Innovations

Effect of taxation on sustainable revenue generation in Nigeria

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Abstract

This study evaluates taxation's effect on sustainable revenue generation in Nigeria. Specifically, the study is set to: determine the effect of education tax on the real gross domestic product, and establish the effect of capital gains tax on the real gross domestic product. The study adopted an ex post facto research design. The study adopts a secondary source of data and it consists of annual time series data from 2011 to 2020. The National Bureau of Statistics, the Federal Inland Revenue Service, and the Central Bank of Nigeria statistical bulletin were used to compile the data. The mean, median, maximum, minimum, standard deviation, skewness, and kurtosis were used to examine the data.. The study also used correlation analysis to quantify the degree to which two variables are related. The study revealed that Education Tax (EDT) has no significant effect on Real Gross Domestic Product (RGDP): While the correlation result revealed a positive weak relationship between EDT and RGDP, there was an insignificant effect of EDT on RGDP. Capital Gains Tax (CGT) has no significant effect on Real Gross Domestic Product (RGDP): The dependency result showed a weak positive relationship between CGT and RGDP, also, CGT had an insignificant effect on RGDP.We concluded that taxation positively affects sustainable revenue generation in Nigeria. We recommended that tax authorities in Nigeria should endeavour to improve revenue generation in Nigeria.

Keywords: 1.*Generation, 2.Effect, 3.Revenue, 4.Sustainable, 5.Taxation*

1.1 Introduction

Sustainable revenue generation is the yearning of any nation whose emphasis is on walking its talk and for such a nation to live up to its responsibilities and equally meet the expectations of its citizens, it should not only institute meaningful and feasible economic policies on revenue generation; it should alsocreate enabling environment as well as the resources needed to actualize the established policies. Nevertheless, it is not only nations that desire to have sustainable growth in their resource creation, business firms, organizations, and even go-gettingindividuals also aim at achieving continual positive growth in their various fields of operation. Sustainability has been defined by Nnanna, Alade, and Odoko (2003) as a system's capacity to sustain a specific level of performance over time and, if necessary, increase production without compromising the system's crucial ecological integrity.Ban Ki-Moon (2014) sees sustainability as the pathway to the future we want for all and that sustainability offers a framework thatpromotes economic growth, social justice, environmental stewardship, and good governance. Invariably, sustainability if accomplished would be a gateway to greater heights. Brundtland Commission (1983) Sustainability is described as the process of meeting present requirements without compromising the capacity of future generations to satisfy their own

needs. Consequently, by adding the concept of "development", this implies that humankind (which may suggest man, government, an organization, or a business firm) should not satisfy its current needs at the expense of future growth.

However, in spite of the continual improvement in its revenue generation, because of its weak governance system and ongoing economic instability, Nigeria has been among the least advanced developing nations when it comes to generating revenue (CBN, 2020). According to Igwe (2016), every nation strives to demonstrate sustainable economic growth and development by raising money for that purpose. Sustainable development, according to Todara and Smith (2004), encompasses all facets of society's operational social, economic, political, and institutional framework. Taxation as a tool for stimulating the economy offers a framework for the realization of revenue, enabling the government to fulfill its obligations to its constituents. Additionally, every country relies more on taxes because they give their government a reliable and steady stream of income (Aguolu, 2014). As a result, taxation is a crucial source of stable income for all economies and a gauge of their health. The effectiveness of taxation in boosting the government's revenue base is crucial for the advancement of a country (Herbert, Nwarogu & Nwabueze, 2018).

1.2 Statement of the Problem

The issue with the government is not one of revenue; rather, it is one of expenditure and priorities. It's time to start honing our focus and choose what the government should prioritize (Marsha Blackburn). Nigeria is endowed with a wealth of mineral resources, including oil and gas, but the over-reliance on oil money for the country's economic progress has left much to be desired. Taxes are one of the ways the government can make money in addition to oil. However, the government's ability to provide services is impacted by the tax system's failure to generate income.The expected functions of generating revenue and controlling income distribution have not been successfully carried out by the Nigerian tax system. The Nigerian tax system includes elements like the capital gains tax and the education tax.

1.3 Objectives of the Study

The broad objective of this study is to evaluate the effect of taxation on sustainable revenue generation in Nigeria. Specifically, the study is set to:

- Determine the effect of Education Tax on Real Gross Domestic Product.
- Establish the effect of Capital Gains Tax on Real Gross Domestic Product.

1.4 Statement of Hypotheses

In research, hypothesis testing allows the researcher to carry out inferences about population parameters using data from a sample. Consequently, the following postulations were put forward in line with the proposed specific objectives of the study.

- Education Tax has no significant effect on Real Gross Domestic Product.
- Capital Gains Tax has no significant effect on Real Gross Domestic Product.

