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Effect of Online System of Taxation on Nigerian Economic Growth (2005- 2020)

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Abstract
This study titled "the effect of online system of taxation on economic growth in Nigeria covering the period 2005-2020". Data for the research was extracted from the Central Bank of Nigeria (CBN) Statistical Bulletin, 2020. The multiple regression with the application of Ordinary Least Square (OLS) technique was employed in obtaining the numerical estimates of the co-efficient in different equations (Pre-Online and Post-Online Tax Regimes). The One-Sample Test was employed to estimate the difference between pre-online and post-online taxation system on economic growth in Nigeria. The major findings of the study revealed that pre-online tax revenue has a negative and non-significant effect on economic growth in Nigeria, post-online tax revenue has a positive and significant effect on economic growth in Nigeria and there is significant difference between Pre and Post Online tax revenue in Nigeria. It is the recommendation of the study that there should be stringent penalty imposed on any individual or corporate body who indulges in any form of tax malpractices irrespective of states, if the positive impact of tax revenue on economic growth should be maintained and the online-tax system should be constantly reviewed so as to address emerging problems and to evolve with the changing economic landscape and increased complexity of today's business environment.
Keywords: On-line system; Taxation; Economic Growth; Nigeria

1.Introduction

Online taxation in its context has received considerable attention from scholars and researcher in recent times and everyone has given different view on the subject. Tax as indicated by Onodugo and Anowor (2013), Eiya (2012) is a levy compulsorily imposed on the income, profit and capital gain of individuals, organisations or other legitimate elements by the government to raise revenue. Tax is a compulsory transfer of income made from private individual, organization or groups to help in the sooth running of the administration in government (Anyanwu, 1997). Tax is a major administration pivot of any society (Azubike, 2009). With the tax system its serve as an avenue for government to gather income required in releasing its social commitments.

According to the World Bank and Price Waterhouse Coopers (2013), the most common feature of tax reforms globally was the introduction of enhanced electronic filing system. Such changes were first implemented in 18 countries including Costa Rica, Cyprus, Mozambique, Spain, Vietnam, Serbia and Zambia among others. The idea of online taxation is to enable business and individual in various countries file returns electronically, spending less time on compliance and tedious workload in filing tax. This system was put in place to increase transparency and limit the opportunity for corruption and bribery in the economy. The electronic tax system covers the mechanism of all core processes from tax registration, payment, assessment, monitoring exercise, tax audit, investigation, taxpayers file management

and return filing. It is an electronic tax filing system which requires taxpayer to pay their duties online from their individual or business bank account (FIRS, 2015). Online tax payment can be done directly through bank account and ATM (debit or credit) card. The optimal idea of initiating e-tax into Nigeria economy was to maximize revenue generation and collection of taxes which has been a major concern for numerous nations including Nigeria. In comparison with the old regime of collecting tax and new regime of collection of tax, electronic taxation system has not reached its expected potential higher efficiency in tax administration and it has raised new concerns for tax payers and tax administration.

The intention of introducing e-taxation is to increase income generation in the system, however, there is a paucity of empirical evidence that has shown the degree to which the new technology has achieved this purpose on petroleum profit tax, personal income tax and value added tax.

2.Review of Related Literature

2.1.1 Online tax system

This is a systematic way of using computer systems and networks in processing levies and payment of taxes which involves the application of computer techniques in processing of tax assessment, collection and administration, generally referred to as e-payment and e-filing or it is defined as an online platform whereby the tax payer is able to access tax payment through internet and all the services that is offered by the finance authority such as the registration for a personal identification number, filing of returns and application for compliance certificate e.t.c..(Wasoa,2014). Electronic taxation is an extension of the growing concept of e-governance and e-commerce. It involves the exchange of data through information communication technology systems between the taxpayer and tax authorities.

Online tax system was introduced in the US by the Internal revenue service (IRS) as an electronic filling test program involving five tax preparers. However, electronic taxation was fully entrenched in the US by the introduction of the Internal Revenue Service Restructuring and Reform Act 1998. The IRS adopted measures to ensure that all electronically prepared returns could be filled electronically and by 2012, it had achieved more than 80% electronic tax filing. From the US, e-taxation has spread to other countries and according to the Paying Taxes Report (2018), 92 economies have fully implemented electronic tax filing and payment system as at 2016.

In Nigeria e-tax system was initiated into the system by the Federal Inland Revenue Service (2015), in partnership with Nigeria Inter-Bank Settlement System (NIBSS) in order to maintain a close relationship with the international trades towards automated payments systems, for e-government (Olaoye & Atilola 2018). Online tax system was introduced to upsurge revenue generation in Nigeria, reduce stress and increase the level of convenience in paying taxes to enable tax payers to pay taxes for diverse location and at various time (Olaoye & Atilola 2018; Okunowo 2015). These taxes can be paid on online platform, taxpayer can apply and process online his/her tax clearance certificate without visiting the office of the tax authority (Olaoye & Atilola, 2018; Abdulrazaq, 2015), an example of a system put in place

by the financial authorities in Nigeria is the Electronic Revenue Assurance System (ERS) which is an automated invoicing system unveiled in Nigeria on 22nd Febraury 2018 examples of these tax paid into the account Value Added Tax (VAT), Personal Income Tax (PIT), Petroleum Profit Tax (PPT) And Company Income Tax among other. According to the Presidential Committee on National tax policy (2008), the central objective of the Nigerian tax system is to contribute to the well-being of all Nigerians directly through improved policy formulation and indirectly through appropriate utilization of tax revenue generated for the benefit of the people.

