

TAX REVENUE AND PER CAPITAL INCOME IN NIGERIA AND GHANA

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ABSTRACT

The study determined the effect of tax revenue on per capital income in Nigeria and Ghana, using company income tax and value added tax. Ex Post Facto was employed for the study. Data were extracted from international monetary fund (IMF), as well as the Federal Inland Revenue (FIRS) for Nigeria and Ghana Revenue Services (GRS) from 2000 to 2024. Multiple regression was employed to test the data and the study revealed that the company income tax had a positive coefficient of 301.8848 and a p-value of 0.272 which was not significant at 5% level for Nigeria; while the outcome of model 2 showed a negative coefficient of -170.7067 (p-value 0.000) for Ghana, but has a significant effect. The study also showed that value added tax had a positive coefficient of 320.8032 and a p-value of 0.017 which was significant at 5% level for Nigeria; while the outcome of model 2 showed a positive coefficient of 4.139567 (p-value 0.293) for Ghana, but has no significant effect. There is need for Nigerian government to qualifying companies in priority sectors get credits tied to investments in equipment, infrastructure and expansion instead of full holidays.

Key words: Tax Revenue, Per Capital Income, Company Income Tax, Value Added Tax

INTRODUCTION

In the early period, the application of direct taxes was constrained because of the mainly rural populace involved in subsistence farming, creating difficulties in income estimation and making tax assessments vulnerable to significant inaccuracies (Ajagun, Kehinde & Jinadu, 2025). In modern Nigeria, a significant issue for tax administration is to improve professionalism, accountability, and public understanding of the necessities and advantages of tax revenue in boosting economic activity, enabling savings and investment, and creating a strategic edge. Not addressing these challenges might require a change in the tax system and its administration. Generating tax revenue to fund development in Nigeria faces challenges from resistance, evasion, avoidance, and corruption, which are viewed as harmful to the economy and are often cited as factors contributing to the nation's underdevelopment (Adegbeie, Nwaobia & Osinowo, 2020). Nonetheless, a nation's capacity to produce revenue internally is vital for economic development, as governments emphasize effective tax frameworks to support social services and infrastructure (Nakah et al., 2018). Non-oil taxes,

encompassing revenue from sources such as corporate income tax, individual income tax, and value-added tax, provide a substitute for oil revenue (Webber & Wildavsky, 1986). Historically, Nigeria depended on agriculture and mineral resources for income until the 1970s oil boom redirected attention to petroleum, causing a drop in the non-oil sector's contribution (Oshiobugie & Akpokerere, 2019). This change led to economic instability, since reliance on oil made Nigeria vulnerable to variations in global oil prices, requiring an increased emphasis on non-oil revenue for sustainable development (Omesì Ngoke & Ordu, 2020).

Taxes have been a primary source of government income for economic growth and development in both developing and developed nations. Tax directly influences the Human Development Index (HDI), which serves as the primary measure for assessing a country's economic development. A solid tax system safeguards emerging industries and promotes entrepreneurial growth within the country, essential for maintaining the economic progress of all economies (Eyisi, Chioma & Bassey, 2022). The gathering of taxes and fees is an essential method by which the government generates public revenue in amounts sufficient to fund various investments in human capital, infrastructure, and services for citizens and businesses. Taxation serves as a crucial mechanism for economic management by promoting funding for public goods, influencing consumption habits, guiding the production of essential goods, and importantly, safeguarding emerging industries. Taxation likewise minimizes inequalities in income distribution (Okoye & Ezejiofor, 2014). Researchers have varying opinions regarding the impact of tax revenue on the economic growth of countries, resulting in no agreement. Even with oil becoming a significant source of tax revenue, such as personal income tax and corporate income tax, aimed at tackling economic challenges and improving government spending on social infrastructure, Nigeria's physical condition still lags behind. The oil boom period resulted in a relaxation of supervision over non-oil revenue streams such as corporate income tax, value-added tax, capital gains tax, customs duties, and excise taxes (Olatunji, & Oluwatoyin (2019). Limited studies exist on tax revenue and per capita income among African nations in an effort to provide a valuable comparison.

Objectives

This research sought to fill the gap, hence, the study determined the effect of tax revenue on per capita income in Nigeria and Ghana, contributing to addressing inadequacies in tax revenue administration that have hindered significant economic growth and development. Specifically, the study sought to:

1. Determine the effect of company income tax per capital income in Nigeria and Ghana.
2. Ascertain the effect of value added tax on per capital income in Nigeria and Ghana.

