

## Federal Government Indirect Tax Revenue and Income Distribution in Nigeria (2000-2023)

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### Abstract

*The examined the effect of federal government indirect tax revenue on income distribution in Nigeria from 2000 -2023, using value added tax, and custom and excise duty tax as the independent variables. Ex Post Facto research design was adopted for the study. Data were extracted from federal Inland Revenue services and World Bank annual reports. Regression analysis was used to test the hypotheses. The results revealed that value added tax and custom and excise duty tax significantly affected income redistribution in Nigeria. Conclusively, there is a significant effect between indirect tax revenue and income redistribution in Nigeria. The study recommended among others, that to uphold the significant effect of VAT, Nigerian government should avoid distortions like tax cascading associated with alternative commodity taxes.*

**Keywords:** *Value added tax, Custom and excise duty tax and Income distribution*

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### Introduction

The responsibilities of government in any modern economy are substantial. These range from the traditional one of tax collection and spending on public goods to those of providing regulatory and supervisory services to the entire economy. In an economy that is well-diversified, taxation constitutes one of the major sources of revenue to governments (federal, state and local). Traditionally, taxes are classified into two categories namely, direct and indirect taxes. George-Anokwuru, Olisa and Obayori (2020) opined that indirect tax is the most and efficient of these two types of taxes because it is very difficult for taxpayers to evade most forms of indirect tax such as Value Added Tax (VAT), as well as customs and excise duties.

Since it is very difficult to evade VAT, as well as customs and excise duties, it helps to increase the revenue that accrues to the government. Inimino, Abuo, Bosco (2018) reported that the entire essence of taxation is to generate revenue to advance the welfare of the inhabitants of a nation with a focus on promoting the growth and development of the country's economy through the provision of essential amenities for improved public services through proper managerial system and structures. Optimal deployment of government revenue will enable the government to invest in public and merit goods that can reduce poverty through its consumption by the poor folks in the country (George-Anokwuru, 2023).

Despite the revenue that accrues into the governments' treasury from value-added tax (VAT), as well as customs and excise duties (CED) and other sources in Nigeria, (George-Anokwuru, 2023), the governments still complain of inadequate funds to make expenditures on housing, education, transportation, agriculture, health, power, road construction, national defense, etc. and inhabitants of Nigeria have expressed disappointment about poor infrastructural facilities,

inadequate economic growth, high rate of unemployment, etc., which have resulted to the poor or pitiable standard of living. In Nigeria for instance, report have showing that Nigeria is populated by poor people. In fact 80% of the populace is living in abject poverty, hence, the need for this study to investigate the effect of indirect tax on income distribution in Nigeria from 2000 to 2023.

This study is to empirically examine the effect of indirect tax revenue on income distribution in Nigeria from 2000 -2023. The specific objectives will be to;

- 1 Determines the effect of value added tax on income distribution in Nigeria.
2. Ascertain the effect of custom and excise duty tax on income distribution in Nigeria

## **Conceptual Review**

### **Taxation and Indirect Taxes**

The historical background of both developed and developing countries shows that taxation is a critical tool in the hands of the government not only to generate revenue, but also to achieve fiscal policy goals, such as influencing the direction of social development. New Internationalist (2008), tax is derived from the Latin word "Tax is" which means "to assess. Tax is a compulsory payment made by the citizens of any country to the government or even to a foreigner under the jurisdiction of the government for housing or property and that payment is for the provision of social services of this society (Appah and Zibaghafa, 2018). Omes and Appah (2020) believe that inequality is a situation where the income levels of individuals are different.

An indirect tax is a type of tax that is collected by one party in the supply chain (often a producer or retailer) and paid to the government, but it is also included in the price of the good or service that is purchased by the consumer (Julia, 2019). Indirect taxes are those that can be transferred to another firm or are typically levied against a producer or supplier who then transfers the tax to the customer, according to the Corporate Finance Institute (2015). The analysis found the following categories of indirect taxes. Indirect taxes are compulsory fee levied on manufacturer or service provider which later transferred to individual customers who patronize the manufacturer products or services (IMF, 2020).