2.1.2 Personal income tax

This is a tax imposed on individuals on taxpayers in respect of the income or profit earned by them (commonly called taxable income). Income tax generally is computed as the product of a tax rate times the taxable income. Taxation rates may vary by type or characteristics of the taxpayer and type of income. Tax rate may increase as taxable income increases (referred to as graduated or progressive tax rate). The tax imposed on companies is usually known as corporate tax and is commonly levied at a flat rate.

The first income tax is generally attributed to Egypt in the early days of the Roman Republic. The tax rate under normal circumstance was 1% and sometimes would climb as high as 3% in situation of war. In the year 10 AD, Emperor Wang Mang of the Xin Dynasty instituted an unprecedented income tax, at the rate of 10% of profits, for professional and skilled labour. The income tax was introduced into Great Britain by Prime Minister William Pitt the younger in his budget of December 1798, to pay for weapons and equipment for the French Revolutionary War. The US federal government imposed the first personal income tax on August 5, 1861 to help pay for its war effort in the American civil war.

In Nigeria the creation of colonialism in Lagos 1862 brought about the English law, therefore the income tax as we have it today was first introduced in Nigeria by the British through Lord Lugard in 1904 (Due 1962) as citied in Abdulrasaq, 1993. Personal income tax is a federal obligation that is remitted to the Federal Inland Revenue Service of the State in which the individual or citizens resides. Personal income tax is guided by the Personal Income Tax Cap p8 LFN 2004 (as amended). There are two types of personal income tax:

(i)Pay-As-You-Earn: In this scheme the personal income tax is deducted from the salaries and wages of the employer and remitted to the relevant tax authority. The due date for remittance is the 10th of every month and the deadline for filling returns for PAYE is January 31st of every year

(ii)Direct Assessment: This scheme applies to self-employed individuals. This individual with or without notice or demand will file a return on income earned in the preceding year and pay the requisite personal income tax to the relevant tax authority. In filling tax return and remittance for self-employed individuals the due date is 31st of March every year.

Income chargeable to tax according to section 3 of PITA 2004:

(i)Gains or profit from any trade, business, professions or vocation.

(ii)Employment income such as salary, wages, fee, allowance or other gain from employment including bonuses, premiums and benefits received as part of pay compensation

(iii)Dividends, interest and discount

(iv)Gains or profit including any premiums arising from a right granted to any other person for the use or occupation of any property

(v)Any pension, charge or annuity

(vi)Any profit, gain or other payment not falling within paragraphs

Percentage of taxable income

Annual taxable income	Rate	Tax payable per annum
First ₦300,000	7%	₦21,000
Next ₦300,000	11%	₦33,000
Next ₦500,000	15%	₦75,000
Next ₦500,000	19%	₦95,000
Next ₦1,600,000	21%	₦336,000
Above ₦3,200,000	24%	Multiply only the excess amount over NGN3.2 million by 24%

2.1.3 Petroleum Profit Tax

This is a tax on the income of companies engaged in upstream petroleum operations instead of corporate income tax, Nigeria considers petroleum profit tax as a national asset to the economy which was introduced into the economy in 1959 under the Petroleum Profit Act as amended. Petroleum profit tax are tax 65.75% for non-Production sharing contract (PSC) operations, including joint venture (JVS) in the first five years during which the company has not fully amortised all pre-production capitalised expenditure.

Petroleum profit Tax Act (PPTA) LFN 2004: Section 8 of this Act levies upon the profits of each accounting period of any company engaged in petroleum operations during that period, a tax to be charged at the prescribed rate.

Taxation of petroleum operation: There are divided into two;

Upstream Activities: These involve all activities carried out in the exploration, development and production of crude oil from its natural state. Companies in this category are referred to as Exploration and Production (E&P) companies. Upstream activities are taxed under the Petroleum Profits Tax (PPTA) which is then chargeable at the rate of 67.5% for the first five years of taxable operation and 85% for non-production sharing contract (PSC) operations after the first five years thereafter (Odusola,2006).

(i)Downstream Activities: These activities involve the conversion of crude oil produced into useable forms at the refineries such as Petroleum Methylated Spirit (PMS) Fuel, kerosene, diesel and the transportation of such refined products to the final user or secondary industries. Examples include transporting, refining, liquefaction of natural gas, distributing and marketing of refined petroleum profit, gas and derivatives. Downstream operations are subject to tax under companies income Tax Act (CITA) LFN 2004.

2.1.4 Value Added Tax

This is a consumption tax placed on a product whenever value is added at each stage of supply chain from production to the point of sale. The amount of VAT that the user pays is on the cost of the product, less any of the costs of materials used in the product that have already being taxed. In Nigeria, VAT is required and gathered at a level pace of 5% from every individual in totally invoiced sum on all merchandise and ventures not excluded from paying VAT under Value Added Tax Act 1993, as

corrected..VAT was founded by Maurice Laure`, he was Joint Director of the France Tax Authority and it was implemented on 10 April 1954. VAT was finally introduced in Nigeria in 1993 by the VAT Act No, 102 of 1993 as a replacement of the sales tax which had been in operation under Federal Government Legislated decrees No.7 of 1986 but administered by the states and Federal capital territory (Ugwa&Embuka, 2012).

