

Impact of Tax Administration on Economic Growth: Evidence from Nigeria

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Abstract:-The study examined the topic titled, efficient and fair tax system for integration in the international economy: of what relevance to GDP? For a tax system that can compete favorably with other nations, then it must impact positively on the growth of GDP of that nation as it demonstrates its competitiveness. The impact of key components of taxation such as Personal Income Tax (PIT), Company Income Tax (CIT), Petroleum Profit Tax (PPT) and Value Added Tax (VAT) were measured on Gross Domestic Product (GDP). Secondary data for GDP was sourced from CBN Statistical Bulletin 2014 while secondary data for PIT, CIT, PPT and VAT were sourced from Federal Inland Revenue Service (FIRS). The data were analyzed using Ordinary Least Square (OLS) regression. The findings revealed that the variables in the model is significant at 5% critical level and the regression coefficient, that is R-squared represented by 0.955 implies that 95.5% of the total variation in GDP is caused by PIT, CIT, PPT and VAT while the remaining 4.5% may be due to other variables in the stochastic term. It is recommended that the Federal Government should ensure modern technologies both in hardware and software are made available to tax officials in order to make the process of tax computation, assessment, collection and remittance more economical, efficient and effective. Also, there should be transparency and accountability of tax revenues by the Government and tax officials for the benefit of the citizens and Nigeria as a whole. Training and re-training programs for tax officials is also important to keep them abreast of new tax laws and policies since they are the custodians of these laws and policies and lastly tax authorities should ensure that tax payers are well educated and enlightened on their civil responsibility of paying taxes.

Key words: Tax, GDP, Personal Income Tax, Petroleum Profit Tax, Value Added Tax

I. INTRODUCTION

For economies to thrive, cater and provide for the welfare and security of the citizens revenue generation system must be sustainable. Revenue generation from tax is globally acceptable as the most sustainable. No country can grow its economy successfully without sufficient resources to build its infrastructure. The situation in Nigeria up till now has been an over dependence on oil revenue to the detriment of other sectors, taxation inclusive. According to Ariyo (1997), Nigeria's over reliance on oil revenue to the disadvantage of other sources of revenue was encouraged by the oil boom of 1973-1974. About 82% of Nigeria's revenue accrued from oil exports (CBN 2009). It also represents 35% of our GDP. However, Nigeria cannot continue to rely on revenue from oil because they have never been in control of the price at the international market thus making economic planning more

difficult and unrealizable. Nigeria is no doubt currently going through economic hardship because of the fall in the crude oil price. This has drastically reduced the proceeds from oil which over the years has been the mainstay of our economy. According to the CBN bulletin released in the second quarter of 2015, oil proceeds have come down from ₦9.15 trillion in 2011 to ₦1.46 trillion in 2014. This represents a significant decline of 84%. The collapse in the price of crude oil at the international market and also internal agitation for resource control was largely responsible. This has led to a negative impact on the economy as the country is really struggling to meet its financial obligations. The financing of both capital and recurrent expenditure were almost becoming impossible for most states in the country. Many of the states could not pay their staff salaries for months and developmental projects were almost grounded. The intervention of the Federal government in the way of bail-out fund assisted some states. The scenario above explained the urgent need to shift from dependence on oil revenue to other sources that are quiet sustainable, chief among is taxation. While there are no constant source of revenue, and considering our present circumstances and nature of our economy, it is safer to consolidate on taxation as a source of revenue to stimulate the growth and the development of the economy economic because of the control the Government has over it than relying on oil proceeds that little or no control can be exercised over.

Aguolu (2004) opined that taxation is the most relevant source of revenue for the government because of its inherent power to impose tax; the government is assured of the revenue no matter the situation. Somorin (2011) stated that taxation is an essential tool for National growth and development in civilized societies. He went further to say taxation can be very instrumental to wealth creation and employment in Nigeria. According to Sanni(2007), tax can be very useful to stimulate both sectorial and general economic growth. All of these can only be realised if the right mechanisms are put in place to ensure an effective system of tax generation. Income tax revenue over the years have been grossly overstated because of defective tax generation system, Okafor (2009). Anyawu (1996) also mentioned some of the problems facing tax generation in Nigeria to include corrupt practices of tax officials, high incidence of tax evasion, tax avoidance and record falsification. Furthermore, Soyode and Kajola(2006) highlighted inadequate human capital in the area of tax in terms of experience and number, inadequate training of tax officials and lack of understanding on why tax should be paid

by tax payers as some of the challenges facing tax generation in Nigeria.

