

A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

TAXATION AND ECONOMIC DEVELOPMENT IN NIGERIA

Adebowale OGUNSOLA Accounting Department, Kogi State University, Anyigba, Nigeria 08060087960: ogunsola.adebowale@gmail.com

Abstract

Ineffective tax system can impact negatively on economic development. Therefore, this study investigated the influence of taxation on the economic development in Nigeria. The study adopted time series research method. The data used were obtained from secondary sources, which covered a period from 2015 to 2022. Using regression analysis, the study found that company income tax (CITX) and value added tax (VATX) positively and insignificantly influence real gross domestic product, however, the influence of education tax (EDTX) is negligible. Results also revealed that the influence of CITX on poverty index is negligible, while VATX and EDTX have negative and positive insignificant influence on poverty index respectively. Besides, findings revealed that CITX negatively and insignificantly influences life expectancy. While VATX positively and significantly influences life expectancy, the influence of EDTX is positive and insignificant. Moreover, results showed that CITX positively and insignificantly influences balance of trade, whereas the influence of VATX and EDTX is negative and insignificant. Furthermore, findings showed that company income tax positively and insignificantly influences unemployment rate. While VATX negatively and significantly influences unemployment rate, the influence of EDTX is negative and insignificant. It can be concluded that CITX, VATX and EDTX have tendency to improve some indicators of economic development, while they will likely impair other indicators. Therefore, it is recommended for government to ensure that revenue generated from taxation is judiciously expended on projects that will contribute positively to economic development.

Key words: Taxation, economic development, Nigeria

JEL: M41

INTRODUCTION

Taxation plays a pivotal role in shaping a nation's economic landscape, exerting influence over both its immediate fiscal health and its long-term development trajectory. The impact of taxation on economic development is intricate and multi-faceted, extending well beyond the simple act of revenue generation to encompass a broader spectrum of socio-economic dimensions. Governments worldwide leverage taxation as a primary tool for funding public expenditures, fostering economic stability, and ensuring the equitable distribution of resources. Consequently, the structure, efficiency, and fairness of a country's tax system carry profound implications for its overall economic development. Taxes serve as a critical source of government revenue, providing the means to finance essential public goods and services such as infrastructure, education, healthcare, and security.

The level and composition of taxation directly shape the government's capacity to fund these vital services, thereby influencing the quality of human capital, productivity, and the general well-being



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

of society. Simultaneously, the way taxes are imposed holds significant sway over individual and corporate behavior, impacting investment decisions, consumption patterns, and the broader spectrum of economic activities. Taxation must not be made to appear as a burden, but to create a better society that promotes fairness, equity, justice and elation among the citizens (Mankiw, Weinzierl & Yagan, 2009).

The major problem confronting Nigeria may not be unconnected with corruption, waste, mismanagement, and inefficiency in the utilization of revenue generated from taxation. This, however, might have impacted negatively on the development of Nigerian economy leading to wide spread of poverty, poor access to good health care services, poor standard of education, incessant power supply, poor road networks, high rate of inflation, unstable foreign exchange rate, high level of insecurity, lack of developmental projects, increase in unemployment rate, debt servicing burden, unfavorable balance of trade and unfavorable balance of payment position.

Most of the previous research works on the relationship between taxation and economic development in Nigeria concluded with mixed results and mainly examined real gross domestic product as a proxy for economic development such as Odu (2022); Kareem, Arije and Avovome (2020); Ibrahim (2018); Onoja and Ibrahim (2021); Ayano (2022); Anisere-Hameed (2021), which is considered to be inadequate to measure economic development. It is against this background, that the current study attempted to analyze how taxation (company income tax, value added tax and education tax) influences economic development in Nigeria using real gross domestic product, poverty index, life expectancy, balance of trade and unemployment rate as proxies for economic development.

LITERATURE REVIEW

Company Income Tax (CIT)

Company income tax is an essential economic tool employed by government to drive development in the country (Burgess, 2003). Company income tax is a form of tax that is imposed directly on the taxable profit of registered companies (Ani, 2004). This tax is under the regulation of company income tax act (CITA), which has been subjected to modification at different points in time to meet the currency of economic reality. The tax is usually computed on taxable profit, after adjusting for disallowable expenditures, disallowable incomes, loss reliefs and capital allowances in the accounting profit of the relevant tax year. Company income tax is exclusively collected by federal government through federal inland revenue service, and it is paid at the rate specified in the company income tax act.

Value Added Tax (VAT)

Value added tax is a tax that is levied and collected on the sales of products other than those items contained in the 1st schedule to VAT Act (Sanni, 2012). It is a tax being used by most of the countries around the globe for revenue generation and to prevent consumption of certain goods considered to be harmful to human health. The tax is an indirect form of tax because it the consumers who bear the burden of the tax when they buy vatable items. Administration of value



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

added tax is simple and economical, in fact, most consumers pay for the tax without being aware (Okwoli, 1998). In the words of Kamruddin-Parvez (2012), VATX is a consumption tax chargeable on certain products anytime additional value is created during production and distribution chain. In Nigeria, the tax is being regulated by VAT Act, and it is collected by FIRS on behalf of federal government at the rate specified in the act.

