JOURNAL OF GLOBAL ACCOUNTING
10(3) September, 2024.
ISSN (Online): 1597–7641; ISSN (Print): 1597-8273
https://journals.unizik.edu.ng/joga

TAX REVENUES ON ECONOMIC DEVELOPMENT IN NIGERIA

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CITATION: Ezenwobi, U.P. & John-Akamelu, C.R. (2024). Tax revenues on economic development in Nigeria, *Journal of Global Accounting*, 10(3), 388 - 408.

Available:https://journals.unizik.edu.ng/joga

Key words: *Company Income Tax, Human Development Index, Personal Income Tax, Petroleum Profit Tax, Value Added Tax, Economic Development.*

ABSTRACT

The study examined the effect of tax Revenue as a stimulus on economic development in Nigeria. The specific objective was to ascertain the effect of value added tax, company income tax, petroleum profit tax and personal income tax on the human development index of Nigeria. Ex-post facto research design was adopted for the study. Secondary data were collected 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 summarise the data while Robust Least Squares (RLS) regression analysis was applied in the test of hypotheses at 5% significance level. The findings revealed that: value added tax and company income tax have a non-significant positive effect on the human development index of Nigeria (p-value > 0.05); petroleum profit tax has a negative and significant effect on the human development index of Nigeria (p-value < 0.05); and personal income tax has a positive and significant effect on the human development index of Nigeria (p-value < 0.05). In conclusion, effective utilization of tax revenues for public goods and services is crucial in enhancing the quality of life and achieving broader developmental goals. The study recommends among others that the National Assembly should consider revising the Personal Income Tax structure to increase progressivity, ensuring higher earners contribute more and also use the additional revenue to fund social security and welfare programs, enhancing the Human Development Index by reducing income inequality and improving public services.

1. INTRODUCTION

The provision of public services such as power, roads, efficient transportation system, healthcare facilities, schools, security of lives and properties and defense against internal and external aggression, are the exclusive responsibility of governments all over the world. Okeke, Mbonu and Amahalu (2018), to meet these responsibilities, governments need to harness all sources of revenue available to it nationally and internationally. Reliance on external sources

of revenue for developmental purposes has proved unproductive for many countries over the years, and those countries which experienced rapid social and infrastructural development around the world were found to have leveraged on revenue from efficient tax system. Taxation is a major source of government revenue all over the world and governments use tax proceeds to render their traditional functions, such as: the provision of roads, maintenance of law and order, defense against external aggression, regulation of trade and business to ensure social and economic maintenance. The primary function of a tax system is to raise enough revenue to finance essential expenditures on the goods and services provided by government; and tax remains one of the best instruments to boost the potential for public sector performance and repayment of public debt as posited by Okoye and Raymond, (2014).

A system of tax avails itself as a veritable tool that mobilizes a nation's internal resources and it lends itself to creating an environment that is conducive for the promotion of economic growth and development. Therefore, taxation plays a major role in assisting a country to meet its needs and promote self-reliance. In Nigeria, tax revenue has accounted for a small proportion of total government revenue over the years compared with the bulk of revenue needed for development purposes that is derived from oil Oloidi and Oluwalana (2014). The desire of any government to maximize revenue from taxes collected from tax payers cannot be over-emphasized. This is because, as it well-known, the importance of tax lies in its ability to generate revenue for the government, influence the consumption trends and grow and regulate economy through its influence on vital aggregate economic variables. The economic development of any nation depends on the number of resources generated and under its control to finance its infrastructural need and meet its day-to-day expenditure. The resources needed is believed however to be generated from external and internal- through a structured tax system. Economic development is the growth of the standard of living of a nation's people from a low-income economy to a high-income economy. When the local quality of life is improved, there is more economic development (Tomjanovich, 2014). Tax as a macro-economic policy tool determines the level and pace of economic growth in nations of the world. A well-structured tax system offers government opportunity to generate needed revenue to meet its ever-growing need. Tax is a veritable and sustainable source of revenue for government and a tool for fiscal policy and macro-economic management. It is a potential tool for economic and social reform as it pervades all aspect of the economy, individual, companies, citizens and foreigners. One of the reasons for the introduction of Value Added Tax (VAT) in Nigeria was based on the fact that Taxation as an instrument of fiscal policy is

vital in generating revenue to finance the activities of government, redistribute income, stabilize the economy as well as stimulate growth and development.

The revenue accruing to the Federal Government of Nigeria from taxation over the years has remained grossly insufficient to meet the expanding social (Nwoye, Obiorah & Chidiebere, 2023). and public spending required in fostering economic growth and development in the country. The tax system is grossly inefficient as it is characterized by tax evasion, avoidance and record falsifications which have led to consistent low tax revenue inflow. Gross inefficiency and leakages have hampered the amount of revenue realized from tax sources over the years which has been affecting the economy negatively (Oyedele, 2019) as well as income per capital. The inability of the Federal Inland Revenue Service Board to ensure total compliance to tax rules by companies and bring all operational companies into the tax net has significantly limited the contribution of tax revenue to per capital income. Furthermore, the prevalence of tax evasion in the Nigeria tax system, has curtailed the amount of revenue collected from tax income, this in no doubt has effect on the government expenditure and inflation in the economy. Moreover, the revenue generation capacity of the nation's present tax administrative system is hampered by challenges such as paucity of data, inefficient monitoring and enforcement system and corrupt practices (Okeke, Mbonu, Amahalu, 2018). There is a huge scale of corrupt practices prevalent in Nigeria tax administrative system, this tells to a reasonable extent that the economy is at a disadvantage position. However, given the ever increasing social and infrastructural expenditure needs of government, greater tax revenue will be needed to execute or sustain the required level of spending that can trigger economic growth. These shortcomings may be more evident where government's financing relies heavily on more distortionary taxes (for example, direct taxes) and where public expenditure focuses on unproductive activities. The major problem lies in the procedures, machinery and approaches adopted in collection, assessment and compliance practices of tax.