Having identified that Nigeria is currently facing some economic and financial challenges, and there is an urgent need to savage the situation by exploring other alternatives, taxation in particular. This study therefore seeks to examine how tax generation can contribute to economic development in Nigeria

II. THEORETICAL REVIEW

Some of the theories relevant to this study are discussed in this section.

2.1 Benefit Theory – Erik Lindhal, a Swedish economist developed this theory. According to him, taxes on individuals should be levied on them according to the benefit conferred on them. The more benefit received from the state, the more he should pay to the government’s coffers. He posits that every individual consumes the same quantity of public goods but may pay differently because people's value derived varies from one person to another. The Lindahl equilibrium price is the resulting price paid by an individual for his or her share of the public utilities. He however developed the Lindahl's model and Bowen model.

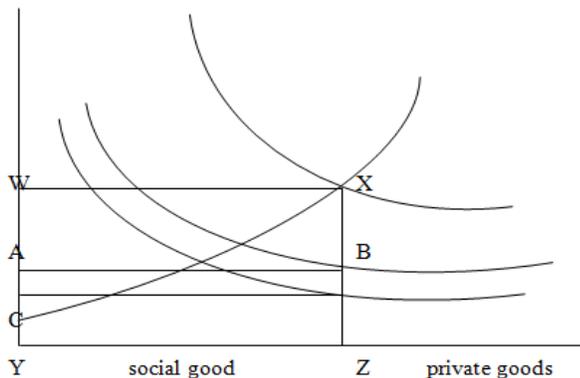
Lindahl's Model - This model considers two tax payers who are free to reveal their preferences for state services against corresponding tax liability. It attempts to address these three problems:

1. the decision regarding the extent of state activity
2. allocation of tax burden among tax payers.
3. allocation of total expenditure to several goods and services.

It assumes the production of social goods are homogeneous and linear

Bowen's Model - This model illustrates a situation where there are two categories of such as private and social goods. These goods are produced under an increasing cost condition. However, since tax payers desire can either be private or social goods, the cost of producing social goods is the opportunity cost of producing private goods.

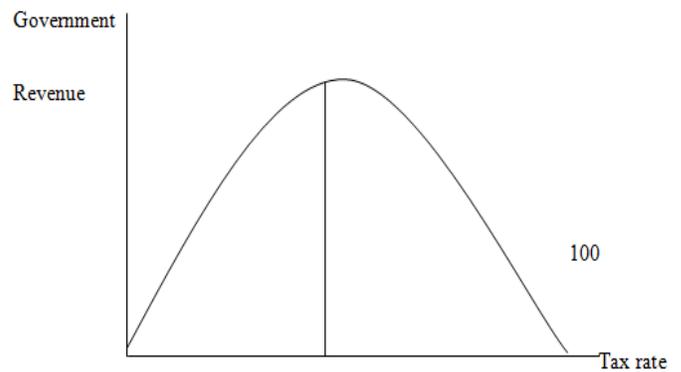
Figure 1: Bowen's Model



From the graph, total tax requirement is denoted by WXYZ out of which one of the tax payers is willing to pay ABYZ and the other willing to pay CDYZ.

2.2 Laffer's Curve - Although Professor Arthur Laffer made this theory a popular one, it was developed by Ibn Khaldun and John Maynard Keynes. Policy makers during the Reagan administration in 1974 found it very useful. After a meeting with Nixon and Ford administration officials, Jude Wanniski reportedly adopted the word 'laffer curve' and sketched it on a napkin to illustrate his argument. The curve represents the relationship between all possible rates of taxation and government revenue raised by taxation. It considers two extreme points of 0% and 100%. He argued that no revenue will be generated at both points, that is, 0% and 100%. This is because there will be no motivation for a rational tax payer to earn income at 100% tax rate, thus revenue raised will be 100% of nothing. He therefore opines that there must exist at least one rate in between where tax rate would be maximized.