In a particular month, if the VAT collected for the government (output VAT) is more than the VAT person to other persons (input VAT), the variance is to be forwarded to the government on monthly basis, from the taxable person (Oraka et al., 2017; Federal Inland Revenue Services Information Circular No 9304). No VAT is payable on export.

2.1.5 **Gross domestic product**

This is the total monetary or market value of all finished goods and services produced within a country's border in a specific period (Fernando & Boyle, 2021) or this is total monetary value of all final good and services produced within an country in a given period irrespective of the nationality of the people who produced them. GDP provides an economic estimate using the size of an economy and growth rate. GDP has four different types and can be calculated using three approaches:

Types of gross domestic product

(i)Nominal GDP or Unadjusted GDP: This is the assessment of economic production in an economy that includes its current prices of goods and services or the market value of all final goods produced within an economy. The nominal GDP is calculated with inflation at current price level of goods and services within an economy which help to reflect the increase or decrease in the rate of prices of goods and services in an economy. It measures the monetary value of goods and services produced in that time frame (Thomas & Amanda, 2020). Nominal GDP doesn't give the actual accurate picture reflecting the strength of an economy over the period span, because the increase may be due to inflated prices rather than output (Grimsley). Nominal GDP is derived by multiplying the current year quantity output by the current market price.

(ii)Real GDP or Adjusted GDP: This GDP is adjusted for inflation; the prices of goods and services are calculated at a constant price level and are using predetermined by the base year or the use of price level of previous year. Real GDP compares from year to year which makes more meaningful because it shows comparison for both the quantity and value of goods and services.

$$\text{Formula} = \text{Real GDP} = \frac{\text{Nominal GDP}}{\text{GDP deflator}}$$

(iii)Potential GDP: This calculates the country's economy under ideal conditions like full employment, low inflation and steady currency. It reflects a world in which every worker is matched with the perfect job, every good idea is implemented, the bad ones are ignored. In this world, resources are allocated optimally with no distortions from the tax code, information frictions or suboptimal government policies.

2.1.6 Inflation rate

This is the rate of increase in price and cost of living in a country over a given period of time or a decline in the purchasing power of a given currency over time (Fernando,

Boyle & Amanda 2021). In measuring the extent to which inflation has affected the economy price a qualitative estimate is made using the increase of an average price level of a basket of selected goods and services in an economy over a period of time. Inflation can be classified into three groups demand-pull inflation, cost-push inflation and built-in inflation.

(i)Demand pull inflation: This is a tenet of Keynesian economics that describes the effects of an imbalance in aggregate supply and demand (Fernando, Boyle & Amanda 2021) or a period of inflation which arises from rapid growth in aggregate demand (Pettinger 2021). This means the economy is experiencing growth at a rate faster than the long run trend, falling in unemployment rate and excess demand with few goods. Examples of demand pull inflation increase in housing pricing, decrease in income tax rate and rise in consumer confidence e.t.c.

(ii)Cost-push inflation: This is inflation occurs when the supply of goods and services changes but the demand stay the same or it occurs when the cost of production increases like labour, raw material e.t.c. This inflation is caused by monopoly, wage inflation, natural disasters, government regulation and exchange rate (Amadeo& Estevez 2021).

(iii)Built-in inflation: Expectation of future inflation results in Built-in inflation. Increase in price results in higher wages to afford the increased cost of living. Therefore, high wages result in increased cost of production, which in turn has an impact on product pricing. This circle hence continues.

2.1.7 **Gross National Income** (GNI)

This is the total amount of money earned by a country's citizens in a given financial year irrespective of their location omitting the earning from all foreigners living the country. It also measures and track a nation's wealth from year to year in an economy (Marguerita Cheng, 2021) and includes all the income earned by a country's residents, business and earning from foreign sources.Gross national income (GNI) is been calculated by adding or subtracting the Net foreigner factor income from gross domestic product.

2.1.8 Gross National income per capita

This is the total value of all goods and services produced by a country in a year income from foreign investments, divided by the number of the people living there (Cambridge dictionary). It also means measurement of income to the number of people in the country. It is used as means of comparison between countries with different population sizes and the standard of living of their citizens. It is used as a context to grasp the full picture of the income and purchasing power that the country's citizens have.

2.2. Theoretical Framework

The theories of taxation are cost of service theory, benefit theory and ability to pay service, this study will be based on the ability to pay theory.

2.2.1 Cost of service theory

This theory states that government should tax citizen accord to the cost of service rendered by it Adegbemi, Ibukun and Oyeyimi (2017). Its states that the cost incurred by the government in providing public goods to satisfy social wants should be regarded as a basis in taxation Chad (2021). Government renders certain services to the citizen and cost of such services should be met by the citizen through tax examples of service rendered by government free education, building of

roads or highway, enforcement of laws, military e.t.c. This states that the tax an individual should bear must be equal to the cost benefit received.