Review of Related Literature

2.1 Conceptual Review

Taxation

According to Samuel and Simon (2011), taxation is a system whereby the government imposes an obligatory levy on all revenues, products, services, and properties of private persons, partnerships, trusts, executors, and corporations. Tax is the money paid to the government other than for products and services that are specifically used in a transaction, whereas taxation is the act of imposing taxes and the fact of being taxed (Eyisi, Oluka & Bassey, 2015).Okonkwo and Chukwu (2019) however, perceived taxation is a civic obligation

imposed by the government on individual and corporate bodies to enable her to finance or operate public facilities. It is mandatory payments by individuals and corporations to certain government agencies and departments.Tax can also be viewed as a compulsory obligation levied on individuals or entities by the government of a country and failure to pay such obligation either by way of evasion or avoidance is punishable by law. The history of taxation in Nigeria according to Samuel and Tyokoso (2014) Dating back to the time when the word Nigeria was first used, the traditional chief tax agents served as the tax administrators, and the major taxable products were farm produce and other basic things. However, Lane, Yua, and Jocelyn (2020) verified that the CIT Ordinance, which was created in 1939, was the precursor to the contemporary tax system used by the federal government of Nigeria and its taxation agency, FIRS.
Since the creation of this Ordinance, it has always changed and also diversified in response to economic realities. Almost every nation in the world levies taxes, mostly to raise money to fund government spending and to meet up with other responsibilities. Etim, Nweze, Umoffon, and Asogwa (2020) admitted that taxes may be direct or indirect depending on who bears the final burden of the payment. when the incidence and burden are borne by the taxpayer, such a tax is described as a direct tax; examples inthe case of Nigeria include PIT, CIT, PPT, and CGT. On the other hand, when the incidence and burden of the tax can be removed from the original payer to the final consumer, itis referred to as indirect tax; examples include excise duties, customs duties, VAT, stamp duties, and casino tax, among others.

Education Tax (EDT)

All businesses registered in Nigeria are subject to the education tax, which is levied on chargeable profits as a payment to the Education Tax Fund. This implies that a portion of each registered company's assessable profit must be contributed to this fund. In Nigeria, it is commonly acknowledged that education is a key tool for advancing socioeconomic, political, and cultural development. Ugwoke (2013) stressed the necessity for significant financing to make education capable of fulfilling this duty. He also asserted that federal and state taxes, royalties, the sale of crude oil, import and export duties, and later, since 1994, VAT had always been the primary sources of funding.Traditionally, government subsidies for households in the form of tax breaks, scholarships, loans, and grants or direct funding of teachers' salaries, educational materials, and general infrastructure have been used to support education (Oraka, Ogbodo & Ezejiofor, 2017).

The Education Tax Act No. 7 of 1993, as amended by Act No. 40 of 1998, created the Education Tax Fund (ETF). In 1994, tax collection under the Act, which imposes a 2% tax on the assessable profits of all legally recognized corporations in Nigeria, began. But the amount of education tax that Nigerian businesses must pay has grown from 2% to 2.5% of assessable profits (in line with the 2021 Finance Bill that was signed into law by the Nigerian President on 31 December 2021 which takes effect from 1 January 2022).The assessable profit consists of income/profit that is subject to tax. FIRShas been empowered by the Act to assess as well as to collect this tax. Education Tax Act nevertheless, had no provisions for matters relating to the assessment and collection of the tax, consequently, the provisions of the CIT Act and PPT Tax Act relating to the assessment and collection of CIT and PPT as the case may apply. In addition, the tax must be paid within two months (60 days) of receiving a notice of assessment from the FIRS. EDT shall be considered as an eligible deduction for corporations subject to PPT and for non-resident companies and unincorporated entities are exempted from education tax.

Capital Gains Tax (CGT)

A federal tax known as CGT is assessed on the profit made from the sale of specific types of assets. According to Osho, Ajibola, and Omololal (2019), capital gains tax (CGT) is a tax levied on profits made from the sale of non-inventory assets. According to Embuka (2014), gains from the sale of capital assets are subject to CGT and are assessed against both individuals and business entities. According to Aguolu (2014), all types of stocks and shares, including options, as well as any property produced by someone disposing of it, are subject

to CGT. Moreover, Nneka (2014) sees it as a levy from designated tax authorities on profits made from either sales or exchange of certain categories of assets by individuals or corporations. On the other hand, Thomas (2010) defined CGT as taxes that are taxed as they are realized (that is when the capital asset is sold or exchanged).

However, it could be argued that the CGT was instituted at a time when the federal government of Nigeria's finances were severely stressed due to the military and political crisis brought on by the country's civil war. On the 19th day of October 1967, Decree No. 44, also known as the Capital Gain Tax Decree 1967, was promulgated (Biereenu-Nnabugwu & Abah, 2015). Currently, the CGT Act, Cap C1 LFN 2004, is in charge of regulating CGT (as amended). According to Ojo (2015), a capital asset's difference between its cost price (buy price plus acquisition costs) and the price at which it is sold indicates whether a capital gain or loss has occurred.Therefore, when the sales price exceeds the cost of sales, a capital gain is realized. On the other hand, a capital loss is said to have happened when the cost of disposal is more than the selling price. Therefore, it is evident that CGT is only relevant when a gain or profit is realized from the sale of a capital asset. A capital gain always assumes that an asset is sold for more money than it cost to buy it initially. However, all costs associated with selling the item must be subtracted before calculating the capital gain.

