

Effect of Value Added Tax and Economic Development in Nigeria

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Abstract

The study seeks to examine the effect of value added tax on economic development in Nigeria. Both the exploratory and ex-post facto designs were adopted in this study. The study population consist of 22 years period given the number of years the data was collected. Using a consensus sampling method, the 22 years are used as sample size. The study used the ordinary least square regression technique, specifically the Vector Autoregressive model for testing the hypotheses stated. The first findings revealed that, value added tax has a positive significant effect on human development index of Nigeria While, the second hypotheses tested revealed that, value added tax has a positive significant effect on per capital income of Nigeria. Lastly, the third hypothesis tested revealed that, value added tax has a negative significant effect on real gross domestic product of Nigeria. As a result, it is recommended that, government should make policy that encourage low value added tax on capital goods. This will encourage investment drives that will create employment opportunities for citizens. With increased employment comes increase per capital income. While government seeks to increase revenue generation through increased in VAT rates, there should be social safety nets put in place by the government to ensure that; the cost burden of accessing the basic necessities to live is affordable. This will further improve the HDI whilst government pursue her policy of increase revenue generation. Similarly, low and affordable input VAT and low VAT on capital goods will encourage and drive investment and boost production. This will further increase the real gross domestic product of Nigeria and provide more income to the government.

1.1 Introduction

Taxation is an effective tool in the hands of governments in both developed and developing nations, not only for generating income but also for achieving fiscal objectives such influencing the timing of consumption of particular commodities and services and the direction of investment. According to Adams Smith, the imposition of a tax is based on a number of considerations, one of which is whether or not the proposed tax can be both effective and equitable. Because a tax can be successful without also being equitable, and vice versa, this is the case.

France was the first country to enact a value-added tax in 1954. Since then, it has gained support from well over 70 nations worldwide. These include every member of the Organization for Economic Cooperation and Development, Japan, Canada, and the US state of Michigan. In

addition, several developing nations now rely heavily on VAT as a source of income. Examples of countries in sub-Saharan Africa that have implemented VAT include Benin Republic, Cote d'Ivoire, Guinea, Kenya, Madagascar, Mauritius, Niger Republic, Senegal, Togo, and Nigeria. There is evidence to support the claim that in these nations, VAT has significantly increased as a share of overall government tax receipts (Ajakaiye, 1999, in Aruwa; 2008). According to Shalizi and Squire (1988), the VAT made up about 30% of all tax receipts in Cote d'Ivoire, Kenya, and Senegal in 1982. Not all nations that produce oil are not included on the list of nations that received some financial relief from the VAT. According to Tait (1989), the VAT had been in place in Mexico and Ecuador since at least 1973 and by 1983 had contributed 12.35% and 19.71% of the respective countries' total government revenues. Indonesia implemented a VAT in 1983, and by 1988, the VAT revenue ratio to GDP had increased to 4.5 percent (Bogetic and Hassan, 1993). This impressive performance of VAT in virtually all countries where it has been introduced, according to Ajakaiye (1999, in Aruwa; 2008), clearly influenced the decision to introduce VAT in Nigeria in January 1994. According to the Federal Inland Revenue Service; (1993), VAT is a consumption tax that is relatively easy to administer and difficult to evade and it has been embraced by many countries world-wide. The adoption of Value Added Tax (VAT) as a form of tax in Nigeria through the VAT Act No 102 of 1993 marks an important landmark in tax reform in Nigeria.

The 1986 Sales Tax Decree was gradually repealed as a result of the VAT Decree. The conclusion of the study committee led by Dr. Sylvester Ugoh in November 1991 led to the creation of the ordinance. The group proposed that, after two years of planning, VAT should be implemented. The decree specified the items that are subject to VAT collection (VATable). Food products that were previously considered not to be subject to VAT are now required to register with the Federal Inland Revenue Service (FIRS), assuring the payment of VAT on both commodities and services. Later, on December 1, 1993, the decree went into effect, but due to an administrative agreement, billing for the purpose did not begin until January 1, 1994. VAT is a self-assessment tax that is paid at the time returns are submitted; it is an input-output process that is self-policing. Additionally, VAT was viewed as a tax imposed on the acquisition of goods and services, with a return being sent to the FIRS at the end of each month. VAT is a tax on the supply of goods and services that is ultimately paid by the final customer but is nevertheless collected at each stage of production and along the whole distribution chain (Bhatia, 2008). Therefore, using the Human Development Index (HDI), GDP Per Capita Income (PCI), and Real Gross Domestic Product (Real GDP) as proxies for economic development, this article attempts to critically assess the impact of value added tax (independent variable) on Nigerian economic development.

