e-ISSN : 2347 - 9671, p- ISSN : 2349 - 0187

EPRA International Journal of Economic and Business Review | Vol - 4, Issue- 2, February 2016

Inno Space (SJIF) Impact Factor : 5.509(Morocco) ISI Impact Factor : 1.259 (Dubai, UAE)

EVALUATION OF THE CONTRIBUTION OF VALUE ADDED TAX TO THE NIGERIA ECONOMY

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ABSTRACT

This paper evaluate empirically the contribution of Value Added Tax (VAT) to Nigeria from 2000-2012. Data were collected from Central Bank of Nigeria (CBN) statistical bulletin and Federal Inland Revenue bulletin. Ordinary Least Square techniques were used to estimate the model, which reveals a strong positive significant relationship between Value added tax and Nigeria economy. This study therefore recommends a variable tax rate that will take more for high income earner and that exemption should be given to some categories of goods and services like necessity goods to encourage even income distribution.

KEY WORDS: *Value added tax, Tax revenue, Gross domestic product, Laffer curve, Tax reform.*

INTRODUCTION

1.1 Background of the study:-

The introduction of Value Added Tax (VAT) in Nigeria came from the report of the study group set up by the Federal government in 1991 to review the entire tax system in Nigeria. It was set up to carry out feasibility studies on its possible implementation. In January 1993, the Federal government agreed to introduce VAT by the middle of the year, but due to some logistics problem (legislative approval and proper ground work), it was shifted to 1st January, 1994. It replaced the former existing sales tax being that it is neutral, a considerable part of the new tax was to be realized from import unlike the sales tax that targets only locally produced goods (Jideofor, 2012).

In developing countries, VAT has become a major source of revenue; it has become an important contribution to total government tax revenue (Ajakaiye, 2000). The impressive performance of VAT in virtually all countries where it has been introduced clearly influenced the introduction of VAT in Nigeria. VAT is a consumption tax that is relatively easy to administer and difficult to evade. Evidence so far suggests that VAT is already a significant source of revenue in Nigeria. For instance, actual VAT revenue for 2010 was #564.9billion, #659.15billion in 2011, and #710.1billion in 2012, showing a continuous increase in VAT revenue (The economistNg, 2013).

By the introduction of Value Added Tax (VAT) it was intended that government revenue priorities will move away from crude oil, sales, oil royalties and Petroleum Profit Tax, all which are vulnerable to international petroleum price fluctuation, to a more stable internally generated revenue service. Internally generated revenue was seen by the government as the heart of efficient fiscal policy, it was seen by the resources needed for society want shall be taken from all various enterprises and be made available for public goods and service. Such a move would boost government revenue. Okele (as cited in Olatunji, 2013).

According to Olatunji (2013), the introduction of the Value Added Tax requires a lot of preparation and enlightenment, on the part of the government because of

the complexity of the tax and the need for co-operation of the tax payers. While the performance of VAT as a source of revenue in Nigeria is encouraging, it remains difficult to find attempts to systematically assess the impact of VAT on the economy, Extensive studies have been done on various aspects of the operation of Value Added Tax (VAT) in Nigeria but not much appear to have been done in study VAT contribution to total tax revenue and contribution to GDP. This study is thus undertaken to add to whatever scarce studies already exist in this aspect of VAT, this study set out to assess the contribution of VAT to the Nigeria economy. This study will be restricted to the aspect of VAT that falls under the jurisdiction of the Federal Board of Inland Revenue (FBIR), Federal Inland Revenue service (FIRS). The study covers the total tax revenue, target and actual VAT and the gross domestic product between 2000-2012 using time series data. In carrying out the study, the accuracy of the study is limited by: Inability to completely obtain a random sample; the smallness of the sample size; imprecise measurement of variables; inappropriate test statistics.

1.2 Statement of research problem:-

In terms of contributions to the total federal collection revenue, value added tax revenue at the time of inception in 1994 was anticipated to be much larger indicating that Nigeria then may soon join the growing list of developing countries, here VAT contributes at least 20% of total government revenue. While the performance of VAT as a source of revenue in the sub-Sahara Africa and Nigeria in particular is encouraging, it remains difficult to find attempts to systematically assess the impact on the economic (Ajakaiye, 1999).

Over the years, revenue derived from taxes has been very low and no physical development actually took place. According to Afuberoh & Okoye (2014), inadequate tax personnel, fraudulent activities of tax collectors and lack of understanding of the importance to pay tax by tax payers are some of the problems, however since VAT can almost not be avoided, its effect on the overall tax revenue not clear as the forms part of the problem of this study.

Also despite the enormous revenue that flows into the government treasury, there are critics who argue that the incident of VAT like other indirect taxes is regressive. The reason is that poor people spend a large portion of their income on purchases, some of which carry VAT. Moreover in Nigeria, the revenue from VAT is rationally shared out according to the agreed percentage while not a lot of research has been done to determine(s) the effect of this new revenue source on some aspect of the economy (Umeora, 2013).

This problem has been lingering for so long, which urgent attention and solution is overdue. For the purpose of the research, this study will examine the implication of VAT on revenue generation and its contribution to the Nigeria economy.

The study seeks to therefore provide answers to the following questions:

i. To what extent does VAT contribute to tax revenue generation in Nigeria?
ii. What extent has VAT contributed to the steady growth of GDP in Nigeria?
iii. To what extent does Tax revenue contribute to the total GDP in Nigeria?

1.3 Objectives of the study:-

The broad objective of this study is to investigate the effect of VAT on revenue generation and the Nigeria economy. The specific objectives are to:

i. Examine the effect of revenue generation through VAT on the overall tax revenue of Nigeria.
ii. Investigate to what extent has VAT contributed to the steady growth of GDP in Nigeria.
iii. Investigate the extent to which tax revenue has contributed to the total GDP in Nigeria.

1.4 Research hypothesis:-

In order to answer the research questions and achieve the research objectives, the following hypotheses stated in the null form shall be tested.

Ho_1: There is no significant relationship between revenue generated through VAT and the overall tax of Nigeria.