Figure 2: Laffer Curve



Laffer Curve (2004)

2.3 Social Contract Theory; - This theory, though a political one, stresses that there is a mutual agreement between the ruled and their rulers, stating the obligations and rights of everyone accordingly. The position of this theory is that the citizen will give their maximum cooperation to the government once the latter can guarantee them satisfactory protection and social services. This implies that the citizens will be willing to pay their taxes accordingly when government promises them of their desired social benefits. This theory was developed by John Locke a 17th century English Philosopher at the transition period from feudalism to capitalism. Feudalism is based on absolutism and soon people began to fight against absolute right of the king. The social contract theory came as a means of justifying the existence and need for good government. So it was principally invented to challenge the absolutism that existed in monarchies. The theory later began to gain prominence in France, England and America.

Having reviewed some of these theories by different authors, the social contract theory shall form the framework of this study. This is because citizens willingness to pay their taxes will increase accordingly only if the government is ready to

provide them with the basic social infrastructures needed in the society. These social infrastructures will at the long run enhance the economic growth and development of the state.

III. LITERATURE REVIEW

3.1 Introduction to Taxation

Taxation simply refers to any levy imposed on residents, non residents living and carrying out business in a tax jurisdiction. Nightingale (1997) describes tax as a compulsory obligation imposed by the government and concludes that even though tax payers may receive nothing specific in return for their contribution; they never the less have the benefit of living in a relatively peaceful environment, right to be educated and to live in a healthy society. Also, Bhartia (2009) argues that a tax is a compulsory levy payable by an economic unit to the government without any corresponding entitlement to receive a definite and direct quid pro quo from the government. The traditional purpose of imposing tax is to generate money to run the affairs of the government. It is seen as a means of financing both the capital and recurrent expenditure.

The Institute of Chartered Accountants of Nigeria (2006) and The Chartered Institute of Taxation of Nigeria (2002) defined tax as an enforced contribution of money to government back by law. This implies that every tax must be based on a valid laws, without this, the tax imposed becomes illegitimate. Chris and Elizabeth (2001) described tax as a combination of three important features

- For public purpose
- A compulsory payment/ levy imposed by the government
- To encourage social justice.

3.2 Objectives of Taxation

According to Nightingale (2002), Lyme and Oats (2010), taxation seeks to achieve the following

- Generating revenue to meet government obligations.
- Income and wealth redistribution to reduce inequality of the people.
- Economy regulation to create enabling environment for businesses to thrive.

Frederick (2010) highlighted other objectives of taxation to include:

- To enable free movement of goods and service, capital and people between member states for the purpose of economic inclusiveness.
- To reduce consumption of harmful goods such as alcohol, cigarettes.
- To generate fund for the provision of services such as defense, health services and education

- Taxation is a tool for economic planning as it encourages savings and investment.
- To redistribute income and wealth so as to breach the gap between the rich and the poor in that rich pay more than the poor.

In addition to these aforementioned objectives, the government may also introduce tax incentives such as tax exemptions to attract foreign investors and assist local investors to grow. This will also improve the Gross Domestic Product (GDP) and induce favorable balance of payment with other countries.

3.3 Good Tax System and Qualities

A renowned economist, Adam Smith (1776) highlighted the qualities of a good tax system. These qualities which are today referred to as Adams Smith Cannon of taxation are the best basis to judge taxes. They are; equality, economy, convenience and flexibility.

3.3.1 Equality: This implies that taxpayers earning the same income should pay equal tax. It is progressive in nature because high income earners pay higher taxes than the low income earners. This principle is in line with Cecil Pigou's ability to pay theory. Equality of taxation attempts to close the gap between the rich and the poor as the revenue generated will be used to provide social services for the benefit of the people in general. It is important to note that equality here does not mean all tax payers paying the same tax but paying according to your income. That is the higher you earn, the higher your pay and vice-versa.

3.3.2 Economy: This is a cost benefit approach that seeks to establish that tax revenue generated must be more than the cost of collecting it. Also, the revenue collected must be judiciously spent and utilized to the best interest of the state as a whole. Okpe (1998), a good tax system is one which is economical to collect.

3.3.3 Convenience: This emphasizes that tax must be levied and collected from taxpayers at a time that is very convenient for the taxpayer. An example is the Pay as you earn (PAYE Scheme) where the tax is being deducted at source and remitted to the appropriate revenue agency at no extra cost. This makes it very convenient for the tax payer.