1.2 Statement of the Problems

For a nation to grow economically and be self-reliant, there is need for its government to engage in socio-economic activities that will boost the morale of its citizens and enhance their standard of living, while the citizens on their own part pay taxes; a civil obligation, as a backup for the government. This will encourage the government to put in place infrastructural amenities like roads, power for industrial and domestic consumption, education, health, security (external aggression or internal disruption). This paper therefore tries to critically examine the effect of value

added tax (independent variable) on Nigerian economic growth adopting Human Development Index (HDI), GDP Per Capita Income (PCI) and Real Gross Domestic Product (Real GDP) (dependent variables) as proxies for economic development.

1.3 The Objectives of the Study

The main objective of the study is to examine the effect of value added tax on economic development in Nigeria. Therefore in specific terms, the objectives are as follows:

- i. To determine the effect of value added tax on human development index of Nigeria.
- ii. To ascertain the influence of VAT on Per Capita Income of Nigeria
- iii. To determine the effect of value added tax on Real GDP of Nigeria.

1.4 Hypotheses

The hypotheses are stated in null form as shown below:

- i. Value added tax does not have significant effect on human development index.
- ii. Value added tax does not have significant effect on Per Capita Income of Nigeria.
- iii. Value added tax does not have significant effect on Real GDP of Nigeria.

Review of Related Literature

Conceptual Framework

2.1 VAT and Economic Growth and Development

Ihenyen and Mieseigha (2014) studied taxation a tool that enhances economic development in Nigeria. Data were analyzed with Ordinary Least Square regression technique. The empirical results points that hypothesized relationship exists among corporate income tax, value added tax and economic growth in Nigeria. Therefore, the result tenders exciting evidence that taxation is tool for economic growth in Nigeria. Thus, there is the need for government to ensure that tax-payers do not avoid and evade tax payment in order to ensure that taxpayers do not avoid and evade tax in Nigeria.

Adegbie and Fakile (2011) worked on company income tax and Nigeria's economic development using VAT as one of the proxies (independent variable). They used the GDP to capture the Nigerian economy and Petroleum Profit Tax (PPT), company income tax (CIT) Custom and excise duties (CED), and VAT to measure tax revenue. Results revealed that there is a considerable association between company income tax and Nigerian economic improvement and that tax evasion and avoidance are the key obstacle towards generating revenue for the government.

Owolabi and Okwu (2011) in an empirical study evaluated the effect of VAT on the development of Lagos state economy. The study considered infrastructural development, agricultural sector development, environmental management, education sector advancement, health sector. Results from the analysis showed that VAT contributed to the positive development of the respective sectors identified. Smith, Islam, and Moniruzzaman (2011) analysing the effect of VAT in Bangladesh and comparing such effect to other developing countries, revealed that the performance of VAT was reasonably adequate in the initial years. Thereafter, VAT collection remained dormant at a known level. It was noted that the sluggishness occurred consequent upon relatively small number of of VAT taxpayers, insufficient awareness, and a fragile supervisory system.

2.1.2 Value added tax

This is an indirect tax on the consumption of goods and services, excluding taxes that are zero rated such as exports. VAT is charged at each phase in the chain of manufacturing and supply from raw materials to the final sale based on the value (price) added at each stage. It shares similarities with the sales tax charged on retail and wholesale levels together with private final consumption. Currently, the legal VAT rate in Nigeria stands at 7.5%.

2.2.3 Brief Overview of Value Added Tax in Nigeria

The introduction of VAT in the Nigeria economy was a fight against one major problem of public finance; acquisition and allocation of funds by governmental units. The revenue generated from the oil sector and development of government revenue in the international market which were in arithmetic progression, are also reasons for the adoption of VAT. The Sales Tax in the country was narrowed down to some products such as cigarettes, mineral drinks, canned food, which necessitated the adoption of VAT. VAT is a multistage tax system imposed on value added to goods and services as they proceed through the various stages of production and distribution, and to services as they are rendered (Bhatia, 2008)