LITERATURE REVIEW

Taxation

Tax is occasionally employed to oversee business operations in particular areas of the economy. In light of the above, taxation has been regarded as a mechanism for attaining economic growth in many nations. Remarkably, the role of taxation in economic growth, especially regarding public policy, appears to be a relatively recent finding, but it offers a framework that could eclipse many of its possibilities. Taxes serve as tools used to gather resources for public goods such as infrastructure, health and safety, research, roads, clean water supply, schools, judiciary, transportation, police funding, and the creation of parks and gardens, among other things (Onukelobi, Okwuego, & Chidiebere, 2025). It seems that the use of taxation as a tool for fiscal policy in Nigeria might have been undermined by corruption and other potential factors. This might explain the dismal state of tax revenue and the inadequate developmental progress of previous administrations. Supporting this perspective, Kiabel and Nwokah (2009) suggest that due to the declining revenue generation coupled with the continuous increase in governance expenses, governments at every level are urged to formulate policies and implement strategies to enhance revenue generation. To improve tax system management and increase tax revenue in Nigeria, the government initiated changes to multiple tax laws, leading to the revision of laws like the Value Added Tax (Amendment) Act, 2024. Accordingly, the reforms in other tax laws such as Company Income Tax (Amendment) Act, 2024, Federal Inland Revenue Services (Establishment) Act, 2007 and custom and excise duty (Amendment) Act, 2024 are expected to expand the government revenue base through tax generated and ensuring adequate and strict compliance to tax laws (Chude and Chude, 2015).

Companies Income Tax (CIT)

As stated by Ani (2004), CIT is a direct tax imposed on corporate profits. Companies Income Tax is generated from the taxable profits of firms incorporated under the Companies and Allied Matters Act, 1990, as amended to date, or any future law that may supersede it concerning company incorporation. According to section 8(1) of the Companies Income Tax Act (CITA), CIT is due on profits of any company that occur in, stem from, are introduced into, or received within Nigeria concerning any trade or business that may have been

conducted. At present, the CIT rate stands at 30% of taxable profit. Dickson and Rolle (2014) suggested that governments frequently utilize CIT incentives like tax exemptions to draw in and keep both local and foreign investors involved in productive endeavors, leading to enhanced economic growth and positively impacting the balance of payments with other nations. As companies' income tax is progressive (the greater the earnings, the higher the CIT), it promotes economic expansion. Ani (2014) outlines the goals of CIT that support Nigeria's economic development as including: providing government revenue for infrastructure projects, fair distribution of income/wealth, and attaining a positive balance of payments, serving as a fiscal policy tool to manage the economy and stimulate economic growth. To deter the production and use of harmful products detrimental to public health, thereby preserving a healthy society and workforce to support economic development (Onukelobi, Okwuego & Chidiebere, 2025).

Ogbonna and Appah (2016) indicated that corporate income tax is a type of tax levied on the profits of corporations earned, sourced from, imported into or received in Nigeria relating to any enterprise or business, rental income, premiums, dividends, interest, royalties, and other annual profit sources, excluding profits from businesses involved in petroleum activities (Manukaji, 2018; Abomaye-Nimenibo, Eyo, & Friday, 2018). This Tax is due for every assessment year on the profits of any company at a rate of 30%. The existing legislation that regulates the taxation of profits earned by companies operating in Nigeria, apart from those involved in Petroleum exploration, is the Companies Income Tax Act of 1990. This tax must be paid for every assessment year (reflecting the actual year) of a company's profits at a rate of 30 percent. As stated by (Ola 2023), the management of income tax by companies in Nigeria falls short of acceptable standards. He additionally mentioned that corporate income tax is a significant revenue source in Nigeria, but adherence to laws and regulations by taxpayers is entrenched in the system due to poor oversight. A general overhaul of the Nigerian company income tax system is necessary (Hussain, Musa & Musa, 2024).

