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TAXES AND ECONOMIC DEVELOPMENT IN NIGERIA

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ABSTRACT

This study examined the effect of taxes on Economic development in Nigeria from 1994 to 2024. Taxes, besides its revenue generation capacity, can also be used as a fiscal policy tool to shape the economy. The study employed time series data and Ex-post facto research design . Data on taxes in Nigeria were explanatory variables and include Company Income Tax (CIT), Petroleum Profit Tax (PPT), Customs and Excise Duties (CED) and, Value Added Tax (VAT).Human development index and Per capita income are the dependent variables used as proxies for economic development. The data were obtained from the publications of United Nations Development Program (UNDP), Central Bank of Nigeria Statistical Bulletin and Nigerian Federal Inland Revenue Service (FIRS). Both descriptive statistics and Autoregressive Distributed Lag(ARDL)model were used to analyse the study variables. The result revealed that: a long run relationship exists between taxation and economic development (per capita income and human development index) in Nigeria; company income tax and petroleum profit tax have significant positive effect on per capita income; Petroleum profit tax has a significant positive effect on human development index and company income tax, custom and excise duty and value added tax have insignificant negative effect on human development index .Therefore the study recommended that: government should review the use of value added tax to make it contribute positively to economic development; Company income tax should appropriately be utilized to contribute positively to per capita income and human development index in the short and long run and government should target an appropriate (optimal) rate of custom and excise duty to minimize its negative effect.

INTRODUCTION

The whole essence of tax revenue is to generate revenue to advance the welfare of the people of a nation with focus on promoting economic growth and development of a country through the provision of basic amenities for improved public services via proper administrative system, and structures (Aboyade, 2010). The rate of economic development creates an inequality among the countries of the world. Economic development ensures an increase in output together with a change in technical and institutional arrangement involved in production

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(Satope & Akanbi, 2014). Economically developed countries have transformed in culture, social, educational, political and economic standards (Mick, 2007). Belshaw and Livingstone (2002) noted that improvement in economic development provides a livelihood for the majority of the population. In order to achieve a sustainable economic development, government ensures regular inflow of revenue into its treasuries, one of which is taxation which is used by government as an instrument to raise the necessary funds for public expenditure, to redistribute income and to stabilize the economy.

The impact of the Nigerian tax system on businesses has been a matter of increasing interest and concern to many persons. Tax policies and the structure of taxation in Nigeria is resulting to multiple taxation on businesses, forcing most businesses to run into losses or collapse. Businesses make numerous decisions daily. Their inability to make the right decisions can result in their failure. Since taxation is a liability businesses have to incur, businesses are faced with the option of managing their tax liabilities in such a way their tax burden is reduced. Their inability to effectively manage taxation brings about negative effects on the financing, investment and dividend decisions of the business.

Adequacy of funding human capital development with taxpayer's money in Nigeria cannot be overemphasized. Uzoh (2012) opined that human capital has a generic potential to enable Nigeria to transit into a new economy. A well-harnessed human capital should play a significant role in Nigeria's struggle for the knowledge economy. It endogenously contributes to the growth and development of any country, like in the emerging revolution of information and communication.

While Nigeria has the largest economy in Africa, its per capita income remains relatively low, indicating a disparity between overall economic output and individual prosperity (UNDP,2016) .This disparity highlights challenges in translating economic growth into widespread improvements in living standards and social well-being. A low per capita income can hinder economic development by limiting access to resources, education, healthcare, and infrastructure. To achieve sustainable economic development, Nigeria needs to focus on strategies that promote inclusive growth, diversify its economy, and improve the living standards of its citizens. This includes investing in human capital, strengthening institutions, and creating a more conducive environment for private sector investment.

Statement of the Problem

Tax provides a predictable and stable flow of revenue to finance developmental objectives. Therefore, effective and efficient tax system can assist the government generate enough revenue to take care of its estimated expenditure, meet the needs of the people, and effectively participate in the world economy, improve the quality of life of people, have access to education, improved healthcare delivery, employment opportunities, clean air, safe drinking water and security of life and property (Ofoegbu, Akwu, & Oliver, 2016).