Ho_2: There is no significant relationship between VAT and the growth of GDP in Nigeria.

Ho_3: There is no significant relationship between tax revenue and GDP in Nigeria.

LITERATURE REVIEW

2.1 Introduction:-

This study investigates the contribution of Value added tax on the Nigerian economy. The main question addressed is the contribution VAT and its effect on GDP and Total tax revenue. The variables of interest are: GDP, Total tax revenue, VAT revenue and Tax revenue less VAT

2.2 Overview of VAT in Nigeria:-

VAT which is also called the goods and services tax (GST), is levied on the value added that results from each exchange. It is an indirect tax collected from someone other than the person who actually bears the cost of the tax or the tax burden. VAT was introduced in 1954 by France. The first developing country to implement VAT was Brazil in 1967 when the state government abolished

the multiple sales tax system, in order to ensure financial and economic co-ordination among 26 states in the country (Onoh, 2013).

In Nigeria, when it became apparent that the country couldn't survive favorably by sole dependence on the oil-derived income revenue, the need to diversify the source of revenue by the government forced it think of restructuring the economy. As part of the efforts at comprehensively country's tax system. In 1991, two study groups were established; one on directs taxes and the second on indirect taxes. The objectives of the study was to reduce dependence on oil revenue; improve the administration of indirect taxes; shift taxation towards consumption (indirect) rather than saving (direct); and provide incentives for export production. The introduction of VAT automatically replaced the sales Tax that was introduced in 1986s through Decree No 7 (Olatunji, 2013).

According to analysts, the tax was intended to be a 'super tax' to eradicate completely many other taxes related on goods and services. Value Added Tax was then imposed on virtually all goods and services, whether produced or rendered in Nigeria or not. Exemptions however were granted in respect of medical and pharmaceutical products, basic food items, fertilizers, agricultural and centenary medicine, books and educational items, farming and transport equipment, etc. Value Added Tax effectively replaced the former sales tax, which, under the constitution, was supposed to be charged by states and not the Federal Government, Okezie (2003).

Tax reforms in Nigeria:-

Tax reform became imperative in Nigeria because of the nature of its tax structure, which according to Anyanwu (1997) was complex, inelastic, inefficient, inequitable and unfair. The dependency of the country on taxes relating to foreign trade activities had made the revenue base of the country to be very unstable. In addition, the Nigeria's tax base was very narrow while the tax rate was very high. It is against this back drop that Nigeria's government decided to reform the tax system. The main objective behind the tax reform was to create an efficient tax system based on taxes that are politically feasible and administratively practicable, thereby generating more revenue and at the same time reducing the tendency for economic distortions.

In the work of Somorin (2011), she stated that taxation can play a vital and pivotal role in the creation of wealth and employment in the Nigerian economy. She further outlined some objectives of taxation which includes:

i. *Stimulating growth in the economy, by increased trade and economic activities:* In this regard, tax revenues should be used to provide basis infrastructure such as power, roads, transportation and other infrastructure which would facilitate trade and other economic activities.
ii. *Stimulating domestic and foreign investment:* It is necessary to mention that where the tax system creates a competitive edge for investments in the economy, local investments would be retained in the country while also attracting foreign investments. Increased investment would generate employment and provide wealth in the hands of individuals.
iii. *Revenue generated from taxes can also be applied directly to identify sectors of the Nigerian economy to stimulate such sectors:* Somorin (2011) emphasized that for this statement to apply, the sectors must be those which have potential for creating employment, developing the economy and creating wealth for the greater benefit of citizens and government of this country.
iv. *Revenue earned from taxes can be used to develop effective regulatory systems, strengthen financial and economic structures and address market imperfections and other distortions in the economic sector:* Taxes realized from specific sectors of the economy can be channeled back to those sectors to encourage their continued growth and development.
v. *Redistribution of income:* whereby tax revenue realized from high income earners is used to provide public infrastructure and utilities to the lowest income earners.
vi. *Provision of merit goods:* An important objective of tax system is the promotion of social, economic and good governance through provision of merit goods. Examples of merit goods are health and education. These must not be left entirely to private hands though, private participation should be encouraged.

2.3 GDP and VAT:-

The most common measure of the amount of goods and services produced in an economy is termed Gross domestic product (ECON, 2006). GDP is total currency value of all final goods and services produced in an economy over some time period/year. Nigeria's economic aspirations have remained that of altering the structure

of production and consumption patterns, diversifying the economic base and reducing dependence on oil, with the aim of putting the economy on a part of sustainable, all-inclusive and non-inflationary growth. This implies that rapid growth in output will be measured by the real gross domestic product (GDP) Sanusi, (2010). Value added tax is an important revenue that contributes to Nigeria GDP.

Basila (2010), in investigating the relationship between VAT and Gross net product (GNP) in Nigeria between 1994 and 2008. GNP and VAT figure for that period of study were tested for correlation, the test revealed a strong Pearson's product moment correlation (PPMC) at about ninty-six percent strength. Further, a test of significance confirmed that VAT revenue is significantly different at ninety-nine percent confidence level in relation to GNP. He concluded that there is a strong positive correlation between VAT revenue and GNP, again as regards to the test of significance; t-test confirmed that VAT is significantly different in relation to GNP in Nigeria.

Adereti, Sanni and Adesina (2011), used time series data on the Gross Domestic Product (GNP), VAT Revenue, Total Tax Revenue and Total (Federal Government) Revenue from 1994 to 2008, sourced from Central Bank of Nigeria (C.B.N), using both simple regression analysis and descriptive statistical method. Findings showed that the ratio of VAT Revenue to GNP averaged 1.3% compared to 45% in Indonesia, though VAT Revenue accounts for as much as 75% significant variations in GNP in Nigeria. However, they concluded that there is a positive and significant correlation that exists between VAT Revenue and GNP.

