

VALUE ADDED TAX AND ECONOMIC GROWTH IN NIGERIA**¹Major I. Harvest (PhD) & ²Fente, Fortune Ataisi****¹Department of Accounting, ²Department of Accounting (PhD) Student Faculty of Management Sciences, Ignatius Ajuru University of Education Rumuolumeni P.M.B 5047, Port Harcourt, Rivers State, Nigeria**Email: harvestngozi@gmail.com**ABSTRACT**

Nigeria is currently experiencing an economic downturn and revenue crisis due to declining crude oil revenue earnings, upon which the nation relies for its sustenance. The indirect taxes especially those from value added tax, which ought to contribute the higher percentage to the revenue, are not even reliable. There still persist in Nigeria the problem of underdevelopment, high mortality rate, occasioned by poor health care system, lack of critical infrastructure, insecurity and high inflation rate. To this end, the study determined the relationship between value added tax and economic growth in Nigeria from 2000-2020. The study used ex-post facto design. The study employed secondary data source from central bank of Nigeria and World Bank statistical bulletin of twenty-one (21) years financial report that covered period 2000 to 2020. The study utilized both Descriptive and Ordinary Least Square Regression method with the aid of using E-view 10 to analyze the data. The findings showed that Value Added Tax (VAT) had negative influence and statically significant with National Gross Product (NGP) and Real Gross Domestic Product (RGDP) in Nigeria. The study generally concluded that, there is a negative and significant relationship between value added tax and economic growth in Nigeria. Based on the conclusion, the study suggested that the government should put in place mechanism to close up the loopholes in the VAT collection system since its effect on gross domestic product is negative. Finally, government should put stern punitive measures in place to sanction corrupt officials as well as establishments that refuses to pay value added tax (VAT) or to remit the revenue collected.

Keyword: Value Added Tax, National Gross Product, Real Gross Domestic Product**INTRODUCTION**

The economic growth of any nation depends on government's ability to generate adequate revenue in order to effectively provide various infrastructural facilities to satisfy the needs of the populace and take its position in the global sphere. It is the expectation of the public to see that government provides basic infrastructures, such as, good road network, bridges, airports, seaports and other social amenities like education, electricity supplies, pipe borne water, housing and other services that cannot be executed by private sector. These expectations cannot be actualized except, there is an enabling financial resources. It is therefore, demanded that government should search for the required funds to meet these obligations (Adegbite, 2018). Government usually raises funds from various sources, such as issuing of public debt, levying of taxes, fees, fines and specific charges among the various sources from which governments can raise finance. Taxes are most important and reliable. Emerging economies have large territories and populations and undertaking extraordinary development projects that require new infrastructure, such as power generating plants and telecommunications system. These countries pursued economic policies leading to the faster growth and expanding trade and investment with the rest of the countries/world. These infrastructural developments demand a lot of resources for funding. Nigeria is a developing country and emerging economy whose exports are mainly crude oil. Her other natural resources include natural gas, tin, iron mine, coal, limestone, lead, zinc and arable land (Angus & David, 2011).

The whole essence of governance is to promote welfare of the citizenry. The constitution of the Federal Republic of Nigeria in many of its provisions affirms this position. The problem of scarcity

of funds to prosecute welfare programmes by government can be solved, using a fair and effective tax administration (Balogun, 2015). Nigerian current democratic experiment places greater responsibility on government to look for ways of improving its revenue generation. In an attempt to proffer solutions to the problems Naiyeju (1996) asserted that government should look inward, which motivated the introduction of value added tax (VAT), which is very necessary in a welfare state to fulfill its obligations. Before the introduction of value added tax (VAT) in Nigeria economy, the Federal Government has been working relentlessly on how to revamp the dwindling Nigeria economy (Ehigiamusoe, 2018). Prompted by its avowed position to revamp the economy at whatever cost, the federal government under the leadership of General Sanni Abacha introduced a fiscal policy, named the value added tax (VAT) in January 1994. It is charged at the rate of 5% on the supply of vatable goods and services in Nigeria. The main focus of this study was to evaluate the the relationship between value added tax and economic growth in Nigeria (2000 – 2020), using gross domestic product (GDP) as the proxy.