In 1995, VAT fetched a total of N20, 761,580,661. This is about 27.66% of Federal Government total tax revenue for the year. By all standards, it was a very commendable performance; the collection in 2003 was a great improvement to relative performance in 1994 of VAT which was only 12.4% of the total government revenue for the year. This improved performance maybe due to the productivity bank of 5% excess solution over targets promised all revenue agencies in the 1995 Budget speech. However the government may be happy about the high and growing VAT revenue flow because, according to the proponents of the tax, it encourages savings and investment, which are principal elements of a healthy economy (Glenday, 2006). The trend, at which VAT in Nigeria is growing the revenue base of the government, is quite on the positive note, because it shows a continuous growth in revenue. This is evident in the fact that, the 6% target of GNP during the first year of its inception was not only met, but exceeded by N135m on monthly basis in the period.

VAT like other type of taxes has its drawbacks, which might have some effects on the economic growth of the country. This is because in a buoyant economy, a tax on consumption means reduced rate of inflation, through the mop up of excess purchasing power of the people. It can also be inflationary in the case of a depressed economy. The Nigeria case is an example of an economy in the former scenario. VAT could then be a fair measurement of economic growth since money in circulation increase with economic growth. If VAT is a revenue source for accruing more state or public funds available to government to spend, to provide basic amenities and an enabling environment for investment, then there exist a relationship between VAT, government expenditure and economic growth.

Another argument often put forward is that import duties only tax imports, whereas a consumption VAT taxes both imports and the domestically supplied portion of total consumption. Therefore, the higher the share of consumption supplied domestically, the larger the VAT base is relative to imports. Final consumption in most economies usually exceeds imports of goods by a wide margin. This means that either more revenues can be raised at the same rate, or the same

revenues can be raised at a lower rate than with import duties (Glenday, 2006). Therefore an unexpected floor in the revenue can be absorbed only by some combination of inflationary financing thereby 'crowding out' private investment, resorting to foreign debt obligations, reducing expenditure by delaying development expenditure or reducing operation and maintenance. The classical economist (such as David Ricardo, John Stuart) believed that when governments are directed to right measures of taxation, it then becomes a useful economic principle. This same reason leads to revenue being placed before expenditure and public debt by same group of economist. However with more understanding and distillation of the classical economist as well as work done by John Maynard Keynes, Karl Max, J.M Buchman, Carl Shoup, Musgrave, just to mention a few, have led to the fine tuning of the functions and dynamics of taxation in countries. Historically, taxation is seen as the oldest form of financing the public sector, others may include seignorage, loans, borrowing etc., in times of war or peace while citizens expect the government to reciprocate by either spending public revenue in such a way that it will enhance their welfare for the sacrifice of their private resources which they make through payment of taxes. Adam Smith argued that growth was self-reinforcing as it exhibited increasing return to scale. He opined that profit declined not because of decreasing marginal productivity, but rather because the competition of the capitalist for workers will bid wages up.

2.1.4 Economic growth and economic development

Economic growth specifically means an increase in the value of goods and services produced by a country over a period. Economists use an increase in nation's GDP to measure it. Therefore, it is possible to have economic growth without economic development in the short or even medium term. On the other hand, there could be an increase in GDP without any increase in standard of living of people in a state. On the other hand, given that the two are different, any effort to use GDP as a measure for the two gives inaccurate outcome on economic development. GDP is not a good measure because economic growth is not the same with wellbeing.

Furthermore, according to the United Nations report on Human Development Index (HDI) 'development goes beyond the expansion of income and wealth. It connotes a process of enlarging people's choices' (UNDP, 1990). It is a shift to a more holistic insight of development that had earlier focused more on per capita income. United Nation's Human Development released Human Development Index (HDI) first as part of her 1990 Report. The United Nations came up with Human Development Index (HDI) as a parameter for ranking countries' levels of social and economic development based on the following namely Health Index, Education Index, and Standard of Living Index. The health index is a representation of life expectancy (expected numbers of years) of a particular region or country under study.