Indirect taxes are taxes levied on goods and services. They are sometimes called expenditure, outlay, or consumption taxes. As the name implies, the tax-paying ability of the taxpayer is assessed indirectly. Indirect taxes are advocated for on the grounds that they are easy to pay, difficult to evade, highly productive, effective for discouraging the consumption of harmful products, promote capital formation, protect domestic and infant industries, and as an effective tool of discrimination in consumption pattern (Ezirim, 2005). Tom-Ekine (2013) reported that indirect taxes may be specific or ad valorem. When they are imposed at a rate per unit of quantity, independent of the price, they are called specific. On the other hand, when the tax amount is scheduled according to the value of the item being taxed, it is ad valorem.

### **Value Added Tax (VAT)**

This is a form of indirect tax that is applied at each stage of production to the value added. Akhor and Ekundayo (2016) opine 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) suggest 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. 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 ultimately added to

and services 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 7.5%.

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 result shows that value added tax had a negative effect on income gap. He further stated that indirect tax, especially VAT, reduces income distribution as a whole. Omesi and Appah (2021) results revealed that there is an insignificant relationship between value added tax and income inequality. Similarly, Alavuotunk et al. (2019) empirical findings revealed that the revenue consequences of the VAT have not been positive. The results indicate that income-based inequality has increased due to the VAT adoption, whereas consumption inequality has remained unaffected. However, the results from Anyaduba and Otulugbu (2019), Uzoka and Chiedu (2017) showed that VAT contributes significantly to income inequality.

### **Custom and Excise Duty Tax**

Custom duties are taxes levied on imported and exported items while excise duties are taxes imposed on some goods that are manufactured in a country, such as alcohol, tobacco products including cigarettes, cigars, rolling tobacco, and chewing tobacco, etc., (Umo, 2012; Inimino, Abuo and Bosco, 2018). They (excise duties) are imposed to generate money for the government and to discourage the manufacturing and consumption of certain goods deemed harmful to people's health. Custom duties can be used to defend home industries from well-organized industries abroad. Customs duty is based usually on the worth of goods or upon the weight, dimensions, or some other criteria that will be determined by the government. Customs and excise duties are the oldest forms of modern taxation and remain an important source of revenue in our economy which is still largely import-dependent. Strictly speaking, the essence of customs and excise duties is to generate revenue to advance the welfare of the people of Nigeria with focus on promoting economic growth and development of the country through the provision of basic amenities for improved public services via proper administrative system and structures. In terms of contribution to government revenue, customs and excise duties have been impressive.

The increases in customs and excise duties signify that more revenue is available for economic growth in Nigeria. Moreover, the revenue from customs and excise duties will benefit the economy by enhancing its growth and future economic independence if it (the tax revenue from customs and excise duties) is invested in viable projects. On the other hand, if the tax revenue is badly managed and/or used for unproductive purposes, it will undermine the growth of the economy (Inimino, Otubu and Akpan, 2020).

Excise taxes are sometimes referred to as "sin taxes" because they are often levied on products whose consumption is considered socially undesirable. Today, targets for selective excise taxes include products that are unhealthy for the user, create negative outcomes for third-party bystanders (negative externalities), generate burdens on public expenditures (which I will call "governalities"), or act as a user fee for accessing publicly funded goods or services. Many products slated for excise taxes trigger more than one of the motivations for selective taxation (Adam, 2023).

### **Income distribution**

Britannica (2023) reported that wealth is an accumulated stock of possessions and financial claims. It may be given a monetary value if prices can be determined for each of the possessions”. (distribution of wealth and income - Encyclopedia Britannica”). In economics term, wealth is a stock variable that is measured at a particular point in time to determine its current value which has accumulated over a period through inflows of streams of income from labour and investments. Wealth can be measured at individual and society level. At a society level, it will be the totality of wealth of each individual member of the society and commonwealth of the society. An individual wealth can increase and decrease through consumption or inflow of economic benefits making the wealth. A decrease in an individual wealth of one member of the society, other things being equal, may not reduce the wealth of the society provided the decrease leads to an increase in individual wealth of another member of the society.

The distribution of wealth and income refers to “the way in which the wealth and income of a nation are divided among its population, or the way in which the wealth and income of the world are divided among nations” (Britannica, 2021). Owing to varying resources at each member’s disposal to increase productivity and individual wealth, there is often income and wealth inequality among members of the society such that more and excessive wealth is concentrated in the hands of some members while others are excessively deprived. This disparity may not be due to the actions of wealthy members but little resources available to the poor members at a particular point in time. As noted earlier, the wealth of the society may not be affected by disparities in the individual’s wealth. However, to achieve a healthy society and to increase the wealth of the society, the wealth needs to be redistributed.