Value Added Tax

This represents a type of indirect tax imposed at every production stage on the added value. Akhor and Ekundayo (2016) indicated that value added tax is a consumption tax imposed at every level of the consumption process and ultimately paid by the end user of the product or service. Abomaye-Nimenibo, Eyo, and Friday (2018) indicate that the seller collects value added tax upon the sale of taxable items. The seller deducts the VAT and remits it to FIRS via an authorized bank. Manukaji (2018) pointed out that value added tax represents an



estimated market value added to a product or service at every phase of its production or distribution, and the increased costs ultimately affect the products and services, which bear the tax burden since they cannot reclaim the tax paid on the consumption of goods and services. The Federal Government of Nigeria introduced it in January 1993, mandating that a taxable individual register with the Federal Inland Revenue Service to impose and collect VAT at a uniform rate of 7.5 percent. Value Added Tax (VAT) was the sole aspect that (Amah & Nwaiwu, 2018) examined while assessing the growth of the Lagos State Economy from 2001 to 2005. Every development indicator (infrastructure, environmental management, education, youth and social welfare, agriculture, healthcare, and transportation) in the analysis was regressed against the VAT revenue generated by Lagos State. They determined that throughout the study duration, the VAT funds raised positively influenced the development of the related sectors of the economy in Lagos State.

Okoye and Ani (2004) characterized VAT as “a type of indirect taxation grounded in the general consumption habits of the populace.” This definition aligns with the Statements of Standard Accounting Practice (SAAP) number five (5), released in the United Kingdom in 1974, describing a tax on goods and services supply that is ultimately incurred by the final consumers, collected at every stage of the production and distribution process. Margaret, Charles, and Gift (2014) asserted that the remarkable effectiveness of VAT in every nation it was implemented significantly impacted the Nigerian government's choice to adopt VAT in 1994. The Federal Inland Revenue Service (FIRS) reported that VAT, which took over from the previous sales tax, is a consumption tax that is fairly simple to manage, straightforward to collect, and hard to avoid, consequently boosting government revenue and supporting Nigeria’s economic development. The administration of VAT in Nigeria falls under the responsibility of the FIRS.

Per Capita Income

Per capita income (PCI) measures the average income generated by each individual in a certain area (city, region, or country) during a particular year. Per capita income is defined as the total income of an area divided by the overall population of that area (Kenton, 2019), representing the average earnings per individual within a country or region. Per capita income serves as a measure of an area's average income per individual and helps evaluate the living standards and quality of life of the population. A nation's per capita income is calculated by dividing its total income by its population (Kimberly, 2019). National income divided by the

number of people results in per capita income. Per capita income is often utilized to assess the wealth of various populations and to evaluate the average income of a sector

Empirical Review

Ezejiofor, Ikilidih, and Analikwu (2025) investigated how the federal government's indirect tax revenue impacts income distribution in Nigeria from 2000 to 2023, using value-added tax, customs, and excise duties as the independent variables. The study utilized an Ex Post Facto research design. Data were obtained from the federal Inland Revenue services and annual reports of the World Bank. Regression analysis was employed to evaluate the hypotheses. The findings showed that value-added tax and customs and excise duties considerably impacted income redistribution in Nigeria. In conclusion, there is a notable influence of indirect tax revenue on income redistribution in Nigeria.

Ese, Nkanikpo, Eno, and Affiong (2025) investigated the effects of capital gains tax and customs and excise duties on Nigeria's economic growth, employing the Auto-Regressive Distributed Lag model. The descriptive statistics indicated that the average capital gains tax was ₦6.74 billion, whereas customs and excise duties had an average of ₦78.76 billion, demonstrating differences in tax revenue contributions over time. The long-run Auto-Regressive Distributed Lag model findings indicated that capital gains tax positively influenced gross domestic product (coefficient = 0.0111, $p = 0.0011$), while the effect of customs and excise duties was statistically insignificant (coefficient = 0.0755, $p = 0.2758$), implying that capital gains tax played a larger role in economic growth compared to trade-related taxes. In the short term, customs and excise taxes negatively impacted gross domestic product (-0.0729 , $p = 0.0022$), suggesting that high trade taxation could obstruct economic performance. The error correction model ($ECM = -0.6530$, $p < 0.01$) indicated that 65.3 percent of short-run discrepancies were rectified each period, highlighting a robust adjustment mechanism towards long-run stability.