Criticisms of Cost of Service Theory

This theory has been subjected to various criticisms by many economists;

(i)It is not so easy to estimate the cost of government service or social goods made available to each individual tax payer. The question of distribution of total cost among citizens is not easy to solve.

(ii)If we presume that the total cost of services can be determined, the next difficulty is how to divide the cost of services among individuals.

(iii)If the theory is followed in the modern welfare state, the poor will have to pay more taxes because they enjoy more benefit. Hence, it is opposite to the principle of justice.

(iv)The cost of service rendered depends very much on the efficiency of the administrator. If the administrator is efficient, the cost would be lower and if the administrator is inefficient, the cost of the benefit would be higher.

2.2.2**Benefit theory**

This approach was initially developed by Knut Wicksell (1896) and Erik Lindahl (1919) two economist of the Stockholm school. Wicksell's near-unanimity formulation of the principle was premised on a just income distribution. This theory was then extended in the works of Paul Samuelson, Richard Musgrave and others. This theory has been applied to subjects like tax progressivity, corporate taxes and taxes on property or wealth. According to Cooper (1994) This theory states that taxes are to be imposed on individuals according to the benefit conferred on them thus it means the more benefits an individual derives from the state, the more he should pay to the government that is a "quid pro quo" (meaning something for something or what for what).

Criticism of Benefit Theory

(i)The free-rider problem (this is a type of market failure that occurs when those who benefit from resources, public goods, or services of a communal nature do not pay for them or underpay) is the primary criticism given for limiting the scope of the benefit principle. When information about marginal benefits is available only from the individuals themselves, they tend to under report their valuation for a particular good which gives rise to the preference revelation problem. This is when individual can lower his tax by under reporting his benefits derived from the public goods or services.

(ii)If taxpayers had to pay taxes but could choose where their taxes went (without the possibility of secret rebates or similar), then they would have no incentive to hide their true preference. The solution to this is to implement tax choice.

2.2.3**Ability to pay theory**

This theory aligns with the concept of the progressive tax system, the idea of progressive income tax that is people with the ability to pay more should pay a higher percentage of their income is centuries old. It was espoused by the father of economics Adam smith in 1776. Adam smith wrote "the subject of every state ought to contribute toward the support of the government, as near as possible, in proportion to their respective abilities; that is in proportion to the revenue which they respectively enjoy under the protection of

the state" Kagan& Berry-Johnson (2020). According to Pigou (1920) This theory state that citizen of a country should pay taxes to the government in accordance with their ability to pay to meet the cost of government expenditure. It also states that individual with higher capacity should pay more taxes and people with less income should pay less thus 'no quid pro quo'. This theory argues that those who earn most have the benefited most from the system and should therefore be obligated to contribute more to keep the system going. Examples in 2020 individuals in the United States with taxable income less than $9,875 faced a 10% income tax rate, while those with taxable income of more than $518,000 faced a rate of 37%, the nation's top individual rate.

Criticisms of Ability to Pay

(i)One of the major argument rise is it discourages economic success as it penalizes those who earn the most.

(ii)It is viewed by critics as a socialist ideal that hampers initiative and innovation in a free market economy.

(iii)The threat of significantly larger taxes disincentives hard work, if making more money means paying more taxes and making more money becomes unappealing.

(iv)Many would prefer a 'flat tax' or 'proportional tax' system where everyone pay the same percentage in taxes.

2.3 Empirical review

Ihenyen and Mieseigha (2014) did a study on Taxation as an instrument of economic growth using corporate income tax, value added tax and Economic growth (GDP) as variable. This study was estimated using Ordinary Least Square from the year 1980-2013.The conclusion to the study showed that taxation is an instrument of economic growth in Nigeria and with proper preventive measure and enhanced regulatory authorities' taxation system can be strengthened to earn more effect. Manukuji (2018) did a study on Effect of Tax structure on Economic Growth in Nigeria using tax components (value added tax, personal income tax, petroleum profit tax and company income tax). This study shows that these components has a significant effect on the economic growth. This study contend that tax administrative loopholes should be plugged for tax revenue to contribute immensely to the development of the economy. Adeniran (2020) The impact of Taxation on Economic and Infrastructural development in Nigeria. The primary aim of this study is to examine how taxation affect the Nigerian Economy and Infrastructure development using statistical data from 2000-2017 with variables (Petroleum profit tax, Company income tax, Value added tax). The finding from this variable shows a positive and significant relationship. Oriakhi and Ahure (2014) assessed the link between revenue generation and particular tax income collection sources for example, custom and excise duties, value added tax (VAT), oil benefit charge petroleum profit tax (PPT), organization income tax utilizing progressed econometric examination, for examples regression, co-integration, error correction modelling and pairwise granger causality tests. Secondary data were gathered from 1981-2011. The study accomplishes that the numerous revenue taxes were statistically important and have optimistic association with revenue generated. The Granger causalitydisplays that custom and excised duties and value added tax causes revenue generation. Oriakhi and Ahuru (2014) studied the impact of Tax Reform on Federal Revenue Generation in Nigeria. The primary objective of this study is to ascertain the impact of tax Reforms on tax revenue generation in Nigeria the variable (value added tax and custom duties). This study proposed that Value added tax and custom