The objective of economic development is to make the environment favourable for local communities and regions to develop new ways of production of goods in such quantities that may lead to exportation to other countries. Economic development is different from economic growth. Economic growth specifically means an increase in the value of goods and services produced by a country over a period. Economists use an increase in nation's GDP to measure it. Therefore, it is possible to have economic growth without economic development in the short or even medium term. On the other hand, there could be an increase in GDP without any increase in standard of living of people in a state. Sometimes, growth and development are used interchangeably and also use GDP as measurement indicator for both. On the other hand, given that the two are different,

any effort to use GDP as a measure for the two gives inaccurate result on economic development. The living standard index indicates the per capita income of a region or country stated in US\$ at Purchasing Power Parity (PPP) rate. Despite the seemingly growth rate of HDI on only papers, in reality, average Nigerians are yet to feel its impacts as they cannot boost of good quality of living.

2.1.5 Per Capita Income (PCI)

Per capita income is national income divided by population size. Per capita income is often used to measure a sector's average income and compare the wealth of diverse populations. Per capita income is often used to measure a country's standard of living. It is usually expressed in terms of a commonly used international currency such as the Euro or United States dollar, and is very useful because it is far and wide known (Wikipedia). It is one of the proxies for economic growth. It is usually expressed in terms of a commonly used international currency such as the Euro or US dollar. It is useful because it is commonly known and easily computable from readily available gross domestic product (GDP) and population estimates. It also generates a useful statistics for easy comparison of wealth between sovereign nations. It is one of the three measures for calculating the Human Development Index of a country. Comparisons of per capita income over time need to put inflation into consideration. When there is no adjustment in inflation, figures tend to overstate the effects of economic growth (Wikipedia).

2.2 Theoretical Framework

Benefit Received Theory

This theory proceeds on the assumption that there is basically an exchange relationship between tax-payers and the state. The state provides certain goods and services to the members of the society and in turn they contribute to the cost of these supplies in proportion to the benefits received (Bhartia, 2009) in (Ogbanna and Ebimobowei, 2012). Anyanfo (1996) in (Ogbonna and Ebinmobowei, 2012) argues that taxes should be allocated on the basis of benefits received from government expenditure.

2.3 Review of Empirical Studies

Worlu and Emeka (2012) studied the impact of tax revenue on the economic growth of Nigeria for the period 1980-2007 looking at its effect on infrastructural development. The study found out that tax revenue has both direct and indirect correlation with the infrastructural development and the gross domestic product respectively (GDP). The study argued that the means through which tax revenue influence economic growth in Nigeria are infrastructural development, Foreign Direct Investment and Gross Domestic Product (GDP). It stressed that availability of infrastructure speeds up investments that in turn brings about economic growth.

In another study by Engen and Skinner (1996) entitled 'taxation and economic growth of the U.S. economy, large sample of countries and adoption of evidence from micro level studies of labour supply, investment demand and productivity growth. Their results imply reserved effects on the order of 0.2 to 0.3 percentage point differences in growth rates in response to a major reform. The study suggested such small effects can have a large cumulative impact on living standards.

Bukie and Adejumo (2013) as quoted in Ofoegbu, Akwu and Oliver (2016) examined the effect of tax revenue on economic growth of Nigeria within the period 1970 to 2011, regressing indicators of economic growth (domestic investment, labour force and foreign direct investment)

on tax revenue. The result shows that the indicators all have a positive and significant relationship with economic growth in Nigeria.

Onaolapo, Fasina, and Adegbite (2013) studied empirically the effect of petroleum profit tax (PPT) on Nigeria economy. Secondary data were collected from Central Bank of Nigeria statistical bulletin over the period 1970 to 2010. Multiple regressions were used to run analysis on data on such variables as Gross Domestic Product (GDP), petroleum profit tax, inflation, and exchange rate. There were all found to have considerable effects on the Economics Growth.

Ihenyen and Mieseigha (2014) examined taxation as an instrument of economic growth in Nigeria. Using annual time series data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin during the period 1980 through 2013, data of Corporate Income Tax (CIT), Value Added Tax (VAT) and Economic Growth (GDP) was estimated using the Ordinary Least Square (OLS) technique. The empirical result suggests that the hypothesized link among corporate income tax, value added tax and economic growth indeed exist in the Nigerian context. Therefore the result provides enticing evidence that taxation is an instrument of economic growth in Nigeria. This conclusion points to the need for additional measures by government in ensuring that taxpayers do not indulge in tax avoidance and evasion so that income can be properly redistributed in the economy.

Methodology

3.1 Research Design

Exploratory and ex-post facto designs were adopted in this study. The exploratory design helped the researcher to gather related materials from various sources such as text books, journal articles. The ex-post facto design was adopted on the grounds that it does not provide the study the chance to influence or control the variables majorly because they have already taken place and cannot be manipulated.