Statement of the problem

Nigeria is currently experiencing an economic downturn and revenue crisis due to declining crude oil revenue earnings, upon which the nation relies for its sustenance. The indirect taxes especially those from import and export duties, ought to contribute the higher percentage to the revenue are not even reliable (Abialo & Asiweh, 2012). There still persist in Nigeria the problem of underdevelopment, high mortality rate, occasioned by poor health care system, lack of critical infrastructure, insecurity and high inflation rate. The existence of all these problems necessitated assessment of the effect of value added tax revenue on the Nigerian economic growth. The government has to strike a balance between the desire to raise revenue and incentive for economic growth which is indeed a major problem. In an attempt to proffer solution to these problems, Naiyeju (1996) suggested that the government has to look inwards, which brought about the introduction of the value added tax (VAT). There has also been a devaluation of the gross domestic product growth, reduced inflow of foreign direct investment, rising inflation and growing unemployment. According to trading economies, (2016), the gross domestic product (GDP) of Nigeria shows a declining trend of -2.06% and -1.5% for 2016 & 2015 respectively due to failing oil revenue. Economic growth record has not translated into improved welfare as expected in most nations (Babatunde, 2015; Mitchelle, 2005). The ability to generate revenue remains a huge challenge for the Nigerian government, especially due to decline and instability in the oil price which has affected revenue generation from Nigeria oil and gas industry. As part of the effort of the Nigerian government to address its revenue challenges, the federal government launched the strategic revenue growth initiative (SRGI), to boost revenue generation by government agencies and enable it meet its ever growing financial obligations. There is also the need to diversify the revenue stream/base of the nation. The need for more source of revenue for the government cannot be over emphasis. It was against this background that the Edozien led committee was inaugurated in 1991 to review the Nigerian tax system. Nigeria is experiencing revenue crisis due to declining crude oil earnings and as such government is improving its revenue potential by imposing more taxes (Ogbonna & Ebimobowei, 2017 & 2019). The Nigerian government on wed September 11th 2019 approved a 50% increase in the value added tax rate applicable on supplies of goods and services in Nigeria from 5% to 7.5%. The new rate took effect in the first quarter of 2020 (1st Feb, 2020). Every nation needs good revenue to provide and sustain critical services for her inhabitants. (Yussuf, 2021). Thus an essential revenue base for government is the imposition of various forms of taxes. A tax is a fee levied on the individuals and organizations. It is required of entities to finance her activities. One of the attempts to reduce tax evasion in order to increase government revenue is through value added tax (VAT). Value added tax is a major revenue source for advanced nations of the world. Attention is not given to it by the Nigerian government (Rasaki, 2020). This paper is anchored on the theories of the revenue productivity and the ability to pay

Aim and objectives of the study

The aim of this study was to provide a scholarly contribution to the knowledge in the area of the relationship between value added tax (VAT) and economic growth in Nigeria. Therefore the objectives are to:

1. Ascertain the relationship value added tax (VAT) and Gross National Product (GNP) in Nigeria (2000-2020).
2. Determine the relationship between value added tax (VAT) and Real Gross Domestic Product in Nigeria (2000-2020).

REVIEW OF RELATED LITERATURE**Conceptual Review****Value Added Tax (VAT)**

This is a form of indirect tax that is applied at each stage of consumption to the value added. Akhor and Ekundayo (2016) stated that value added tax is a consumption tax levied at each stage of the consumption chain and borne by the final consumer of the product or service. Abomaye-Nimenibo et al (2018) suggested that value added tax is collected by the seller when taxable items are sold. The seller then nets off the VAT and submits it to FIRS through a designated bank. However, Manukaji, (2018) noted that value added tax is an estimated market value added to a product or service at each stage of its manufacture or distribution and the additions are added to value of goods and services that bear the tax burden or the incidence because they cannot recover the tax paid on consumption of goods and services. It was introduced by The Federal Government of Nigeria in January, 1993 and requires a taxable person to register with the Federal Inland Revenue Service to charge and collect VAT at a flat rate of 5%. Okatch et al (2013) investigated the determinants of income inequality in Botswana. Their results showed that VAT contributes significantly to income inequality. Fu (2016) investigated indirect tax increments on income gap between urban and rural areas in China using the analysis of Thayer Index from 1994 to 2013. Specifically, the study shows that value added tax had a negative effect on income gap. He further stated that indirect tax, especially VAT is reducing income distribution as a whole.