The common objective of Value Added Tax is to simplify tax structure, to create uniform platform within which taxes can be administered to facilitate collection, leveraging on strength of VAT as a means of revenue with lower cost of collection compared to other forms of taxation. It is believed that tax payers will find the ease of payment attractive thereby reducing tax evasion tendencies, departing from unwholesome attitude of some tax payers who are notorious tax evaders, an attitude considered criminal by many countries because of the effect it has on the economy. VAT was designed to mitigate these challenges by charging a fragment tax cost on goods which forms part of selling price of each item. (Sowole and

Adekoyejo, 2019). This study investigates whether Tax revenues has made any significant contribution to the development of the Nigerian economy. This is with a view to forming an opinion as to whether the Tax revenue can become a veritable alternative source of revenue for the Government, in her search to diversifying her revenue sources in a viable and sustainable way.

1.1 Objectives

The main objective of this study is to evaluate the effect of Tax Revenue as a stimulus on Economic Development in Nigeria. The specific objective is to:

i. ascertain the effect of Value Added Tax as a stimulus on Economic development in Nigeria.
ii. determine the effect of Company Income Tax as a stimulus on Economic development in Nigeria.
iii. investigate the effect of Petroleum Profit Tax as a stimulus on Economic development in Nigeria.
iv. evaluate the effect of Personal Income tax as a stimulus on Economic development in Nigeria.

1.2 Hypotheses

H_{o1} Value Added Tax has no significant effect on Economic development in Nigeria.

H_{o2} Company Income Tax has no significant effect on Economic development in Nigeria.

H_{o3} Petroleum Profit Tax has no significant effect on Economic development in Nigeria.

H_{o4} Personal Income Tax has no significant effect on Economic development in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Tax Revenue

Tax revenue is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes (Sion, 2019; Amahalu, Obi, Okudo & Okafor, 2022). Tax revenue is the income that is gained by governments through taxation. Taxation is the primary source of income for a state. Revenue may be extracted from sources such as individuals, public enterprises, trade, royalties on natural resources and/or foreign aid (Moss, 2016). Total tax revenue as a percentage of GDP indicates the share of a country's

output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy's resources. The tax burden is measured by taking the total tax revenues received as a percentage of GDP. It gives a detailed report on revenue collected from different items like corporation tax, income tax, customs and excise duties, taxes on nation territories like land revenue, stamp registration etc. Taxes collected from both direct and indirect tax are considered in tax revenue (Brautigam, 2019).

2.1.2 Custom and Excise Duties (CED)

Import duties are the country's highest yielding indirect or expenditure tax. Prior to the introduction of Structural Adjustment Programme (SAP) in 1986, customs duties were as high as 300percent but currently range between 2 percent and 75 percent. The Customs and Excise management Act of 1958 and its amendments provided the statutory backing for the implementation of the tax (Davis, 2019). The customs and excise division have multiple roles that includes: collection of government revenue (customs and excise duties, import value added tax and other levies), facilitation of legitimate imports and exports, protection of Nigeria society against cross-border crime and combating unfair and harmful trade practices. These are achieved through effective and efficient implementation of the customs and excise duty act and other pieces of legislation relating to control of imports and exports as well as implementing world customs organisation conventions and other international trade instruments and standards applicable in the field of customs and trade aimed at simplifying and harmonising customs practices, combating fraud and corruption and, providing enhanced facilitation for operators that meet high standards of compliance (Siddharth, 2017).

2.1.3 Value Added Tax (VAT)

VAT is essentially a regressive tax that places an increased economic strain on lower-income taxpayers, and also adds bureaucratic burdens for businesses. Value-added taxation is based on a taxpayer's consumption rather than their income. In contrast to a progressive income tax, which levies great taxes on higher-level earners, VAT applies equally to every purchase (Kagan, 2019). Examples of VAT able goods include jewelries, shoes, bags, television etc. VATable Services are services rendered by any person in Nigeria except those specifically exempted under the law. Examples of VATable services are, services rendered by Lawyers, Engineer Accountants, Contractors and Consultants etc. (Asquith, 2019). The main VAT rate in Nigeria is 7.5% (raised from 5% `on 1st February 2020). Only a limited number of supplies are nil-rated, meaning any VAT suffered may be reaccredited to the tax payer.