duties maximize its revenue for government. However, to maximize revenue from these taxes their administration should be improved upon with effort directed towards reducing tax avoidance and evasion. Amabali (2009) examined the antecedents of paperless income tax filling by young professional in India using regression analysis. The study concluded that the antecedent of young Indians professional depended on the perceived ease of the tax system, personal innovativeness in information technology, relative advantage, performance of filling service and compatibility Olaoye;Atilola (2018) studied the effect of online tax payment on revenue generation in Nigeria from 2012-2018 with variable (value added tax, company income tax, capital gain tax). The analysis was carried using Trend analysis, descriptive statistics of mean and standard derivation, paired sampled t-test. The finding showed that there were insignificant positive differences between pre and post, using t-statistics and p-value in value added tax it showed 0.520 and 0.612, company income tax showed 0.833 and 0.421 while in capital gain tax 1.218 and 0.247 respectively in each variables. The conclusion is online tax payment has not contributed to capital gain tax, value added tax, company income tax in generating revenue in Nigeria. Etim, Mfon and Patrick (2020) did a study on Tax compliance and digitalization of Nigerian Economy the Empirical Review. This study examines the effect of digitalized economy on tax compliance in Nigeria using descriptive statistics, linear regression and simple percentage for analysing data. The data was sourced from the Federal Inland Revenue Service staff member in AkwaIbom state with an entire population of forty (40). The result shows that tax compliance is negatively influenced when economy is digitalised. This study recommend the government of Nigeria should consider developing tax policy that would aid taxing e-transactions, tax education and including taxation of e-taxations in the tax laws. This would likely improve tax compliance and thus boost digital transactions contributions to government revenue. Pipping and Tosun (2014) examined electronic tax filing in the United States of America. This study analyses and summarizes the socio-economical, demographics and geographical factors affecting electronic tax filing in the United States for the years 1999, 2004-2007 and the growth in the e-filling between 1999-2007. IRS Statistics of Income (SOI), Bureau of Economic Analysis (BEA), Bureau of Labour Statistics and Census Bureau were used as a source of secondary data for demographical and geographical information. The analysis carried using regressive analysis showed the e-filling are noticeably low in rural communities with low population and low share of female's impact. Surprisingly, education has a negatively correlation with the negatively of e-filing rate and growth in e-filing. Mongwaketse (2015) studied perceived effect of an electronic filing system on Tax compliance in a district municipality, South Africa. The study was done to bring awareness of uninformed and inexperience taxpayers to migrate to e-filing through tax payer education workshops and media campaigns. Ogbonna (2016) did a study on the effect of tax administration and revenue on Economic growth in Nigeria. This study used two methods of collecting data primary and secondary methods while using regression analysis in analysing its data. The primary data used a structured questionnaire of three sections of sixty-five items with an average reliability of 0.78 while secondary sources used scholarly books and journals. This study ran comparability test on dependent and independent variable of Personal income tax revenue, Per capita income, Company income tax revenue, Gross Domestic

product of Nigeria, Value added tax revenue, Petroleum profit tax revenue and tax administration in Nigeria, it showed a significant relationship to the Gross domestic and tax administration. This study concluded that tax administration and revenue does affect the Nigeria economic growth. It further recommended that more tax reforms should be made in tax administration to ensure closure in loopholes in tax collection and remittances from authorities which if not adhere to will further reduce the economy growth.

Model specification

The models specified in the study according to the specific objectives are thus:

Model 1:

$GDP = \beta o + \beta_2 PPT + \mu$

Model 2:

$INF = \beta o + \beta_2 PIT + \mu$

Model 3:

$GNIPC = \beta o + \beta_2 VAT + \mu$

Where:

GDP = Gross Domestic Product

PPT = Petroleum Profit Tax

INF = Inflation Rates

PIT = Personal Income Tax

GNIPC = Gross National Income Per Capita

VAT = Value Added Tax

β's = The Structural Parameters to be Estimated

μ = Stochastic Error Term

Data analysis and results

4.1 Empirical Results

Time series data are often assumed to be non-stationary and thus, it is necessary to perform unit root test to ensure that the data are stationary. The test was employed to avoid the problem of spurious regression. Therefore, the Augmented Dickey-Fuller (ADF) unit root test was used to determine the stationarity of the data to complement each other. The decision rule based on the ADF test is that its statistic must be greater than Mackinnon Critical Value at 5% level of significance and in absolute term. The results of the unit-root test are reported in table 4.1 below.

4.1.1.Unit-Root Test Result

Table 1:*Unit Root Test Result*

VARIABLE	ADF STAT.	CRITICAL VAL.	ORDER
PPT	-5.133122	-2.986225	I(1)
GDP	-5.197535	-3.622033	I(1)
PIT	-6.138727	-3.603202	I(1)
INF	-3.691948	-3.622033	I(0)
VAT	-3.808271	-3.658446	I(1)
GNIPC	-4.956686	-2.986225	I(1)

Source:*Author's Computation Using E-views 10.*

Table 4.1 clearly shows that all the variables are stationary at first difference (I(1)) aside inflation (INF) which is stationary at level form.