Economic Growth

Economic growth is a sustained increase in per capita national output or net national product over a long period of time. It implies that, the rate of increase in total output must be greater than the rate of population growth. It also implies that national output should be composed of goods and services which satisfy the want of the maximum number of people (Monica & Fayose, 2022). According to Anyanwu (1997), economic growth is the increase over time of an economic capacity to produce those goods and services needed to improve the wellbeing of the citizen in their increasing number and diversity. Dwivendi (2004) defines economic growth as a sustained increase in per capital national output or net national product (NNP) over a long period of time. This implies, that the rate of increase in the total output must be greater than the rate of the population growth. In other words, contributory revenue from value added tax (VAT) should be high enough to positively affect the population and economic growth of Nigeria as a country. Kuznets (1995) defined growth as cited by (Todaro, 1995), as a long term rise in capacity of an economy to supply increasing diverse economic goods to its population. Iyoha (2004) opined that economic growth is the increase in output or per capital income overtime. He further described economic growth as means of analyzing the economic performance of advanced countries overtime. Economic growth is the sustained, concerted action of the policy makers and the communities that promotes the standard of living and economic health of a given area. Economic development can also be referred to as the quantity and quality change in the economy. (www.wikipaedia.org/wiki/econ.devt). Economic growth can be determined by four (4) important determinants namely – human resources, national resources, capital resources and technological development. The ability to generate revenue remains a huge challenge for the Nigerian government, especially due to decline

in the oil price which has affected revenue generation from the oil and gas industry. As part of effort to address the revenue challenge, the federal government launched the strategic revenue growth initiative (SRGI), to boost revenue generation by the government agencies and enable it to meet its ever growing financial obligations (Chinedu, 2019). The Malthusian theory did not regard the process of the economic development an automatic one, rather, it requires consistent effort on the part of the people. Dafionone (2013) noted, that for the country to lay claim on growth and development, through taxation, there must be an improvement in the quality of life of the citizens as measured by the appropriate indices in the economic, social, political and environmental terms.

Gross National Product

The word GNP are interchange with GDP by most scholars, Gross national product is another metric used to measure a country's economic output. Where GDP looks at the value of goods and services produced within a country's borders, GNP is the market value of goods and services produced by all citizens of a country both domestically and abroad. While GDP is an indicator of the local/national economy, GNP represents how its nationals are contributing to the country's economy. It factors in citizenship but overlooks location. For that reason, it's important to note that GNP does not include the output of foreign residents. It can be defined as a piece of economic statistic that comprises Gross Domestic Product (GDP), and income earned by the residents from investments made overseas (Adebayo et al, 2019). Augustus (2009) noted that, central to all national income accounting is the measure of total output of goods and services or the gross national product (GNP). The gross national product is defined as the total market value of all final goods and services produced for final consumption in the economy during a given year. The GNP is usually measured in monetary terms. This is because money is the medium of exchange and also a major determinant of value. In the period 1988-1997 which constitutes the period of structural adjustment and economic liberalization in Nigeria, the GDP responded to economic adjustment policies and grew at a positive rate of 4.0. In the years after independence, industry and manufacturing sectors had positive growth rates except for the period 1980-1988 where industry and manufacturing grew negatively by - 3.2 per cent and - 2.9 per cent respectively. The growth of agriculture for the periods 1960-70 and 1970-78 was unsatisfactory. In the early 1960s, the agricultural sector suffered from low commodity prices while the oil boom contributed to the negative growth of agriculture in the 1970s. The boom in the oil sector lured labour away from the rural sector to urban centers (Nwaolisa & Chinelo, 2017).