3.3.4 Flexibility: This is the ability to change the tax system whenever the need arises. Situations and conditions change which warrant a review of the existing tax system. The flexibility nature makes it attainable.

3.4 Classification of Taxes: When classifying tax, consideration must be given to tax base, tax rate structure and identification of legal tax payers. Taxes are broadly classified as direct and indirect tax. Direct tax is a tax in which the tax payer cannot shift his tax liability to other people such as customers. He bears the burden solely, while indirect tax are shiftable from the legal tax payer to other people

Table 1: Tax classification

	Direct Tax		Indirect Tax
1	Personal Income Tax	1	Stamp Duties
2	Capital Gain Tax	2	Road Taxes
3	Corporate Income Tax	3	Value Added Tax
4	Capital Transfer Tax	4	Custom Duties
		5	Excise Duties

3.5 Tax Generation in Nigeria: In order to achieve the objectives of taxation in Nigeria, there must be proper implementation of tax laws and policies that will ensure the process of assessment and collection of taxes from companies and individuals are efficiently conducted with tax evasion and tax avoidance being reduced to the barest minimum. In Nigeria, the body charged with implementation of tax policy is referred to as administrative agency. The organization is set up for the management of the tax system. In the opinion of Bariyiman and Gladson (2009), the generation of tax revenue in Nigeria is enforced by various tax authorities established under the relevant tax laws. Efficiency and effectiveness should be the most paramount when designing a tax administration structure that will deliver the desired result and guarantee fairness (Mcperson 2004). The essence of tax administration is to drive all tax payers to comply with the provisions of tax laws. Tax laws and policies must be implemented to boost the revenue base of the state. Authorities that are responsible for these tasks according to Section 100 of Personal Income Tax Decree 1993, and amended by decree No 18 Finance Miscellaneous Taxation Provision Decree 1998 are the Federal Inland Revenue Service (FIRS) for the collection of federal revenues, the State Board of Internal Revenue (SBIR) for the collection of state revenues, Local Government Revenue Committee and the Joint Tax Board (JTB).

3.5.1 The Federal Board of Inland Revenue: This is an organ established by the Federal Government to administer and carry out all tasks that are necessary and expedient on the assessment and collection of tax and shall be accountable for it. Its operational arm is the federal Inland Revenue service. Oluba (2008) the Federal Inland Revenue Services deals with corporate bodies and Personal Income tax of the Nigeria Police, Armed Forces, Residents of the Federal Capital territory, officials of External affairs just to mention some of them.

Section 8 subsection 1 of the Act establishing this institution stipulates the function of the service to include among others:

- Assess, collect, and enforce payments of taxes as may be due to the Government or any agencies as stated by law;
- Collect and pay to the designated account any tax under any provision of this Act or any other enactment or law;
- In collaboration with the relevant ministries, departments and agencies, review the tax regimes and

promote the application of tax revenues to stimulate economic activities and development;

- In collaboration with the relevant law enforcement agencies, carry out the examination and investigation with a view to enforcing compliance with the provisions of this Act;
- Make, from time to time, a determination of the extent of financial loss and such other losses by government arising from tax fraud or evasion and such other losses (or revenue forgone) arising from tax waivers and other related matters;
- Adopt measures to identify, trace, freeze, confiscate or seize proceeds derived from tax fraud or evasion;
- Adopt measures which include compliance and regulatory actions, introductions and maintenance of investigative and control techniques on the detection and prevention of non-compliance;
- Collaborate and facilitate rapid exchange of information with relevant national or international agencies or bodies on tax matters;
- Undertake exchange of personnel or other experts with complimentary agencies for the purposes of comparative experience and capacity building;
- Establish and maintain a system for monitoring international dynamics of taxation in order to identify suspicious transactions and the perpetrators and other persons involved;
- Provide and maintain access to up to date and adequate data and information on all taxable persons, individuals, corporate bodies or all agencies of government involved in the collection of revenue for the purpose of efficient, effective and correct tax administration and to prevent tax evasion or fraud (FIRS Act, 1997)

Taxes collected by this Federal Agency are;

3.5.1.1 Personal Income Tax: The Personal Income Tax (PITA) 1993 was promulgated to provide for taxation of every individual, corporate body that are deemed to be resident for that year in the relevant state. Taxes approved for collection by the Federal Inland Revenue Service are income taxes from members of the Nigerian Armed Forces, Nigerian Police Force, Residents of the Federal Capital Territory, Abuja, staff of Federal Ministry of Foreign Affairs and non-resident individuals.