Sustainable Revenue Generation

Anyanwu (1997) summed up a nation's economic growth as a long-term increase in its ability to provide its population with a growing variety of economic products. The development potential, he continued, is based on evolving technology as well as institutional and ideological changes. However, Adeyemi and Mieseigha (2019) asserted that in order to achieve sustainable development in a nation's social and economic spheres, the government must take into account the costs and benefits of luring foreign direct investment, including the impact of any incentives provided. Furthermore, Appiah et al. (2011) acknowledged that tax is a fiscal tool used to promote or discourage particular production or consumption habits that have an impact on the sustainability of the economy, environment, or society.As a result, Afuberoh et al. (2014) described how taxes affect sustainable economic development in the following ways:

Fiscal Platform: The tax system offers a financial framework that promotes bilateral, regional, and global trade interactions between nations as well as foreign direct investment (FDI). Whether or whether a country will attract foreign direct investment depends on its tax policies. When investors are attracted to a nation, it signifies that these individuals will bring their reliable and unrestricted capital, as well as their expertise, efficiency, and ability to contribute to the country's capital formation and job/wealth development.

Fair Relationship between Countries: In order to ensure that developing countries receive an equitable distribution of the tax base and tax room in new economic connections, taxation promotes fair relations between developed and developing nations: As a result, the developed nations would not unfairly use the need for development in developing nations as an excuse to not build a worldwide tax system and mechanism to penalize third-world nations.

Formulation of Effective Policies: Taxation supports the development of effective policies and collecting systems that encourage the finance of sustainability in developing nations: Sustainable development finance requires a tax structure and administration that is efficient and effective. Therefore, the ability to implement any policy intended to advance sustainable development goals is limited if an effective tax structure or tax collecting mechanism is not in place. As a result, developing countries may continue to depend on foreign assistance, which is frequently conditional.

Real Gross Domestic Product (RGDP)

GDP is regarded as the most potent statistical indicator of national development and progress in the globe (Lepenies, 2016). However, the real RGDP per capita, also known as per capita income and, implicitly, economic growth, is the benchmark for measuring economic growth since it demonstrates a country's ability to produce products and services that can be compared over time (Acemoglu, 2007). RGDP, also known as constant-price GDP, inflation-adjusted GDP, or constant dollar GDP, is a statistic that, by definition, reflects the value of all goods and services produced by an economy in a given year (expressed in base-year prices) (Callen, 2016).The GDP rises when an economy experiences chronic inflation, but this does not represent the economy's actual growth. In order to obtain the real growth percentage known as the RGDP, the rate of inflation must be subtracted from the GDP. According to Ademuyiwa and Adetunji (2019), the real gross domestic product (RGDP) is the total of government spending, business investment, excess exports over imports, and consumer spending.

2. Theoretical Framework

Expediency Theory

This theory is entrenched in the canons of taxation. It explains the economy, effectiveness, and efficiency of tax collection instruments and was propounded by Alfred G. Buehler in 1936. The expectation of expediency theory is that a tax should be desirable so that the government may defend itself against public criticism by advocating its usefulness. In our view, a tax without any expedient cause would face severe criticism from the taxpayers which may give rise to unwillingness on the part of the taxpayers to pay and they will try to evade them. Therefore, every tax system must have a justification to create a feeling of acceptance in the mind of the taxpayers. Moreover, the tax authorities are frequently compelled to change the tax system to account for these pressures because there are pressures from economic, social, and political groupings, and each group strives to defend and promote its own interests (Bhartia, 2009). Kiabel and Nwokah (2009) believed that the economic and social objective of the state is to put in place an effective tax system that should be relevant to the economic growth of a nation. In addition, the administrative setup may not be efficient enough to collect the tax at a reasonable cost of collection.The apparent flaws in this theory include the following:

- The parameters to be used to test for practicability and the adequacy of such parameters.
- By itself, it is not able to help tax authorities to decide among the different practicable taxes.
- Those who stand to lose out from the imposition of a new tax or from changes to any existing taxes are obligated to argue against the viability of the proposed tax.
- Adherence to expediency means and methods puts more emphasis on expediency than on principle.
- Constructing a complete tax system exclusively on the basis of expediency has drawbacks; given the range of different practicable taxes and practicability rates, a decision must be taken in light of the potential impacts on the operation of the economy.

However, because it aims to explain how tax administrative design affects the collection of the associated accumulating income, the expediency theory would be pertinent to our investigation. In this regard, Otu and Adejumo (2013) argued that the only requirement for government authorities to select a tax policy is that every tax plan must satisfy the test of practicability. Therefore, the practicality must be taken into account in every tax plan; if a tax cannot be collected, it makes no sense to impose it.