Igwe and Ugwuanyi (2024) studied the connection between tax revenue generation and economic growth in Nigeria prior to and following the introduction of the Treasury Single Account (TSA). The TSA, launched in 2012 and fully operational by 2015, sought to streamline all government revenues into one account at the Central Bank of Nigeria to improve transparency, accountability, and financial governance. The research examines major tax categories—Value Added Tax (VAT) and Company Income Tax (CIT)—and their relationships with economic growth, assessed through Gross Domestic Product (GDP) growth

rates. Before the TSA was implemented, there were weak relationships found between tax revenues and GDP growth. Nonetheless, after the TSA was implemented, positive correlations appeared, showing enhancements in tax collection and management. VAT showed a slight positive association with GDP growth, whereas CIT displayed a robust positive correlation, highlighting the influence of improved tax practices on economic progress. Moreover, customs and excise taxes showed a moderate positive relationship with GDP expansion, indicating increased income from trade-associated taxes. The results emphasize the success of the TSA in enhancing tax revenue collection and its beneficial influence on Nigeria's economic development.

Nnah (2024) explored the link between non-oil tax income and Nigeria's economic growth from 1989 to 2021. Employing an ex-post facto research design, secondary data obtained from the Central Bank of Nigeria were analyzed using simple linear regression. The findings showed that non-oil tax income significantly influenced economic growth, as indicated by the Human Development Index. Nonetheless, the primary limitation of the study was its collective methodology regarding non-oil tax revenue, which overlooked the distinct effects of various tax elements. Moreover, employing simple regression rather than multiple regression was a methodological flaw.

Oziegbe and Itua (2024) examined the impact of non-oil tax revenue on Nigeria's infrastructural development from 1981 to 2021. They utilized the Autoregressive Distributed Lag model to analyze short-term and long-term relationships. Their results validated that non-oil tax elements – including value added tax, customs and excise duties, as well as corporate income tax – had a positive impact on infrastructure, as measured by electricity generation. Nonetheless, the research was constrained by its limited range of tax variables and its use of electricity generation as a substitute for infrastructure, failing to comprehensively capture infrastructural advancement.

Adegboyo, Ajoje, and Agu (2023) examined the effect of non-oil income on Nigeria's economic development from 1981 to 2021 employing the endogenous growth framework. Their findings indicated that mining, agriculture, manufacturing, and VAT revenues played a significant role in economic growth. Due to the varying stationarity levels of the variables, the Autoregressive Distributed Lag estimation method was employed. They suggested that the government ought to enhance the non-oil sector and vary its revenue streams. Hassan and Rashid (2023) performed a comparative analysis of corporate tax rates in ten developed

nations and ten developing nations between 2015 and 2022. Their results indicated that corporate taxation influenced economic growth more substantially in developing nations. They suggested nation-specific corporate tax strategies to draw in foreign investment.

Otekunrin et al. (2023) examined the influence of oil and non-oil tax revenues on Nigeria's economic development. Employing an error correction model, the analysis revealed that petroleum profit tax and customs and excise duties contributed positively to economic growth, whereas company income tax and value added tax adversely affected it. They suggested that tax revenues should be effectively handled to encourage economic growth and infrastructure improvement.

Obisesan, Ariyo, and Adewole (2023) examined the impact of company income tax on dividend policies in Nigeria's banking sector. The findings indicated that company income tax and education tax negatively affected dividend per share, while profit after tax had a positive effect. The study recommended tax relief measures and better tax administration to improve bank profitability.

Eze (2023) investigated the effects of non-oil tax revenue in Anglophone and Francophone countries, analyzing capital gains tax, customs/excise duties, and property tax revenue from 1991 to 2021. Their results showed that capital gains and property tax revenue positively impacted economic growth, while customs/excise duties had an insignificant effect. The study recommended tax policy reforms and public awareness programs to improve tax compliance.

Musa (2022) studied the Effect of Custom and Excise Duties reform on Federally Collected Revenue in Nigeria. The main objective of this study is to examine the effect of Custom and Excise Duties reform on Federally Collected Revenue in Nigeria. This study adopted ex-post facto research design; the population of the study comprises of time series data in respect of Custom and Excise Duties (CED) and Total Federal Collection Revenue (TFCR) in Nigeria. This study used purposive sampling technique and chose the period of thirty four years (1984-2017), the major sources of data were secondary sources, stationarity test was conducted on data collected for the study, the Augmented Dickey–Fuller test (ADF) of unit root test was conducted to determine the stationarity of the data adopted and Data analysis was done with Econometric Views (E-Views) 8 software. The finding shows that Custom and Excise Duties (CED) does not have any significant effect on total federal collected revenue generation in Nigeria.