### **Gini Coefficient**

This coefficient measures income inequality based on the Lorenz curve and has values between 0 and 1 (0 and 1 inclusive) where figures closer to 0 signifies more equality in the distribution, values closer to 1 shows higher inequitable distribution of income while 0 signifies absolute equality in the distribution (Omesì & Appah, 2020). Income inequality can be within the country or between two or more countries. Ortiz and Cummins (2011) found the Gini for sub-Saharan.

### **Empirical Review**

Wayas and Oto (2024) determined the association between value-added tax (VAT) and economic indicators in Nigeria from 2003 to 2022. The result found that VAT revenue has a major impact on GDP, total expenditure and total revenue. El-Yaqub & Musa (2024) analyzed the effect of Petroleum Profit Tax (PPT), Companies' Income Tax (CIT), and Value Added Tax (VAT) on Nigerian economic growth from 1986 to 2021. Data were extracted from the CBN and NBS along with a Vector Error Correction Model (VECM). The study showed that VAT has considerable positive short-and long-term effects on GDP, while PPT has a modest initial impact that grows more pronounced over time. CIT initially increases GDP but has negative long-term effects. Kehinde, Tima, Samson and Olawale (2024) determined the effect of the new value added tax regime on the situation of unemployment in Nigeria from 1994–2021. Data on the macro variables were sourced from the World Bank’s World Development Indicators, Central Bank of Nigeria’s Statistical Bulletins and the Federal Inland Revenue Service’s Financial Reports. Autoregressive distributed lag (ARDL) was used for the analysis. The study revealed that the value-added revenues have a positive association with the unemployment rate,

suggesting that the hike in VAT rate might have a contractionary impact on employment. Ezenwobi and John-Akamelu (2024) ascertained the effect of tax Revenue as a stimulus on economic development in Nigeria. The study adopted ex-post facto research design. Data were extracted from the Central Bank of Nigeria bulletin, the Federal Inland Revenue Service (FIRS) tax report, and the Nigerian Bureau of Statistics bulletin, covering a twenty-year period from 2004 to 2023. Descriptive statistical analysis was performed to summarize the data while Robust Least Squares (RLS) regression analysis was used to test of hypotheses at 5% significance level. The study found that value added tax and company income tax have a non-significant positive effect on the human development index of Nigeria; petroleum profit tax has a negative and significant effect on the human development index of Nigeria and personal income tax has a positive and significant effect on the human development index of Nigeria. Fasua and Osagie (2024) studied the effect of the tax system on the economic growth of Nigeria. The study utilized data extracted from annual financial reports of the Central Bank of Nigeria, focusing on indicators like Gross Domestic Product, Petroleum Profit Tax, Value Added Tax, and Company Income Tax from 1984 to 2021. Autoregressive Distributed Lag (ARDL) technique and conducted preliminary tests were employed for the analysis. The outcomes of the research indicate that all the independent variables (Petroleum Profit Tax, Value Added Tax, and Company Income Tax) showed a positive effect on the dependent variable (Gross Domestic Product), except Petroleum Profit Tax was found to be statistically insignificant. Ajayi, Giwa, Obafemi and Araoye (2024) ascertained the association among tax structure, poverty and economic growth in Nigeria. Data were sourced from Central Bank of Nigeria Statistical Bulletin, Federal Inland Revenue Services and WDI were used. Augmented Dickey Fuller (ADF), Phillips-Perron (PP) and Autoregressive Distributed Lagged (ARDL) Bound tests, and Error Correction Model (ECM) techniques were adopted. The study found that personal income tax and value added tax have significant negative effects on economic growth, but company income tax and petroleum profit tax have significant positive effect on economic growth. Also, the lagged value of personal income tax has a significant effect on economic growth. In same manner, the lagged value of value added tax has significant negative effect on economic growth. Obadiaru, Brian-Kufre and Adebajji (2024) ascertained the influence of tax revenue on Nigeria's economic growth over a three-decade period spanning from 1991 to 2021. Data were extracted from the Federal Internal Revenue Service (FIRS) and the Nigerian Bureau of Statistics (NBS), while economic data for Nigeria was sourced from the 2021 Statistical Bulletin of the Central Bank of Nigeria (CBN). The study utilized personal income tax (PIT), corporate income tax (CIT), and value-added tax (VAT) as proxies for tax revenue, with gross domestic product (GDP) serving as the dependent variable to represent the Nigerian economy. Several diagnostic tests were conducted, including a descriptive statistic to assess data normality and the Augmented Dickey-Fuller unit root test to evaluate data stability. The Autoregressive Distributed Lag (ARDL) technique was employed as the statistical tool for data analysis, utilizing E-View version 9 as the statistical package. The result indicated that personal income tax (PIT) and value-added tax (VAT) had a negative impact on GDP, while company income tax (CIT) showed a positive impact. Gina, Oghenebrorhie and Obaretin (2023) determined the effect of direct tax on income redistribution in Nigeria. Ex-Post Facto research design was adopted. Data were extracted from International financial statistics, World Bank and CBN. Regression analysis was used to test the hypotheses. The study found that petroleum profit tax has a negative significant effect on government expenditure on goods in Nigeria; also company income tax has a negative significant effect on government expenditure on goods in Nigeria. Edmond (2023) evaluated the