A lot of researchers did not do exhaustive investigation on how taxes affect economic development. Owolabi and Okwu(2011) concentrated only on one form of tax(independent variable) and limited in geographical coverage. They studied the contribution of Value Added Tax to the development of Lagos State economy. The studies by Uche and Ugonabo (2021); Success (2012); Edame and Okoi (2014) and Emmanuel and Charles(2015) used Gross domestic product (GDP) as the only dependent variable to measure economic development and expansion. GDP does not actually measure the overall wellbeing of the citizenry. Per capita income (PCI), Human development index (HDI),Quality of life and expectancy, Poverty index, Gender-related development index et cetera are better measures of economic development of a country.

The statistical tools and methodology employed by some these researchers are the same while they came out with conflicting results. Ogbodo and Arinze (2023), Symoom (2018) and Onakoya and Afintinni (2016) used Autoregressive Distributive Lag (ARDL) regression analysis technique. Ogbodo and Arinze (2023) revealed significant relationship between the variables while Symoom (2018) and Onakoya and Afintinni (2016) results were at variance with that findings.

Objectives of the Study

The main objective is to ascertain the effect of taxes on economic development in Nigeria. Specific objectives are to:

1.evaluate the effect of the Company Income Tax on Per Capita Income;
2.ascertain the effect of the Petroleum Profit Tax on Per Capita Income;
3.determine the effect of Custom and Excise Duties on Per Capita Income;
4. investigate the relationship between Value Added Tax and Per Capita Income;
5. examine the relationship between Company Income Tax and human development index;
6. ascertain the effect of the Petroleum Profit Tax on the human development index;
7. determine the effect of Custom and Excise Duties on the human development index and
8. investigate the relationship between Value Added Tax and human development index.

Research Hypotheses

The following hypotheses in null form were tested in the conduct of this research:

Ho_1: Company Income Tax has no significant effect on Per Capita Income.
Ho_2: There is no significant relationship between Petroleum Profit Tax and Per Capita Income.
Ho_3: Custom and Excise Duties have no significant relationship with Per Capita Income.
Ho_4: The application of Value Added Tax has not significantly improved Per Capita Income.
Ho_5: The application of Company Income Tax has no significant relationship with human development index.
Ho_6: Petroleum Profit Tax has no relationship with human development index.
Ho_7: Custom and Excise Duties have no significant effect on the human development index.
Ho_8: Value Added Tax have no significant relationship with human development index.

REVIEW OF RELATED LITERATURE

Conceptual Review

Tax and Taxation: Tax is a compulsory levy made by all concerned to the government of a country from which essential services are rendered, without necessarily offering an explanation on how the money generated was spent or equating the services with the money collected. It is an instrument employed by the government for generating public funds (Ofoegbu, Akwu & Oliver, 2016).

A well-designed tax system can help government in developing countries prioritise their spending, build stable institutions, and improve democratic accountability (Brautigam, 2008).When that is achieved, the people will be consciously motivated to pay their taxes. Taxes can be used as an instrument for achieving both micro and macroeconomic objectives especially in developing countries such as Nigeria. Ola, (2001) noted that tax policy serve as

an instrument of redistribution of wealth to ensure social justice. In order to enhance the management of tax systems and also augment the tax yield in Nigeria, the government embarked on the amendment and alteration of various tax laws.

Economic Development: Economic development can be broadly defined as the structural transformation of an economy through the introduction of more mechanized and updated technology to enhance labor productivity, employment, income, and the population's standard of living. Various measurements of economic development have emerged as a result of the ambiguity of specific definitions of economic development, such as structural changes in GDP, per capita income, full employment, normative values, improvement in human status, physical quality of life index, human development index, poverty index, and sustainable development (Panth, Citation2020). Economic development and economic growth are two distinct economic terms which are often misuse for one another. Economic development can be broadly defined as the structural transformation of an economy through the introduction of more mechanized and updated technology to enhance labor productivity, employment, income, and the population's standard of living. Various measurements of economic development have emerged as a result of the ambiguity of specific definitions of economic development, such as structural changes in GDP, per capita income, full employment, normative values, improvement in human status, physical quality of life index, human development index, poverty index, and sustainable development (Panth, 2020).