Nweze, Ogbodo and Ezejiofor (2021) ascertained the effect of tax revenue on Per Capita Income of Nigeria from 2000-2019. This study employed the use of time series data and Ex-post facto research design was adopted. Secondary data were sourced from Central Bank of Nigeria (CBN), Statistical Bulletin, Federal Inland Revenue Service (FIRS), World Bank Statistical Bulletin and Annual Abstract of Statistics from the National Bureau of Statistics (NBS). Descriptive statistics were utilized for the study variables while Ordinary Least Square (OLS) regression analysis was used to test the hypothesis. The study found that tax revenue has a significant positive effect on per capita income of Nigeria.

Edewusi and Ajayi (2021), the nexus between tax revenue (PPT, CIT and VAT) and economic growth in Nigeria was investigated. Data collated were analyzed using multiple regression analysis, co-integration, as well as post estimation tests were done and the study found petroleum profit tax, company income tax and VAT to have a positive significant impact on economic growth.

Olaoye and Ayeni (2019) examined value added tax and customs duties on revenue generation in Nigeria. Secondary data were sourced from Federal Inland Revenue Service (FIRS) ranging from 2000 to 2016. Autoregressive Distributed Lag (ARDL) and Granger causality tests were used as the estimation techniques. The findings of the study revealed that the F-statistics value was 2.883868 which is lesser than both the lower bound and the upper bound values of 3.79 and 4.85 respectively at the 5percent level of significance which implies that there is no long-run relationship among value-added tax, customs duties and revenue generation. It was equally revealed that there is no causality among value-added tax, customs duties, and revenue generation. The study concluded that value-added tax and customs duties have no significant effect on revenue generation and there is no long-run relationship among value-added tax, customs duties and revenue generation in Nigeria during the study period.

Olaniyi, Mustapha and Oyedokun (2019) examined the impact of taxation on government capital expenditure in Nigeria. Secondary data were used and were obtained from Central Bank of Nigeria (CBN) Statistical Bulletin and Federal Inland Revenue Service Website for Period 1994 to 2016. Descriptive statistics was used to describe the variables under investigation, Augmented Dickey Fuller (ADF) Unit Root Test and Johansen Cointegration tests were used to establish the stationarity and long run association among the variables while Error Correction Model (ECM) was used to establish the exact impact of taxation on capital expenditure in Nigeria. The study showed that Company Income Tax (CIT), Petroleum Profit

Tax (PPT), Personal Income Tax (PIT) and Education Tax (EDT) have significant financing power on government capital expenditure. Contrarily, Value Added Tax (VAT) and Capital Gains Tax (CGT) are not significant variables affecting government Capital expenditure in Nigeria. However, co-integration result indicated that there was a long-run relationship between tax revenue and government capital expenditure. It was concluded that taxation revenue has significant effect on government capital expenditure in Nigeria and the Nigerian government should improve its' efforts in ensuring that all taxes are collected to prevent revenue leakage, in order to ensure provision of adequate infrastructural facilities which translate to economic growth with a view to sustaining the welfare of it citizens.

Sani and Ahmad (2019) examined the impact of tax revenue on aggregate and disaggregate economic growth in Nigeria for the period 2013-2022. ARDL model was employed and the result showed Petroleum Profit Tax and Company Income Tax have a negative but statistically significant impact on economic growth, while custom and excise duties have a positive and statistically significant impact on economic growth performance in the short-run.

Osho, Olemija, and Falade (2019) investigated how tax revenue impacts government capital spending and economic development in Nigeria. It particularly assessed the considerable influence of corporate income tax on governmental capital spending in Nigeria; the extent of petroleum profit tax's significance on government capital expenditure in Nigeria; the notable effect of value added tax on governmental capital outlay in Nigeria; and the long-term association between tax revenue and government capital expenditure in Nigeria. The research utilized pertinent secondary data, covering the period from 2009 to 2018, obtained from various published statistical bulletins of central banks. The public finance analysis model ($CAPEX = f(CIT, PPT, VAT)$) was developed and evaluated using descriptive analysis, including minimum and maximum values, mean, and coefficient of variation, alongside inferential statistics, which involved multiple regression, T-Test, Johansen's co-integration test, coefficient of multiple determinations, F-test, and DW-test. Results showed that Companies' Income Tax positively influenced capital expenditure; Petroleum Profit Tax (PPT) negatively impacted funding for government development projects; value-added tax (VAT) exhibited an insignificant positive relationship with total government capital expenditure (CAPEX). It is determined that tax income does not influence the expenditure on capital outlay. Onakoya and Afintinni (2016) investigated the cointegration link between economic growth and tax revenue in Nigeria. The Engle-Granger Cointegration test and the Vector Error Correction model were utilized, indicating a long-term relationship between

taxation and economic growth in Nigeria. It also indicated a notable positive correlation between PPT, CIT, and GDP, while economic growth responded negatively to customs and excise duties.