Okoye and Gbegi (2013) investigated the effect of tax on wealth creation using a secondary data that were generated from Federal Inland Revenue Services and federal bureau of statistical analysis with the aid of a table and simple percentage, while the hypothesis formulated were tested using product moment correlation coefficient and student in test. The findings revealed that revenue generated through VAT has a significant influence on wealth creation in Nigeria and also that revenue generated through VAT has a significant effect on total tax revenue in Nigeria.

Williams McCarten (2005) conducted a detailed econometric examination focusing specifically on the collection efficiency of VAT, using an unbalanced panel of 45 countries (including a number of developed countries) for the period between 1970-1999 period and found that VAT collection efficiency increases with urbanization, trade openness and real GDP per capital but is negatively related to the agricultural share of GDP.

Eneje (2011), obtained data from the C.B.N Statistical Bulletin within the period of 1981 to 2009. The findings reveal that VAT has a significant impact on Nigeria's economic growth. It also shows a positive impact on GDP.

Oloidi & Oluwalana (2014) studied the effectiveness and efficiency of VAT to GDP and total consumption expenditure (TCE). The effectiveness and efficiency of VAT was calculated on GDP and adjusted GDP, the non-vatable components were net off from GDP resulting in the adjusted GDP. Also VAT effectiveness and efficiency were calculated on TCE and adjusted TCE, the adjusted TCE represents the private consumption expenditure. Findings revealed that VAT was not effective on GDP but effective on adjusted GDP. VAT was neither efficient on TCE nor on adjusted TCE. Also VAT was not productive at the cross-elasticity of TCE/GDP but was productive at the cross-elasticity of Adjusted TCE/Adjusted GDP.

Unegbu and Irefin (2010) investigated the impact of VAT on economic development of emerging Nations. Data were collected from primary and secondary sources. Regression, discriminate analysis and ANONA were used in testing the hypothesis and they found out that VAT allocations alone accounts for 91.2% of the variations in expenditure pattern. From their findings they concluded that, although VAT allocations to Adamawa State from 2001 to 2009 have a very significant impact on expenditure pattern of the state during the same period.

Owolabi & Okwu (2011) carried out an empirical study of contribution of 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 economy. 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. The study concluded that various sectors are yet to benefit significantly from the state government's expenditure of VAT revenue.

2.4 GDP and Tax Revenue:-

According to Edame & Okoe (2014) Taxation is an important part of fiscal policy which can be used effectively by government and developing economies. It plays a very vital role in economic development of a country which includes; resources mobilization, reduction in inequalities of income, improvement in social welfare, foreign exchange, regional development, control inflation etc. Tax initial objective was to raise government revenue.

But with the change in circumstances and ideologies, the aim of taxes has changed, these days apart from the objective of raising the public revenue, taxes level affect consumption, production and distribution with a view to ensuring the social welfare through the economic development of a country, tax can be used as an important tool in the following manner: optimum allocation of available resources, raising government revenue, encouraging savings and investment, acceleration of economic growth, price stability, control mechanism etc. Gross domestic product which measures the economic size and strength of the economy are used to measure the contribution of tax to the total revenue of Nigeria.

Edawe & Okoi (2014) examined the impact of taxation on investment and economic growth in Nigeria from 1980 to 2010. The ordinary least square method of multiple regression analysis was used to analyze the data. The result of the analysis shows an inverse relationship exist between taxation and investment, also their result revealed that taxation is negatively related to the level of investment and the output of goods and services (GDP) and is positively related to government expenditure in Nigeria. The study also observed that taxation statistically is significant factor influencing investment, GDP and government expenditure in Nigeria.

Samuel & Tyokoso (2014) investigated the effect of taxation on revenue generation in some selected states in Nigeria. The researchers adopted primary and secondary sources of data to present and analyze the effect of total tax revenue on revenue generated in Nigeria. The testing of hypotheses was done using regression analysis. The study discovered among others that, taxation has a significant contribution on revenue generation, taxation has a significant contribution on gross domestic product (GDP) and tax evasion and tax avoidance have a significant effect on revenue generation in Nigeria.

Okafor (2012) examined the relationship between tax revenue generation and Nigerian economic growth as proxy by the gross domestic product (GDP). The ordinary least square (OLS) regression analysis was adopted to explore the relationship between the GDP (the dependent variable) and a set of federal government income tax revenue heads over the period 1981-2007. The regression result indicated a very positive and significant relationship. However actual tax revenue generated in most years fell below the level expected. The anomaly was attributed to dysfunctional ties in the income tax system, loopholes in tax laws and inefficient tax administration.

2.5 Tax revenue and VAT:-

Taxes are the major tools required to overcome problems in financing of public goods and also to control other market imperfections, and achieve social justice by wealth redistribution. Tax is a major player in every society of the world. It is an ingredient to development in different parts of the world as it is an opportunity for government to collect additional revenue used to provide for the needs of the people (Yahaya, 2007; Ogbonna & Appah, 2012). The most important role of a tax system is its revenue-raising function. Government therefore, imposes taxes to finance the expenditures they undertake. Tax systems also have an important income distribution function. Okon (1997) states that income tax from VAT can be regarded as a tool of fiscal policy used by government to influence positively or negatively activities in the economy in order to achieve desired objectives.

Onwuchekwa & Aruwa (2014) investigated the impact of value added tax on the economic growth of Nigeria. Ordinary least square technique was employed to test the hypotheses formulated. The result shows that VAT contributes significantly to the total tax revenue of government and by extension the economic growth of Nigeria. VAT revenue growth had consistent increase though it was not that explosive.

Onaolapo, Aworemi & Ajala (2013), perform a data analysis with the use of stepwise regression analysis. Findings showed that VAT has statistical significant effect on revenue generation in Nigeria. The results from their analysis revealed that value added tax (VAT) is beneficial to the Nigeria economy from the findings it also shows that for Nigeria to attain its economic growth and development, she must be able to generate enough revenue in order to meet up with the challenge of her expenditure in term of provision of social amenities and the running costs of the government.

Michael & Ben (2007) explore the causes and consequences of the spread of value added tax (VAT). A panel study of 143 countries for 25 years were observed. The result shows that VAT has a significant but mixed impact. This implies that while some countries would have gained revenue from the adoption of VAT, others would not. Collectively, the adoption of VAT had a long run increase in overall revenue to GDP ratio.