Education Tax (EDT)

Education tax is a tax that is levied on the assessable profit of every registered company in Nigeria. The tax is regulated by education tax act, and it is paid at the rate specified in the act. The act was enacted in 1993, after which it has been subjected to amendments over years, at different time. This tax was introduced to create intervention fund that can be used to provide modern infrastructure, facilities and other resources that are necessary for quality teaching, meaningful research, creativity and innovation in the tertiary institutions in Nigeria. To this end, Tertiary Education Trust Fund was created as provided by Tertiary Education Trust Fund Act, 2011 (Inyiama & Nwankwo, 2016). The fund is being managed by a board of trustees appointed and constituted to ensure that education tax collected by FIRS is paid into the fund, disbursed to the tertiary institutions, and used for the stated objectives (Inyaiama & Nwankwo, 2016).

Economic development

Economic development is a situation where there is improvement in the quality of life of people in a country, region, state, community, and household. The level of development in every economy of the world is predicated on the revenue generation capacity of individual country to provide fund and resources required for developmental projects (Abiola & Asiweh, 2012). To generate the required fund for economic development in a country, taxation is one of the best sources that can be utilized (Ogbonna & Appah, 2012). Tax can be employed by government as a tool for income redistribution, revenue generation, price stabilization, investment stimulation, and economic development (Emran & Stiglitz, 2005). Economic development is a function of a combination of certain macroeconomic variables. Economic development means full employment, improved real per capital income, price stability, improved life expectancy, equality in the distribution of national resources, improved medical service, good transportation system, food security, security of life and property, access to good water, stable power supply and improved balance of payment position. All these factors must be in place before any economy can be adjudged a developed economy.

Taxation and Economic Development

In Nigeria, Lyndon, Etale and Paymaster (2016) determined how company income tax, value added tax and gross domestic product are related. The results of regression analysis conducted showed that company income tax (CITX) and value added tax (VATX) are positively related to economic growth in Nigeria. Richard (2017) determined the impact of value added tax on Nigerian economic growth between 1994 and 2013. The study employed simple linear Ordinary Least Square regression, and it was statistically revealed that VATX substantially and positively affects Nigerian economy. In addition, Ogudu, Kingsley and Akinlosotu (2018) statistically tested the



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

relationship between corporate income tax and performance of the manufacturing companies in Nigeria. The results of fixed and random effect model technique revealed that company income tax is positively and significantly related to financial performance of the studied sample. Joseph and Chukwuemeka (2018) assessed the relationship between value added tax and economic growth in Nigeria. The results of regression analysis conducted showed that value added tax is positively and significantly related to economic growth in Nigeria. Asaolu, Olabisi, Akinbode and Alebiosu (2018) did an empirical study on how tax revenue influences economic growth. The results indicated that both value added tax, and custom and excise duty positively and significantly influence economic growth, however, it was observed that company income tax negatively and significantly influences economic growth. Whereas findings reported that petroleum profit tax insignificantly influences economic growth in Nigeria.

In addition, In Nigeria, Obayori and Omekwe (2019) empirically determined the relationship between value added tax, excise duty and economic growth between 1994 and 2018. The results of ARDL revealed that both value added tax and excise duty are positively related to economic growth. Ordu and Nkwoji (2019) studied how education tax impacts on Nigerian economy from 2006 to 2017. The results of regression and thematic analysis revealed that education tax (EDTX) substantially and positively impacts on Nigerian economy. In Nigeria, Kareem, Arije and Avovome (2020) empirically determined the influence of value added tax on economic growth. With the use of Bound test cointegration, results showed that value added tax (VATX) strongly and positively impacts on economic growth. It was also revealed by causality test that value added tax and economic growth are associated. However, Yadawananda and Achal (2020) determined the relationship between tax revenue and economic growth in India between 1991 and 2016. The results of panel data analysis showed that capital transaction tax and property tax are positively and significantly related to economic performance. Meanwhile, findings revealed that commodity tax and income tax have negative impact on economic performance in Indian state.

Moreover, Oladele (2021) statistically studied how tax compliance and economic development are related. Regression analysis results revealed that tax compliance is positively and significantly associated with economic development during the period of the study. In Nigeria, Uche and Ugonabo (2021) investigated value added tax and economic development between 1994 and 2018. Results of Pearson correlation and regression analysis indicated that economic development is positively and significantly influenced by value added tax in Nigeria. Timah and Chukwu (2021) examined the impact of company income tax on employees' wages, dividend, and corporate social responsibility in Nigeria. It was revealed that company income tax (CITX) has a substantial relationship with employees' wages, dividend payment and corporate social responsibility activities. In Nigeria, Egiyi (2021) investigated statistical relationship between company income tax and economic development. Findings revealed that company income tax and economic development are related in the long-run and short-run.