2.3 Empirical Literature

Ordu and Nkwoji (2019) studied the impact of tertiary education tax (TEDT) revenue on the economic development of Nigeria. They specifically looked into how much the TEDT affected GDP and HDI (human development index) between 2006 and 2017. The planning, reporting, and statistics department of FIRS, the CBN annual statistical bulletin, and the yearly reports of the United Nations development program were used to collect data (UNDP). The results of the data analysis, which included regression analysis and theme

analysis, showed that TEDT revenue had a considerable effect on economic development. More specifically, when assessed on GDP as well as HDI, TEDT revenue demonstrated a strong and favorable link with economic progress.

Omotoyinbo (2019) determined the impact of the Education Trust Fund (EDTF) on Nigeria's tertiary institutions by using Ondo State in Nigeria as a case study. The Federal University of Technology, Akure (FUTA), Adekunle Ajasin University Akungba-Akoko (AAUA), Rufus Giwa Polytechnic Owo, and Adeyemi College of Education, Ondo were the four postsecondary schools that were sampled. The study used a sample size of 200 people overall. To collect data for the study, questionnaires were given out to students, teaching staff, and non-teaching employees in the same amounts. The data was analyzed using simple percentages and frequency counts. The findings demonstrated that tertiary institutions in Ondo state have considerably benefited from EDTF programs in terms of staff training, conference sponsorship, and programs for the development of infrastructure.

Oraka, Ogbodo, and Ezejiofor (2017) researched the effect of the Education Tax Fund (EDTF) onthe management of Nigerian tertiary institutions. The study specifically aimed to ascertain whether the enrolment ratio in Nigerian tertiary institutions is considerably impacted by EDTF grants. The study's aims were taken into consideration when formulating the hypothesis, and a survey and time series research design were used. Financial ratios were used to collect data from NBS, and regression analysis was used to test it with the help of the SPSS statistical program version 20.0. Based on the analysis, the study concluded that there was no relationship between EDTF allocations to Nigerian tertiary institutions and enrolment rates there.

Kumai (2020) studied the effects of CGT on total tax revenue and economic growth in Nigeria. In order to accomplish this goal, the ex-post facto research design was used, and secondary data were gathered from the NBS, CBN statistical bulletins, and FIRS annual reports. From 2005 to 2018, the influence of the independent variables, CGT, Interest Rate (IR), and inflation Rate (IR), on the dependent variables, Total Tax Revenue (TTR), and GDP, was determined using a straightforward regression technique. The results indicated a negligible positive correlation between CGT, TTR, and economic growth in Nigeria.

Osho, Adeseyoju, and Idowu (2019) worked on the effect of CGT on investment, infrastructural facilities provision, and GDPs in Nigeria. Data were acquired from the FIRS tax reports and the CBN statistical bulletin using an ex-post facto research design. A correlation analysis was done and descriptive statistics were used to present the collected data. The stationarity of the variables was evaluated using the Augmented Dickey-Fuller (ADF) unit root test, and the long-term relationship of the variables was examined using the Johanson co-integration trace and the Eigenvalue test. OLS regression models were used to evaluate the hypotheses, and the results showed that CGT was strongly and positively associated to investment and infrastructure in Nigeria.

Omesi and Akpeekon (2019) empirically investigated the effect of CGT on economic development in Nigeria from 2011 – 2016. The CBN statistical bulletin, the FIRS website, and secondary sources provided the majority of the data used in the study. The functional links between the model's variables were determined using simple regression, and the outcome revealed that CGT considerably impacted Nigeria's economic growth and the government's overall tax collection.

3. Methodology

Ex post facto research, often known as the historical research design, was used in this study. It is a quasi-experimental study that looks at how a participant's pre-existing independent variable impacts a dependent variable. Simply put, a quasi-experimental study indicates that the volunteers are not chosen at random. The

analysis uses annual time series data from 2011 through 2020 from a secondary source of data. The National Bureau of Statistics, the Federal Inland Revenue Service, and the Central Bank of Nigeria statistical bulletin were used to compile the data.Consequently, since we are concerned with the sustainability of the revenue accruing from taxation in meeting up with government-entrusted responsibilities, it is worthwhile to consider the totality of Nigeria's economy. Therefore, The entire economic sector serves as the study's population. Descriptive and inferential statistics were used in the study to analyze the data. The study first looked at the data's descriptive characteristics using factors including mean, median, maximum, minimum, standard deviation, skewness kurtosis, Jarqure-Bera, and probability estimate.

Model Specification

A sample correlation coefficient is calculated in correlation analysis. The strength of a relationship between two variables is measured by correlation analysis. This sample (the formula), which has a range from -1 to 1, quantifies the direction and strength of the linear association between two variables, with a result of 1 denoting a strong positive relationship, a result of -1 denoting a strong negative relationship, and a result of zero denoting no relationship at all.