4.1.2 Descriptive Statistics

Table 2

	PPT	GDP	PIT	INF	VAT	GNIPC
Mean	3663.207	49747.67	365.5185	15.82444	218.7333	293316.5
Median	3830.100	34318.67	305.7100	11.90000	144.3700	299558.6
Maximum	8879.000	152324.1	801.2900	76.80000	699.3700	385349.0
Minimum	160.2000	1751.280	10.93000	0.200000	5.030000	202704.0
Std. Dev.	2573.674	47592.24	319.2038	14.99050	204.0216	68424.92
Skewness	0.204435	0.759137	0.199703	3.092215	0.668922	-0.145624
Kurtosis	1.984878	2.314070	1.296774	12.29927	2.317559	1.420613

Jarque-Bera	1.347354	3.122611	3.443065	140.3140	2.537494	2.901699
Probability	0.509830	0.209862	0.178792	0.000000	0.281184	0.234371
Sum	98906.60	13431873.	98690.00	427.2600	59058.00	79195547.
Sum Sq. Dev.	1.72E+08	5.89E+10	26491682.	5842.594	10822245.	1.22E+11
Observations	27	27	27	27	27	27

Source: Analysis Using E-views 10**.**

It can be clearly seen from table 2 that the mean of petroleum profit tax (PPT), gross domestic product (GDP), personal income tax (PIT), inflation (INF), value added tax (VAT) and gross national income per capita (GNIPC) yielded 3663.207, 49747.67, 365.5185, 15.82444, 218.7333, and 293316.5 respectively. The standard deviation of PPT yielded 2573.674, GDP deviated by 47592.24, PIT yielded a standard deviation of 319.2038. Inflation on the other hand yielded a standard deviation of 14.99050, VAT yielded 204.0216 and GNIPC yielded a standard deviation 68424.94. The skewness for PPT, GDP, PIT, IF, VAT and GDP yielded 0.204435, 0.759137, 0.199703, 3.092215, 0.668922 and -0.145624 respectively. This clearly shows that GDP yielded a negative skewness. All the variables have positive Kurtosis as revealed in the table. PPT yielded a positive Kurtosis at the magnitude of 1.984878, GDP yielded 2.314070, PIT yielded 1.296774, INF yielded 12.29927, VAT yielded 2.317559 and GNIPC yielded 1.420613.

4.1.3 Regression Analysis (Model 1)

Table 3

Dependent Variable: LOG(GDP)
Method: Least Squares
Date: 03/31/22 Time: 08:18
Sample: 1994 2020
Included observations: 27

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.577547	0.277272	30.93552	0.0000
PPT	0.000427	6.23E-05	6.850383	0.0000
		Mean dependent var		10.14133
R-squared	0.652429			
Adjusted R-squared	0.638526	S.D. dependent var		1.360196
S.E. of regression	0.817787	Akaike info criterion		2.506757
Sum squared resid	16.71938	Schwarz criterion		2.602745
Log likelihood	-31.84121	Hannan-Quinn criter.		2.535299
F-statistic	46.92775	Durbin-Watson stat		2.574438
Prob(F-statistic)	0.000000			

Source:*Researcher's Computation Using E-views 10.*

4.1.4 Coefficient Interpretation

The first objective of the study is to investigate the effect of petroleum profit tax (PPT) revenue on gross domestic product (GDP). From the regression carried out to this respect and reported in table 3, it can be clearly seen that the coefficient of petroleum profit tax (PPT) revenue yielded a positive coefficient at the magnitude of 0.000427. This entails that a 1% increase in petroleum tax revenue contributes to GDP positively at 0.000427%. This shows that petroleum profit tax contributes positively to economic growth in Nigeria.

4.1.5 Coefficient of Determination

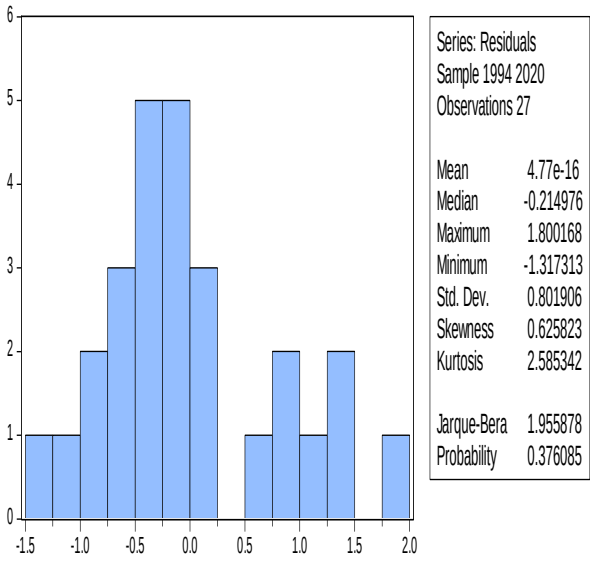
The coefficient of determination (R-Squared) = R^2 yielded 0.652429. This entails that much of the variations in GDP is largely explained by the changes in PPT. It practically shows that approximately 65% of the changes in GDP is explained by the control power of PPT. Other variables that affect GDP is approximately 35%.

4.2 Autocorrelation Test (Durbin-Watson Statistic)

The Durbin Watson yielded 2.574438 and this entails that there is no presence of autocorrelation problem in the model. Hence, the coefficients derived from the analysis are reliable for policy prescriptions.