METHODOLOGY

The *Ex Post Facto* research design was employed for the study because the main aim of the study was to evaluate the cause-effect relationship that exist between the dependent and the independent variable using the data that already existed and the study made no attempt to change it nature and values. The Population made up of two (2) African countries which include Nigeria and Ghana. This is because of some similarities and equal availability of data in the two countries tax revenue and per capital income. Data were sourced from international monetary fund (IMF), as well as the Federal Inland Revenue (FIRS) for Nigeria and Ghana Revenue Services (GRS) for Ghana statistical bulletin & World Bank Data (various issues) from 2000 to 2024 using time series data based on the availability of data among the two countries. The researcher codified the data into the following categories namely; per capital income (PCI), corporate income tax (CIT) and Value added tax (VAT).

Model Specification

In this study, the dependent variable is per capital income while tax revenue is independent variable was proxied with corporate income tax (CIT) and Value added tax (VAT), study modified the functional relationship between tax revenue and the economic growth of Nigeria model by Ojong, Ogar and Arikpo (2016). The model is expressed thus:

$$GDP = F(PPT, CIT, NOR)$$

F- function Notations

PPT = Petroleum Profit Tax

CIT = Company Income Tax

NOR = Non oil Revenue

Therefore, modified model was presented as;

$$Y=f(X_1.....X_3)$$

$$PCI=f(TRV)$$

$$PCI = f(CIT, VAT, CED)$$

$$PCI_i = \beta_0 + \beta_1 CIT_{it} + \beta_2 VAT_{it} + \beta_3 CED_{it} \text{ et } \text{ Eqn 1.}$$

i_t = 25years (2000-2024)

Where;

PCI = Per capital income

CIT = Corporate Income tax

VAT = Value added tax

β_0 = constant

B_1 - B_2 = explanatory variable coefficient of real domestic growth in Nigeria and Ghana.

et = Stochastic error

Data were analyzed with descriptive statistics, and the hypotheses were tested inferential statistics (Pearson correlation, and multiple regression analysis). Since the focus of the study is to determine the significant effect, regression analysis becomes appropriate tool for it.

i. Descriptive statistics employed to summarily describe the mean, median, standard deviation, kurtosis and skewness of the study variables. Inferential statistics was utilized with the aid of E-Views 9. The decision for the hypotheses is to accept the alternative hypotheses if the p-value of the test statistic is less or equal than the alpha and to reject the alternative hypotheses if the p-value of the test statistic is greater than alpha at 5% significance level.

RESULTS AND DISCUSSIONS

Table 1: Descriptive Statistics

	PCI	LOGCIT	LOGVAT	PCIG	LOGCITG	LOGVATG
Mean	1858.880	2.756535	4.989715	1546.733	14.10219	23.24867
Median	2066.000	2.864620	4.803211	1722.773	12.91799	20.64000
Maximum	3201.000	3.205390	7.547775	2445.187	21.75211	75.39000
Minimum	563.0000	1.605520	3.278754	263.5422	10.67184	-44.77000
Std. Dev.	737.6347	0.369557	0.776527	756.5895	3.074981	20.60363
Skewness	-0.273457	-1.385581	1.223049	-0.440544	1.164684	-0.740995
Kurtosis	2.194401	4.877131	6.284021	1.764842	3.395745	6.840243
Jarque-Bera	1.975220	23.33950	34.93373	4.795688	11.63036	35.29951
Probability	0.372466	0.000009	0.000000	0.090914	0.002982	0.000000
Sum	92944.00	137.8268	249.4858	77336.64	705.1093	1162.433
Sum Sq. Dev.	26661145	6.692059	29.54670	28048956	463.3200	20800.96
Observations	50	50	50	50	50	50
Interpretation						

Table 1 above observed that the mean values of the per capital income (PCI) stood at 1858.880 and 1546.733 for the Nigerian and Ghanaian samples respectively. Considering that the scientific value of Nigerian firms greater than Ghanaian firms 1808407.0. It implied that the Nigerian PCI was higher than their Ghana counterparts. Furthermore, the mean value of company income tax (CIT) showed an average value of 2.757 for Nigeria and 14.102 for Ghanaian CIT respectively. It meant that the Ghanaian had more company income tax revenue than the Nigerian tax. Also, the mean values of value added tax (VAT) showed that Nigerian

has value of 4.990 while Ghanaian with the average of 23.249 value respectively. It showed that Ghana has higher value added tax than the Nigeria.