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2.1.4 Companies Income Tax (CIT)

Company income tax is a tax imposed by the Government on the income and profits of companies operating in the country. The law governing the administration of Companies Income Tax is the Companies Income Tax Act. The law which was first enacted in 1961 has undergone so many amendments, the latest being that of April, 2007. Companies Income Tax (CIT) is a tax on the profits of registered companies in Nigeria. It also includes the tax on the profits of foreign companies carrying on business in Nigeria. The tax is paid by limited liability companies inclusive of the public limited liability companies. It is therefore commonly referred to as the corporate tax (Onyeyiri, 2019). All public limited liability companies in Nigeria outside the Petroleum sector of the economy are required to pay income and education tax. The rate is 30% of total 0profit for income tax and 2% of assessable profit for education tax. Total profit is profit after deducting previous year losses carried forward and capital allowances. Assessable profit is obtained prior to deducting capital allowances. Resident companies are incorporated under the Companies and Allied Matters Act (CAMA)2004.The administration of the Companies Income Tax is vested on the Federal Inland Revenue Service which used to be known as the Federal Board of Inland Revenue (FBIR) until the enactment of the Federal Inland Revenue Establishment Act in April,2007 which scrapped the FBIR and replaced it with Federal Inland Revenue Service (Pwc,2019).

2.1.5 Petroleum Profit Tax (PPT)

Petroleum profit tax (PPT) is a tax applicable to upstream operations in the oil industry. It is particularly related to rents, royalties, margins and profit-sharing elements associated with oil mining, prospecting and exploration leases. It is the most important tax in Nigeria in terms of its share of total revenue contributing 95 and 70 percent of foreign exchange earnings and government revenue, respectively (Afuberoh & Okoye2014). Petroleum operation as defined in the PPTA essentially involves petroleum exploration, development, production and sale of crude oil. The Petroleum Profit Tax is regulated by the Petroleum Profit Tax Act of 1959as amended by the Petroleum Profit Tax Act of 2007.Although the initial law was passed in 1959 to capture the first oil export made in that year (Okeke, Mbonu & Amahalu, 2018). Section 8 of Petroleum Profit Tax Act (PPTA) states that every industry engaged in petroleum operations is under an obligation to render return, together with properly annual audited accounts and computations, within a specified time after the end of its accounting period.

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Petroleum profit tax involves the charging of tax on the incomes accruing from petroleum operations (Abdullahi, Madu &Abdullahi,2015).

2.1.6 Personal Income Tax (PIT)

Personal income tax is a direct tax on the income from all sources of an individual adult, communities and families, and on executors and trustees. Personal income tax calculated after some reliefs have been given and or certain expenses exempted according to a graduated rate specifies by PIT (Oyedele, 2019). Personal Income Tax is a direct tax charged on the income of a person. In the context of personal income tax, a 'person' means an individual, a sole proprietorship (non-juristic person), communities and families and on executors and trustees (of an undivided estate).

2.1.7 Total Government Expenditures

Government spending or expenditure includes all government consumption, investment, and transfer payments. In national income accounting, the acquisition by governments of goods and services for current use, to directly satisfy the individual or collective needs of the community, is classed as government final consumption expenditure. Government acquisition of goods and services intended to create future benefits, such as infrastructure investment or research spending, is classed as government investment (government gross capital formation). These two types of government spending, on final consumption and on gross capital formation, together constitute one of the major components of gross domestic product.

2.1.8 Economic Development

Economic development is a process in which a nation is being improved in the sector of the economic, political, and social well-being of its people (Krueger & Myint, 2019). Economic development is the process by which emerging economies become advanced economies. During the development, there is a population shift from agriculture to industry, and then to services. A longer average life expectancy, for example, is one of the results of economic development. Improved productivity, higher literacy rates, and better public education, are also consequences (Sen, 2019).

2.1.9 Human Development Index (HDI)

The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a

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decent standard of living. The HDI is the geometric mean of normalized indices for each of the three dimensions (Erika, 2020). The health dimension is assessed by life expectancy at birth, the education dimension is measured by mean of years of schooling for adults aged 25 years and more and expected years of schooling for children of school entering age. The standard of living dimension is mcasured by gross national income per capita. The HDI uses the logarithm of income, to reflect the diminishing importance of income with increasing GNI. The scores for the three HDI dimension indices are then aggregated into a composite index using geometric mean (Rasure, 2020).

2.2 Theoretical Framework

2.2.1 Endogenous Growth Theory

The endogenous theory which was propounded by Paul Romer in 1990 is a financial theory which argues that financial or economic growth is generated from internal (rather than external such as inflation, interest rates, tax rates, currency exchange rate, saving rates, consumer confidence levels) procedures and inputs. The theory notes that productivity can be improved by the efficiency of a skilled labor force and by rightly using technology. It argues that improvements in productivity can be tied directly to faster innovation and more investments in human capital from governments and private sector institutions. Endogenous growth theory holds that investment in human capital, innovation, and knowledge are significant contributors to economic growth. The theory also focuses on positive externalities and spillover effects of a knowledge-based economy which will lead to economic development. The endogenous growth theory primarily holds that the long run growth rate of an economy depends on policy measures. For example, subsidies for research and development or education increase the growth rate in some endogenous growth models by increasing the incentive for innovation (Vladimir,2021).

2.2.1.1 Relevance of Endogenous Growth Theory to the Study

The endogenous growth theory is relevant to this study because it places importance on the role of technological advancements. Since long-term economic growth is derived from the growth rate of economic output per person, it would depend on productivity levels. In turn, productivity would depend on the progress of technological change, which relies on innovation and human capital.