Real Gross Domestic Product

Real gross domestic product (Real GDP) is an inflation-adjusted measure that reflects the value of all goods and services produced by an economy in a given year (expressed in base-year prices) and is often referred to as constant-price GDP, inflation-corrected GDP, or constant dollar GDP. Ademuyiwa and Adetunji (2019) state that the real Gross Domestic Product (real GDP) of any country is a measure of the value of economic output adjusted for price changes (inflation/deflation) in that country. It is the sum of the consumer spending, the investment made by industry, the excess of exports over imports, and the government spending (Emejulu et al, 2019). When an economy is going through a persistent inflation, the GDP increases, this does not actually reflect the true growth in an economy. Hence, the rate of inflation must be subtracted from the GDP to get the real growth percentage, called the real GDP. According to Adebayo et al, (2019) Real GDP is a macroeconomic statistic that measures the value of the goods and services produced by an economy in a specific period, adjusted for inflation. Essentially, it measures a country's total economic output, adjusted for price changes. Governments use both nominal and real GDP as metrics for analyzing economic growth and purchasing power over time. This is done using the GDP price deflator (also called the implicit price deflator), which measures the changes in prices for all of the goods and services produced in an economy (Ademuyiwa & Adetunji, 2019).

The GDP price deflator is considered to be a more appropriate inflation measure for measuring economic growth than the consumer price index (CPI) because it isn't based on a fixed basket of goods. In economics, real value is not influenced by changes in price, it is only impacted by changes in quantity. Real values measure the purchasing power net of any price changes over time. The real GDP determines the purchasing power net of price changes for a given year. Real GDP accounts for inflation and deflation. It transforms the money-value measure, nominal GDP, into an index for quantity of total output.

Contributions of Value Added Tax to the Nigerian economy

The adoption of value added tax system helped Nigeria immensely in diversifying her revenue base and enhancing her internally generated revenue. For instance Nigerian value added tax (VAT) revenue was N7.76 billion by 1994, N20.76 billion by 1995, N31 billion in 1996 and N34 billion in 1997. Value added tax revenue of N1.7 trillion was paid into the Federation account after distribution in 2015. In 2018, fiscal year, value added tax (VAT) receipts amounted to N1.1, trillion. As a result of this astronomical increase in value added tax collection, the Nigerian government projected an increase in value added tax revenue collection efficiency from the average of 21% in 2019 to at least 35% by 2022. (Ezomike & Ango, 2019). Value added tax that was not promising future success, when it began in the 20th century has been adopted by more than 160 countries. At the moment, it was reported to account for approximately 20% of the total global tax revenue. (James, 2011; Naritomi, 2020).

Relationship between Value Added Tax (VAT) and Economic Growth.

Many studies and investigations have been carried out on the relationship between value added tax and economic growth in Nigeria. Ugochukwu and Azubuike (2016) investigated the relationship between the value added tax (VAT), government revenue and economic development. The result was negative. The negative result was attributed to the proxy for economic. Iyoha and Oriakhi (2010), relied on the Nigerian achieve data from 1991 to 2006, and found a positive and significant relationship between value added tax and Nigerian economic growth. The result of the study showed a buoyancy rate which appears to be the highest compared to other forms of taxes. Focusing on the Lagos economy, Owolabi (2011) reported a significant and positive relationship between value added tax and growth of Lagos economy. In the same vein, Onwuchekwa and Aruwa (2014) reported a significant and positive relationship between value added tax and economic growth in Nigeria. Smith et al. (2011) analyzed the contribution and performance of value added tax in Bangladesh and compared it to other countries. The result showed that the performance of value added tax was quite satisfactory in the initial years; afterwards value added tax remained stagnant at certain level. The study found that the stagnation happened as a result of relatively small number of value added tax payers, a general lack of awareness and weak monitoring system.

Theoretical Review

The theoretical framework focused on the revenue benefit received theory which was propounded by Knut Wicksell in 1896 and Erik Lindahi in 1919. As a result of the inefficiency of the private market, the provision of public goods like security of life and property which the public is not prepared to pay for directly, are provided by the government instead of the private market (Miller & Oats, 2009). The benefit – receive theory is built upon the claim that tax payment should open up existing relationship between the tax payers and the government. The explanation for this, is that, while the government provides certain goods and services to its citizens, the latter should bear the cost of these supplies to march with the benefits received. (Bhartia, 2009; Anayo, 1996).