effect of environmental taxes on economic and social inequalities using data from 38 OECD countries from 1994 to 2020. The results show that the emergency of an environmental tax can have unequal significances on population groups due to differences in consumption behaviour and access to environmental alternatives. The results also indicate that environmental taxes with a progressive character (i.e. higher for higher income households) can reduce inequalities and improve environmental efficiency. Ezejiofor and Apete (2023) ascertained the effect of the Nigerian stamp duty tax on the growth of the economy. Time series data were used spanning the years 1999-2020. Data were extracted from the Central Bank of Nigeria Statistical Bulletin, the Bureau of National Statistics, and Federal Inland Revenue Service reports. Ordinary least square was used to test the hypothesis via E-view 9.0. The study found that stamp duty has an insignificant and positive impact on Nigeria's economic growth. Kukoyi, Oseni and Awodire (2022) studied the taxes and levies paid by tourism and hospitality firms in Ogun State, Nigeria, intending to underscore its effect on the productivity of these companies. The survey method was adopted for research design. Qualitative data were content analyzed while quantitative data were analyzed using simple percentages and chi-square ( $p \leq 0.05$ ). The study indicates that about 11 taxes were levied on tourism and hospitality firms and hotels were found to be the sub-sector levied with the highest number of taxes. It was also revealed that all the 3-tiers of government collect taxes separately, and some were for similar a purpose which implies the possibility of multiple taxations.

### Methodology

This study utilized *Ex-Post Facto* research design. The choice of the design is based on the idea that the method provides discovery on trends and pattern of change. The study used time series data covering a period 2000 to 2023.

### Population of the Study

The Population made up of indirect tax revenues and income distribution in Nigeria.

### Sample Size and Sampling Technique

The study selected two variables among other existing variables for indirect tax revenue in Nigeria, namely; Value added tax (VAT), custom and excise duty tax, and Gini coefficient.

### Sources of Data

Data were extracted from federal Inland Revenue services and World Bank reports. Data extracted includes; government expenditure on goods as the dependent variable (income redistribution).

Secondary data were sourced from the financial statistical bulletin, CBN statistical bulletin as well as the Federal Inland Revenue (FIRS) for Nigeria from 2000 to 2023 using time series data based on the availability of data. The researcher codified the data into the following categories namely; Value added tax (VAT), custom and excise duty tax, for independent variables, while Gini coefficient represents the income redistribution.

### Model Specification

This study modified the model of Obaretin et al., (2017), whose model this study adopts. The model of Obaretin et al., (2017) is stated below:

$$GINIt = \beta_0 + \beta_1TITt + \beta_2TDTt + \beta_3OPNt + \beta_4FDIt + \beta_5INFt + \epsilon_t \quad - - 1$$

TIT = Total indirect tax revenue,  
TDT= Total direct tax revenue,  
FDI = Foreign direct investment,  
OPN= Economic openness,  
INF= Inflation rate,  
GINI= Gini coefficient

The model for this study stated in its econometric form is given below:

$$GIN_{it} = \beta_0 + \beta_1 VAT_{it} + \beta_2 CED_{it} + \epsilon_t \text{ --- i}$$

Where:

Gini = Gini coefficient (proxied by government expenditures on infrastructural goods)

VAT = Value added tax

CED = Custom and excise duty tax,

t= Time frame,

$\alpha_1 \dots \alpha_2$  = unknown coefficients

### Method of Data Analysis

This study utilized descriptive statistics employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics (regression analysis) also be utilized with the aid of E-Views 9 using:

**Coefficient of Correlation:** which is a good measure of relationship between two variables, tells us about the strength of relationship and the direction of relationship as well;

**Panel regressions analysis:** (A panel regression is a regression analysis that takes into account the relationships between each predictor variable and a single outcome variable.

