from excise duties in order to encourage them to grow as this will later increase our VAT and subsequently has a positive effect on economic growth.

The proceeds from VAT should be used to develop infrastructural facilities and to further intensify efforts on the privatization scheme by providing enabling environment for the private sector to flourish as this will further increase revenue from VAT and consequently leads to economic growth.

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