This study was also anchored on the ability to pay theory. This was propounded by Adam Smith in 1776. The theory presumes that tax should be paid based on income of individuals, businesses

and organizations. Here taxes are paid to government based on the ability of the citizens. It is the most popular and most accepted principle of equitable taxation. As the name suggests, taxation should be levied according to an individual's ability to pay. It says that public expenditure come from him, that hath, instead him that hath not. The principle originated from the 16th century, the ability – to – pay principle was scientifically extended to Swiss philosopher Jean Jacques ROUSSAW (1712-1778), the French political economist, Jean – Baptists (1767-1832) and the English economist John Stuart Mill (1806 – 1873). This is the bases of progressive tax as the tax rate increases by the increase of the taxable amount. This principle is indeed the most equitable tax system and has been widely used in industrialized economy (Adebisi & Gbenga 2013). The reason for the choice of this principle of ability to pay is on the ground of sacrifice. The payment of taxes is viewed as a deprivation to the taxpayer, because he surrendered money to the government, which he would have used.

Empirical Review

Monica and Kazeem (2020) examined effect of value added tax (VAT) on the economic growth in Nigeria between 1994 – 2020, using consumer price index (CPI) as a threshold. A technique of threshold vector autoregressive (TVAR) was employed. The results revealed that a value added tax (VAT) above the 10% threshold value endangers the economy, while a value added tax (VAT) below the 7.5% threshold value does not harm the economy; rather, it improves people's wellbeing. It is therefore recommended, that Nigeria should maintain the lower value added tax (VAT) threshold to cushion the effect of ever rising consumer price index (CPI) of the citizens.

Nmesirionye et al. (2019) empirically investigated impact of indirect taxes on the economic performance in Nigeria for a period of 1994-2017. The study employed an ex-post facto research design and secondary data were used and extracted from the Central Bank of Nigeria Statistical Bulletin and the National Bureau of Statistics. OLS multiple regression technique was used to analyse the data retrieved. The study revealed that value added tax has a positive and insignificant impact on the real gross domestic product of Nigeria while custom and excise duties have a positive and significant impact on the real gross domestic product of Nigeria.

Onwuchekwa and Aruwa (2014) investigated the impact of value added tax on economic growth in Nigeria. Their study used ordinary least square technique to test the hypothesis of the research with data spanning the period 1994 – 2011. The result revealed that value added tax (VAT) contribute significantly to the total tax revenue of the government and thereby extended to economic growth in Nigeria. It further shows that value added tax revenue had consistently increased, but not explosive.

Emmanuel (2013) examined effects of VAT on economic growth and total tax revenue in Nigeria using data ranging from 1994 to 2010. The study adopted Augmented Dickey Fuller test, Johansen co - integration test and the Error Correction Model (ECM). The study found that VAT has significant effect on GDP and also on total tax revenue. This indicates that increase in value added tax would lead to increase in tax revenue and economic growth (GDP). However, the study concluded that, it only covers VAT effect on economic growth without including other examples of indirect taxes as well as direct taxes. Also, the period under review is not one of defining moments in the Nigerian economy which makes the study not a qualitative academic research.

Egbuhuzor and Tomquin (2021) examined effect of indirect taxes on economic growth in Nigeria from 2003 to 2018. The study employed ex-post facto research design and secondary data were extracted from the Central Bank of Nigeria Statistical bulletin from 2003-2018. The study adopted descriptive statistics and multiple regression method of data analysis. The study revealed a negative and insignificant effect of value added tax on gross domestic product. It also revealed a

positive and significant effect of value added tax on human development index. Also, it revealed a positive and insignificant effect of custom and excise duties on gross domestic product. Finally, the study revealed a positive and insignificant effect of custom and excise duties on human development index. The study recommended that government should put in place mechanism to close up loopholes in the VAT collection system since its effect on gross domestic product is negative and insignificant.

Owolabi (2011) empirically evaluated the contribution of value added tax (VAT) to the development of Lagos state economy. The development aspect considered include; infrastructural, environmental, management, education sector, youth, social, agriculture, health and transport. The findings revealed that, value added tax (VAT) revenue contributed positively to the development of respective sectors of the Lagos state economy during the period studied.