### Decision rule

Accept the null hypothesis if the P-value is greater than 0.05 and then the alternate hypothesis will be rejected.

### Data Analysis

**Table 1: Descriptive Statistics**

	LOGGINI	LOGVAT	LOGCED
Mean	4.894339	5.061005	0.855778
Median	4.790327	4.805796	0.774863
Maximum	6.547775	7.547775	2.567073
Minimum	4.347076	4.347076	0.000000
Std. Dev.	0.506267	0.702596	0.621516
Skewness	1.996333	1.999243	1.219205
Kurtosis	6.613602	7.204387	4.130065
Jarque-Bera	115.9980	134.6591	28.89155
Probability	0.000000	0.000000	0.000001
Sum	469.8565	485.8565	82.15471
Sum Sq. Dev.	24.34912	46.89595	36.69686
Observations	96	96	96

**Source:** E-views 9 (2025)

Table 1, observed that the mean values of the income redistribution (LOGGINI) stood at 4.894, with standard deviation of 0.506. The maximum value is 6.548 and minimum value of 4.347.

The mean value of value added tax (VAT) showed an average value of 5.061, with the standard deviation of 0.703. The maximum value is 7.548, and minimum value of 4.347. The mean value of stamp duty tax (LOGSDT) is 4.285 with standard deviation of 0.334. The maximum value is 5.119, and minimum of 3.910. Similarly, the mean values of the custom and excise duty tax (LOGCED) revealed 0.856, WITH standard deviation of 0.622. The maximum value is 2.567, and minimum value of 0.000. The kurtosis of 6.613602, 7.204387 and 4.130065, for LOGGINI, LOGVAT, and LOGCED, respectively, showing a distribution that is strong, suggesting a concentration of values around the mean with potential outliers. The Jarque-Bera probability of 0.000000, 0.000000, and 0.000001 confirms that the LOGGINI, LOGVAT, and LOGCED data is significantly non-normally distributed showed that traditional parametric analyses may need to be approached with caution.

### Multicollinearity Test

**Table 2: Pearson Correlation Matrix**

	LOGGINI	LOGVAT	LOGCED
LOGGINI	1		
LOGVAT	0.856894	1	
LOGCED	0.547731	0.516090	1

Source: E-Views 9 Correlation Output, 2025

The outcome of the correlation matrix was presented in table 4.2, which focused on the, value added tax (LOGVAT) 0.857 and custom and excise duty tax (LOGCED) 0.548 were positively correlated with the income redistribution (LOGGINI).

### Test of Hypotheses

#### Hypothesis One

Ho<sub>1</sub>: Value added tax does not significantly affect income redistribution in Nigeria.

**Table 3 Panel Least Square Regression analysis testing the effect between LOGVAT, and LOGGINI**

Dependent Variable: LOGGINI

Method: Panel Least Squares

Date: 06/14/25 Time: 11:49

Sample: 2000 2023

Periods included: 24

Cross-sections included: 4

Total panel (balanced) observations: 96

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.769425	0.195736	9.039843	0.0000
LOGVAT	0.617449	0.038312	16.11644	0.0000
R-squared	0.734268	Mean dependent var	4.894339	
Adjusted R-squared	0.731441	S.D. dependent var	0.506267	
S.E. of regression	0.262361	Akaike info criterion	0.182425	
Sum squared resid	6.470342	Schwarz criterion	0.235848	
Log likelihood	-6.756378	Hannan-Quinn criter.	0.204019	



F-statistic	259.7398	Durbin-Watson stat	1.720430
Prob(F-statistic)	0.000000		

### Interpretation of Regression Result

In Table 3, R-squared and adjusted Squared values were (0.734) and (0.731) respectively. This indicates that the independent variable explains about 73% of the systematic variations in income redistribution (LOGINI) over the twenty four years periods (2000-2023). The adjusted  $R^2$ , which represents the coefficient of determinations imply that 73% of the total variation in the dependent variable (LOGGINI) is jointly explained by the explanatory variable (LOGVAT). The value of adjusted  $R^2$  of 73% also shows that 27% of the variation in the dependent variable is explained by other factors not captured in the study model. The F- statistics value of 259.7398 with an associated Prob.>F = 0.000 indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used.