Anisere-Hameed (2021) examined how company tax revenue generation affects Nigerian economic growth. Results of regression analysis indicated that company income tax has significant



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

effect on gross domestic product, meanwhile, petroleum profit tax and capital gain tax have insignificant effect on economic growth. Furthermore, Onoja and Ibrahim (2021) investigated how tax revenue influences economic growth in Nigeria. Results showed that revenue from petroleum profit tax positively, but insignificantly influences economic growth in Nigeria. Meanwhile, findings revealed that company income tax and value added tax positively and significantly influence economic growth during the period of the study.

In Nigeria, Odu (2022) examined how VATX affects tax revenue and GDP. Using Time-series analysis, findings revealed that VATX positively and significantly influences tax revenue and GDP in Nigeria. Ayano (2022) empirically examined how tax revenue and economic development are related. The results of Autoregressive Distributed Lag indicate that income tax and education tax are negatively related to life expectancy, whereas a positive relationship was observed between petroleum profit tax and life expectancy. Also, it was observed that company income tax and school enrolment at tertiary level are positively related, while education tax and school enrolment at tertiary level are reported to be negatively related. Findings further revealed the relationship between petroleum profit tax and school enrolment at tertiary level is positive and significant. Moreover, results showed that CITX revenue and economic development are negatively related, whereas it was observed that the EDTX and PPTX are positively related to ECDPT in Nigeria. Moreover, in Nigeria, Nwachukwu, Nwoha and Inyama (2022) investigated how tax impacts on economic growth. Regression analysis results indicated that VATX, PPTX, PITX and CITX positively and significantly influence economic growth in Nigeria.

In Nigeria, Ifeoma, Godwin, Fadekemi and Josephine (2023) empirically determined how tax revenue generation affects economic performance. The results of Autoregressive Distributed Lag Analysis conducted showed that petroleum profit tax (PPTX), company income tax (CITX) and value added tax (VATX) positively affect gross domestic product (GDP), although the impact is insignificant. Olaoye, Yunus and Opefolu (2023) examined how tax revenue generation affects Nigerian economic development. The results of regression analysis indicated that value added tax, petroleum profit tax, education tax and company income tax positively and significantly affect Nigerian economic development. The intricate relationship between taxation and economic development demands a comprehensive investigation, considering its profound implications. While taxation serves as a fundamental tool for government revenue and resource allocation, the impact of tax policies on economic development remains a subject of significant concern and scrutiny. Several crucial issues and challenges necessitate a thorough examination of the underlying dynamics. Primarily, the efficiency and effectiveness of tax systems vary among nations, prompting questions about the optimal design and implementation of taxation to promote economic development. Following this, the hypotheses below were tested to achieve the objective of the study:

H₀₁: Company income tax has no significant impact on economic development in Nigeria

H₀₂: Value added tax has no significant impact on economic development in Nigeria

 H_{03} : Education tax has no significant impact on economic development in Nigeria

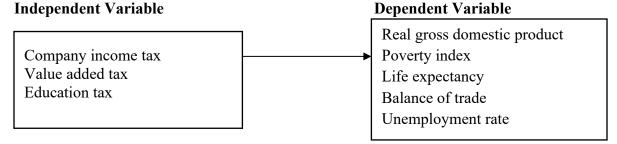


A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

Conceptual framework

The diagram below shows how company income tax (CITX), value added tax (VATX) and education tax (EDTX) are related to economic development (ECDPT).



METHODOLOGY

The study adopted time series research method, and to this end, the study used secondary data covering a period of eight years (8) from 2015 to 2022. The data were extracted from relevant documents obtained from CBN, FIRS and Macrotrends. Since the data used for the study are mainly secondary data, validity and reliability become no issues because the data are facts and events that already exist. The independent variable in the study is tax revenue proxy with company income tax (CITX), value added tax (VATX) and education tax (EDTX), while dependent variable is economic development (ECDPT) proxy with real gross domestic product (RGDP), poverty index (PVTIDX), life expectancy (LEXPTCY), balance of trade (BALT and unemployment rate (UNEMPLT).

For the study, company income tax, value added tax and education tax were measured with the total revenue collected in respect of each of the taxes. However, dependent variable proxies were measured as follows: real gross domestic product was measured at 2010 constant market prices; poverty index was measured by the number of people classified as being poor in Nigeria; life expectancy was measured by the number of years expected of an average Nigerian to live before death; balance of trade was determined by the difference between the monetary value of annual exports and annual imports; unemployment rate was measured by the percentage of people capable of working but who were unemployed.