Hence, adopting Karl Pearson's correlation model to a sample, we have:

Formula of Pearson's Correlation Coefficient

$$r = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 (y_i - \bar{y})^2}}$$

Where:

r	=	correlation coefficient
$\mathbf{x_i}$	=	values of the x-variable
$\dot{x}$	=	mean of the values of the x-variable
y_i	=	values of the y-variable
$\bar{Y}$	=	mean of the values of the y-variable

Re-defining and expanding the above equation further in line with our studies, we have:

r	=	correlation coefficient
$\mathbf{x_i}$=		values of the x-variable: These are the independent variables; the taxation proxies, (which can either be EDT or CGT) pending on which of the hypotheses is being tested.
$\dot{x}$	=	mean of the values of the x-variable: These are the mean values of the particular x-variable (which can be either EDT or CGT) depending on the particular hypothesis that is being tested.
y_i	=	values of the y-variable: These stand for the dependent variable, the RGDP.
$\bar{Y}$	=	mean of the values of the y-variable: The values represent the mean of the RGDP.

Additionally, the Regression model involved the following variables:

$Y = \beta_0 + \beta_1 X$ et

Where:

Y = Dependent variable.
β_0 = Y-intercept of the regression (or a constant).
β_1 = Slope of coefficient of the explanatory variable (change or variation in X).
X = Independent variable.
et = Error term

The broad objective of this work is to evaluate the effect of taxation on sustainable revenue generation in the Nigerian context. Therefore, adapting partly Amah's (2021) model for this study:

$GDP = \beta_0 + \beta_1 EDT + \beta_2 CGT + \alpha$

Where GDP = Gross Domestic Product (Dependent Variable)

EDT = Education Tax (Independent Variable)

CGT = Capital Gain Tax (Independent Variable)

α = Error Term.

Expanding this prototype, the researchers' model comprised:

Dependent variable, Y = Sustainable Revenue Generation (SRG); measured by the RGDP

Independent variable, X = Taxation; represented by EDT (denoted by X_1), CGT (denoted by X_2).

Where:

RGDP = Real gross domestic product

EDT = Education Tax

CGT = Capital gains tax

Accordingly, from the regression model:

$RGDP(Y) = \beta_0 + X = (\beta_1 EDT + \beta_2 CGT + et.$

Consequently:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + et$

4. Data Presentation and Analysis

4.1 Data Presentation

Due to the nature of the data collected for the research work, they use was made of tables, bar charts, andpie charts in their presentation. The choice of these techniques was to have a holistic view of each of the parameters that represent taxation and sustainable revenue generation and to have a better assessment of the trends in each of these selected variables.

Table 4.1: Collated Data on Taxes and Real Gross Domestic Product (All in Billion Naira): 2011- 2020

A	B	C	D
YR	**EDT**	**CGT**	**RGDP**
2011	130.74	3.51	57,511.04
2012	188.44	8.92	59,929.89
2013	279.36	21.69	63,218.72
2014	189.61	2.65	67,152.79
2015	97.93	11.09	69,023.93
2016	130.12	99.40	67,931.24
2017	154.96	3.18	68,490.98

2018	203.28	12.60	69,799.94
2019	223.62	5.98	71,387.83
2020	259.56	3.52	69,960.07
Total	**1,857.63**	**172.53**	**664,406.43**

Sources: FIRS, Planning, Research & Statistics Department (www.https://firs.gov.ng/tax-statistics-report/) and Central Bank of Nigeria Statistical Bulletin:https://www.cbn.gov.ng/rates/RealGDP.asp

Shown in table 4.1 is the statistical data that was collated on the chosen taxation variables: Education tax (EDT), Capital gains tax (CGT) which is made up of federally collectible taxes, and personal income taxes. In like manner, the table equally displays the data on Sustainable revenue generation that has been proxied by the Real Gross Domestic Product (RGDP). The study covered a period of ten years, from 2011 to 2020. More so, the data pertaining to each of the variables are arranged in columnar-yearly forms and numbered from letter A to the letter D. Column A, represents the years, and columns B, C, and D respectively stand for EDT, CGT, and RGDP. Furthermore, for each category of tax and the RGDP, yearly collected proceeds are shown as well as the aggregate for the period under study. Consequently, for the ten years study period, a total of #1,857.63b was earned from EDT, while a total of #172.53b, was earned from CGT, whilst RGDP amounted to #664,406.43b.