The kurtosis of 2.194401, 4.877131 and 6.284021 for Nigerian PCI, CIT and VAT showing a distribution that is strong, suggesting a concentration of values around the mean with potential outliers, while 1.764842, 3.395745 and 6.840243 for Ghanaian PCI, CIT and VAT showed similar results. In Nigeria, the Jarque-Bera probability of 0.000009 and 0.000000 confirms that the CIT and VAT data is significantly non-normally distributed showed that traditional parametric analyses may need to be approached with caution. The Jarque-Bera probability of 0.002982 and 0.000000 confirms that the CIT and VAT data is significantly non-normally distributed showed that traditional parametric analyses may need to be approached with caution. In Ghana, the Jarque-Bera test of goodness-of-fit, the result suggested that only the data on firms in the Nigerian and Ghanaian tax revenue followed a normal distribution.

Table 2: Correlation coefficient

Nigeria	PCI	LOGCIT	LOGVAT
PCI	1		
LOGCIT	0.210313	1	0
LOGVAT	0.364171	0.174904	1
Ghana	PCIG	LOGCITG	LOGVATG
PCIG	1		
LOGCITG	-0.738873	1	
LOGVATG	0.390147	-0.399854	1

Source: E-Views 9 Correlation Output, 2026

The outcome of the correlation matrix was presented in Table 2. In the first part which focused on the Nigerian tax revenue, the measures of company income tax (CIT) 0.210, and value added tax (VAT) 0.364 were positively correlated with the per capital income (PCI). Furthermore, in the second part of the result presented in the Table (using only the Ghanaian tax revenue), it could be observed that only the measure of company income tax (CIT) was -0.739, negatively correlated with the per capital income (PCI), on the other hand, the remaining variable value added tax showed a positive (0.390) correlation coefficients. It could also be observed from the two parts of Tables 2 that there was no evidence of high-correlation among the variables of both samples. In both results, LFSZ (in the Nigerian sample) showed the highest correlation coefficient at 0.603 which was an indication that the issue of multicollinearity was likely absent among the distributions since Hair, Black, Babin and

Anderson (2010) posited that multicollinearity problem was likely present when the correlation coefficient is above 0.90.

Test of Hypotheses

Table 3a: Regression analysis between PCI, CIT and VAT

Dependent Variable: PCI (Nigeria)

Method: Panel Least Squares

Date: 05/28/26 Time: 07:58

Sample: 2000 2024

Periods included: 25

Cross-sections included: 2

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-573.9929	904.8111	-0.634379	0.5289
LOGCIT	301.8848	271.8554	1.110461	0.2724
LOGVAT	320.8032	129.3789	2.479564	0.0168
R-squared	0.554796	Mean dependent var		1858.880
Adjusted R-squared	0.518830	S.D. dependent var		737.6347
S.E. of regression	692.4226	Akaike info criterion		15.97639
Sum squared resid	22534109	Schwarz criterion		16.09112
Log likelihood	-396.4099	Hannan-Quinn criter.		16.02008
F-statistic	4.303936	Durbin-Watson stat		0.230275
Prob(F-statistic)	0.019213			

Table 3b: Regression analysis between PCI, CIT and VAT

Dependent Variable: PCIG(Ghana)

Method: Panel Least Squares

Date: 05/28/26 Time: 07:59

Sample: 2000 2024

Periods included: 25

Cross-sections included: 2

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3857.831	418.6544	9.214834	0.0000
LOGCITG	-170.7067	26.07308	-6.547240	0.0000
LOGVATG	4.139567	3.891268	1.063809	0.2929
R-squared	0.556609	Mean dependent var		1546.733
Adjusted R-squared	0.537742	S.D. dependent var		756.5895
S.E. of regression	514.4020	Akaike info criterion		15.38201
Sum squared resid	12436644	Schwarz criterion		15.49673
Log likelihood	-381.5503	Hannan-Quinn criter.		15.42570
F-statistic	29.50067	Durbin-Watson stat		0.846738
Prob(F-statistic)	0.000000			