3.2 Population and Sample Size

The population and sample size is Nigeria

3.3 Method and sources of data

The study primarily used secondary source of data

3.4 Source of Data

Time series data were collected through desk survey method from official websites of Federal Inland Revenue Services (FIRS), UNCTAD, FDI/MNE database, World Bank Report, United Nations Development Programme (UNDP) reports, CBN statistical bulletin, journals, textbooks and other relevant private and government publications. The period covered by the study stretched from 2000 to 2021.

3.5 Description and Measurement Study Variables

Creswell (2002) sees data collection as a means by which information is obtained from the selected subjects of an investigation. The methods adopted regarding data collection in this research include

archival retrieval method, document investigation/analysis, and extensive library search, internet and website surfing. The data used in this study were collected based on the variables identified in the research objectives. The data for Human Development Index (HDI), Real GDP Per Capita Income, and Value Added Tax (VAT) of Nigeria were accordingly obtained. The independent variable proxy as Value Added Tax (VAT) are regressed against the dependent variables proxy as Human Development Index (HDI), Real GDP Per Capita Income, and Value Added Tax (VAT).

3.6 Techniques of Data Analysis

Ordinary Least Squares (OLS) regression technique will be used in analyzing data gathered having established the relationship between dependent and independent variables. This regression technique has been employed in previous studies such as Ihenyen and Mieseigha (2014), Balestra (1970); Okafor (2012) and was found suitable owing to its distinctive properties of linearity, efficiency, sufficiency, least variances, unbiasedness and least mean errors.

3.7 Model Specification

The functional relationship between value added tax and economic development is expressed in linear form as shown below:

HDI= f (VAT)	i
PCI = f (VAT)	ii
RGDP = f (VAT)	iii
Obtaining the OLS model from the above expression thus:	
HDI = $\alpha + \beta_1$ VAT + ϵ	iv
PCI = $\alpha + \beta_1$ VAT + ϵ	v
RGDP = $\alpha + \beta_1$ VAT + ϵ	vi

Where:

GDP = Gross Domestic Product

PCI= Per Capita Income

RGDP = Real GDP

VAT = Value Added Tax

VAT = Value Added Tax

ϵ = Error term

This study places emphasis to test the effect of value added tax on Nigerian economic development adopting gross domestic product per capita income (PCI), real gross domestic product and human development index (HDI) as proxies for economic development (dependent variables) and value added tax (VAT) as the independent variable in this study.

DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

This section of the chapter presents the data extracted from the FIRS and the CBN statistical bulletin for each of the variable used in this study. The data used were obtained for 12 years (2010-2021) as shown in Appendix 1.

4.2 Data Analysis

This section analyzes the data presented (Appendix I) with the aid of Stata 13. The analysis of data is presented in the subsequent sections:

4.2.1 Descriptive Statistics

The descriptive statistics for both the dependent and independent variables are presented in table 4.1 below:

Table 4.1: Descriptive Statistic Table

Variable	Obs.	Min	Max	Mean	Std. Dev.	Skew.
HDI	12	.48	.57	.5241667	.0250303	0.8012
PCI	12	3.294149	3.695978	3.450827	.1227907	0.3287
RGDP	12	2.917332	3.198379	3.119384	.0830045	0.0229
VAT	12	5.751964	6.659662	6.037914	.3081745	0.0508

Source: Stata 13

Table 4.1 presents the descriptive statistics of all the variables. The number of observations for the study is 12. From the table above, the following information is distilled.

The result reveals that, Human Development Index (HDI) reflects a mean of 0.5241667 with a deviation of 0.0250303. HDI also reveal a maximum value of 0.57 and a minimum value of 0.48. Per Capita Income (PCI) has a mean of 3.450827 with a deviation of 0.1227907. Furthermore, PCI records a maximum and minimum value of 3.695978 and 3.294149. Real Gross Domestic Product (RGDP) reveals a mean of 3.198379 with a deviation of 0.0830045. RGDP further reveals maximum and minimum values of 3.198379 and 2.917332 respectively. Value Added Tax (VAT) has a mean of 6.037914 with a deviation of 0.3081745. Furthermore, VAT records a maximum and minimum value of 6.659662 and 5.751964.