The study adopted and modified model used by Olaoye, Yunus and Opefolu (2023) to examine how company income tax (CITX), value added tax (VATX) and education tax (EDTX) affect economic development (ECDPT) in Nigeria. The statistical expression of the general model is given below:

$$\begin{split} ECDPT_t &= \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t \\ The general model above is further decomposed into five specific models as follows: \\ RGDP_t &= \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t \\ PVTIDX_t &= \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t \\ LEXPTCY_t &= \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t \\ BALT_t &= \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t \\ &= Model 3 \end{split}$$



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

 $\label{eq:UNEMPLT} UNEMPLT_t = \beta_0 + \beta_1 CITX_t + \beta_2 VATX_t + \beta_3 EDTX_t + \mu_t ------ Model \ 5$ Where:

ECDPT = Economic development; RGDP = Real gross domestic product; PVTIDX = Poverty index; LEXPTCY = Life expectance; BALT = Balance of trade; UNEMPLT = Unemployment rate; CITX = Company income tax; VATX = Value added tax; EDTX = Education tax β_0 = Constant; β_1 , β_2 & β_3 = Coefficients; μ = Error term; t = time

RESULTS AND DISCUSSIONS

Data obtained for the study were analyzed using descriptive statistics, correlation coefficients and multiple regression analysis. However, before regression analysis was carried out, the study carried out normality test and multicollinearity test. The essence of normality test is to satisfy the assumption of regression analysis which requires data to be normally distributed, and to this end, the study employed Skewness and Kurtosis statistics. Meanwhile, to be assured of absence of multicollinearity issue among the independent variables, the study used Variance Inflation Factors and Tolerance Values. The tables below present the results of the analysis.

Descriptive statistics

From table 1, for the period of eight years covered in the study, it can be observed that minimum CITX is \$\mathbb{N}933.54b\$, maximum CITX is \$\mathbb{N}2649.19b\$, average CITX is \$\mathbb{N}1504.39b\$ with a corresponding standard deviation of \$\mathbb{N}524.31b\$ approximately. The table also reveals that minimum VATX is \$\mathbb{N}767.33b\$, maximum VATX is \$\mathbb{N}2511.52b\$, average VATX is \$\mathbb{N}1372.68b\$ with corresponding standard deviation of \$\mathbb{N}625.52b\$ approximately. The table shows that EDTX has a minimum value of \$\mathbb{N}130.12b\$, maximum value of \$\mathbb{N}328.67b\$, average value of \$\mathbb{N}211.66b\$ with corresponding standard deviation of \$\mathbb{N}61.56b\$. It can be explained that during the period of the study, CITX recorded the highest minimum value, maximum value and mean value while EDTX recorded the lowest minimum value, maximum value and mean value in revenue generation capacity to government.

Table 1 Descriptive statistics

	Minimum	Maximum	Mean	Std. Deviation
CITX	933.54	2649.19	1504.39	524.31
VATX	767.33	2511.52	1372.68	625.52
EDTX	130.12	328.67	211.66	61.56
RGDP	68652.43	75768.95	71277.69	2374.65
PVTIDX	70024.00	100000.00	81614.38	10251.27
LEXPTCY	53.29	55.75	54.60	0.85
BALT	-26.49	34.37	-1.90	17.05
UNEMPLT	4.22	6.00	5.17	0.68

Source: Author's Computation

Furthermore, table 4.1 reveals that real gross domestic product (RGDP) has minimum value of N68652.43b, maximum value of N75768.95b, mean value of N71277.69b with corresponding



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

standard deviation of \$\frac{1}{2}374.65b\$. The table shows that poverty index has minimum score of 70024.00, maximum score of 100000.00, mean score of 81614.38 with corresponding standard deviation of 10251.27. This implies that the minimum number, maximum number and average number of Nigerian citizens classified as being poor is 70,024,000 people, 100,000.000 people, 81,614,000 people approximately. It is also revealed in the table above that life expectancy (LEXPTCY) has a minimum score of 53.29 years, maximum score of 55.75 years, mean score of 54.60 years with corresponding standard deviation of 0.85 year. Moreover, table 4.1 shows that Nigeria balance of trade (BALT) has a minimum value of -\$26.49b, maximum value of \$34.37b, mean value of -\$1.90 with corresponding standard deviation of \$17.05b. Finally, table 4.1 reveals that unemployment rate has a minimum score of 4.22%, maximum score of 6.00%, mean score of 0.68%. It can be explained that among the five indicators of economic development that were used in the study, Nigerian real gross domestic product recorded the best performance while balance of trade recorded the least and worst performance.

Normality test results

To gain necessary assurance about the normality of the data obtained for the study, Skewness and Kurtosis test were carried out, and table 2 below shows the results of the test. It is observed in the table below that Skewness statistic for each of the variables of the study is between the recommended range of -2 to +2, according to Bryne (2010). The table also reveals that Kurtosis statistic for each of the variables falls in between -7 to +7 as recommended by Bryne (2010). It can, therefore, be reasonably deduced and concluded that there is no statistical evidence to suggest that the data used for the study were not normally distributed. This implies that the data were normally spread around the mean.