In table 3a and 3b a multiple regression analysis was conducted to test the effect between tax revenue (CIT and VAT) and Per Capital Income (PCI) for Nigeria and Ghana. The R-squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 3a, Nigerian value of R squared adjusted was 0.52, an indication that there was variation of 52% on PCI due to changes in CIT and VAT. This implies that 52% changes in PCI could be accounted for by CIT and VAT, while 38% was explained by unknown variables that were not included in the model. However, table 3b, Ghanaian value of R squared adjusted was 0.54, an indication that there was variation of 54% on PCI due to changes in CIT and VAT. This implies that 54% changes in PCI could be accounted for by CIT and VAT, while 36% was explained by unknown variables that were not included in the model. The Durbin-Watson Statistic of 0.230 and 0.847 for Nigeria and Ghana respectively suggests that the both model does not contain serial correlation. The F-statistic of the regression is equal to 4.304 and 29.501.

Hypothesis One

Ho_{1a}: Company income tax has no significant effect on per capital income in Nigeria.

Ho_{1b}: Company income tax has no significant effect on per capital income in Ghana.

The first hypothesis of this study stated that company income tax has no significant effect on per capital income in Nigeria (H_{01a}) and Ghana (H_{01b}). The evidence provided by the regression result of model 1 showed that the company income tax had a positive coefficient of 301.8848 and a p-value of 0.272 which was not significant at 5% level for Nigeria; while the outcome of model 2 showed a negative coefficient of -170.7067 (p-value 0.000) for Ghana, but has a significant effect. It meant that there was a positive and no significant effect between company income tax and per capital income in Nigeria while there was a negative and significant effect between company income tax and per capital income in Ghana, howbeit positively and negatively respectively.

Hypothesis Two

Ho_{2a}: Value added tax has no significant effect on per capital income in Nigeria.

Ho_{2b}: Value added tax has no significant effect on per capital income in Ghana.

The second hypothesis of this study stated that value added tax has no significant effect on per capital income in Nigeria (H_{02a}) and Ghana (H_{02b}). The evidence provided by the regression result of model 1 showed that value added tax had a positive coefficient of

320.8032 and a p-value of 0.017 which was significant at 5% level for Nigeria; while the outcome of model 2 showed a positive coefficient of 4.139567 (p-value 0.293) for Ghana, but has no significant effect. It meant that there was a positive and significant effect between value added tax and per capital income in Nigeria while there was also positive effect and no significant between value added tax and per capital income in Ghana, howbeit positively and positively respectively.

CONCLUSION AND RECOMMENDATIONS

The study determined the effect of tax revenue on per capital income in Nigeria and Ghana, using company income tax and value added tax as the independent variables from 2000 to 2024. Multiple regression was employed to test the data and the study revealed that the company income tax had a positive coefficient of 301.8848 and a p-value of 0.272 which was not significant at 5% level for Nigeria; while the outcome of model 2 showed a negative coefficient of -170.7067 (p-value 0.000) for Ghana, but has a significant effect. It meant that there was a positive and no significant effect between company income tax and per capital income in Nigeria while there was a negative and significant effect between company income tax and per capital income in Ghana.

The study also showed that the variable value added tax had a positive coefficient of 320.8032 and a p-value of 0.017 which was significant at 5% level for Nigeria; while the outcome of model 2 showed a positive coefficient of 4.139567 (p-value 0.293) for Ghana, but has no significant effect. It meant that there was a positive and significant effect between value added tax and per capital income in Nigeria while there was also positive effect and no significant between value added tax and per capital income in Ghana. The study conclusively indicates that Ghanaian company income tax has more value than Nigeria, while Nigerian value added tax has more value than that of Ghana.

Based on the findings, this study recommended that the Nigerian government needs to qualify companies in key sectors for credits linked to investments in infrastructure, equipment, and expansion, rather than providing complete tax holidays. On the other hand, the Ghanaian government ought to expand the tax base, reduce the rate, and adopt improved methods, like taxing most goods/services at a uniform rate and implementing targeted cash transfers to support low-income households.

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