Harelimana (2018) refers to economic development as the process by which Gross National Product (GNP) per capita of a country increases qualitatively and quantitatively over a very long period of time. According to Satope and Akanbi (2014) economic development involves an increase in output together with a change in technical and institutional arrangement involved in production. They further argued that economic growth is a subcomponent of economic development because a nation cannot achieve economic development without having achieved economic growth. Mick (2007) noted that economic development is the combination of economic growth and factors, which may bring about general cultural, social, educational, political and economic transformation.

Per Capita Income (PCI): Per capita income is a measure of the amount of money earned per person in a nation or geographic region. Per capita income is used to determine the average per-person income for an area and to evaluate the standard of living and quality of life of the population. Per capita income for a nation is calculated by dividing the country's national income by its population. Per capita income counts every individual adult and child, even newborn babies, as a member of the population. This stands in contrast to other common measurements of an area's prosperity, such as household income, which counts all people residing under one roof as a household, and family income, which counts as a family those related by birth, marriage, or adoption who live under the same roof.

Human Development Index (HDI): HDI is a statistical tool used to measure a country's overall achievement in its social and economic dimension. The social and economic dimension of a country are based on the following; health of the people, their level of education attainment and their standard of living. Every year, united nation development program (UNDP) ranks countries based on the HDI report released in their annual report. HDI is one of the best tool to keep track of the level of development of a country, as it combines all major social and economic indicators that are responsible for economic development. The human development index (HDI) is the summary composite measures of income, education and health. The main objective behind HDI is to measure and calculate the three dimensions and components of development and well-being (Health, education, living standard).

Chikwe, Ogidi, and Nwachukwu(2015) gave three challenges facing Nigeria based on human development. They are: Low rating in human development indices, Brain drain and underemployment.

Theoretical Review

Cost of Service Theory: Charles Francis Bastable, an Irish classical economist, in 1885 put forward the cost of service theory, According to the cost of service theory, the government's cost of providing public goods to meet societal needs should be considered the basis of taxes, and thus tax is paid based on the cost of public goods enjoyed by citizens. According to this argument, the government should tax citizens based on the cost of the services it provides. The government provides some services to citizens, and the expense of those services should be shared by everyone. An individual's tax should be equivalent to the cost of the benefit he or she receives(Olawale Luqman Samuel, 2014).

Benefit derived Theory: Knut Wicksell (1896) and later Professor Lindahl (1919) created the benefit derived theory. This theory, often known as the contractual theory, asserts that the government and the people have a contractual relationship. It grounds taxation on a political willingness to pay for benefits obtained to pay for public-goods expenditures. The Benefits Received Principle is a tax provision that states that a donor who receives a tangible benefit from making a charitable contribution must deduct the value of that benefit from the amount claimed as an income tax deduction. It is a theory of income tax fairness that states that people should pay taxes based on the benefits they receive from the government. The benefit principle is a concept in public finance taxation theory. It grounds taxation on a political willingness to pay for benefits obtained to pay for public-goods expenditures. It's also used to talk about tax progressivity, company taxes, and property or wealth taxes. The benefit principle states that those who get government benefits should pay for it meaning that anybody who receives government assistance should contribute to it.