Table 2

	N	Skewness		Kurtosis		
	Statistic	Statistic	Std. Error	Statistic	Std. Error	
CIT	8	1.686	.752	3.452	1.481	
VAT	8	1.052	.752	025	1.481	
EDT	8	.798	.752	1.009	1.481	
RGDP	8	.990	.752	.473	1.481	
PVTIDX	8	.626	.752	249	1.481	
LEXPTCY	8	232	.752	959	1.481	
BALT	8	1.236	.752	3.622	1.481	
UNEMPLT	8	.019	.752	-1.648	1.481	

Source: Author's Computation

Multicollinearity Test



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

Table 3 below presents the results of multicollinearity test that was performed to establish whether there is any possibility of multicollinearity among the independent variables that can threaten the results of the study. It can be seen from table 4.3 that Tolerance Value for each of the variables is between zero and one as recommended. The table also reveals that Variance Inflation Factor for each of the independent variables is falls within one and ten as recommended. This provides sufficient statistical evidence to conclude that there is no multicollinearity issue in the study.

Table 3 Multicollinearity statistics

·	Tolerance	Variance Inflation Factor
CITX	.155	6.470
VATX	.216	4.624
EDTX	.335	2.983

Source: Author's Computation

Correlation statistics

Table 4 below shows the results of correlation analysis. The table shows that there is a positive and substantial correlation between CITX, VATX and EDTX. The table also reveals that CITX, VATX and EDTX are positively and substantially correlated with real gross domestic product (RGDP). The table shows that company income tax and VATX have positive and weak correlation with poverty index (PVTINX), whereas, EDTX has a positive and fair correlation with poverty index. Besides, it is revealed in the table that CITX, VATX and EDTX are positively and substantially correlated with life expectancy.

Table 4 Correlation matrix

	CIT	VAT	EDT	RGD	PVTID	LEXPT	BAL	UNEMP
	X	X	X	P	X	CY	T	LT
CITX	1							
VATX	.885	1						
EDTX	.815	.728	1					
RGDP	.966	.935	.791	1				
PVTIDX	.384	.308	.516	.389	1			
LEXPTC	.763	.920	.675	.858	.067	1		
Y								
BALT	-	343	214	174	.518	621	1	
DALI	.094							
UNEMP	.579	.844	.610	.723	.139	.947	671	1
LT								



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

Furthermore, table 4 reveals that CITX is negatively and negligibly correlated with balance of trade, while VATX and EDTX have negative and weak correlation with balance of trade. In addition, the table reveals that there is a positive and fair correlation between CITX and unemployment rate, whereas VATX and EDTX have positive and strong correlation with unemployment rate. Table 4.4 also reveals that real gross domestic product is positively and substantially correlated with life expectancy and unemployment rate, its correlation with poverty index is positive and weak, while its correlation with balance of trade is negative and very weak. Moreover, the correlation of poverty index with life expectancy is negligible, its correlation with balance of trade is positive and fair, while its correlation with unemployment rate is positive and very weak. More so, life expectancy and balance of trade is negatively and substantially correlated, whereas life expectancy is positively and substantially correlated with unemployment rate. Finally, the table reveals that balance of trade and unemployment rate are negatively and substantially correlated.

Findings and Discussion on Model-1, Model-2 and Model-3

Table 5 below shows the results of regression analysis for Model-1, Model-2 and Model-3. Model 1 has R Square of 0.963, which indicates that 96.3% of changes in real gross domestic product can be explained by combined effect of company income tax, value added tax and education tax, while 3.7% can relate to issues outside the model. The F-statistic of the model is 34.405, and this implies that the data used for the study are best fitted into the model, thereby making Model-1 to be a good model. From the table, it is observed that coefficient of determination (R Square) for Model-1 is 0.276, which indicates that only 27.6% of variation in poverty index can be linked to factors within the model while the remaining 72.4% is traceable to factors outside the model. F-statistic of model 2 is 0.509, and this implies that company income tax, value added tax and education tax are not well combined in the model to determine poverty index. Therefore, the model is not good, but only fair. Moreover, table 5 shows that Model-3 has R Square of 0.865, which means that 86.5% of changes in life expectancy can be traced to factors within the model while the remaining 13.5% can be explained by factors outside the model. It is also revealed that Model-3 has F-statistic of 8.515, which means that the data used for the study are best fitted into the model, thereby making the model to be a good model.