To test for normality of data, the skewness statistics is used. For HDI, the data set reveal a skewness value of 0.8012, while data for PCI, RGDP and VAT reveal skewness values of 0.3287, 0.0229 and 0.0508 respectively. This means the data values are normally skewed within the stipulated region of -2 and +2. The result of the descriptive statistics in respect to the study variables shows the level of fluctuation that occurs as a result of economic uncertainties, as well as change in government policies. This is noted in the respective deviation values of the variables.

4.2.2 Stationarity Test

In order to ensure that the results are robust, several diagnostic tests are conducted to enhance the validity of data and model specified for analyses. As such, data diagnostic test such as; the Unit root test and the Co-integration test are computed.

4.2.2.1 Unit root

To avoid running a spurious regression, unit root test is carried out to ensure that the variables employed in this study are mean reverting i.e. stationary. For this purpose, the Augmented Dickey Fuller (ADF) test is employed to test for stationary of data. The result of the test is presented in the table below.

Table 4.2: Unit root result

Variable	Test Stat.	5% Critical Value	Difference
HDI	-2.224	-1.950	1 st
PCI	1.953	-1.950	1 st
RGDP	-2.198	-1.950	1 st
VAT	-2.046	-1.950	1 st

Null: There is serial Unit Root in the data

Source: Stata output in appendix ii

The table above shows the result of the first test required to know the stationarity of the variables. For the individual stationarity test, the Augmented Dickey-Fuller (ADF) unit root test is used. The ADF unit root test result for result for individual stationarity is interpreted using the Test Statistic measured against the critical value to ascertain the level of individual stationarities of the time-series data. The result above shows that, data for the variables were stationary at 1st difference (ADF) with a Test Statistics > critical values for all the variables. Since the variables data set are all individually stationary at 1st difference, there is need for cointegration test to be carried out to ascertain if the data are mean reverting in the long run.

4.2.2.2 Co-integration Test

H₀: There is no co-integration

Table 4.3: Co-integration result

Statistic	Rank 0	Lag 1	Lag 2	Lag 3
Trace Stat.	98.6121	30.9463	14.3242*	1.3917
Critical Value	47.21	29.68	15.41	3.76
Decision	+	+	-	-

Source: Stata output in appendix ii

The table above reveal the result of Johansen co-integration test for the time-series data. To ensure the level of co-integration of the data set, the trace statistics values listed in the table above is considered against their respective critical values to ensure a more robust test for co-integration; it is expected that the Ranked trace statistics > critical values.

From the Rank (0) order result, the trace statistics of 98.6121 > 47.21 critical value; it means there is co-integration at ranked level. Also, the result reveal co-integration at Lag-1 with trace statistics of 30.9463 against a critical value of 29.68. On the other hand, the result for Lag-2 and Lag-3; reveal trace statistics of 14.3242, 1.3917, which are less than (<) 15.41 and 3.76 critical values. This means there is no co-integration if the data is lagged for 2 and 3 series. But the study is restricted to Lag-1 decisions given the lag selection criteria of 1 in appendix ii of the study. This means there is no need to compare both the VAR and VECM models in analyzing the data for this study thus; the VAR model is preferred.

4.2.2.3 Regression of the Estimated Model Summary

This section of the chapter presents the results produced by the error correction model summaries for further analysis.

Table 4.4: VAT VAR Regression

VAR Variable	Coefficient	R-Square	Constant	Prob.
HDI	0.2883189	0.9659	-0.2426186	0.00000
PCI	0.8039278	0.8930	-1.246839	0.00000
RGDP	-0.1787396	0.9494	2.22365	0.00000
Lagrange (1)	0.12474			

Source: Stata output in appendix ii

For model fitness, the R^2 value is used to establish the level of overall fluctuation the study independent variable (VAT) can cause HDI, PCI and RGDP as the dependent variables to change. The R-square values of 0.9659 shows that VAT cause HDI to fluctuate at approximately 97%; this means that 3% fluctuation of Nigeria's HDI is caused by other factors not considered in this study like; government policies and economic issues.

For RGDP, the R-square values of 0.8930 shows that VAT cause PCI to fluctuate at approximately 89%; this means that 11% fluctuation of Nigeria's PCI is caused by other factors not considered in this study like other fiscal policy instruments.

The R-square values of 0.9494 shows that VAT cause RGDP to fluctuate at approximately 95%; this means that 5% fluctuation of Nigeria's RGDP is caused by other factors not considered in this study like FDI and house-hold income levels.