The Lewis Theory of Development: W. Arthur Lewis in the mid -1950s formulated one of the best known theoretical models of development that focused on the structural transformation of a subsistence economy. Basically, he conceptualized the economy in terms of the sectors, that is, what he called the capitalist sector and the traditional sector. The capitalist sector in his model provides the engine for growth of the economy and as the capitalist sector expands, economic growth and development expand. Initially, the traditional sector represents the large sector and the capitalist sector, the small one. This according to Lewis explains how the capitalist sector gets to grow large in size at the expense of the traditional sector. Lewis looked at development as a process of the transformation of the traditional economy into a modern capitalist sector. Lewis made three assumptions. First, there is the existence of unlimited supply of labour at subsistence wages in the economic system. He identifies these sources as the agricultural sector and the urban sector. Secondly, employment expands in the capitalist sector as far as capital formation expands. Third, it is only the capitalists that save in the system. The presumption is that for most wage earners, savings is very little out of their wages. If there were to be capital formation, it was to be from the savings of the capitalists; savings from wages and salaries; if they exist; will be minimal.

Empirical Review

Ezenwobi and Akamelu(2023) conducted a study on tax revenues and 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. while Robust Least Squares

(RLS) regression analysis was applied in the test of hypotheses . The findings revealed 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.

Obiano (2023) examined the impact of fiscal policy on the development of human capital in Nigeria from 1981 to 2019.The data were analyzed using the Johansen cointegration test and the error correction model (ECM). The estimate techniques' results showed that Nigeria's human capital development was significantly benefited by nonoil revenue. While oil revenue, domestic and foreign debt, the budget deficit, and government recurrent expenditures had a negligible detrimental impact on Nigeria's development of human capital.

Kaneva, Chugunov, Pasichnyi, Andriy and Husarevych (2021) examined the effects of tax policy on economic development and evaluate the role of appropriate tax instruments in speeding up recovery. The results of the OLS regression analysis showed that tax level harms the GDP per capita growth rate in Central Europe and Baltic states over the 2000-2021 period. Another vital finding is the increase in both overall employment and investment to GDP ratio positively affected the real GDP per capita growth rates. In order to foster economic growth government might use tax cuts and other stimuli both for distortionary and non-distortionary taxes.

Anisere-Hameed (2021) investigated into how taxes affected the expansion and advancement of the Nigerian economy. Ordinary Least Square (OLS), Co-Integration and Granger Causality test were conducted. The study used GDP as an independent variable to measure economic growth while using the following dependent variables: Petroleum Profit Tax (PPT), Capital Gain Tax (CGT), and Company Income Tax (CIT). The results of this analysis indicate that CGT and PPT have a little impact on income generation for Nigeria's economic expansion. On the other hand, CIT has a significant beneficial effect on Nigeria's economic development.

Oladele (2021), examined the impact of tax compliance on economic development in Nigeria. The specific objective examined if tax compliance impact human capital development and per capita income in Nigeria. In trying to achieve this objective, a quantitative research design was adopted while regression was adopted for the data analysis. The results of the study indicate that the tax compliance have positive impact on economic development in a time series data of Nigeria's economy during 2003 – 2019. The linearity test revealed that linear relationship exists between tax compliance and standard of living in Nigeria.

Uche and Ugonabo (2021), ascertained the effect of Value added tax on economic development in Nigeria from 1994-2018. Pearson coefficient of correlation and simple regression analysis were applied for the test of the hypotheses formulated with aid of E-Views 9.0 statistical software. Findings showed that Value added tax has a positive and statistically significant relationship with economic development (proxy by Gross domestic product and total government revenue).

Ezejiofor, Oranefo and Ndum (2021) ascertained effect of Nigerian tax revenue based on per capita income. The study used an ex-post facto research design. Per capita income (PCI), as well as customs and excise charges, were retrieved as variables. The hypothesis was tested using correlation and Ordinary least square (OLS) regressions. Customs and excise duties have a non-significant beneficial influence on Per capita income.

Ogbodo and Nweze (2021) reviewed on effect of tax revenue on economic development: evidence from Nigeria. The methodology used in the study was Ex-post Facto research design.

The study found that companies' income tax has a significant positive effect on per capita income of Nigeria; petroleum profit tax has a significant positive effect on per capita income of Nigeria. In this study education tax was no considered as a measure of tax revenue.