Ekeocha (2010) performed a simulation study advocating VAT rate increases 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

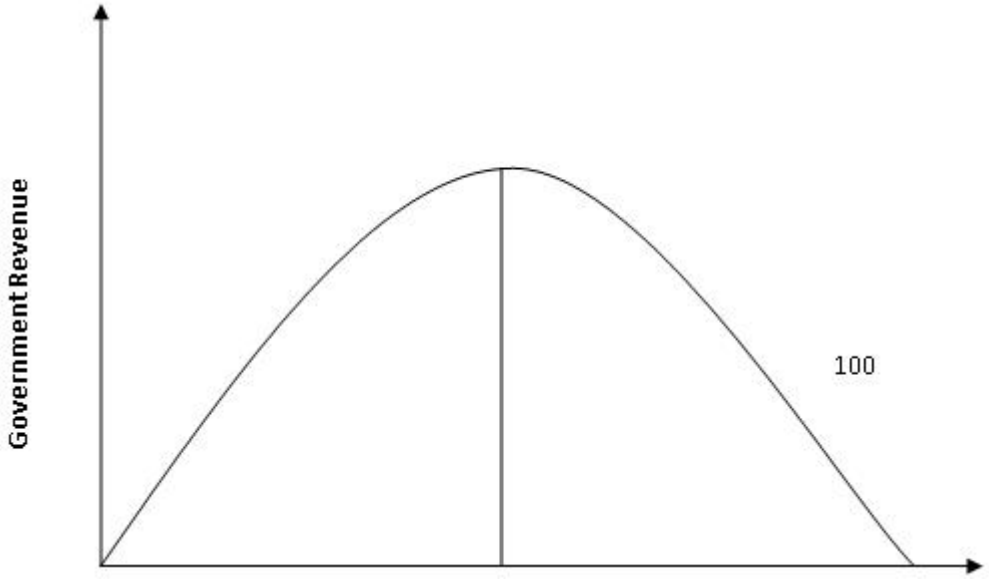
that will not affect aggregate consumption". He further argued that increasing the rate will upward effect of increasing the country's revenue base.

On the issue of VAT exemptions, Thisen (2003) noted that many African countries lack the administrative ability to handle the large volume of returns and refunds for zero-rated transactions. Because of this, lots of items are exempted. Such exemptions allowed by international best practices cover items as water and sewerage services, books and newspapers and transportation.

2.6 Theoretical Framework:-

Taxation is a product of theorists. The study looks at is Prof. Arthur Laffer theory on taxation, popularly known as the "Laffer Curve." It is a theoretical representation of the relationship between government revenue raised by taxation and all possible rates of taxation.

This theory is demonstrated with a curve (i.e. Laffer curve which is constructed by through experiment).



It considered the amount of tax revenue raised at the extreme tax rates of 0% and 100%. The theory concludes that a 100% tax rate raises no revenue in the same way that a 0% tax rate raises no revenue. This is because at 100% rate, there is no longer incentive for a rational tax payer to earn any income, thus, the revenue raised will be 100% of nothing. It therefore follows that there must exist at least one rate in between where tax revenue would be a maximum. Laffer attributes the concept to Ibn Khaldun and Keynes J.M.

One potential result of this theory is that increasing tax rate beyond a certain point will become counterproductive for raising further tax revenue because of diminishing returns (Laffer, 2004).

METHODOLOGY

3.1 Introduction:-

The primary objective of the study is to conduct an investigation of an evaluation of VAT on Economic Growth in Nigeria. The thrust of this chapter therefore is to describe the methodology employed for the purpose of our study. Hence, we describe below the method of research design, population and sampling, data source, model specification, method of data analyses and operationalisation of variables.

3.2 Research Design:-

As a model of logical sequence, the research design adopted for this study is the time serial data analysis research design. The choice of this design is hinged on the nature of our study. With this design, the researchers collect data that are used to investigate the impact of VAT on economic growth using data collected from the annual bulletin of CBN and IFRS.

3.3 Population and Sampling:-

The population of the study is government total tax revenue between the period VAT was introduce to Nigeria to date (1994-2013) as published in various government financial reporting bulletin as at 31st of December, 2014. The sample size covers the period from 2000-2012 pooled for 13 years. The choice of this period is because of the impact; the various government tax reforms have had on Nigerian tax revenue performance within this period. The sampling method adopted for this study is the stratified sampling with convenience sampling techniques. This method is predicated on the concept of stratum which is a subset of the population that shares at least one common characteristic (Obadan, 2012). The method is primarily to ensure that different groups of a population are adequately represented in the sample so

as to increase their level of accuracy when estimating parameters (Nachmias & Nachmias, 1996).

3.4 Sources of Data:-

This study is based on secondary data. The financial data (VAT, TR, OTR and GDP) have been collected from annual reports and accounts of government in the Central Bank of Nigeria statistical bulletin and Federal Board of Inland Revenue services. The time series macroeconomic data (GDP) have been extracted from the Central Bank of Nigeria statistical bulletin.

3.5 Model Specification:-

In the light of the methodological knowledge gathered and empirical literature in our previous chapters, we specify a panel data multiple regression model. By definition, a time serial data multiple regression model is one that seeks to explain change or variation in the value of one variable (GDP) on the basis of changes in other variables known as the independent or explanatory variables using simple series data. The assumption of serial data regression is that the dependent variable is a linear function of the independent variables with consideration to the homogeneity in the pooled variables. To accurately measure the impact of the independent (VAT), we attempted to review its impact on the total tax revenue collected by government and its relationship to GDP.