On 13th April 2010, the Personal Income Tax Amendment bill was represented by the Presidency to the National Assembly as a joint executive bill from the office of the Attorney General of the Federation (AGF), Ministry of Justice and Federal Ministry of Finance. The bill was passed into law in May 2011 and assented to by the President on 14th June 2011. Sani (2012), the personal income tax which is paid by private entrepreneurs and people in paid employment in the country constitute a major source of revenue to most state government.

3.5.1.2 *Company Income Tax:* Company Income Tax history is comparatively brief and straight forward. It has always been imposed and collected by the Federal Government since its introduction in 1939. In its development, changes to company income tax have been statutory rather than constitutional.

The first tax on companies was imposed under the Company Income Tax Ordinance 1939. The current system of Company taxation in Nigeria has its foundation from the recommendation of Reisman Fiscal commission which ceded the jurisdiction and administration of Companies Income Tax to the Federal Government exclusively.

As a result, section 70(1) of the 1960 Constitution conferred upon the Federal Government the power to impose taxes on income and profits of companies and in exercise of this power, the Company Income Tax Act, 1961 was enacted.

3.5.1.3 *Petroleum Profit Tax:* As a result of the nature and peculiarity of the Nigerian oil industry, there was need to tax companies involved in Petroleum business under separate law apart from the general Companies Income Tax. Petroleum Profit Tax was enacted in 1959 and has undergone several amendments.

Recently, a bill to repeal Petroleum Profit Tax Act was sent to the National Assembly. The Petroleum Industry Bill (PIB) is meant to sanitize the oil sector by providing the framework and guidelines for effective operations of the upstream and downstream sector. It was first presented to the National Assembly on 2008, later represented in 2012 and it is yet to be passed into law.

3.5.1.4 *Value Added Tax:* Also called the 'goods and services' tax (GST). It is imposed on the value added that result from each exchange. Invented by a French economist Maurice Laure in 1954 and it is an indirect tax collected from someone other than the person who exactly bear the cost of the tax.

In September 1993, VAT came to stay in Nigeria through VAT Decree No 102 of 1993 but became operational on January 1 1994 and the rate has been 5% since its inception. Although in 2005 fiscal year, attempts were made to increase it to 10% but was faced with strong opposition from the organized private sector.

The chart below presents some of the taxes collected by the Federal, State and Local Government.

Table 2: Tax as collected by Federal, State and Local Agencies

	Federal	State	Local
1	Value Added Tax	Road Tax	Tenement Rate
2	Companies Income Tax	Pools Betting and Lotteries	Motor Park Levies
3	PAYE of Armed Forces NPF	Development Levy	Shop and Kiosk Rates
4	Stamp Duties (Companies)	Stamp Duties (Individuals)	Merriment and road closure levy
5	Withholding Tax(Companies)	Withholding Tax (Individuals)	Signboard and advertisement permit fees
6	Education Tax	Sales and	Marriage, Death

		Purchase Tax	and Birth Registration
7	Custom and Excise Duty	Property Tax	Charge for wrongful acts
8	Petroleum Profit Tax	Entertainment Tax	

Source: - JTB Journal

IV. RESEARCH HYPOTHESES

The following hypotheses will be tested for the purpose of this study;

Ho₁ Personal income tax does not significantly contribute to GDP in Nigeria.

Ho₂ Company income tax does not significantly contribute to GDP in Nigeria.

Ho₃ Petroleum profit tax does not significantly contribute to GDP in Nigeria.

Ho₄ Value added tax does not significantly contribute to GDP in Nigeria.