The constant value of -0.2426186, -1.246839 and 2.22365 for CAP in the 3 models revealed that, given intercept only models, the HDI value of Nigeria will decrease by 0.2426186 units, the PCI will decrease by 1.246839 units, while the RGDP will increase by 2.22365 units. But a unit change in VAT will cause HDI to increase by 0.2883189 units. A unit change in VAT will cause PCI to increase by 0.8039278 units and a unit change in VAT will cause RGDP to decrease by 0.1787396 units.

4.3 Test of hypotheses

Ho₁: Value added tax has no significant effect on human development index of Nigeria.

To test the significance of the variables, the decision rule stated in chapter 3 is used. Since the calculated probability (Prob.) value for VAT against HDI is 0.0000; is less than the accepted probability value of 0.05. The null hypothesis is rejected and the alternative accepted. Therefore, value added tax has a significant effect on human development index of Nigeria.

Ho₂: Value added tax has no significant effect on per capital income of Nigeria.

To test the significance of the variables, the decision rule stated in chapter 3 is used. Since the calculated probability (Prob.) value for VAT against PCI (0.0000) is less than the accepted probability value of 0.05; the null hypothesis is rejected and the alternative accepted. Therefore, value added tax has a significant effect on per capital income of Nigeria.

Ho₃: Value added tax has no significant effect on real gross domestic product of Nigeria.

To test the significance of the variables, the decision rule stated in chapter 3 is used. Since the calculated probability (Prob) value for VAT against RGDP (0.0000) is less than the accepted probability value of 0.05; the null hypothesis is rejected and the alternative accepted. Therefore, value added tax has a significant effect on value added tax of Nigeria.

4.3.1 Discussion and Interpretation of Results

Three research objectives were set to ascertain the effect of value added tax on both human development index, per capital income and gross domestic product of Nigeria. The study

hypotheses tested revealed that, value added tax has significant effect on human development index, per capital income and gross domestic product of Nigeria. The study findings conform to that of Ihenyen and Mieseigha (2014) who examined taxation as an instrument of economic growth in Nigeria. Using annual time series data sourced from the Central Bank of Nigeria (CBN) Statistical Bulletin during the period 1980 through 2013, they examined the data of Corporate Income Tax (CIT), Value Added Tax (VAT) and Economic Growth (GDP) was estimated using the Ordinary Least Square (OLS) technique. Their study result suggested a hypothesized link among corporate income tax, value added tax and economic growth indeed exist in the Nigerian context. Their result like that of the current study, provides enticing evidence that taxation is an instrument of economic growth in Nigeria. This conclusion points to the need for additional measures by government in ensuring that taxpayers do not indulge in tax avoidance and evasion so that income can be properly redistributed in the economy.

Summary, Conclusion and Recommendation

5.1 Summary of Findings

The following are the summary of the major findings of this study arrived at through the test of the research hypotheses earlier formulated in this study. Value added tax has a positive relationship with the human development index of Nigeria. Also, value added tax has a significant effect on the human development index of Nigeria. Value added tax has a positive relationship with the per capital income of Nigeria. Also, value added tax has a significant effect on the per capital income of Nigeria. Value added tax has a negative relationship with the real gross domestic product of Nigeria. On the other hand, value added tax has a significant effect on the real gross domestic product of Nigeria.

5.2 Conclusions

Based on the findings of this study from the test of the two research hypotheses earlier formulated in the study, the researcher has therefore come to the following conclusions outlined in respect to each hypothesis. Value added tax has a positive significant effect on human development index of Nigeria. Value added tax has a positive significant effect on per capital income of Nigeria. Value added tax has a negative significant effect on real gross domestic product of Nigeria.

5.3 Recommendations

In consonance with this study's findings, the following recommendations become imperative: While government seeks to increase revenue generation through increased in VAT rates, there should be social safety nets put in place by the government to ensure that; the cost burden of accessing the basic necessities to live is affordable. This will further improve the HDI whilst government pursue her policy of increase revenue generation. Government should make policy that encourage low value added tax on capital goods. This will encourage investment drives that will create employment opportunities for citizens. With increased employment comes increase per capital income. Again low and affordable input VAT and low VAT on capital goods, investment and production drive will be encouraged. This will further increase the real gross domestic product of Nigeria and provide more income to the government.

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