Therefore as stated above two models were developed to measure the relation between VAT and total tax revenue and also the impact on Vat on GDP as defined below. The model for the study was neither adopted nor modified but was specifically developed for the purpose of the study. The models applied in this study were used to analyse the effect of VAT on total tax revenue and its impact on GDP. Consequently, our model is shown thus:

The econometric model that was employed in this study is a multiple regression model. A multiple regression model is that which seeks to express relationships between dependent variable and the independent variables. This model was neither adopted nor modified from any other study. The models were specified in this study and were purposively developed for study. Consequently, the model is expressed below in functional and empirical form:

GDP = f (VAT and OTR)

$$GDP_{it}=\propto_i + \beta_1 VAT_{it}+\beta_2 OTR_{it}+\varepsilon_{it} \text{ ..... (1)}$$

$$TR_{it}=\propto_i + \beta_1 VAT_{it} +\varepsilon_{it} \text{ ..... (2)}$$

Where:

DGP_{it}= Gross domesic product i at year end t

VAT_{it}= Value added tax i at year end t

OTR_{it}= total tax revenue less VAT i at year end t

TR_{it}= total tax revenue i at year end t

GDP_{it}= Gross domestic product for firm i at year end t

β_1.....β_5 = Coefficients

ε_{it}= Error term over cross section and time.

The apriori expectation of the above model is $\alpha_0 >0$, $\alpha_1>0$, $\alpha_2>0$, and <0.

3.6 Method of Data Analyses:-

The econometric techniques adopted in this study are the time series data regression techniques. The use of this data regression method is based on four fundamental justifications: (1) the data collected had time attributes and this will enable us to study GDP over time (time series). (2) time series data regression provides better results since it increases sample size and reduces the problem of degree of freedom. (3) The use of this data regression would avoid the problem of multicolinearity,

aggregation bias and endogenity problems. (4) times series data regression analyses help to capture the individual sectional (or country-specific) effects that the various pools may exhibit with respect to the dependent variable in the model.

The specified linear multiple data for this study is estimated using Unobserved Effects Model (UEM) which can either be fixed effect or random effect depending on assumptions made about the distribution of the unobserved component and the error term. The serial regression results is evaluated using individual statistical significance test (T-test) and overall statistical significance test (F-test). The goodness of fit of the model is tested using the coefficient of determination (R-square). In this study, we also conduct descriptive statistics to show characteristics among variables. In conducting our data analyses, we used Eviews 7.0 software.

3.7 Operationalisation of Variables:-

Our dependent variable is GDP and TR, others classified as independent variables. The operational definitions of variables are offered in the table below:

Table 1: Summary of variable definition.

S/NO	VARIABLES	MEASUREMENT	USED BY	OUTCOME
1	Economic growth	GDP	Okoye & Gbegi	positive
2	Total tax revenue	TR	Samuel & Tyokoso	positive
3	Value added tax	VAT	Onaolapo et al	positive
4	Other taxes	TR les VAT	Nil	Nil

Source: Researchers Compilation from Various` Sources (2015)

DATA PRESENTATION AND ANALYSES

4.1 Introduction:-

In this chapter, we perform the presentation and analysis of the data used for the empirical evaluation of the study. The analysis involves the use of both statistical and econometric methods in order to provide a rich background for the investigation. The statistical tools employed are the descriptive statistics and correlation analysis. The descriptive statistics are used to provide the initial characterization of the data. The econometric analysis extends the statistical analysis with the goal of performing the empirical analysis and obtaining estimated coefficients which are valid enough to test the hypotheses in the study. As explained in the previous chapter, the serial Data Analysis method is employed in the econometric analysis although the Ordinary Least Squares technique is also conducted for comparison of results.

4.2 Data analyses and interpretation:-

Basically, tables are presented and their numeric implication are analysed after each table. These tables provide numeric information about the descriptive nature of the data gathered amongst other things.

4.2.1 Descriptive Statistics:-

Table 1a and 1b

	GDP	VAT	OTR
Mean	556103.6	311625.4	1724844.
Median	561931.4	221600.0	1563700.
Maximum	834161.8	710150.0	4297550.
Minimum	312183.0	58469.60	325299.0
Std. Dev.	169930.8	225619.8	1283909.
Skewness	0.037181	0.596041	0.830567
Kurtosis	1.872259	1.902531	2.692585
Jarque-Bera	0.691887	1.422144	1.545846
Probability	0.707552	0.491117	0.461662
Sum	7229346.	4051130.	22422970
Sum Sq. Dev.	3.47E+11	6.11E+11	1.98E+13
Observations	13	13	13

Source: Researchers' Output (2015).

	TR	VAT
Mean	2036.469	311625.361
Median	1846.9	221600
Maximum	5007.7	710150
Minimum	433.9	58469.6
Std. Dev.	1497.241353	225619.792409
Skewness	0.797666	0.596040
Kurtosis	2.608335	1.902530
Jarque-Bera	1.461684	1.422143
Probability	0.481503	0.491117
Sum	26474.1	4051129.7
Sum Sq. Dev.	26900779.52	610851488721.
Observations	13	13

Source: Researchers' Output (2015).

GDP has been described as the total monetary value of goods and services produced in a country. Therefore, from table 1 above, a cursory examination of the mean values reveals that on the average the value of goods and services produced in Nigeria as expressed monetary is ₦556103.6million (#2036.469 for TR table 1b). The average VAT of ₦311625.4million and OTR of ₦1724844, suggest what the Nigerian government is able to generate as receipt from the imposition of taxes on persons. Furthermore, based on the Jarque Bera statistics, GDP, VAT and OTR (TR as n table 1b) can be adjudged to be normally distributed at 5% level of significance since their values are relatively large.

The results of the descriptive statistics of variables are reported in table 1&1b above. The results showed that the average GDP for the sampled period under consideration is approximately 556103 (and 2036.469 for TR in table 1b) while the maximum and minimum GDP is respectively 834161 and 312183 (TR, 5007.7 & 433.9). The value added tax (VAT) which is another important variable in our study has average value of 311625 on the statistical tables above. But its maximum and minimum values are respectively 710150 and 58469. The next variable on our descriptive table is other tax revenue (OTR). It recorded mean value of 1724844. But its minimum and maximum values are 4297550 and 325299 respectively.