**Test of Autocorrelation:** using Durbin-Waston (DW) statistics which we obtained from our regression result in table 3, it is observed that DW statistics is 1.720 and an Akika Info Criterion and Schwarz Criterion which are 0.182 and 0.236 respectively also further confirms that our model is well specified.

Table 3 indicates that value added tax has a positive significant effect on government income redistribution in Nigeria. This can be observed from the beta coefficient ( $\beta_1$ ) of 0.617449 with t-statistic of 16.11644 which is positive and significant effect at 5% level of significance.

Since the P-value of the test was 0.000 less than 0.05 (5%). this study upholds that Value added tax significantly affect income redistribution in Nigeria. Thus, null hypothesis is Rejected and alternative hypothesis Accepted.

### Hypothesis Two

Ho<sub>3</sub>: Custom and Excise duty tax has no significant effect on income redistribution in Nigeria.

**Table 4 Panel Least Square Regression analysis testing the effect between LOGCED and LOGGINI**

Dependent Variable: LOGGINI

Method: Panel Least Squares

Date: 06/14/25 Time: 11:51

Sample: 2000 2023

Periods included: 24

Cross-sections included: 4

Total panel (balanced) observations: 96

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.512521	0.074212	60.80613	0.0000
LOGCED	0.446164	0.070293	6.347242	0.0000
R-squared	0.300009	Mean dependent var	4.894339	
Adjusted R-squared	0.292563	S.D. dependent var	0.506267	

S.E. of regression	0.425818	Akaike info criterion	1.151003
Sum squared resid	17.04416	Schwarz criterion	1.204427
Log likelihood	-53.24815	Hannan-Quinn criter.	1.172598
F-statistic	40.28749	Durbin-Watson stat	0.622717
Prob(F-statistic)	0.000000		

### Interpretation of Regression Result

In Table 4, R-squared and adjusted Squared values were (0.30) and (0.29) respectively. This indicates that the independent variable explains about 29% of the systematic variations in income redistribution (LOGINI) over the twenty four years periods (2000-2023). The adjusted  $R^2$ , which represents the coefficient of determinations imply that 29% of the total variation in the dependent variable (LOGGINI) is jointly explained by the explanatory variable custom and excise duty tax (LOGCED). The value of adjusted  $R^2$  of 29% also shows that 71% of the variation in the dependent variable is explained by other factors not captured in the study model. The F- statistics value of 40.28749 with an associated Prob.>F = 0.000 indicates that the model is fit to explain the relationship expressed in the study model and further suggests that the explanatory variables are properly selected, combined and used.

**Test of Autocorrelation:** using Durbin-Waston (DW) statistics which we obtained from our regression result in table 4, it is observed that DW statistics is 0.623 and an Akika Info Criterion and Schwarz Criterion which are 1.151 and 1.204 respectively also further confirms that our model is well specified.

Table 4 indicates that custom and excise duty tax has a positive significant effect on government income redistribution in Nigeria. This can be observed from the beta coefficient ( $\beta_1$ ) of 0.446164 with t-statistic of 6.347242 which is positive and significant effect at 5% level of significance.

Since the P-value of the test was 0.000 less than 0.05 (5%), this study upholds that custom and excise duty tax significantly affect income redistribution in Nigeria.

### Conclusion and Recommendations

The examined the effect of federal government indirect tax revenue on income distribution in Nigeria from 2000-2023, using value added tax, and custom and excise duty tax as the independent variables. Regression analysis was used to test the hypotheses, the results revealed that value added tax and custom and excise duty tax significantly affect income redistribution in Nigeria. Conclusively, there is a significant effect between indirect taxes and income redistribution in Nigeria

Based on the findings, the study recommended the followings;

- In order to uphold the significant effect of VAT, Nigerian government should avoid distortions like tax cascading associated with alternative commodity taxes.
- Since CED has significant effect on the productivity of Nigeria, government should devise means of curbing corruption and leakages in the CED administration and continue in investing in infrastructure and public goods and services.

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