Festus, Appolos, and Olalekan (2020) reviewed on non-oil tax revenue on economic growth and development in Nigeria. This study employed ex-post facto using time series data for the periods under study (1994-2017). This study also found a positive relationship between Customs and excise duties and economic growth and development for the period under review.

METHODOLOGY

Design and Data source: The study used econometric methods designed for time series cross-sectional modeling. It is quasi-experimental, analytical and empirical in nature and made use of secondary data. The data on Taxes, Per Capita Income (PCI),Human Development Index(HDI) and other explanatory variables were sourced from the publications of United Nations Development Program (UNDP), Central Bank of Nigeria Statistical Bulletin and Nigerian Federal Inland Revenue Service (FIRS.

Variable measurement and Definition: In measuring the impact of the Taxes on economic development, we adopted the conventional method of using their proxies. Thus human development index(HDI) and Per Capita Income(PCI) were used as proxies for economic development . The Taxes used for the study are: Company Income Tax (CIT), Petroleum Profit Tax (PPT),Custom and Excise Duty (CED) and Value Added Tax (VAT).

Model Specification and Justification: The researchers adopted the model in Duasa(2007) with some modifications. Thus, the researchers specified the model and their functional form as:

$Y_t = f(X_1, X_2, X_3, X_4)\, U_t$ ---------- (1)

We therefore modify the model thus to suit our analysis:

PCI = f(CIT, PPT, CED, VAT) ---------- (11) model 1

HDI = f(CIT, PPT, CED, VAT) ---------- (111) model 2

where:

PCI=Per Capita Income
HDI = Human Development Index
CIT = Company Income Tax
PPT = Petroleum Profit Tax
CED = Custom and Excise Duties
VAT = Value Added Tax

In order to reduce variability and error term, we observed Log model specified as follows:

$$LOG(PCI)_t = \alpha_0 + \alpha_1 LOG(CIT)_t + \alpha_2 LOG(PPT)_t + \alpha_3 LOG(CED)_t + \alpha_4 LOG(VAT)_t \mu_{1t} \quad \text{(IV)}$$

$$LOG(HDI)_t = \alpha_0 + \alpha_1 LOG(CIT)_t + \alpha_2 LOG(PPT)_t + \alpha_3 LOG(CED)_t + \alpha_4 LOG(VAT)_t \mu_{1t} \quad \text{(V)}$$

Where:

α_0 is intercept parameter to be estimated which shows the value of dependent variable without the influence of the independent variable.

α_1 ,α_2, α_3 and α_4 , are slope parameters to be estimated which show the variation in the dependent variable as a result of change in the explanatory variables respectively.

μ_{1t}andμ_{2t} are error terms, which represents the influence of other factors that affect the dependent variable that are not included in the model.

The researcher considered Log – Log model so as to analyze our results in percentage measurement since we have data mix. Log model also helped us to reduce variability in variables and error term.

Method of Data Analysis: Specifically, macroeconomic variables and its effect on economic development in this study are modeled following the Autoregressive Distributed Lag (ARDL) model approach to co integration proposed by Pesaran, Shin in and Smith(2001) as found in Duasa (2007). An ARDL is a least square regression containing lags of the dependent and explanatory variables. ARDL is usually denoted with the notation ARDL (p,..q_1,….q_k), where p is the number of lags of the dependent variable,q_1 is the number of lags of the k-th explanatory variable. To ensure that the data series used in this study support robust econometric analysis and produce results that would be suiting for policy decisions, the data series were subjected to some diagnostic analysis as follows: Stationarity(Dickey-Fuller test), Johansen's cointegration test, Normality test(Jarqae-Bera), Heteroskedasticity test, Vector Error Correction Mechanism and Autocorrelation test.

Apriori Expectation

On the apriori, all the variables of interest are expected to have positive relationship with the dependent variable which is economic development.