4.3. Normality Test

Table 4



From the analysis from table 4 above, it can be seen that Jarque-Berra yielded 1.955878 with a probability value of 0.376085. Since the probability value is greater than 0.05, we accept the null hypothesis which states that the residuals are normally distributed. Hence, that residuals of the model are normally distributed.

4.4 Model 2: Regression Analysis

Table 5

Dependent Variable: INF
Method: Least Squares
Date: 03/31/22 Time: 09:01
Sample: 1994 2020
Included observations: 27

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.84585	4.323500	4.821523	0.0001
PIT	-0.013738	0.008982	-1.529550	0.1387

R-squared	0.085573	Mean dependent var	15.82444
Adjusted R-squared	0.048996	S.D. dependent var	14.99050
S.E. of regression	14.61865	Akaike info criterion	8.273661
Sum squared resid	5342.627	Schwarz criterion	8.369649
Log likelihood	-109.6944	Hannan-Quinn criter.	8.302203
F-statistic	2.339522	Durbin-Watson stat	2.561573
Prob(F-statistic)	0.138684		

Source:*Researcher's Computation Using E-views 10.*

4.4.1 Coefficient Interpretation

The second objective of the study is to determine the impact of personal income tax (PIT) revenue on Nigerian inflation rate. (INF). The regression output reported in table 5 shows that personal income tax yielded a negative numerical coefficient at the magnitude of -0.013738. This reveals that there is a negative relationship between persona income tax and inflation rates in Nigeria for the period under analysis. It practically entails that an increase in personal income tax leads a reduction in inflation rates and vice-versa. Hence, a 1% increase in PIT will lead to a reduction in INF by 0.013738%.

4.4.2 Coefficient of Determination

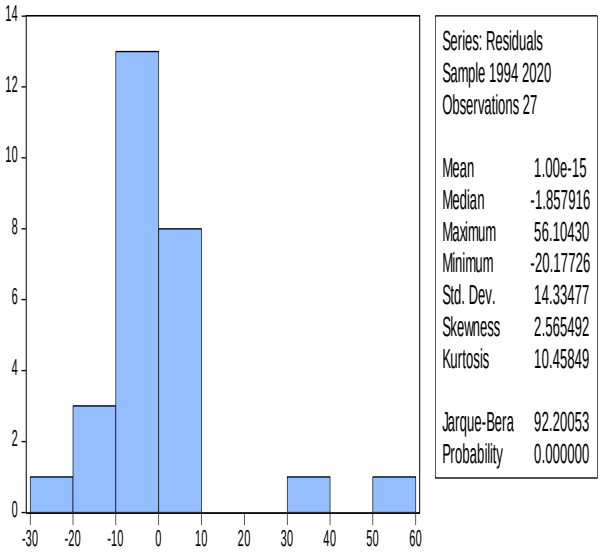
The coefficient of determination (R-Squared) = R^2 yielded 0.085573. This entails that much of the variations in INF is not explained by the changes in PIT. It practically shows that just 8.5% of the changes in INF is explained by other macroeconomic variables outside the model.

4.4.3 Autocorrelation Test (Durbin-Watson Statistic)

The Durbin Watson yielded 2.561573 and this entails that there is no presence of autocorrelation problem in the model. Hence, the coefficients derived from the analysis are reliable for policy prescriptions.

4.5 Normality Test

Table 6



From the analysis from table 6 above, it can be seen that Jarque-Berra yielded 92.20053 with a probability value of 0.00000. Since the probability value is less than 0.05, we reject the null hypothesis which states that the residuals are normally distributed. Hence, that residuals of the model are not normally distributed.

4.6 Model 3: Regression Analysis

Table 7

Dependent Variable: LOG(GNIPC)
Method: Least Squares
Date: 03/31/22 Time: 09:13
Sample: 1994 2020
Included observations: 27

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.33475	0.035656	345.9447	0.0000
VAT	0.001035	0.000120	8.607222	0.0000

R-squared	0.747690	Mean dependent var	12.56114
Adjusted R-squared	0.737597	S.D. dependent var	0.244204
S.E. of regression	0.125094	Akaike info criterion	-1.248311
Sum squared resid	0.391214	Schwarz criterion	-1.152323
Log likelihood	18.85220	Hannan-Quinn criter.	-1.219769
F-statistic	74.08427	Durbin-Watson stat	2.187634
Prob(F-statistic)	0.000000		

Source:*Researcher's Computation Using E-views 10.*

4.6.1 Coefficient Interpretation

The third objective of the study is to examine the effect of value added tax (VAT) on gross national income per capita (GNIPC). From the regression carried out to this respect and reported in table 7, it can be clearly seen that the coefficient of value added tax (VAT) revenue yielded a positive coefficient at the magnitude of 0.0001035. This entails that a 1% increase in value added tax revenue contributes to gross national income per capita positively at 0.001035%. This shows that value added tax contributes positively to GNIPC in Nigeria for the years under analysis.