Table 5 Regression results

	Model-1			Model-2			Model-3		
	Coefficient	T	P-	Coefficien	T	P-	Coefficie	T	P-
			value	t		value	nt		value
Constant	64988.871	77.605	.000	62882.608	3.949	.017	52.954	93.227	.000
CITX	.633	2.578	.061	.032	.029	.978	343	734	.504
VATX	.371	1.787	.148	164	179	.866	1.126	2.846	.047
EDTX	.005	.029	.978	.610	.830	.453	.135	.424	.693
R	.981ª			.526a			.930a		
R Square	.963			.276			.865		
Adjusted	.935			267			.763		
R Square									



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

F-stats.	34.405		.509		8.515	
1 5000050	2 11 102					

Dependent Variable: RGDP, PVTIDX, LEXPTCY Predictors: (Constant), EDTX, VATX, CITX

However, in table 5, under Model-1, it is revealed that company income tax has coefficient of 0.633. This indicates that a unit increase in company income tax is expected to bring an increase of 0.633 in real gross domestic product, and this is insignificant as p-value is greater than 0.05. It is also revealed in the table, under Model-1, that value added tax has coefficient of 0.371. The result indicates that a unit increase in value added tax will likely generate 0.371 increase in real gross domestic product, and this is insignificant as p-value is greater than 0.05. Besides, under Model-1 in the table above, it is observed that education tax has coefficient of 0.005. This result shows that the influence of education tax on real gross domestic product is too small, insignificant, and negligible. The implication of results obtained on Model-1 is that if government can generate more revenue from company income tax and value added tax, and channel the money into productive sectors of the economy, it is likely that there will increase in the real gross domestic product, which may be the situation in Nigeria. However, the influence of education tax on real gross domestic product remains unclear.

In table 5, under Model-2, results reveal that company income tax has coefficient of 0.032. This indicates that the influence of company income tax on poverty index is too small, insignificant, and negligible because its coefficient is approximately zero (0). The implication of results obtained on Model-2 is that company income tax revenue generated by government may not have any clear influence on poverty index if the money is not properly utilized for developmental purpose. Besides, the results on Model-2 reveal that value added tax has coefficient of -0.164. This indicates that a unit increase in value added tax will likely reduce poverty index by 0.164, although the result is insignificant because its p-value is greater than 0.05. The results imply that efficiency in the utilization of value added tax will likely reduce the number of Nigerian citizens living below poverty line. The table also reveals that education tax has coefficient of 0.610. This indicates that a unit increase in education tax will likely produce 0.610 increase in poverty index, although the relationship is not significant because its p-value is greater than 0.05. The results imply that if most of the Nigerian graduates are unemployed, no matter what government is spending on education from education tax revenue, there will be increase in the level of poverty in the country, and this is the case in Nigeria.

In table 5, under Model-3, it can be observed that company income tax has coefficient of -0.343. The results indicate that one unit increase in CITX tends to reduce life expectancy by 0.343, although it is insignificant. The implication of these results is that increase in company income tax revenue generated by government may have adverse influence on life expectancy of an average employee or household, if working condition in most of the corporate entities is poor and back breaking. With the results obtained, this may be the situation of Nigeria. Also, it is revealed under Model-3 that value added tax has coefficient of 1.126. The results indicate that a unit increase in value added tax is expected to yield 1.126 increase in life expectancy, and this relationship is



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

significant because its p-value is less than 0.05. The results imply that the tendency of value added tax to reduce poverty level, based on the results of Model-2, may be linked to the possibility of value added tax to improve life expectancy among Nigerian citizens during the period of the study. Besides, it is revealed under Model-3 that education tax has coefficient of 0.135. This indicates that a unit increase in education tax is expected to generate 0.135 increase in life expectancy, although the relationship is not significant because its p-value is greater than 0.05. The results imply that education makes people to be more civilized and conscious of their health, thereby assisting them to take good care of themselves so that they can live long.

Findings and Discussion on Model-4 and Model-5

Table 6 below shows the results of regression analysis for Model-4 and Model-5. Model 4 has R Square of 0.371, which indicates that 37.1% of changes in balance of trade can be explained by combined effect of company income tax, value added tax and education tax, while 62.9% can relate to issues outside the model. The F-statistic of the model is 0.788, and this implies that the data used for the study are not best fitted into the model, but fair. From the table, it is also revealed that R Square for Model-5 is 0.891, which indicates that only 89.1% of variation in unemployment rate can be linked to factors within the model while the remaining 10.9% is traceable to factors outside the model. F-statistic of Model-5 is 10.904, and this implies that company income tax, value added tax and education tax are well combined in the model to determine unemployment rate, thereby making the model to be a good model.