V. METHODOLOGY

Secondary data was sourced from CBN statistical bulletin 2015 showing the total figure for Personal Income Tax (PIT), Company Income Tax (CIT), Petroleum Profit Tax (PPT) and Value Added Tax (VAT) collected by the Federal Government of Nigeria 2000-2014 (15years). Data are presented in table and analyze using Ordinary Least Square (OLS) regression technique to establish the relationship that exists between Gross Domestic Product (GDP) which is dependent variable(Y) and PIT is the independent variable (Xi), CIT is the independent variable (Xii), PPT is the independent variable (Xiii) and finally VAT is the independent variable (Xiv). Okafor (2012) model is adapted as explained thus: $GDP = f(PPT, CIT, CED, VAT)$

The model for this study is the adapted from the above model as follows:

For the purpose of this study, this model was modified to capture all the four independent variables.

The model in its linear form is

$GDP = f\{TAG\}$... where TAG represents tax generation and also the independent variables.

$GDP = f\{PIT, CIT, PPT, VAT\}$

The econometric form of this function is stated below:

$$GDP_t = \beta_0 + \beta_1 PIT_t + \beta_2 CIT_t + \beta_3 PPT_t + \beta_4 VAT_t + \mu_t$$

where, PIT is personal income tax,

CIT is company income tax

VAT is value added tax

PPT is petroleum profit tax

β_0 is the autonomous tax and

β_1 to β_6 is the marginal rate of tax revenue

μ is the error term.

6.1 Data Presentation

Table 3: Data Presentation

Year	PIT	CIT	PPT	VAT	GDP
2000	38,061.80	43,713.91	334,461.14	58,469.60	6,713.57
2001	44,405.20	57,868.73	407,116.43	91,757.90	6,895.20
2002	68,134.50	68,174.49	223,433.07	108,601.10	7,795.76
2003	54,164.40	81,960.38	437,968.11	136,411.20	9,913.52
2004	4,400.00	92,923.47	878,625.82	163,297.64	11,411.07
2005	4,400.00	113,051.19	1,352,186.33	192,656.50	14,610.88
2006	5,900.00	166,478.78	1,352,513.80	232,697.20	18,564.59
2007	10,300.00	228,723.80	1,132,043.95	314,545.46	20,657.32
2008	27,000.00	321,800.95	2,060,883.88	401,736.69	24,296.33
2009	28,700.00	430,538.88	939,412.24	481,408.35	24,794.24
2010	32,900.00	523,907.93	1,480,363.90	565,602.41	54,612.26
2011	43,900.00	523,907.93	3,070,600.00	659,200.00	62,980.40
2012	46,737.07	632,509.91	3,297,351.76	653,019.39	71,713.94
2013	48,459.60	998,436.10	2,666,366.90	802,683.50	80,092.56
2014	52,845.60	1,204,833.80	2,453,947.40	802,964.70	89,043.62

Sources; CBN Statistical Bulletin Federal Inland Revenue Service National Bureau of Statistics

6.2 Test of Hypotheses

*Hypothesis 1:*Ho₁: Tax generation does not significantly contribute to GDP in Nigeria.

Table 4

Dependent Variable: GDP
 Method: Least Squares
 Sample: 1 15
 Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5581.605	5379.166	-1.037634	0.3239
CIT	0.033091	0.019332	1.711698	0.0117
PIT	0.098407	0.106728	0.922029	0.0378
PPT	0.000554	0.000637	0.870125	0.0404
VAT	0.059409	0.026643	2.229812	0.0499
R-squared	0.954675	Mean dependent var		33606.35
Adjusted R-squared	0.936545	S.D. dependent var		29358.00
S.E. of regression	7395.378	Akaike info criterion		20.91630
Sum squared resid	5.47E+08	Schwarz criterion		21.15232
Log likelihood	-151.8722	Hannan-Quinn criter.		20.91379
F-statistic	52.65696	Durbin-Watson stat		2.097784
Prob(F-statistic)	0.000001			

Source: Author's Computation 2016

The original model used for this study is given as:

$$GDP = \beta_0 + \beta_1PIT + \beta_2CIT + \beta_3PPT + \beta_4VAT + \mu$$

The model obtained is given as:

$$GDP = -5581.605 + 0.098PIT + 0.033CIT + 0.00055PPT + 0.059VAT$$

$$tcal = (-1.038) (0.922) (1.712) (0.870) (2.23)$$

$$p\text{-value} = (0.3239) (0.0378) (0.0117) (0.0404) (0.0499)$$

Table 4 above shows combination effect of the independent variables, that is (company income tax, personal income tax, petroleum profit tax and value added tax) as represented by tax generation on the dependent variable which is proxied by the gross domestic product.