DATA ANALYSIS AND RESULTS

Table 1: Stationary Result

Variables	ADF Statistic	P. Value	5% Critical Value	Order of Stationarity
LPCI	-4.050598	0.0039	-2.963972	I(0)
LHDI	-19.60909	0.0001	-2.967767	I(1)
LCIT	-5.557948	0.0001	-2.967767	I(1)
LPPT	-3.052132	0.0414	-2.963972	I(0)
LCED	-5.685423	0.0001	-2.967767	I(1)
LVAT	-6.004365	0.0000	-2.967767	I(1)

Source: Researcher's Computation 2026

The ADF result in table 1 above shows that per capita income and petroleum profit tax are stationary at level, while human development index, company income tax, customs and exercise duty and value added tax are stationary at first difference.

Table 2: Long-run and Short-run Results of VECM Analysis

Dependent Variable: LPCI
Method: ARDL
Date: 01/30/26 Time: 00:38
Sample (adjusted): 1996 2024
Included observations: 29 after adjustments
Maximum dependent lags: 2 (Automatic selection)

Model selection method: Akaike info criterion (AIC)
Dynamic regressors (2 lags, automatic): LCIT LPPT LCED LVAT
Fixed regressors: C
Number of models evalulated: 162
Selected Model: ARDL(1, 2, 1, 2, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LPCI(-1)	0.916864	0.076245	12.02529	0.0000
LCIT	0.071513	0.034771	2.056691	0.0554
LCIT(-1)	-0.074695	0.042436	-1.760169	0.0964
LCIT(-2)	-0.090289	0.037995	-2.376310	0.0295
LPPT	0.054423	0.016034	3.394278	0.0035
LPPT(-1)	-0.059235	0.016228	-3.650176	0.0020
LCED	-0.102098	0.034911	-2.924530	0.0095
LCED(-1)	0.142069	0.044219	3.212868	0.0051
LCED(-2)	0.058156	0.035882	1.620757	0.1235
LVAT	-0.211657	0.044703	-4.734727	0.0002
LVAT(-1)	0.264240	0.041908	6.305252	0.0000
C	0.969432	0.720674	1.345174	0.1962

R-squared	0.999487	Mean dependent var	12.43403
Adjusted R-squared	0.999156	S.D. dependent var	1.088813
S.E. of regression	0.031636	Akaike info criterion	-3.775528
Sum squared resid	0.017014	Schwarz criterion	-3.209750
Log likelihood	66.74515	Hannan-Quinn criter.	-3.598333
F-statistic	3013.572	Durbin-Watson stat	1.694441
Prob(F-statistic)	0.000000		

*Note: p-values and any subsequent tests do not account for model selection.

Table 3 Result of estimated ARDL model (1, 2, 1, 2, 1)
Dependent variable: LPCI

Variables	**Coefficient**	**Std. Error**	**T- statistic**	**Probability**
LPC(-1)	0.916864	0.076245	12.02529	0.0000
LCIT	0.071513	0.034771	2.056691	0.0554
LPPT	0.054423	0.016034	3.394278	0.0035
LCED	-0.102098	0.034911	-2.924530	0.0095
LVAT	-0.211657	0.044703	-4.734727	0.0002
C	0.969432	0.720674	1.345174	0.1962

R^2 0.999487, Adjusted R^2 0.999156, F-statistic 3013.572, Prob (F-statistic) 0.000000, DW 1.694441 (see appendix)

The estimated ARDL model shown in table 3 above revealed that the logged values of company income tax and petroleum profit tax had significant positive coefficient, while customs and excise duty had significant negative coefficient.