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2.3 Empirical Review

Adegbie and Fakile (2011) assessed the relationship between petroleum profit tax and economic development of Nigeria. Primary and secondary data were used to collect the research data, while chi-square and multiple regression statistical models were used to analyze the results of the field work. The findings revealed that there is a very strong relationship between petroleum profit tax and economic development of Nigeria, tax avoidance and evasion are major hindrance to income growth in this sector, poor tax administration is a problem to effectiveness and efficiency of this source of income, and lack of corporate social responsibilities is causing unrest in the crude oil production zone. The study recommended the need for the government to make judicious use income generated for the benefits of Nigerians, and among others the need for tax reforms to address the issue of tax evasion and avoidance.

Appah and Ebiringa (2012) investigated the impact of petroleum profit tax on the economic growth of Nigeria. To achieve the objective of the study, relevant secondary data were collected from the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS) from 1970 to 2010. The secondary data collected from the relevant government agencies in Nigeria were analysed with relevant econometric tests of Breusch-Godfrey Serial Correlation LM, White Heteroskedasticity, Ramsey RESET, Jarque Bera, Johansen Co-integration, and Granger Causality. The results showed that there exists a long run equilibrium relationship between economic growth and petroleum profit tax. It was also found that petroleum profit tax does granger cause gross domestic product of Nigeria. On the basis of the empirical analysis, the study concludes that petroleum profit tax is one of the most important components direct taxes in Nigeria that affects the economic growth of the country and therefore should be properly managed to reduce the level of evasion by petroleum exploration companies in Nigeria. The study recommended among others that companies involved in petroleum operations should be properly supervised by the relevant tax authority (FIRS) to reduce the level of tax evasion; government should show more accountability in the management of tax revenue and finally, the level of corruption in Nigeria and that of government officials should be drastically reduced to win the confidence of tax payers for voluntary tax compliance.

Dackehag and Hansson (2012) analysed how taxation of income influences economic growth. More precisely, the study showed how statutory tax rates on corporate and personal income affect economic growth by using panel data from 1975 till 2010 for 25 rich OECD countries.

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The time series data were analysed using Augmented Dickey Fuller Test, Johansen Co-integration analysis and Ordinary Least Square regression analysis. The study found that both taxation of corporate and personal income negatively influences economic growth. The correlation between corporate income taxation and economic growth is more robust, however.

Otu and Theophilus (2013) examined the effect of tax revenue on economic growth in Nigeria, utilizing time series data for the period spanning from 1970 to 2011. The study adopted the Ordinary Least Square (OLS) regression technique and established that tax revenue has positive effect on economic growth in Nigeria. The result shows that domestic investment, labour force and foreign direct investment have positive and significant effect on economic

3. MATERIAL AND METHOD

This study employed ex-post facto research design; the area of study is Nigeria. The study utilizes secondary approach for data collection and is time series in nature. The data was sourced from the Central Bank of Nigeria, Federal Inland Revenue Service (FIRS) and Nigerian Bureau of Statistics from 2004 to 2023. The extracted variables are Company Income Tax, Petroleum Profit Tax, Personal Income Tax, and Value Added Tax. Descriptive statistical analysis will be conducted using mean, standard deviation, minimum value and maximum value. Inferential statistical analysis for the study was Robust Least Square regression analysis (RLS) and granger causality. They will be use to establish the existence, strength and nature of the relationships between Tax revenue and economic development in Nigeria.

This study adopt the Solow's growth model. The Solow growth model is an exogenous model of economic growth that analyze changes in the level of output in an economy over time as a result of changes in the population growth rate, savings rate, and /the rate of technological progress.

$Y(t) = K(t)^{a}(A(t)\ L(t)^{1-a}$……Eqn 1.

Where t denotes time, $0 < \alpha < 1$ elasticity of output with respect to capital, and Y(t) represents total production. A refers to labour-augmenting technology or knowledge (skills of labour), while L and K are labour and capital respectively.

The functional form is stated as;

HDI=f (VAT, PIT, PPT, CIT)……..Eqn 2.

In mathematical form, equation 2 becomes;

$HDI_t = \beta_0 + \beta_1 VAT_t + \beta_2 PIT_t + \beta_3 PPT_t + \beta_4 CIT_t$ …….Eqn 3.

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In other to estimate the above equation, we will put equation 3 in an econometric form;

$HDI_t = \beta_0 + \beta_1 VAT_t + \beta_2 PIT_t + \beta_3 PPT_t + \beta_4 PPT_t + \mu_t$……Eqn 4

In the logarithmic form, the model becomes;

$HDI_t = \beta_0 + \beta_1 VAT_t + \beta_2 PIT_t + \beta_3 PPT_t + \beta_4 CIT_t + \mu_t$……..Eqn 5.

Where;

·HDI Human Development Index, it stands as a proxy economic growth

·VAT is Value Added Tax.

·PIT represents Personal Income Tax

·PPT represents Petroleum Profit Tax.

·CIT represents Company Income Tax.

·μt is the error term

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Descriptive Statistical Analysis

The study examined the effect of tax Revenue as a stimulus on economic development in Nigeria. The specific objective was to ascertain the effect of value added tax, company income tax, petroleum profit tax and personal income tax on the human development index of Nigeria. Ex-post facto research design was adopted for the study. Secondary data were collected 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. The data collected are presented in Appendix A of this report while Table 4.1 shows the descriptive analysis.