The regression coefficient result (R Squared) reveals that 95.5% (represented by 0.954675) of the total variation in GDP is accounted for by personal income tax, company income tax, petroleum profit tax and value added tax with other variables in stochastic term accounting for the remaining 4.5%. The adjusted R-squared which is 0.9365 implies that even if other variables accounted for in the stochastic parameters were included in the model, PIT, CIT, PPT and VAT would still account for 93.7% of variation in GDP.

From the table above, the F statistic value of 52.659 indicates that the overall test is statistically significant at 5% level of significance, that is, the combination effect of PIT, CIT, PPT

and VAT have a significant effect on GDP and by implication, the null hypothesis is hereby rejected which stated that tax generation does not significantly contribute to GDP in Nigeria. In the contrary, tax generation has a significant effect on GDP.

Coefficients

The coefficient of Company Income Tax obtained as 0.033091 and its corresponding p-value of 0.0117 indicates that company income tax is statistically significant at 5% level of significance and correctly signed.

The coefficient of Personal Tax obtained as 0.0984 and its corresponding p-value of 0.0378 indicates that personal income tax is statistically significant at 5% level of significance and correctly signed.

The coefficient of Petroleum Profit Tax obtained as 0.00055 and its corresponding p-value of 0.0404 indicates that petroleum profit tax is statistically significant at 5% level of significance and correctly signed.

The coefficient of Value Added Tax obtained as 0.059409 and its corresponding p-value of 0.0499 indicates that company income tax is statistically significant at 5% level of significance and correctly signed.

The Durbin Watson test reveals that there is no presence of positive serial auto-correlation among residuals because the d-value (2.09) moves toward 2.

Hypothesis 2

Ho₂: Company income tax does not significantly contribute to GDP in Nigeria.

Table 5

Dependent Variable: GDP Method: Least Squares Sample: 1 15 Included observations: 15				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5581.605	5379.166	-1.037634	0.3239
CIT	0.033091	0.019332	1.711698	0.0117
R-squared	0.954675	Mean dependent var		33606.35
Adjusted R-squared	0.936545	S.D. dependent var		29358.00
S.E. of regression	7395.378	Akaike info criterion		20.91630
Sum squared resid	5.47E+08	Schwarz criterion		21.15232
Log likelihood	-151.8722	Hannan-Quinn criter.		20.91379
F-statistic	52.65696	Durbin-Watson stat		2.097784
Prob(F-statistic)	0.000001			

Source: Author's Computation 2016

The model used for the above test is:

$$GDP = \beta_0 + \beta_2 + CIT + \mu$$

The model obtained is:

$$GDP = -5581.605 + 0.0330CIT + \mu$$

$$t \text{ cal} = (-1.038) (1.7116)$$

$$p\text{-value} = (0.3239) (0.0117)$$

The coefficient of CIT obtained as (0.033091) and its corresponding p-value of 0.0117 indicates that CIT is statistically significant at 5% level of significant and correctly signed. Based on this, the null hypothesis which stated that company income tax does not significantly contribute to GDP is rejected.

Hypothesis 3

Ho₃: Petroleum profit tax does not significantly contribute to GDP in Nigeria.

Table 6

Dependent Variable: GDP
 Method: Least Squares
 Sample: 1 15
 Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5581.605	5379.166	-1.037634	0.3239
PPT	0.000554	0.000637	0.870125	0.0404

R-squared	0.954675	Mean dependent var	33606.35
Adjusted R-squared	0.936545	S.D. dependent var	29358.00
S.E. of regression	7395.378	Akaike info criterion	20.91630
Sum squared resid	5.47E+08	Schwarz criterion	21.15232
Log likelihood	-151.8722	Hannan-Quinn criter.	20.91379
F-statistic	52.65696	Durbin-Watson stat	2.097784
Prob(F-statistic)	0.000001		

Source: Author's Computation 2016

The model used for the test above is :

$$GDP = \beta_0 + \beta_3 PPT + \mu$$

The model obtained is:

$$GDP = -5581.605 + 0.00055PPT + \mu$$

$$t \text{ cal} = (-1.037634) (0.870125)$$

$$p\text{-value} = (0.3239) (0.0404)$$

From the table above, coefficient of PPT obtained as (0.000554) and corresponding p-value of 0.0404 indicates that PPT is statistically significant at 5% level of significant and correctly signed. This implies that PPT has significant contribution to GDP in Nigeria and this makes the null hypothesis be rejected.