Table 4: Long-run and Short-run Results of VECM Analysis

Dependent Variable: LHDI
Method: ARDL
Date: 01/30/25 Time: 01:22
Sample (adjusted): 1998 2024
Included observations: 27 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): LCIT LPPT LCED LVAT
Fixed regressors: C
Number of models evalulated: 2500
Selected Model: ARDL(4, 4, 3, 4, 3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LHDI(-1)	0.094766	0.220898	0.429004	0.6900
LHDI(-2)	0.288194	0.286396	1.006276	0.3712
LHDI(-3)	0.197986	0.304376	0.650464	0.5509
LHDI(-4)	0.751961	0.170919	4.399508	0.0117
LCIT	-0.023516	0.014104	-1.667407	0.1708
LCIT(-1)	0.042351	0.022587	1.875045	0.1340
LCIT(-2)	-0.068881	0.024631	-2.796558	0.0490
LCIT(-3)	0.048461	0.020645	2.347347	0.0787
LCIT(-4)	-0.034448	0.013540	-2.544242	0.0637
LPPT	0.028977	0.007231	4.007436	0.0160
LPPT(-1)	0.005858	0.006064	0.966036	0.3887
LPPT(-2)	0.025958	0.006149	4.221522	0.0135
LPPT(-3)	0.003945	0.005367	0.735156	0.5030
LCED	-0.023643	0.014449	-1.636331	0.1771
LCED(-1)	-0.031739	0.011135	-2.850275	0.0464
LCED(-2)	0.032178	0.014214	2.263857	0.0863
LCED(-3)	-0.031473	0.016488	-1.908848	0.1289
LCED(-4)	0.038907	0.012576	3.093801	0.0364
LVAT	-0.063156	0.019465	-3.244593	0.0315
LVAT(-1)	0.020434	0.019758	1.034217	0.3595
LVAT(-2)	-0.004103	0.018793	-0.218317	0.8379
LVAT(-3)	0.038345	0.019259	1.990985	0.1173
C	0.164621	0.230476	0.714265	0.5145

R-squared	0.999164	Mean dependent var	-0.700402
Adjusted R-squared	0.994566	S.D. dependent var	0.070078
S.E. of regression	0.005166	Akaike info criterion	-7.899312
Sum squared resid	0.000107	Schwarz criterion	-6.795451
Log likelihood	129.6407	Hannan-Quinn criter.	-7.571076
F-statistic	217.2990	Durbin-Watson stat	2.344082
Prob(F-statistic)	0.000046		

*Note: p-values and any subsequent tests do not account for model Selection.

Table 5 Result of estimated ARDL model (4, 4, 3, 4, 3)

Dependent variable: LHDI

Variables	Coefficient	Std. Error	T-statistic	Probability
LHDI(-1)	0.094766	0.220898	0.429004	0.6900
LCIT	-0.023516	0.014104	-1.667407	0.0117
LPPT	0.028977	0.007231	4.007436	0.0160
LCED	-0.023643	0.014449	-1.636331	0.1771
LVAT	0.038907	0.012576	3.093801	0.0364
C	0.164621	0.230476	0.714265	0.5145

R^2 0.999164, Adjusted R^2 0.994566, F-statistic 217.2990, Prob (F-statistic) 0.000046 DW 2.344082

The estimated ARDL model shown in table 5 above revealed that the logged values of petroleum profit tax and value added tax had a positive significant coefficient. However, company income tax has a significant negative coefficient, while customs and excise duty had an insignificant negative coefficient.

Interpretation of Results:

Results of Model One PCI = f(CIT, PPT, CED, VAT)

Per Capita Income and Company Income Tax : The first model of this study regressed company income tax on per capita income. Results here indicated that company income tax had a significant positive effect (0.071513) on per capita income in Nigeria. This implies that a percentage increase in company income tax will attract a significant increase in per capita income. The result is in line with the apriori expectation.

Per Capita Income and Petroleum Profit Tax: The short- term result using this model revealed that petroleum profit tax had a significant positive effect (0.054423) on per capita income which is in line with the apriori expectation.

Per Capita Income and Customs and Excise Duty: The findings of this study revealed that customs and excise duty had a significant negative effect (-0.102098) on per capita income. This implies that any slight increase in customs and excise taxes will attract a reduction in economic development.

Per Capita Income and Value Added Tax : The outcome of the study in the short-run revealed that value added tax had a significant negative effect (-0.211657) on per capita income.