Table 4.2: Yearly Earned Real Gross Domestic Product (YERGDP): 2011 – 2020

Year	YERGDP (In Billion Naira)	Ranking:YERGDP (In order of value)	Contribution of YERGDP to TERGDP: (YERGD/TERGDP)100
2011	57,511.04	10th	8.66%
2012	59,929.89	9th	9.02%
2013	63,218.72	8th	9.52%
2014	67,152.79	7th	10.11%
2015	69,023.93	4th	10.39%
2016	67,931.24	6th	10.22%
2017	68,490.98	5th	10.31%
2018	69,799.94	3rd	10.51%
2019	71,387.83	1st	10.74%
2020	69,960.07	2nd	10.53%
Total	**664,406.43**		**100.00%**

Source: FIRS Yearly Tax Statistics Report &Researchers' Computations (2021)

Presented in table 4.2 is the Yearly Earned Real Gross Domestic Product (YERGDP) in billion naira, their rankings as well as the percentage (%) contribution of each year's Earned Real Gross Domestic Product (ERGDP) to the Total Earned Real Gross Domestic Product (TERGDP). The TERGDP is the summation of all the yearly earned RGDP within the period under study, that is, from 2011 to 2020. It could be seen from the table that the aggregate ERGDP was ₦664,406.43b and in terms of ranking, 2019 ranked 1st, followed by 2020 (2nd), 2018 (3rd), 2015 (4th), 2017 (5th), 2016 (6th), 2014 (7th), 2013 (8th), 2012 (9th) and 2011 (10th). The year 2011 recorded the lowest ERGDP of ₦57,511.04b while the highest ERGDP was derived in 2019, ₦71,387.83b. In

addition, the analysis of the percentage contribution of YERGDP to TERGDP that was realized within the ten's years period revealed that the years 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, and 2020 respectively contributed approximately 8.66%, 9.02%, 9.52%, 10.11%, 10.39%, 10.22%, 10.31%, 10.51%, 10.74%, and 10.53%.

Table 4.3: Yearly Education Tax Revenue (YEDTR): 2011 – 2020

YEAR	YEDTR (In Billion Naira)	Ranking: YEDTR (In order of value)	Contribution of YEDTR to TEDTR=(YEDTR/TEDTR)100
2011	130.74	8th	7.04%
2012	188.44	6th	10.14%
2013	279.36	1st	15.00%
2014	189.61	5th	10.21%
2015	97.93	10th	5.27%
2016	130.12	9th	7.00%
2017	154.96	7th	8.34%
2018	203.28	4th	11.00%
2019	223.62	3rd	12.00%
2020	259.56	2nd	14.00%
Total	**1,857.63**		**100.00%**

Source: FIRS Yearly Tax Statistics Report &Researchers' Computations (2021)

Displayed in table 4.3 are the Yearly Education Tax Revenue (YEDTR), their ranking (in order of value) and the percentage (%) contribution of YEDTR to Total Education Tax Revenue (TEDTR) that was earned within the years under review. In line with the researchers' ranking, the highest revenue was collected in 2013: ₦279.36b, this was followed by 2020: ₦259.56b, 2019: ₦223.62b, 2018: ₦203.28b, 2014: ₦189.61b, 2012: ₦188.44b, 2017: ₦154.96b, 2011: ₦130.74b, 2016: ₦130.12b and 2015: ₦97.93b. The least revenue was collected in 2015.

Table 4.4: Yearly Capital Gains Tax Revenue (YCGTR): 2011 - 2020

YEAR	YCGTR (In Billion Naira)	YCGTR Ranking (In order of value)	Contribution of YCGTR to TCGTR=(YCGTR/TCGTR)100
2011	3.51	8th	2%
2012	8.92	5th	5%
2013	21.69	2nd	13%
2014	2.65	10th	2%
2015	11.09	4th	6%
2016	99.40	1st	58%
2017	3.18	9th	2%
2018	12.60	3rd	7%
2019	5.98	6th	3%
2020	3.52	7th	2%
Total	**172.53**		**100%**

Source: FIRS Yearly Tax Statistics Report &Researchers' Computations (2021)

Table 4.4 shows the Yearly Capital Gains Tax Revenue (YCGTR), the ranking thereof and the percentage contribution of YCGTR to Total Capital Gains Tax Revenue (TCGTR). TCGTR is the summation of all the capital gains tax revenue collected from 2011 to 2020, this amounted to ₦172.53b. In ranking, the highest revenue was collected in 2016: ₦99.40b, followed by 2013: ₦21.69b, 2018: ₦12.60b, 2015: ₦11.09b, 2012: ₦8.92b, 2019: ₦5.98b, 2020: ₦3.52b, 2011: ₦3.51b, 2017: ₦3.18b and 2014: ₦2.65b. The least revenue was collected in 2014.

4.2 Descriptive Statistics of Data

Descriptive statistics describe the mean, median, maximum and minimum values, and standard deviation as well as other key statistical characteristics of the data under examination. It gives the behavior of the data a historical context.It is one of the pre-tests of the data tool that provides some basic information concerning the relevance of the compressed variables; displayed in table 14 are the statistical characteristics of the chosen Taxation and Real Gross Domestic Product data variables.