Hypothesis 4

Ho₄: Value added tax does not significantly contribute to GDP in Nigeria.

Table 7

Dependent Variable: GDP
Method: Least Squares

Sample: 1 15
Included observations: 15

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5581.605	5379.166	-1.037634	0.3239
VAT	0.059409	0.026643	2.229812	0.0499
R-squared	0.954675	Mean dependent var		33606.35
Adjusted R-squared	0.936545	S.D. dependent var		29358.00
S.E. of regression	7395.378	Akaike info criterion		20.91630
Sum squared resid	5.47E+08	Schwarz criterion		21.15232
Log likelihood	-151.8722	Hannan-Quinn criter.		20.91379
F-statistic	52.65696	Durbin-Watson stat		2.097784
Prob(F-statistic)	0.000001			

Source: Author's Computation 2016

The model used for testing the above hypothesis is:

$$GDP = \beta_0 + \beta_4 VAT + \mu$$

The obtained model is:

$$GDP = -5581.605 + 0.059VAT + \mu$$

$$t \text{ cal} = (-1.038) (2.23)$$

$$p\text{-value} = (0.3239) (0.0499)$$

The coefficient of VAT obtained as (0.059409) and corresponding p-value of 0.0499 indicates that VAT is statistically significant at 5% level of significant and correctly signed. This implies that VAT has significant contributions to the GDP. The null hypothesis which states that VAT does not significantly contribute to GDP in Nigeria is hereby rejected.

6.3 Discussion of Findings

Using the regression analysis in hypothesis1, the F-statistic derived and the corresponding P-value of (52.65, 0.000) indicates that all the independent variables namely; PIT, CIT, PPT and VAT respectively have significant effect at 5% critical level. The regression coefficient, that is R-squared represented by 0.955 implies that 95.5% of the total variation in GDP is caused by PIT, CIT, PPT and VAT while the remaining 4.5% may be due to other variables in the stochastic term. This findings is in agreement with the a priori expectation and also with the findings of Afuberoh and Okoye (2014) who studied the impact of taxation revenue generation in Nigeria.

The results of hypothesis 2 revealed that CIT contributes significantly to GDP in Nigeria. With a coefficient of

0.033091 and a corresponding P-value of 0.0117, CIT is statistically significant at 5% significant level. This implies that CIT contributes significantly to GDP in Nigeria. This agrees with the a priori expectation of this study and also with the findings of Edame and Greg (2014) who studied the impact of CIT on economic development in Nigeria.

The test on hypothesis 3 reveals a coefficient of 0.000554 and a corresponding p-value of 0.0404. This means PPT is statistically significant at 5% level of significant. The implication of this is that PPT contributes significantly to GDP in Nigeria. This also agrees with the a priori expectation.

The last hypothesis tested the relative impact of VAT on GDP and obtained a coefficient of 0.059409 and the corresponding p-value of 0.0499. This means VAT contributes significantly to GDP in Nigeria. The result supports the findings of Adereti, Adesina and Sanni (2011) who examined VAT and economic growth in Nigeria. Their result established a positive and significant correlation between the two.

6.4 Conclusions and Recommendation

In line with the main objective of this study which sought to examine the effect of tax generation on economic development in Nigeria, relevant data were collated and analyzed using the multiple regression technique. The study revealed that tax generation has a positive effect on economic development in Nigeria which supports the position of Okafor (2012) who conducted similar research on tax revenue generation and economic development in Nigeria from 1998 to 2010. Based on this study, the following are recommended; the Federal Government should ensure modern technologies

both in hardware and software are made available to tax officials in order to make the process of tax computation, assessment, collection and remittance more economical, efficient and effective. Also, there should be transparency and accountability of tax revenues by the Government and tax officials for the benefit of the citizens and Nigeria as a whole. Training and re-training programs for tax officials is also important to keep them abreast of new tax laws and policies since they are the custodians of these laws and policies and tax authorities should ensure that tax payers are well educated and enlightened on their civil responsibility of paying taxes.

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