Aside the mean values, the Jarque Bera statistics and the associated probabilities indicated that the distribution of the variables assumes a normal shape (GDP, the dependent variable of interest, revealed a JB statistic of 0.691887 (TR, 1.4616 table1b) and an associated probability value of 0.707552 (TR 0.48150 table 1b). The results of the standard deviation statistics revealed very small dispersion of the variables from their respective mean values.

4.2.2 Correlation Matrix:-

In an attempt to explore the relationship between variables used in the study, we carried out correlation analysis using Pearson product moment correlation method. The results are presented in the table below:

Table 2a & 2b

Covariance Analysis: Ordinary
Date: 03/07/15 Time: 12:14
Sample: 1 13
Included observations: 13

Correlation t-Statistic **Probability**	**GDP**	**VAT**	**OTR**
GDP	100000		

VAT	0.961135	100000	
	11.54646	-----	
	1.726754	-----	
OTR	0.932872	0.936230	10000
	8.5894621	8.836756	-----
	3.302000	2.506388	-----

Source: Researchers' Output (2015)

Covariance Analysis: Ordinary
Date: 03/07/15 Time: 12:26
Sample: 1 13
Included observations: 13

Correlation t-Statistic **Probability**	**TR**	**VAT**
TR	100000	

VAT	0.953522	100000
	10.495400	-----
	4.550774	-----

The table 2a and 2b above shows the relationship of how the variable relate to one another in the sampled data within the period under consideration. The tables show that the co-efficient of correlation of a variable with respect to itself is 1.000. This indicates that there exists a perfect correlation between a variable with respect to itself. The result also showed that there exist a high positive relationship between VAT and OTR with GPD. There is also a strong positive relationship between VAT and OTR (VAT & TR table 2b). The statistical implication of this is that VAT and OTR had significant positive relationship with GDP (TR IN TABLE 2b) since it had p-values >0.05.

The highest correlation of value 0.936230 was reported between VAT and OTR and is above 0.80 which may signify the presence of muiticollinearity.

4.2.3 Diagnostic Tests:-

To ensure reliability and validity of the empirical results, some diagnostic tests were conducted. In order to test for the presence of multicollinearity in the model, the Variance Inflation Factor (VIF) was carried out, the Hereroskedasticity test was conducted using Breusch-pagan-Godfrey test, while mis-specification test is conducted using the Ramsey Reset Test to ascertain whether our model is correctly specified.

Table 3

Variance Inflation Factors

Date: 03/07/15 Time: 12:17

Sample: 1 13

Included observations: 13

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	554806744.62	3.0888908	
VAT	0.030958	24.836838	8.098932
OTR	0.000951	23.934023	8.098932

Source: Researchers' Output (2015)

Results of the variance inflation factor the absence of multicollinearity was further strengthened by the results of the test of variance inflation factor the test revealed relatively low variable factor statistics which did not signify the presence of multicollinearity. For example, the variable reported a centered V/F of . VAT 0.09893, OTR and 0.09893 respectively, all the variables in the regression model are relevant to the study since the VIF factors are all below the benchmark of 10. This indicates the absence of multicollinarity in the model.

Table 4

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	1.928716	Prob. F(2,10)	0.1956971
Obs*R-squared	3.6187526	Prob. Chi-Square(2)	0.163756
Scaled explained SS	0.687367	Prob. Chi-Square(2)	0.7091538

Results of the test of Heteroskedasticity the Brewsch-Pagan-Godfrey test of Heteroskedasticity was adopted in the study. We tested the null hypothesis of Heteroskedasticity residuals. The results of the study revealed probability values of 0.19569 and 0.16375 which both exceeds B=0.005. The result could not sustain the null of Heteroskedasticity residuals. The alternate hypothesis of homoskedastic residuals was chosen.Serial correlation between the explanatory variables.

Table 5: Heteroskedasticity Test: Breusch-Pagan-Godfrey

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	2579.114	Prob. F(2,188)	0.4000
Obs*R-squared	187.8571	Prob. Chi-Square(2)	0.7000

Results of the Serial Correlation Test the Brewseh Godfrey test of serial; correlation was adopted for the study. The test results revealed high positive probability values 0.4000 and 0.7000 which for exceeds the P=0.05 bench mark. The results of the study could not sustain the null hypothesis of the presence of Serial correlation between the explanatory variables.

Table 6

Ramsey RESET Test

Equation: UNTITLED

Specification: TR C VAT

Omitted Variables: Squares of fitted values

	Value	Df	Probability
t-statistic	0.73706745	10	0.478018023
F-statistic	0.54326843	(1, 10)	0.478018023
Likelihood ratio	0.68773250	1	0.406936711

F-test summary:

	Sum of Sq.	Df	Mean Squares
Test SSR	125852.266	1	125852.2663
Restricted SSR	2442428.33	11	222038.9398
Unrestricted SSR	2316576.07	10	231657.6072
Unrestricted SSR	2316576.07	10	231657.6072

Results of the Ramsey Reset test the Ramsey test as a test of model misspecification. The result of the test reported high probability values of 0.47801 and 0.406936 which are the above the value of p=0.005. The results of the test could not sustain the null hypothesis of model misspecification which means our regression model was correctly specified and therefore accurate for the study and signifies the presence of positive relationship between GDP, VAT and OTR.