Table 6 Regression results

	Model-4			Model-5			
	Coefficient	T	P-value	Coefficient	T	P-value	
Constant	2.916	.118	.912	4.113	10.083	.001	
CITX	1.274	1.264	.275	-1.075	-2.561	.063	
VATX	-1.190	-1.396	.235	1.519	4.279	.013	
EDTX	386	564	.603	.380	1.335	.253	
R	.609ª			.944ª			
R Square	.371			.891			
Adjusted R	100			.809			
Square							
F-stats.	.788			10.904			

Dependent Variable: BALT, UNEMPLT Predictors: (Constant), EDTX, VATX, CITX

In table 6, results on Model-4 shows that company income tax has coefficient of 1.274. This indicates that one unit increase in CITX is expected to yield 1.274 increase in balance of trade, although the relationship is not significant because its p-value is greater than 0.05. The implication of these results is that increase in production capacity of a country tends to generate more revenue for government from company income tax, and it will also likely improve balance of trade position of the country. It can also be observed under Model-4 that value added tax has coefficient of -1.190. The results indicate that a unit increase in value added tax is likely to generate 1.190 decrease in balance of trade, although the relationship is insignificant. This implies that increase



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

in value added tax that is not connected with production-based economy but rather linked to import based economy will likely influence balance of trade adversely. The reason is that such a situation will make import value to be more than export value, thereby affecting balance of trade position negatively. Moreover, findings on Model-4 reveals that education tax has coefficient of -0.386. This indicates that a unit increase in education tax will likely result in 0.386 decrease in balance of trade, although the result is insignificant as its p-value is more than 0.05. The findings imply that increase in education tax may lead to decrease in balance of trade if it does not impact well on the quality of education. And poor standard of education can have negative impact on production capacity, thereby affecting balance of trade adversely.

Furthermore, in table 6, under Model-5, it is revealed that company income tax has coefficient of -1.075. The results indicate that a unit increase in company income tax will likely trigger 1.075 decrease in unemployment rate, although the relationship is insignificant because its p-value is more than 0.05. The implication of the results is that increase in investment in the productive sectors of the economy will have tendency to generate more revenue for government from company income tax, and reduce unemployment rate by creating more jobs for citizens in the country. Results on Model-5 also reveals that value added tax has coefficient of 1.519. The findings indicate that a unit increase in value added tax will likely shoot up unemployment rate by 1.519, and this relationship is significant because its p-value is less than 0.05. The results imply that increase in value added tax may increase unemployment rate if the economy is import based or consumption based, rather than production based, which is the situation in Nigeria. Besides, under Model-5, it is observed that education tax has coefficient of 0.380. This indicates that a unit increase in education tax will likely spike unemployment rate by 0.380, although the relationship is not significant because its p-value is more than 0.05. The results imply that increase in education tax may result in increase in unemployment rate, if the revenue from education tax is not rightly spent by government in a way that will improve quality of education and impact positively on the economy through creativity and innovation.

CONCLUSION AND RECOMMENDATION

The study investigated how taxation influences economic development in Nigeria. The study carried out conceptual and empirical review on taxation and economic development. Then, the study adopted time series research design, and data obtained were analyzed using multiple regression method. Based on the findings, the study concludes that CITX and VATX tend to improve real gross domestic product, however, the influence of EDTX remain unclear. It is also concluded that the influence of CITX on poverty index is negligible, while VATX and EDTX have negative and positive insignificant influence on poverty index respectively.

Besides, it is concluded that CITX negatively and insignificantly influences life expectancy. While VATX positively and significantly influences life expectancy, the influence of EDTX is positive and insignificant. Moreover, it is concluded that CITX positively and insignificantly influences balance of trade, whereas the influence of VATX and EDTX is negative and insignificant. Furthermore, CITX positively and insignificantly influences unemployment rate. While VATX negatively and significantly influences unemployment rate, the influence of EDTX is negative and



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

insignificant. Therefore, it is recommended for government to ensure that revenue generated from CITX, VATX and EDTX is judiciously expended on projects that will contribute positively to economic development.

REFERENCES

- Abiola, J. & Asiweh, M. (2012) Impact of tax administration on Nigeria. *International Journal of Business and Social Science, Volume* 3 (8), 4-8
- Ani, W. U. (2004). Companies Income Tax in Nigeria: An Instructional Approach. J. T. C Publishers, Enugu.
- Anisere-Hameed, R. A. (2021). Impact of taxation on the growth and development of the Nigerian economy. *European Journal of Accounting, Auditing and Finance Research*, 9(4), 1-11
- Asaolu, T. O., Olabisi, J., Akinbode, S. O. & Alebiosu, O. N. (2018). Tax revenue and economic growth in Nigeria. *International Journal of Management & Development*, 5 (7), 72-85. DOI: 10.19085/journal.sijmd050701
- Ayano, D. A. (2022). Impacts of taxation on economic development in Nigeria. *International Journal of Innovative Research & Development*, 11 (2), 141-163
- Byrne, B. M. (2010). Structural equation modeling with AMOS: Basic concepts, applications and programming (2nd ed). New York: Routledge Taylor & Francis Group, 396.
- Egiyi, M. A. (2021). Company income tax and economic development nexus: ARDL approach. *Contemporary Journal of Management*, 3 (8), 19-27
- Emran, M., & Stiglitz, J. (2005). On selective indirect tax reform in developing countries. *Journal of Public Economics*, 599-623.
- Hair, J. F. Jr., Anderson, R. E., Tatham, R. L., & Black, W. C. (1995). Multivariate Data Analysis (3rd ed). New York: Macmillan.
- Ibrahim, A. G. (2018). An assessment of the contribution of company income tax on the Nigerian economic development. *International Journal of Accounting & Finance Review*, 2 (1),
- Ifeoma, P. O., Godwin, O., Fadekemi, Z. A. & Josephine, M. O. (2023). Tax revenue and economic growth: Empirical evidence from Nigeria. *Journal of Economics and Behavioral Studies*, 15 (1), 15-26
- Inyiama, O. I., & Nwankwo, C.N. (2016). Effect of corporate and tertiary education tax on Nigeria economic growth. *Account and Financial Management Journal*, 1(7), 415-425.
- Joseph, I. O. & Chukwuemeka, A. (2018). The impact of value-added tax on the growth of the Nigerian economy. *International Journal of Innovative Finance and Economics Research*, 6(2), 128-135
- Kamruddin-Parvez, M. N. A. (2012). Effects of VAT and Tax on Economy: An Analysis in the Context of Bangladesh. Research Journal of Finance and Accounting, 3 (7), 64-70.
- Kareem, R. O., Arije, R. A. & Avovome, Y. H. (2020). Value added tax and economic growth in Nigeria (1994 2017). *Izvestiya Journal of Varna University of Economics*, 64 (2), 137-152