Table 4.10: Descriptive Statistics- (Presented using EView)

	Education Tax	Capital Gains Tax	Real Gross Domestic Product
	EDT	CGT	RGDP
Mean	185.7627	17.25307	66440.64
Median	189.0247	7.4468	68211.11
Maximum	279.3588	99.4034	71387.83
Minimum	97.9331	2.6498	57511.04
Std. Dev.	58.45671	29.4647	4645.914
Skewness	0.138376	2.477263	-0.921916
Kurtosis	1.984556	7.489453	2.440552
Jarque-Bera	0.461549	18.62605	1.546957
Probability	0.793919	0.00009	0.461405
Observations	10	10	10

Source: Authors' Computations From EViews Software: 2021

From the descriptive data in table 4.10 above:

The mean denotes the average value of each of the variables and for EDT, CGT, and RGDP it is approximately 185.76, 17.25, and 66440.64 respectively. Also, the median stands for the middle values of each of the variables after sorting the observations, and from the table, these values are roughly 189.02, 7.45, 815.58, and 68211.11 for EDT, CGT, and RGDP respectively.

However, the maximum represents the highest value for each of the variables and from the table, the highest value for EDT is around 279.36 while 99.40, is the highest value for CGT, and RGDP correspondingly. Conversely, the minimum indicates the lowest value of each of the variables that are under consideration. Thus, the lowest values for EDT, CGT, and RGDP are about 97.93, 2.65, and 57511.04 respectively. Howbeit, the standard deviation (Std. Dev.) shows how far observations are from the sample average, that is, the deviation from the sample mean with respect to each of the variables. Hence we have almost 58.46, 29.46, 299.92, and 4645.91 for EDT, CGT, and RGDP accordingly.

In addition, Skewness is a measure of normality. It shows the degree of asymmetry of the series. Normal skewness has a "0" skew with a distribution symmetric around the mean; Positive skewness has a long right tail with higher values and Negative skewness has a long left tail with lower values. From the descriptive statistics, EDT is 0.138376, respectively mirrorsthe normal distribution. However, CGT's value of 2.477263 mirrors a positive distribution, and RGDP whose values are respectively -0.13408 and -0.921916 have negative distributions.

Kurtosis is also a normality measurement tool and measures the peakness or flatness of the distribution of the series and is of three types; Mesocratic is a normal distribution with a kurtosis of 3; Leptokurtic, is a positive kurtosis (peaked-curve), higher values and Platykurtic, is a negative kurtosis (flatted-curve), lower values. From the descriptive statistics, EDTand RGDP respectively have kurtosis values of 1.984556, and 2.440552. Though these values are positive, none is up to 3 (mesocratic) which denotes a normal distribution; the values are all less than 3, therefore, they are platykurtic and this implies that their values will have a lot of distributions that are below their sample mean. Nevertheless, CGT has a kurtosis value of 7.489453 and this clearly shows a leptokurtic distribution because its value is greater than the normal distribution

Furthermore, the Jarque-Bera test statistic measures the difference between the skewness and kurtosis of each of the variables with those from the normally distributed variable. Thus, for EDT, CGT, and RGDP, it is approximately 0.5, 18.6, and 1.5 respectively. However, the probability statistic is the likelihood that a Jarque-Bera statistic exceeds (in absolute value) the observed value under the null hypothesis. A small probability value leads to the rejection of the null hypothesis of a normal distribution. From the descriptive statistics, the CGT that has a probability value 0.00 (approximately), which is lower than 0.05 level of significance, thus, highly significant. Also, its distributions are clearly not normal and this can be seen from its skewness (7.489453) and kurtosis (18.62605) figures. But for the other variables (EDT, and RGDP), their probability values are much higher than the 0.05 level of significance, hence, their figures are normally distributed. On the other hand, the "Observations" stand for the data collection time frame which is for a period of 10 years, from 2011 to 2020.

4.3 Data Analysis

Below are the summaries of the results obtained from the empirical analyses conducted on the study's proposed hypotheses.

Reinstatement of the Decision Rule: Upon the computation of the probability statistics, if the value of F or the probability value (p-value) is greater than 5% (0.05) level of significance; it is not significant, therefore, the null hypothesis is accepted but where the F value is less than or equal to 5% then it is significant; the null hypothesis is rejected. In other words, accept the null hypothesis if the P-value>0.05; otherwise reject it.

Hypothesis one: Education Tax has no significant effect on Real Gross Domestic Product.

Table 4.11: Effect of Education Tax on Real Gross Domestic Product

	EDUCATION_TAX_EDT
EDUCATION_TAX_EDT	1
REAL_GROSS_DOMESTIC_PROD	0.125997
P-value	0.7287

Source: Data Analysis: 2021

The result of the analysis in table 4.11 shows a weak relationship between Education tax and Real Gross domestic product with a Pearson correction value of 0.126 and a p-value (sig. value) of 0.729 which is insignificant. Based on the decision rule, Education Tax has no significant effect on Real Gross domestic product. Hence, we accept the null hypothesis.

Hypothesis two: Capital Gains Tax has no significant effect on Real Gross Domestic Product.