4.2.5 Analysis of the Regression results:-

Table 7a & 7b Results of the panel least square regression

Dependent Variable: GDP

Method: Least Squares

Date: 03/07/15 Time: 12:16

Sample: 1 13

Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	328230.5459	23554.3360	13.935037	7.0800330
VAT	0.535278	0.175949	3.042231	0.012414
OTR	0.035404	0.030919	1.145047	0.278854

R-squared	0.932615	Mean dependent var	556103.552
Adjusted R-squared	0.919136	S.D. dependent var	169930.754
S.E. of regression	48321.59496		
Sum squared resid	2334976540		
Log likelihood	156.954073	Hannan-Quinn criter.	24.5815214
F-statistic	69.201508	Durbin-Watson stat	0.53322656
Prob(F-statistic)	1.389269		

Source: Researchers' Output (2015)

Dependent Variable: TR

Method: Least Squares

Date: 03/07/15 Time: 12:27

Sample: 1 13

Included observations: 13

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	64.5979338	228.8638240	0.2822548	0.7829880
VAT	0.0063276	0.0006029	10.4954005	0.5507742
R-squared	0.909206	Mean dependent var		2036.46923
Adjusted R-squared	0.900952	S.D. dependent var		1497.24133
S.E. of regression	471.2100803	Akaike info criterion		15.2891233
Sum squared resid	2442428.338	Schwarz criterion		15.3760386
Log likelihood	-97.3793 0170	Hannan-Quinn criter.		15.2712583
F-statistic	110.1534316	Durbin-Watson stat		1.46828622
Prob(F-statistic)	4.550774232			

Source: Researchers' Output (2015)

The result above shows the regression result between GDP, VAT and OTR (and TR as shown in table 7b). The R-square shows that VAT and OTR explains about 93.3.9% of the systematic variations in GDP (VAT also explains 90.9% of TR). After adjusting for degree of freedom, the variables explain about 91.2% of the systematic variation in GDP (90% of TR). Based on the F-statistics and associated probability, the explanatory power of the model is sound as the probability value of the F-statistics of 69.201 (110.153) is less than 0.05. Thus, the model is able to specific the linear relationship between GDP, VAT and OTR (TR and VAT). With respect to the t-statistics, the table reveals that the variables have a significant positive impact on GDP at 5% level of significance.

The F-statistics and the associated probability values of 1.389369 (1.4616 table b) shows that a significant linear relationship between the dependent and the independents variables. The Durbin Watson Statistics of 0.53322 (and 1.46150 table7b) is substantially close to 2.00 and signifies the absence of auto correlation in the regression variables.

The variable of (VAT) revealed a positive coefficient of 0.535278 (and 0.00637 table 7b) and a statistically significant t-square of .3.042231 (and 10.49540 table 7b) which means that VAT impacted significantly on Nigeria economics and the total tax revenue , that is the value added tax increased Gross domestics product of Nigeria and her tax revenue. The associated probability values of 0.012414 (0.5507742) is substantially less than p=0.05 and signifies the presence of positive relationship between GDP and value added tax.

The variable of OTR was positive with a positive coefficient of 0.035404 This means GDP increases the variable of OTR the increase is statistically significant as the variable reported an significant t-value of 1.145047 and a probability value of 0.278854

4.3 Discussion of Findings-

Our discussion of findings is based on the decision rule which is to reject the null hypothesis and accept the alternative if the probability value of the z-statistics is less than 0.1 or accept the null and reject the alternative if the probability value is greater than 0.1. Considering the individual coefficients of the explanatory variables, the findings made from the empirical analysis are:

$H_0$1: VAT does not have any significant impact on economic growth in Nigeria

Based on the t-statistics and associated probability of 3.04 and 0.0124 respectively, this study fails to accept the null hypothesis and accepts the alternative. Thus, VAT has a significant impact on economic growth in

Nigeria. This finding is in line with the findings of Okoye & Gbegi (2013).

H_{02}: OTR does not have any significant impact on economic growth in Nigeria

Next we found that other tax revenue (OTR) had a significant positive relationship with economic growth (GDP) in Nigeria since the coefficient of OTR variable passes the ten percent significance test. This result suggests that OTR help to enhance revenue collection in Nigeria. On account of our finding, we reject the null hypothesis that OTR does not have significant impact on GDP in Nigerian Hence, we conclude that OTR benefits Gross Domestic Product.

$H_0$3: VAT does not have any significant impact on total tax revenue in Nigeria.

Based on the t-statistics and associated probability of 3.04 and 0.0124 (10.49540 & 0.5507) respectively, this study fails to accept the null hypothesis and accepts the alternative. Thus, VAT has a significant impact on economic growth in Nigeria and in total tax revenue. This finding is in line with the findings of Onwuchekwa & Aruwa (2014).

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction:-

In the evaluation of the contribution of value added tax to the Nigerian economy between 2000 and 2012, a review of our study of extant literature has been conducted, methodology offered and empirical examination carried out. Hence this chapter is dedicated to summary and concluding aspect of the study. The crux of this study is to summarize the entire study.

5.2 Summary of Findings:-

In line with the broad objective of our study which is to evaluate the contribution of value added tax to Nigerian economy between 2000 to 2012 period/year, empirical analysis have been conducted and discuss of findings offered. Following the result of our investigation, we found out that:

1. Value added tax contribution had a positive significant relationship with gross domestic product (GDP) since the coefficient of VAT passes the one percent significant test. This result suggests that value added tax increases gross domestic product.
2. Total tax revenue had a significant and a positive relationship with gross domestic product. On the basis of this we reject the null hypothesis but accept the alternative that total tax revenue has increased the total value of gross domestic product.
3. Value added tax contribution had a positive significant relationship with the total tax revenue. Judging from the outcome of our study, the value added tax enhances economy growth in Nigeria.

5.3 Conclusion:-

Countries all over the world look for various means to boost their revenue generating capacity this as a result will facilitate economic growth. Value added tax is one of the major ways by which countries can increase revenue generation; this has made it possible for countries to introduce value added tax into their tax structure. From the study carried out, the results show a significant relationship between VAT and GDP, tax revenue and GDP and lastly VAT and total tax revenue.

5.4 Recommendation:-

1.Value added tax has a fixed rate which means there is an element of inequity in the tax system due to the adoption of flat rate in every level of income. This has resulted in a situation where every level of income earner pay the same amount of value added tax. We therefore recommend a variable tax rate that will take more for high income earner.

2.We recommend that exemption should be given to some categories of goods and services like necessity goods to encourage even income distribution.

3.Tax proceed collected over the period should be publicly declared and government should also be accountable for tax revenue collected and expenditure incurred with the revenue.

4.There should also be a restructuring of the Nigeria tax structure to increase the level of information generation and accessibility.

5.Appropriate legislation should be made to encourage tax payment and compliance.