- A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete
- Vol. 4 No. 1, December, 2023 ISSN: 2735-9603
- Lyndon, M. E. & Paymaster, F. B. (2016). The impact of company income tax and value-added tax on economic growth: Evidence from Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 4 (7), 106-112
- Mankiw, N.G. & Weinzierl, M. (2009). Optimal taxation in theory and practice. Harvard Business school working paper. Retrieved from www.hbs.edu/faculty/publication.
- Nwachukwu, R. C., Nwoha, C. & Inyama, O. (2022). effect of taxation on economic growth in Nigeria, *International Journal of Innovative Finance and Economics Research*, 10(4), 179-193.
- Obayori, J. B. & Omekwe, S. O. P. (2019). Indirect tax and economic growth in Nigeria: The case of VAT. *International Journal of Science and Management Studies (IJSMS)*, 2 (6), 61-66
- Odu, V. C. (2022). Value-added tax, revenue generation and economic growth in Nigeria. *Accounting and Taxation Review*, 6(1), 10-28
- Ogbonna, G.N. & Appah, E., (2012). Impact of tax reforms and economic growth in Nigeria: A time series analysis. *Current Research Journal of Social Sciences* (4)1, 62-68.
- Ogudu, G. N., Kingsley, I., & Akinlosotu, N. T. (2018). Corporate income tax and manufacturing sector performance in Nigeria: a panel data analysis. *CBN Bullion*, 42(4), 28-36
- Ogudu, G. N., Kingsley, I., & Akinlosotu, N. T. (2018). Corporate income tax and manufacturing sector performance in Nigeria: a panel data analysis. *CBN Bullion*, 42(4), 28-36
- Okwoli, A.A. (1998). Value-added tax, revenue generation and economic growth. The Nigerian tax structure. *Journal of the Nigerian public finance and the Nigerian society, 1*, **39-51**
- Oladele, R. (2021). Impact of tax compliance on standard of living in Nigeria. *The Journal of Accounting and Management*. 11(1), 237-250.
- Olaoye, C. O., Yunus, A. B & Opefolu, F. O.(2023). Tax revenue and economic development: Empirical evidence from Nigeria. FUOYE Journal of Accounting and Management, 6(1), 51-63
- Onoja, E. E. & Ibrahim, A. S. (2021). Tax revenue and Nigeria economic growth. European *Journal of Economics and Business Studies*, 7 (2), 60-80
- Ordu, P. A. & Nkwoji, N. O. (2019). Impact of education tax on economic development in Nigeria *International Journal of Innovative Development and Policy Studies*, 7(3), 1-17
- Richard, I. O. (2017). Value added tax and economic growth in Nigeria. *Research Journal of Finance and Accounting*, 8 (14),
- Sanni, A. (2012). Current Law and Practice of Value Added Tax in Nigeria. British Journal of Arts and Social Sciences.5 (2), 186-201
- Timah, B. P. & Chukwu, G. J. (2021). Corporate taxation and stakeholders' welfare of selected manufacturing companies in Nigeria. *International Journal of Academic Research in Business and Social Sciences*, 11(2), 13–26.
- Uche, E.P. & Ugonabo, C.U. (2021). The effect of value added tax on economic development in Nigeria (1994- 2018). *IOSR Journal of Humanities and Social Science*, 26 (5), 21-30.



A Publication of the Department of Accounting and Finance, Faculty of Management and Social Sciences, Kwara State University, Malete

Vol. 4 No. 1, December, 2023 ISSN: 2735-9603

Yadawananda, N. & Achal, K.G. (2020). Tax structure and economic growth: a study of selected Indian states. *Journal of Economic Structure*, 9 (38), 1-12.