4.6.2 Coefficient of Determination

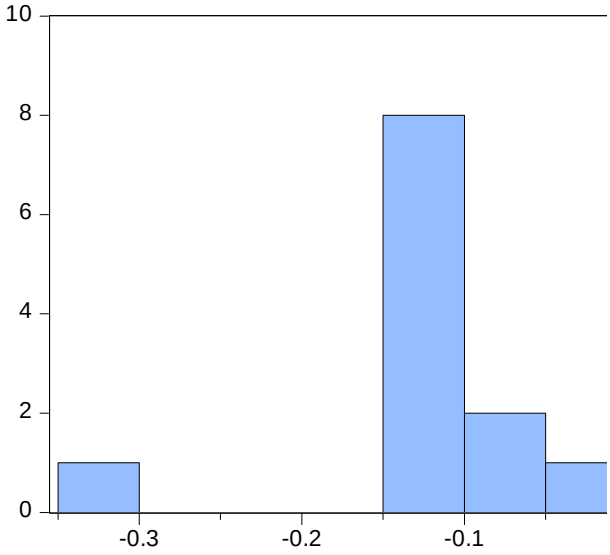
The coefficient of determination (R-Squared) = R^2 yielded 0.747690. This entails that much of the variations in GNIPC is largely explained by the changes in VAT. It practically shows that approximately 74% of the changes in GNIPC is explained by the control power of VAT. Other variables that affect GDP is approximately 26%.

4.6.3 Autocorrelation Test (Durbin-Watson Statistic)

The Durbin Watson yielded 2.187634 and this entails that there is no presence of autocorrelation problem in the model. Hence, the coefficients derived from the analysis are reliable for policy prescriptions.

4.5.4 Normality Test

Table 8



From the analysis from table 8 above, it can be seen that Jarque-Berra yielded 1.864873 with a probability value of 0.393594. Since the probability value is greater than 0.05, we accept the null hypothesis which states that the residuals are normally distributed. Hence, that residuals of the model are normally distributed.

4.7 Hypothesis Testing

Hypothesis One

Ho_1: Petroleum profit tax revenue has no significant effect on Nigeria's gross domestic product

Result: Table 8

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	8.577547	0.277272	30.93552	0.0000
PPT	0.000427	6.23E-05	6.850383	0.0000

s\

Decision Rule

The decision rule is to reject the null hypothesis (**Ho)** if the probability is less than 0.05 and to accept the null hypothesis (**Ho)** if the probability is greater than 0.05.

Decision

From table 8, it is clearly seen that the probability value for petroleum profit tax (PPT) yielded 0.0000 and it is obviously less than 0.05. This compels the rejection of null hypothesis one (Ho_1). Hence;petroleum profit tax revenue hassignificant effect on Nigeria's gross domestic product.

Hypothesis Two

Ho_2: Personal income tax revenue does not affect Nigeria's inflation rate significantly.

Result: Table 9

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.84585	4.323500	4.821523	0.0001
PIT	-0.013738	0.008982	-1.529550	0.1387

Decision Rule

The decision rule is to reject the null hypothesis (**Ho)** if the probability is less than 0.05 and to accept the null hypothesis (**Ho)** if the probability is greater than 0.05.

Decision

From table 9, it is clearly seen that the probability value for personal income tax (PIT) yielded 0.1387 and it is obviously greater than 0.05. This compels the acceptanceof null hypothesis two (Ho_2). Hence;personal income tax revenue does not affect Nigeria's inflation rate significantly.

Hypothesis Three

Ho_3: Value added tax revenue has no significant effect on Nigeria's gross national income per capita.

Result: Table 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	12.33475	0.035656	345.9343	0.0000
VAT	0.001035	0.000120	8.607222	0.0000

Decision Rule

The decision rule is to reject the null hypothesis (**Ho)** if the probability is less than 0.05 and to accept the null hypothesis (**Ho)** if the probability is greater than 0.05.

Decision

From table 10, it is clearly seen that the probability value for value added tax (VAT) yielded 0.0000 and it is obviously less than 0.05. This compels the rejection of the null hypothesis three (Ho_3). Hence;value added tax revenue has significant effect on Nigeria's gross national income per capita.

5.Summary of Findings, Conclusion and Recommendation

5.1 Summary of finding

The primary course of this research study has been to carry out an empirical analysis on the effect of online taxation system on the Nigerian Economy using a time frame from 1990-2020. The essence of carrying out this research is to subject the effect of online taxation on the Nigerian economy to an empirical observation so as to proffer justified recommendation.

In the course of this research study, the historical context of taxation in Nigeria was exclusively explored and the statement and objectives of the research were duly explicated.

The methodology adopted in this study was linear regression with an application of Ordinary least square and the Pearson correlation analysis. This study also adopted E-views and SPSS Software and results gotten showed:

I. Petroleum profit tax has contributed positively to the Nigerian Gross domestic product
II. There is a negative relationship between Personal income tax and the Nigerian inflation rate.
III. There is a positive relationship between the Value added tax and Gross National income per capita.

5.2 Conclusion of the study

This study has been able to carry out an empirical analysis on the effect of online taxation on the Nigerian Economy covering the time frame of 1990-2020. The results derived from this research, one can conclude that online taxation has a significant effect and a negative correlation on the Nigerian economy for the years under analysis.

5.3 Recommendation

Based on the results derived so far, the following recommendation are suggested:

I. The Federal inland tax revenue service and other tax bodies should create policies to implement proper payment of tax.
II. The revenue generated from online taxation should be channelled back to the economy to facilitate economic growth and development in the Nigerian economy.
III. For proper digitalization tax system, measurement should be placed and facilitates should be implemented to help illiterate in paying of tax.

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