Table 1 Descriptive Statistics

	HDI	VAT	PIT	PPT	CIT
Mean	0.500650	448.5527	694.1820	1933.083	1170.663
Median	0.501500	385.0600	404.6900	1764.466	965.9687
Maximum	0.548000	1200.304	1902.000	3201.300	4896.000
Minimum	0.434000	87.45000	202.8900	878.6000	130.8000
Std. Dev.	0.032569	330.9550	554.7688	773.5742	1085.396
Skewness	-0.269934	1.138594	1.030221	0.326033	2.202909
Kurtosis	1.948214	3.365464	2.602709	1.730221	8.154084
Jarque-Bera	1.164759	4.432627	3.669384	1.697939	38.31318

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Probability	0.558568	0.109010	0.159663	0.427856	0.000000
Sum	10.01300	8971.054	13883.64	38661.67	23413.26
Sum Sq. Dev.	0.020155	2081092.	5847601.	11369923	22383594
Observations	20	20	20	20	20

Source: Eviews 11 Output 2024

As shown above in Table 1, the Human Development Index (HDI) in Nigeria from 2004 to 2023 had a mean value of 0.500650, indicating a moderate level of human development over the period. The maximum and minimum values were 0.548000 and 0.434000, respectively, showing some variability but a relatively narrow range. The standard deviation of 0.032569 reflects low dispersion around the mean, suggesting that HDI values were relatively stable. The skewness of -0.269934 indicates a slight leftward skew, meaning a few periods with higher HDI values were slightly more common. The kurtosis of 1.948214, being less than 3, suggests a flatter distribution than the normal distribution. The Jarque-Bera probability of 0.558568 indicates that the distribution of HDI does not significantly deviate from normality.

Value Added Tax (VAT) revenue showed a mean value of 448.5527 billion naira, indicating a substantial contribution to government revenue. The maximum VAT collected was 1200.304 billion naira, and the minimum was 87.45000 billion naira, showing considerable variability. The standard deviation of 330.9550 billion naira indicates a high level of dispersion, suggesting significant fluctuations in VAT collections over the years. The skewness of 1.138594 indicates a rightward skew, implying that extremely high VAT values occurred more frequently than low values. The kurtosis of 3.365464, slightly above 3, points to a leptokurtic distribution with a sharper peak. The Jarque-Bera probability of 0.109010 suggests that the distribution does not significantly deviate from normality.

Personal Income Tax (PIT) revenue had a mean of 694.1820 billion naira, reflecting its substantial role in government revenue. The revenue peaked at 1902.000 billion naira and had a minimum value of 202.8900 billion naira, indicating significant variability. The standard deviation of 554.7688 billion naira denotes high dispersion around the mean, pointing to considerable fluctuations in PIT revenue. The skewness of 1.030221 indicates a rightward skew, suggesting that higher PIT values were more common. The kurtosis of 2.602709, less than 3, implies a platykurtic distribution, indicating a flatter distribution curve. The Jarque-Bera probability of 0.159663 shows that the distribution does not significantly deviate from normality.

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Petroleum Profit Tax (PPT) revenue, with a mean of 1933.083 billion naira, highlights its critical importance to Nigeria's fiscal revenue. The maximum PPT was 3201.300 billion naira, and the minimum was 878.6000 billion naira, demonstrating a significant range. The standard deviation of 773.5742 billion naira reflects substantial dispersion, indicating high variability in PPT collections. The skewness of 0.326033 suggests a slight rightward skew, meaning higher PPT values were slightly more frequent. The kurtosis of 1.730221, being less than 3, indicates a flatter distribution than the normal distribution. The Jarque-Bera probability of 0.427856 indicates that the PPT distribution does not significantly deviate from normality.

Company Income Tax (CIT) revenue exhibited a mean of 1170.663 billion naira, underscoring its significant contribution to government revenue. The revenue peaked at 4896.000 billion naira, with a minimum of 130.8000 billion naira, indicating considerable variability. The standard deviation of 1085.396 billion naira reflects high dispersion, suggesting significant fluctuations in CIT revenue over the period. The skewness of 2.202909 indicates a strong rightward skew, suggesting that extremely high CIT values were much more common. The kurtosis of 8.154084, significantly greater than 3, indicates a leptokurtic distribution with a sharp peak and heavy tails. The Jarque-Bera probability of 0.000000 shows that the distribution of CIT revenue significantly deviates from normality. Since this variable has outliers/extreme values, robust least square (S-estimation) is therefore most appropriate for the test of hypothesis.

4.1.2 Granger Causality Test

Table 2 shows the Granger-causality test conducted.

Table 2 Granger Causality Test

Date: 06/01/24 Time: 09:40

Sample: 2004 2023

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
LOGVAT does not Granger Cause HDI	19	5.13519	0.0377
HDI does not Granger Cause LOGVAT		1.23807	0.2823
LOGPIT does not Granger Cause HDI	19	0.34531	0.5650
HDI does not Granger Cause LOGPIT		1.84517	0.1932

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LOGPPT does not Granger Cause HDI	19	2.56536	0.1288
HDI does not Granger Cause LOGPPT		0.23557	0.6340
LOGCIT does not Granger Cause HDI	19	7.08250	0.0171
HDI does not Granger Cause LOGCIT		0.00599	0.9392

Source: Eviews 11 Output 2024

The results of the Granger Causality Test in Table 2 show that there is a significant causal relationship from LogVAT to HDI, with a p-value of 0.0377. This indicates that changes in Value Added Tax (VAT) revenue can predict future changes in the Human Development Index (HDI), suggesting that VAT revenue plays a significant role in influencing human development outcomes in Nigeria. Conversely, the p-value of 0.2823 for the reverse causality indicates that HDI does not predict changes in VAT revenue.