Results of Model Two HDI = f(CIT, PPT, CED, VAT)

Human Development Index and Company Income Tax : The second model of this study revealed that company income tax had an insignificant negative effect (-0.023516) on human development index. This implies that a percentage increase in company income tax will attract a slight decrease in human development index in Nigeria.

Human Development Index and Petroleum Profit Tax: The short- term result using this model revealed that petroleum profit tax had a significant positive effect (0.028977) on human development index. This implies that a percentage increase in petroleum profit tax in Nigeria will attract a significant increase in on human development index which is in line with the apriori expectation.

Human Development Index and Customs and Excise Duty: The findings of this study revealed that customs and excise duty had an insignificant negative effect(-0.023643) on human development index. This implies that any slight increase in customs and excise taxes will attract a reduction in economic development. .This result contradicts the apriori expectation which state that customs and excise duty had a positive effect on economic development.

Human Development Index and Value Added Tax: The outcome of the study in the short-run revealed that value added tax had a significant positive effect (0.038907) human development index.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Summary of Findings

1. Company income tax had a significant positive effect (0.071513) on per capita income.
2. Petroleum profit tax had a significant positive effect (0.054423) on per capita income.
3. Customs and excise duty had a significant negative effect (-0.102098) on per capita income.
4. Value added tax had a significant negative effect (-0.211657) on per capita income.
5. Company income tax had an insignificant negative effect (-0.023516) on human development index.
6. Petroleum profit tax had a significant positive effect (0.028977) on human development index.
7. Customs and excise duty had an insignificant negative effect (-0.023643) on human development index.
8. Value added tax had a significant positive effect (0.038907) on human development index.

Conclusion

On the basis of the findings, the study therefore concludes that there is a long –run relationship between taxes and economic development (per capita income and human development index) in Nigeria. This implies that taxes influence economic development in Nigeria. However, the short- run result revealed that petroleum profit tax has a significant positive effect on per capita income and human development index (economic development) in Nigeria. The company income tax showed a significant positive effect on per capita income in Nigeria. On the other hand, custom and excise duty and value added tax reflected an insignificant negative effect on per capita income in Nigeria.

Finally, company income tax, and custom and excise duty have insignificant negative effect on human development index in Nigeria, while value added tax has a significant positives effect human development index.

Recommendations

On the basis of the findings and conclusion, the following recommendations were made:

1. Issue of Company income tax should be at the front burner of all government policies as it has been established that it affect economic development both at short run and long run.
2. The new Petroleum industry act should be implemented to the later.
3. Corruption at the customs and excise should be confronted without fear or favour by the government. A lot is collected but little is accounted for. Complete digitalization of the operation is advised.
4. Incentives should be given to organizations/VAT agents for prompt collection and rendition of returns,
5. Introduction of human capital development tax by the government, no matter how little the rate/percentage may be. This tax will be levied on Nigerians who earn above fifty million naira per annum.
6. The government should ensure that transparency and accountability are maintained in administration of fund meant for the oil producing arrears.
7. The government should target an appropriate (optimal) rate of custom and excise duty to minimize its negative effect on economic development.
8. Government should widen the tax net of Value added tax. This is by reviewing the items on tax exempt list.

Contribution to Knowledge

This study contributed to knowledge in the following ways:

1. This study was initiated following the debate on the effect of taxes on economic development in Nigeria. This is because some studies indicated that taxes affect economic development in Nigeria, while others did not find the existence of such impact. However, the finding of this study validates the findings of previous studies that support that taxes affects economic development in Nigeria.
2. The conceptual framework developed in this study which demonstrates the interplay between taxes and economic development in Nigeria seem to be the first of its kind in the extant literature on the subject. This in no doubt amounts to strong contribution to knowledge.
3. The study provided two empirical models for investigating taxes and Economic development in Nigeria. The models were such that: PCI= f(CIT, PPT, CED, VAT) and HDI= f(CIT, PPT, CED, VAT).

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