Table 4.12: Effect of Capital Gains Tax on Real Gross Domestic Product

	CAPITAL_GAINS_TAX_CGT
CAPITAL_GAINS_TAX_CGT	1.000000
REAL_GROSS_DOMESTIC_PROD	0.089492
P-value	0.8058

Source: Data Analysis: 2021

From the result of the analysis in table 4.12, there is a weak relationship between Capital Gains Tax and Real Gross Domestic Product with a Pearson Correction value of 0.089 and a p-value (sig. value) of 0.806 which is insignificant. Based on the decision rule, Capital Gains Tax has no significant effect on the Real Gross domestic product. Therefore the null hypothesis is upheld.

Hypothesis eight: There is no significant variation in RGDP due to variations in EDT, and CGT

Table 4.18: Variation in the dependent variable (RGDP) due to variation in the independent variables (EDT, and CGT)

Dependent Variable: REAL_GROSS_DOMESTIC_PROD
Method: Least Squares
Date: 04/10/21 Time: 11:00
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	54866.62	5272.991	10.40522	0.0091
CAPITAL_GAINS_TAX_CGT	18.52406	18.70433	0.990362	0.4264
EDUCATION_TAX_EDT	0.887335	10.53821	0.084202	0.9406

R-squared	0.987907	Mean dependent var	66440.64
Adjusted R-squared	0.945583	S.D. dependent var	4645.914
S.E. of regression	1083.775	Akaike info criterion	16.80485
Sum squared resid	2349135.	Schwarz criterion	17.04692
Log-likelihood	-76.02425	Hannan-Quinn criter.	16.53930

F-statistic	23.34129	Durbin-Watson stat	2.678084
Prob(F-statistic)	0.041689		

Source: Data Analysis: 2021

The table above shows that the R squared is approximately 0.988 indicating that over 98.8% of the variation was accounted for by the model. The p-value of 0.042 which is less than 0.05 shows a strong significant relationship (variation) between the Real Gross Domestic Product and the predictors (EDT, and CGT). Therefore, based on the decision rule, there is significant variation in the dependent variable (RGDP) due to variation in the independent variables (EDT, and CGT). Accordingly, the null hypothesis is rejected

Discussion of Finding

Hypothesis one: Education Tax (EDT) has no significant effect on Real Gross Domestic Product (RGDP): While the correlation result revealed a positive weak relationship between EDT and RGDP, there was an insignificant effect of EDT on RGDP. This result faulted similar empirical works such as Ordu and Nkwoji (2019), Inyiama and Nwankwo (2016) and Adegbite (2015) whose results not only showed strong positive relationships but also, a significant effect.

Hypothesis two: Capital Gains Tax (CGT) has no significant effect on Real Gross Domestic Product (RGDP): The dependency result showed a weak positive relationship between CGT and RGDP, also, CGT had an insignificant effect on RGDP; thus, collaborating with the results arrived at in similar studies by Ngu (2021), Kumai (2020), El-maude, Bawa, Mohammed and Pate (2018), Kabir (2016) and Obaje (2012). Nevertheless, the researchers' result was not in support of some other similar works conducted by Osho, Adeseyoju, and Idowu (2019), Omesi and Akpeekon (2019) and Fasin and Adegbite (2016) whose results revealed a visible positive relationship as well as significant effect.

5.1 Summary of Findings

The empirical study was conducted on the Effect of Taxation on Sustainable Revenue Generation in Nigeria. The study spanned a period of ten years, from 2011 to 2020.

Findings obtained from the analyzed data showed the following:

- Education Tax had a positive but weak relationship with Real Gross Domestic Product and the effect it had on the latter though positive, was not significant.
- Capital Gains Tax also had a positive but weak relationship with Real Gross Domestic Product; its effect was also positive but insignificant.

5.2Conclusion

The main object of this study is to evaluate the effect of taxation on sustainable revenue generation in Nigeria. The statistical evidence gathered from the empirical analysis showed that the effect taxation had on sustainable revenue generation in Nigeria was not encompassing.Education Tax had a positive but weak relationship with Real Gross Domestic Product and Education Tax had a positive but weak relationship with Real Gross Domestic Product. We concluded that taxation positively affects sustainable revenue generation in Nigeria.

5.3 Recommendation

We recommended that tax authorities in Nigeria should endeavour to improve revenue generation in Nigeria.

- Education Tax did yield insignificant contributions towards sustainable revenue generation in Nigeria. Nevertheless, it is believed that with the increase in its tax rate from 2% to 2.5% (in line with the 2021 Finance Bill that took effect on 1 January 2022), there may be an improvement in its revenue base. Consequently, it would be expedient for the Nigerian government to put the necessary structures in place to ensure the sound operation of this tax system.
- Though Capital Gains Tax did not contribute significantly to sustainable revenue generation in Nigeria, it has the potential to enhance revenue generation due to the huge capital assets that are being disposed of within the country. Hence, the administration as well as the collection machinery for Capital Gains Tax in Nigeria needs to be strengthened to ensure effectiveness in its operation and efficiency in its collection from any part of the country where capital assets are being disposed.

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