For Personal Income Tax (PIT), the test results indicate no significant Granger causality in either direction. The p-value for the hypothesis that LogPIT does not Granger cause HDI is 0.5650, and the p-value for the hypothesis that HDI does not Granger cause LogPIT is 0.1932. These values are above the common significance level of 0.05, suggesting that there is no predictive relationship between PIT revenue and HDI in either direction.

Regarding Petroleum Profit Tax (PPT), the results also indicate no significant Granger causality between LogPPT and HDI. The p-value for the hypothesis that LogPPT does not Granger cause HDI is 0.1288, while the p-value for the hypothesis that HDI does not Granger cause LogPPT is 0.6340. Both values exceed the 0.05 threshold, suggesting that changes in PPT revenue do not predict HDI changes, nor does HDI predict PPT revenue changes.

For Company Income Tax (CIT), the results reveal a significant Granger causal relationship from LogCIT to HDI, with a p-value of 0.0171. This indicates that CIT revenue can predict future changes in HDI, implying that CIT revenue significantly impacts human development in Nigeria. On the other hand, the p-value of 0.9392 for the reverse causality indicates that HDI does not predict changes in CIT revenue. This underscores the importance of CIT revenue in influencing human development outcomes, while changes in HDI do not seem to affect CIT revenue.

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4.2 Test of Hypotheses

The result of the hypotheses testing is shown below in table 3.

Table 3 Regression Analytical Output Based on Robust Least Squares

Dependent Variable: HDI

Method: Robust Least Squares

Date: 06/01/24 Time: 10:56

Sample: 2004 2023

Included observations: 20

Method: S-estimation

S settings: tuning=1.547645, breakdown=0.5, trials=200, subsmpl=5,
refine=2, compare=5

Random number generator: rng=kn, seed=1159992528

Huber Type I Standard Errors & Covariance

Variable	Coefficient	Std. Error	z-Statistic	Prob.
LOGVAT	0.068451	0.039380	1.738229	0.0822
LOGCIT	0.051960	0.034234	1.517796	0.1291
LOGPPT	-0.099008	0.021972	-4.506072	0.0000
LOGPIT	0.034007	0.012142	2.800804	0.0051
C	0.403296	0.085030	4.742973	0.0000

	Robust Statistics		
R-squared	0.750977	Adjusted R-squared	0.684571
Scale	0.012756	Deviance	0.000163
Rn-squared statistic	104.4453	Prob(Rn-squared stat.)	0.000000

Source: Eviews 11 Output 2024

The Robust Least Squares regression analysis presented in Table 3 examines the relationship between tax revenue and the Human Development Index (HDI) in Nigeria, employing a method that accounts for potential outliers in the data. The Adjusted R-squared value of 0.684571 indicates that approximately 68.5% of the variability in the HDI can be explained by the independent variables included in the model. This suggests that the model captures a substantial portion of the variation in the Human Development Index, indicating a reasonably good fit.

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10(3) September, 2024.
ISSN (Online): 1597–7641; ISSN (Print): 1597-8273
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The probability associated with the Rn-squared stat. is 0.000000, which is extremely lower than 0.05 and indicates that the overall regression model is statistically significant. This implies that at least one of the independent variables included in the model significantly predicts changes in the dependent variable (HDI). Given the large sample size and robust methodology employed, this result lends strong support to the notion that tax revenue, as a stimulus, has a meaningful impact on economic development, as measured by the Human Development Index, in the Nigerian context. The robust least squares regression results indicate the effect of various tax revenues on the Human Development Index (HDI) in Nigeria. The model includes four independent variables: LogVAT, LogCIT, LogPPT, and LogPIT, with their respective coefficients and p-values. The interpretation of each variable is as follows:

4.2.1 Hypothesis I

H_{o1} Value Added Tax has no significant effect on Economic development in Nigeria.

The coefficient for LogVAT is 0.068451 with a p-value of 0.0822. This coefficient suggests that a 1% increase in Value Added Tax (VAT) revenue is associated with an approximate 0.068% increase in HDI, holding other factors constant. However, the p-value is slightly above the significance level of 0.05, indicating that the positive relationship is not statistically significant at the 5% level though could be considered significant at a 10% level. This near-significant result suggests that VAT revenue potentially has a positive effect on human development in Nigeria, but the evidence is not strong enough to make a definitive conclusion at the 5% significance threshold. We therefore accept the null hypothesis and conclude that Value Added Tax has a positive but non-significant effect on human development index of Nigeria (p-value = 0.0822).

Value Added Tax (VAT) was found to have a positive but non-significant effect on Nigeria's Human Development Index. VAT is a consumption tax levied on the value added to goods and services at each stage of production or distribution. The positive impact of VAT on HDI can be attributed to several factors. Firstly, VAT is a broad-based tax that provides a steady revenue stream for the government, enabling it to fund essential public services such as healthcare, education, and infrastructure. These services directly contribute to improvements in the HDI components, including life expectancy, education levels, and income. Additionally, because VAT is collected at multiple points in the supply chain, it reduces the likelihood of tax evasion, ensuring a more stable and predictable source of revenue for developmental projects.

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ISSN (Online): 1597–7641; ISSN (Print): 1597-8273
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4.2.2 Hypothesis II

H_{o2} Company Income Tax has no significant effect on Economic development in Nigeria.