Owino (2019) empirically investigated the relationship between value added tax and economic growth in Kenya from 1973 to 2010. The study employed econometric exposition adopted using ordinary least square technique model. The study revealed a positive and insignificant relationship between value added tax and economic growth in Kenya.

Izedonmi and Okunbor (2014) empirically investigated contribution of value added tax to the development of the Nigerian economy. Time series data were used on the gross domestic product (GDP), value added tax (VAT) revenue, total revenue and total federal government revenue from 1994 – 2010. The data were analyzed using the economic methodology of multiple regression technique. Their findings showed that, value added tax (VAT) revenue accounted for 92% significant variations in Nigerians gross development product (GDP). It revealed a positive and significant correlation between value added tax (VAT) revenue and gross domestic product (GDP). Bakare, (2013), investigated implication of value added tax (VAT) on the output growth in Nigeria. The study used ordinary least square (OLS) regression technique. It was found that, positive and significant relationship exists between value added tax (VAT) and output growth in Nigeria. The result of the findings from this work also shows that, the past values of value added tax could be used to predict the future behaviours of the output growth in Nigeria. The main conclusion of the study was that value added tax (VAT) has potentials to assist in the diversification of revenue sources, thereby providing enough funds for the economic growth and development and reducing over dependence on oil revenue.

METHODOLOGY

This study adopted ex-post facto research design. The study used secondary source of data collected from Central Bank of Nigeria and statistic bulletin of twenty- one (21) years financial report that covered period 2000 – 2020. This study used estimated technique of both descriptive statistics and Ordinary least square (OLS) regression analysis method with the help of E-view 10. The statistical test for the measurement of the parameter estimate includes the co-efficient of determination R^2 , Durbin-Watson (DW), F-ratio and the t-test. The significant level at which the hypothesis is accepted is 5% (0.05).

Model Specification

In order to investigate the relationship existing between value added tax and economic growth in Nigeria, thus, drawing from the Neo-classical syntheses of Sala-i- Martin (2002), the research analyses was guided in a functional relationship established for the variables: the independent variable 'value added tax. These independent variable metrics are used linearly in measuring the gross national product (GNP) and Real Gross Domestic Product (RGDP). The model specification is as stated below

$$\begin{aligned} \text{GNP} &= f(\text{VAT}_t) \dots\dots\dots 1 \\ \text{RGDP} &= f(\text{VAT}_t) \dots\dots\dots 2 \end{aligned}$$

This can be written in Ordinary Least Square (OLS) form as:

$$\begin{aligned} \text{GNP}_t &= a_0 + a_1\text{VAT}_t + U_t \dots\dots\dots 3 \\ \text{RGDP}_t &= a_0 + a_1\text{VAT}_t + U_t \dots\dots\dots 4 \end{aligned}$$

$$a_1 > 0;$$

Where: GNP= Gross national product as proxy for economic growth
 RGDP= Real Domestic product as proxy for economic growth
 VAT = Value Added Tax as proxy for Independent
 t = time period under study
 a_0 = constant
 a_1 - a_2 = parameter or coefficient of explanatory variable
 u = error term.

DATA ANALYSIS AND DISCUSSION

Table 1 Descriptive Statistics of the Variables

	VAT	NGP	RGDP
Mean	274346.8	63932.08	13800.99
Median	159500.0	50170.57	11101.46
Maximum	802965.0	148922.6	36014.88
Minimum	759.4000	4903.439	878.4600
Std. Dev.	281001.7	52493.81	11663.43
Skewness	0.766658	0.545582	0.524647
Kurtosis	2.137165	1.801952	1.970709
Jarque-Bera	2.708596	2.297714	1.890402
Probability	0.258128	0.316999	0.388601
Sum	5761282.	1342574.	289820.7
Sum Sq. Dev.	1.58E+12	5.51E+10	2.72E+09
Observations	21	21	21

Source: Author computation using E-views 10

Table 1 above showed that all the variables has a positive growth rate as indicated between the minimum and maximum statistical values. CAEX grow from 0.61 to 365.37 with a Mean value of 95.88 and standard derivation of 106.746, VAT grow from 759.4000 to 802965.0 with a Mean value of 274346.8 and standard derivation of 281001.7, NGP grow from 4903.439 to 148922.6 with a Mean value of 63932.08 and standard derivation of 52493.81, and RGDP grow from 878.4600 to 36014.88 with a Mean value of 13800.99 and standard derivation of 11663.43.