BIBLOGRAPHY

1. *Adereti, S. A., Adesina, J. A., & Sanni, M. R. (2011). Value added tax and economic growth in Nigeria, European journal of Humanities and Social Sciences.10 (1).*
2. *Afuberoh, D & Okoye, E. (2014). The impact of taxation on revenue generation in Nigeria: A study of Federal Capital Territory and selected states. International Journal of Public Administration and Management Research (IJPAMR), 2(2)22-47*

3. *Ajakaiye, O.D. (2000). Macroeconomic effect of VAT in Nigeria: A computable, general equilibrium analysis. Published by African Economic Research Consortium. Nairobi: Kenya*
4. *Anyanwu, J. C. (1997). Nigeria Public Finance. Joanne Educational Publishers: Onitsha.*
5 *.Basila, D. (2010). Investigating the relationship between VAT and GDP in Nigerian economy. Journal of Management and Corporate Governance. 2.*
6. *Edame, G. E. & Okoi, W. W. (2014). The impact of taxation on investment and economic development in Nigeria. Academic Journal of Interdisciplinary Studies. 3 (4).*
7. *Ekeocha P. C. (2010). Modeling the potential economic effects of VAT reform: Simulation analysis using computable general equilibrium analysis, paper submitted for ECOMOD, Istanbul July 7-10.*
8. *Jideofor, O. I. (2012). Value added tax and price stability in Nigeria. (Degree Assertion) Caritas University, Amorji-Nike: Enugu.*
9. *Laffer, A. (2004), The Laffer Curve, past present and future from heritage. Retrieved on 3rd of January from http:// www.heritage.org.*
10. *Michael., K and Ben, L (2007). The Value added tax: Its causes and consequences. IMF,*

a. *Working Paper 183.*

11. *Ogbonna, G. N. & Appah, E. (2012). Impact of tax reforms and economic growth in Nigeria: A time series analysis, Current Research Journal of Social Sciences, 4 (1), 62-68. Retrieved on the 12th of Feburary, 2015 from http://-www.maxwellsci.com/print/-crjss/v4-62-68.pdf*
12. *Okezie, A. S (2003). Personal income tax in Nigeria (Principles & Practice). ASO Publications: Aba, Nigeria.*
13. *Okon, E. (1997) Company Income Tax In Nigeria (unpublished Monograph) University of Port-Harcourt*
14. *Okoye, E.J. and Gbegi, D.O. (2013). Effective value added tax: An imperative for wealth creation in Nigeria, Global Journals Inc.13*
15. *Olatunji, O. C. (2013), Value added Tax (VAT) and inflation in Nigeria (1990 to 2003).*

a. *Asian Journal of Humanities and Social Sciences (AJHSS), 1(1).*

16. *Oloidi, G. A. & Oluwalana, L. O. (2014). Another approach to evaluating the productivity of value added tax in Nigeria. Developing Country Studies, 4 (15)*
17. *Onaolapo, A. A., Aworemi, R .J. & Ajala, O. A. (2013). Assessment of value added tax and its effects on revenue generation in Nigeria, International Journal of Business and Social Science. 4 (1).*
18. *Onoh, L. M. (2013). Impact of value added tax on Nigeria economy. (Degree Assertion) Caritas University, Amorji-Nike: Enugu.*
19. *Onwuchekwa, J. C. & Aruwa, S. A. (2014). Value added tax and economic growth in Nigeria. European Journal of Accounting Auditing and Finance Research. 2 (8), 62-69,*
20. *Oriakhi, D. E., & Ahuru, R. R. (2014). The impact of tax reform on Federal revenue generation in Nigeria. Journal of Policy and Development Studies, 9 (1). Retrieved on 20th December from www.arabianjbmr.com/ JPDS_index.php*
21. *Owolabi S. A. & Okwu A. T. (2011). Empirical evaluation of contribution of value added tax (VAT) to development of Lagos State economy. Middle Eastern Finance and Economics, Euro Journals Publishing retrieved on 20th of November, 2014 from http://www.eurojournal.com/MEFE*
22. *Samuel, S. E. & Tyokoso, G. (2014). Taxation and revenue generation: an Empirical investigation of selected states in Nigeria. Journal of Poverty, Investment and Development, 4*
23. *Somorin, T. (2011). National Tax policy, issues, challenges and prospects. Paper Presented at the MPTP workshop, Abuja, 19th October.*
24. *The EconomistNg. (2013). Engendering development by molding opinions consensus in the national and global economic discourse. Retrieved on 3rd January, 2015 from theeconomistng.blogspot.com/2013/.../n42trn.vatrevenue*
25. *Thisen J. K (2003). Tax reforms in selected African Countries, ad-hoc expert group meeting, 7-9 October, Addis Ababa*
26. *Umeora, C. E. (2013). The effects of value added tax on the economic growth of Nigeria. Journal of Economics and Sustainable Development, 4(6)*
27. *Unegbu, O. A. & Irefin, D. (2011). Impact of VAT on economic development of emerging Nations. Journal of Economics and International Finance, 3(8), 492-503.*

APPENDIX 1

Year	GDP(constant price) N'Million	Total Tax Revenue actual(#'Billion)	vat revenue actual (#'Million)	Total tax revenue less VAT(#'Million)
2000	312,183	455.5	58,469.60	397,030.40
2001	329,178.74	586.6	91,757.90	494,842.10
2002	356,994.26	433.9	108,601.00	325,299.00
2003	432,203.10	703.1	136,411.20	566,688.80
2004	477,532.98	1,194.80	159,500	1,035,300.00
2005	527,576.04	1,741.80	178,100	1,563,700.00
2006	561,931.39	1,866.20	221,600	1,644,600.00
2007	595,821.61	1,846.90	289,600	1,557,300.00
2008	634,251.14	2,972.20	404,500.00	2,567,700.00
2009	672,202.55	2,197.60	468,400.00	1,729,200.00
2010	718,977.33	2,839.30	564,890.00	2,274,410.00
2011	776,332.21	4,628.50	659,150.00	3,969,350.00
2012	834,161.83	5,007.70	710,150.00	4,297,550.00

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