The coefficient for LogCIT is 0.051960 with a p-value of 0.1291. This indicates that a 1% increase in Company Income Tax (CIT) revenue is associated with an approximate 0.052% increase in HDI, assuming other variables remain constant. However, the p-value exceeds the 0.05 threshold, indicating that this positive relationship is not statistically significant. Therefore, while there appears to be a positive association between CIT revenue and HDI, the evidence is not robust enough to confirm a statistically significant impact at 5% significance level. The null hypothesis was therefore accepted that Company Income Tax has a positive but non-significant effect on human development index of Nigeria (p-value = 0.1291).

Company Income Tax (CIT) also has a non-significant positive effect on Nigeria's Human Development Index. CIT is a tax on the profits of corporations, and its positive impact on HDI can be seen in how corporate tax revenues are utilized by the government. Higher CIT revenues enable the government to invest in infrastructure, education, and healthcare systems, which are crucial for improving the overall quality of life and economic productivity. Moreover, the taxation of company profits can promote corporate responsibility and investment in local communities. When companies are taxed fairly and transparently, they are more likely to engage in social corporate responsibility initiatives that further enhance human development outcomes.

4.2.3 Hypothesis III

H_{o3} Petroleum Profit Tax has no significant effect on Economic development in Nigeria.

The coefficient for LogPPT is -0.099008 with a p-value of 0.0000. This negative coefficient suggests that a 1% increase in Petroleum Profit Tax (PPT) revenue is associated with an approximate 0.099% decrease in HDI, holding other factors constant. The very low p-value indicates that this negative relationship is highly statistically significant. This result is somewhat counterintuitive, as one might expect increased tax revenue from petroleum profits to contribute positively to human development. Since the p-value (0.0000) is below 0.05, we accepted the alternate hypothesis that Petroleum Profit Tax has a significant negative effect on human development index of Nigeria (p-value = 0.0000).

Conversely, Petroleum Profit Tax (PPT) has a significant negative effect on Nigeria's Human Development Index. PPT is levied on the profits of companies engaged in petroleum

JOURNAL OF GLOBAL ACCOUNTING
10(3) September, 2024.
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exploration and production. The negative impact of PPT on HDI may be due to several reasons. Firstly, the heavy reliance on petroleum revenue can lead to economic volatility and a lack of diversification in the economy, making it susceptible to global oil price fluctuations. This volatility can result in inconsistent funding for essential services, adversely affecting human development. Furthermore, the focus on the petroleum sector often leads to environmental degradation and health issues in local communities due to pollution and oil spills, negatively impacting life expectancy and quality of life. Additionally, the wealth generated from petroleum resources has not always been equitably distributed, leading to disparities and underinvestment in critical human development sectors.

4.2.4 Hypothesis IV

H_{o4} Personal Income Tax has no significant effect on Economic development in Nigeria.

The coefficient for LogPIT is 0.034007 with a p-value of 0.0051. This indicates that a 1% increase in Personal Income Tax (PIT) revenue is associated with an approximate 0.034% increase in HDI, all else being equal. The p-value is well below the 0.05 significance level, indicating that this positive relationship is statistically significant. This suggests that increased revenue from personal income taxes positively contributes to human development in Nigeria, potentially through improved public services and infrastructure funded by this revenue source. The alternate hypothesis was therefore accepted that Personal Income Tax has a significant positive effect on human development index of Nigeria (p-value = 0.0051).

Personal Income Tax (PIT) positively and significantly affects Nigeria's Human Development Index. PIT is a tax levied on individuals' earnings, including wages, salaries, and other forms of income. The positive relationship between PIT and HDI can be explained by the direct link between tax revenues and public expenditure on social services. When collected efficiently, PIT provides the government with the necessary funds to improve public services such as education, healthcare, and social security, which directly enhance the components of HDI.

CONCLUSION AND RECOMMENDATIONS

a. The Ministry of Finance should increase the allocation of VAT revenue towards infrastructure development with emphasis on healthcare projects to further enhance the quality of these essential public services and continue boosting the Human Development Index.

b. The Federal Inland Revenue Service (FIRS) should strengthen the enforcement of CIT collection and ensure that the revenue is transparently invested in infrastructure development and social welfare programs to sustain and amplify its positive impact on the Human Development Index.

c. The Nigerian National Petroleum Corporation (NNPC) should implement stricter oversight and accountability measures in the management of petroleum revenues, and diversify investments into non-oil sectors to mitigate the negative effects on the Human Development Index.

d. The National Assembly should consider revising the Personal Income Tax structure to increase progressivity, ensuring higher earners contribute more and also use the additional revenue to fund social security and welfare programs, enhancing the Human Development Index by reducing income inequality and improving public services.

REFERENCES

Okeke, M.N., Mbonu, C.M., & Amahalu, N.N. (2018). Tax revenue and economicdevelopment in Nigeria: A disaggregated analysis. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 8(2), 178-199.*

Okoye, C. & Raymond, E. (2014). The impact of e-taxation on revenue generation in Enugu, Nigeria. *International Journal of advance Research*, 2(2), 449-458

Oyedele, T. (2019). The personal income tax (amendment)2011: Implementation and act matters arising. *https://www.pwc.com/ng/en/pdf/pita-amendment-march-2012.pdf Retrieved 14/04/2019.*

Sowole, A. A & Adekoyejo, O.A (2019). Value added tax and its impact on government revenue generation and economic development in Nigeria. *European Journal of Accounting, Auditing and Finance Research, 7(6), 1-15*

Oloidi, GA. & Oluwalana, LO (2014). Another approach to evaluating the productivity of value added tax in Nigeria. *Developing Country Studies 4(15), 39-45, 2014*

Brautigam, D. (2019). Building leviathan: Revenue, of Development Studies. *33(4), 16-24. state capacity, and governance. Institute*

Davis. (2019). Recent personal income tax progressivity trends in Australia. *Treasury working papper, No. 2019-05.*

Kagan,J.(2019). (VAT) Value added tax *https://www.investopedia.com/terms/v/valucadedtax.asp.Retrieved 23/04/2019*.