The overall Jarque-Bera values for VAT, GNP and RGDP variables are higher and their respective corresponding probability values is greater than 0.05 level of significance indicating that they are not normally distributed and the variables need stationarity test before conducting correlation and regression analysis. **All the variables have positive Kurtosis. Also VAT, GNP and RGDP are all positive skewness implies that they have a long right tail. But this assumption will be reaffirms with unit root test of stationarity**

Table 2 Output of Stationarity Test for Unit Root

Variables	Method	Level 5% Prob.	1 st diff 5% Prob.
VAT	ADF	0.0532	0.0255
GNP	ADF	0.0106	0.0001
RGDP	ADF	0.2390	0.0219

Source: E-view 10 Output for Unit Root Test of Stationarity

The table above showed unit root test for the variables used in this study and it is conducted under the condition of an included intercept but no trend, the result revealed that the values of the Augmented Dickey Fuller (ADF) at level (0.0532, 0.0106 and 0.2390) respectively, implied that at level VAT and GNP passed the stationarity test because their values are less than 0.05 while RGDP value is greater than 0.05 meaning that there is no stationary amongst this variable. Hence, the researcher apply 1st difference method of unit root test to normalize the variables. However, at 1st difference, all variables are less than 0.05 which confirmed that, there is no reason to doubt the stationarity of the variables in question which implied that the null hypotheses of non-stationarity of the variables in the model is rejected after 1st differencing at 5 percent level of significance. Hence, the variables are set for Correlation analyses and multivariate (Regression) Analyses.

Table 3 Correlation Results

	VAT	NGP	RGDP
VAT	1	-0.1987	-0.1126
NGP	-0.1987	1	0.9850
RGDP	-0.1126	0.9850	1

Source: Author computation using E-views 10

Table 3 showed the result of Pearson Correlation Coefficient of relationship between Value Added Tax (VAT) and National Gross Product (NGP) and Real Gross Domestic Product (RGDP). The table above showed that value added tax has negative relationship with national gross product and real gross domestic product.

Table 4: Regression Analysis of the Model

Dependent Variable: NGP

Method: Least Squares

Date: 04/01/22 Time: 00:46

Sample: 2000 2020

Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	355339.8	88322.51	4.023208	0.0008
VAT	-15.86107	6.253719	-2.536262	0.0207
R-squared	0.272635	Mean dependent var	274346.8	
Adjusted R-squared	0.191817	S.D. dependent var	281001.7	
S.E. of regression	252617.8	Akaike info criterion	27.84871	
Sum squared resid	1.15E+12	Schwarz criterion	27.99792	
Log likelihood	-289.4114	Hannan-Quinn criter.	27.88109	
F-statistic	3.373428	Durbin-Watson stat	0.582825	
Prob(F-statistic)	0.056987			

Source: Author computation using E-views 10

The result in table 4 found a correlation coefficient of ($R^2 = 0.272$, Adjusted $R^2 = 0.191$) which illustrated that relationship exist jointly between independent variables (VAT) and dependent variable (GNP). The coefficient of determination R-Square represented the proportion of variance of dependent variable (GNP) that has been explained by the independent variables (VAT) in the model. This implied that 27.2% of the increase in Value Added Tax (VAT) is due to increase in National Gross Product (NGP) while 72.8% was explained by unknown variables that were not included in the model. The F-statistic, 3.373 with a Prob (F-statistic) value of 0.056 showed that the model satisfies the overall goodness-of-fit statistical test. It implies that National Gross Product (NGP) measures, inclusive of the moderator variable are able to predict Value Added Tax (VAT) of the time series data. The Durbin-Watson Statistic of 0.582 suggests that the model does not contain serial correlation.

Table 5: Regression Analysis of The Model

Dependent Variable: RGDP

Method: Least Squares

Date: 04/01/22 Time: 00:48

Sample: 2000 2020

Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	355339.8	88322.51	4.023208	0.0097
VAT	67.60663	28.14623	2.401978	0.0273
R-squared	0.302623	Mean dependent var	374547.5	
Adjusted R-squared	0.211816	S.D. dependent var	321002.8	
S.E. of regression	273614.7	Akaike info criterion	29.74885	
Sum squared resid	1.19E+12	Schwarz criterion	27.99792	
Log likelihood	-276.5115	Hannan-Quinn criter.	27.88109	
F-statistic	2.3534523	Durbin-Watson stat	1.682728	
Prob(F-statistic)	0.047876			

Source: Author computation using E-views 10

The result in table 4 found a correlation coefficient of ($R^2 = 0.302$, Adjusted $R^2 = 0.211$) which revealed that relationship exist between independent variables (VAT) and dependent variable (RGDP). The coefficient of determination R-Square represented the proportion of variance of dependent variable (RGDP) that has been explained by the independent variables (VAT) in the model. This implied that 30.2% of the increase in Real Gross Domestic Product (RGDP) is due to increase in Value Added Tax (VAT) while 69.8% was explained by unknown variables that were not included in the model. The F-statistic, 2.353 with a Prob (F-statistic) value of 0.056 showed that the model satisfies the overall goodness-of-fit statistical test. It implies that Real Gross Domestic Product (RGDP) measures, inclusive of the moderator variable are able to predict Value Added Tax (VAT) of the time series data. The Durbin-Watson Statistic of 0.047 suggests that the model does not contain serial correlation.

Test of Hypotheses

Statement of Hypotheses

H₀₁ There is no relationship between value added tax and national gross product in Nigeria

H₀₂ There is no relationship between value added tax and real gross domestic product in Nigeria,

Decision Rule: Accept H_0 if $P > 0.05$. Otherwise reject

Decision: The result in table 4 discovered a significant relationship between Value Added Tax (VAT) and National Gross Product (NGP). The probability value $P = 0.00207 < 0.05$ revealed that the significant relationship between Value Added Tax (VAT) and National Gross Product (NGP) is statistically significant at 0.05 alpha level. Thus the null hypothesis one is rejected which implied that there is a significant relationship between value added tax and national gross product in Nigeria.

The result in table 4 revealed a significant relationship between Value Added Tax (VAT) and Real Gross Domestic Product (RGDP). The probability value $P = 0.0273 < 0.05$ revealed that the significant relationship between Value Added Tax (VAT) and Real Gross Domestic Product (RGDP) is statistically significant at 0.05 alpha level. Thus the null hypothesis two is rejected which implied that there is a significant relationship between value added tax and real gross domestic product.

The above findings congruence with the following; Nmesirionye et al (2019) study revealed that value added tax has a positive and insignificant impact on the real gross domestic product of Nigeria. Monica and Kazeem (2020) result revealed that Value Added Tax has statistical significant effect on the economic growth of Nigeria. Isaac et al (2021) result revealed that revenues from value added taxation have effects on gross domestic product and human development index. Emmanuel (2013) study found out that VAT has significant effect on GDP and also on total tax revenue. But Egbuhuzor and Tomquin (2021) result disagreed with this study result, his finding revealed a negative and insignificant effect of value added tax on gross domestic product. Owino (2019) result disagreed with this study; his finding revealed a positive and insignificant relationship between value added tax and economic growth in Kenya.

CONCLUSIONS AND RECOMMENDATIONS

The study investigated the relationship between value added tax and economic growth in Nigeria. The study adopted an ex-post-facto research design and secondary sourced of data collection was used. Descriptive statistics, unit root test, Correlational and multiple linear regression method of data analysis was employed. The result obtained indicated that Value Added Tax (VAT) had negative influence and statically significant with National Gross Product (NGP) and Real Gross Domestic Product (RGDP) in Nigeria. Therefore, the study generally concluded that, there is a negative and significant relationship between value added tax and economic growth in Nigeria. Based on the conclusion, the study suggested as follows;

1. The study recommended that the government should put in place mechanism to close up the loopholes in the VAT collection system since its effect on gross domestic product is negatively.
2. The study recommend that VAT should be imposed on goods and services consumed by high income earners only.
3. The government should put stern punitive measures in place to sanction corrupt officials as well as establishments that refuses to pay value added tax (VAT) or to remit the revenue collected.

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