Asquith, (2019). Us job flow and the China shock. *Journal of international economics 118, 123-137.*

Onyeyiri, U. (2019). Taxation of companies under Nigeria's companies income tax Act2011, *http://www.qeeva.com/taxation-companies-nigerias-companies-income-tax-act-2011/.Retrieved 29/06/2019.*

Afuberoh, D. & Okoye, E. (2014). The impact of taxation on revenue generation in Nigeria:A study of federal capital territory and selected states22-47. *International Journal of Public Administration and Management Research (IJPAMR), 2(2).*

Abdullahi, U. Madu I. & Abdullahi, F. (2015). Evidence of petroleum resources on Nigerian economic development. *Business and Economics Journal, 6(2),11-18.*

Krueger,A.O.,&Myint,H.(2019). Economic development. *https://www.britannica.com/topic/economic-development*

Sen, D. (2019). Decreasing returns, patent licensing, and price-reducing taxes. *Journal of institutional theoretical economics 175(2), 291-307.*

Erika,R. (2020).Human development Index.

Rasure, S. (2020). School district' discretionary budgetary allocations for campus success. *Utica collage.*

Adegbia & Fakile (2011). Petroleum profit tax and Nigeria economic development. *European journal of social sciences*

Amahalu, N.N., Obi, J.C., Okudo, C.L., & Okafor, O.O. (2022). Effect of 2011 personal income tax (amendment) on revenue generation in Anambra state. *International Journal of Business Marketing and Management (IJBMM), 7*(5), 138 -147.

Appah & Ebiringa, (2012). Petroleum profit tax and economic growth in Nigeria. *International journal of management sciences and business research 1(9), 12-22.*

Dackehag & Hansson, (2012). Taxation of income and economic growth an empirical analysis of 25 rich OECD countries. *Workin papper.*

Nwoye, U.J. Obiorah, J.N. & Chidiebere, A.C. (2023). Illegal taxation versus tax holiday: implications on the performance of Small and Medium Enterprises In awake, Anambra state, *Journal of the Management Sciences*, 60 (3), 1 – 25.

Out & Theophilos, (2013). The effect of tax revenue on economic growth in Nigeria. *International journal of humanities and social science invention 2(6), 16-26, 2013.*

JOURNAL OF GLOBAL ACCOUNTING
10(3) September, 2024.
ISSN (Online): 1597–7641; ISSN (Print): 1597-8273
https://journals.unizik.edu.ng/joga

APPENDIX A

Data Presentation

Year	PPT	CIT	VAT	PIT	HDI	LogPPT	LogCIT	LogVAT	LogPIT
2004	878.60	130.80	96.20	845.00	.46	2.94	2.12	1.98	2.93
2005	1352.20	170.20	87.45	1084.00	.43	3.13	2.23	1.94	3.04
2006	1349.50	246.70	110.57	1462.00	.47	3.13	2.39	2.04	3.16
2007	1132.00	332.40	144.37	1688.00	.48	3.05	2.52	2.16	3.23
2008	2060.90	420.60	198.07	1902.00	.48	3.31	2.62	2.30	3.28
2009	939.40	600.60	229.32	1596.00	.48	2.97	2.78	2.36	3.20
2010	1480.40	666.10	275.57	210.65	.48	3.17	2.82	2.44	2.32
2011	3070.60	715.40	318.00	274.82	.46	3.49	2.85	2.50	2.44
2012	3201.30	846.60	347.69	366.31	.50	3.51	2.93	2.54	2.56
2013	2666.40	998.40	389.53	229.66	.47	3.43	3.00	2.59	2.36
2014	2453.95	1173.49	388.85	401.91	.50	3.39	3.07	2.59	2.60
2015	1289.96	1268.98	381.27	294.56	.52	3.11	3.10	2.58	2.47
2016	1157.81	933.54	397.06	407.47	.52	3.06	2.97	2.60	2.61
2017	1520.48	1215.06	473.77	448.22	.53	3.18	3.08	2.68	2.65
2018	2467.58	1340.33	533.74	669.22	.53	3.39	3.13	2.73	2.83
2019	2114.27	1604.70	564.45	202.89	.54	3.33	3.21	2.75	2.31
2020	1516.99	1275.38	699.37	851.73	.54	3.18	3.11	2.84	2.93
2021	2008.45	1747.99	964.11	253.80	.54	3.30	3.24	2.98	2.40
2022	2830.88	2830.00	1171.36	316.40	.53	3.45	3.45	3.07	2.50
2023	3170.00	4896.00	1200.30	379.00	.55	3.50	3.69	3.08	2.58

Source: Central Bank of Nigeria bulletin, the Federal Inland Revenue Service (FIRS) tax report, and the Nigerian Bureau of Statistics bulletin (2004-2023)