TAX REVENUE AND ECONOMIC GROWTH IN NIGERIA

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Abstract: This study examined the nexus between tax revenue and economic growth in Nigeria from 2010 to 2019. Preliminary tests including trend analysis and stationary tests using Augmented Dickey Fuller (ADF) test were conducted. Correlation and Ordinary Least Square regression estimate via E-Views 10.0 were also conducted to confirm the robustness of the model. Findings indicated that a significant relationship existed between taxation and economic growth in Nigeria. The result also, revealed a significant positive relationship at 5% level of significance between company income tax and gross domestic product while a significant negative relationship exists between withholding tax, personal income tax and gross domestic product of Nigeria. However, the tax components are jointly significant in impacting the Nigerian economic growth in Nigeria, the government should double it effort and focus on generation of more revenue from taxes other than rely on foreign exchange from crude oil.

Keywords: Tax Revenue, Gross Domestic Growth, Economic Growth

1.0 Introduction

The political, economic, and social development of any country depends on the amount of revenue generated for the provision of infrastructural services such as electricity, pipe borne water, hospitals, schools, good roads and as well as ensure a rise in per capita income, poverty alleviation amongst others. For these services to be adequately provided as well as other functions of government there should be enough revenue to finance them. Government responsibilities have continued to increase overtime especially in developing countries like Nigeria resulting from growing population of citizens and infrastructural decay. But quite unfortunate, the revenue of the government has not been growing above her expenditure to enable capital formation (Okeke, Mbonu & Amahalu, 2018). Therefore, the task of financing these enormous responsibilities becomes one of the major problems facing the government. Based on the limited resource of government, there is need to carry the citizens governed along hence the imposition of tax on all taxable individuals and companies to augment government financial position. Thus, taxes constitute the principal source of government revenue.

A tax according to Neog and Gaur (2020) is the transfer of resources from the private sector to the public sector to accomplish some of the nation's economic and social growth. Tax is as compulsory payment of money by the citizens of the country. Even though taxpayers may receive nothing identifiable in return for their contribution, they nevertheless have the benefit of living in a relatively educated, healthy and safe society. Tax serves as a means a means to provide collective wants and a tool for government economic policies. Tax is a major player in every society of the world. It is an opportunity for government to collect additional revenue needed in discharging its pressing obligations. It offers itself as one of the most effective means of mobilizing a nation's internal resources and also lends itself to creating an environment conducive for the promotion of economic growth. A country's tax system is a major determinant of other macroeconomics indices specifically for both

developed and under developed economies. Tax system is also used to promote other objectives such as equity and mobilization of nation's internal resources and it lends itself to creating enabling and conducive environment for the promotion of economic growth and development. To this end, government have enacted various tax laws and reformed existing ones to stand the test of time to ensure that these tax systems are upheld. These tax laws include company income tax decree, personal income tax act and so on.

1.1 Statement of the Problem

As the Nigerian economy is in the recession period even in this covid-19 era, there are inconsistencies in our tax laws which had made it difficult for the tax body to administer and even for the tax payer to follow. The administrations of tax in Nigeria are weak, corrupt and non-transparent and this inefficiency reflects on the mix of taxes and the faulty design in their structure and in their operational systems. The illiterates refuse to pay tax because they are unaware of the purposes of taxation (Okeke, Mbonu & Amahalu, 2018). Also, the revenue collection function of companies has also created problems for withholding agents in terms of logistics and book keeping. CIT imposes minimum tax on companies where they have no taxable profits or taxable profits resulting in lower minimum tax. This effectively means that such companies would have to pay taxes out of their capital which discourages investments and increases the risk of failure for companies in periods of little or no profitability. Some of these companies also carry out evasive practices. Tax evasion and avoidance in respect of CIT and PIT and other ugly corrupt practices leading to high financial losses to the government occur. These twin devils have created a great gulf between actual and potential revenue. Thus despite increasing revenue generation that supposedly have been plough into productive ventures, the economy is still characterized with high rate of unemployment of 23.1% in 2018 to 27.1% in 2019 and high rate of inflation which has increased from of 11.28% to 11.98% recorded in December 2019 (NBS, 2020; CBN, 2020). The relationship between tax revenue and economic growth in Nigeria has been traced with mixed evidences. For instance, a strand of literature: Okonkwo and Chukwu (2019); Adegbie, Nwaobia and Osinowo (2020); Olugbemi, Bassey, Okon and Osang (2020) showed a positive relationship between tax revenue and gross domestic product. Another strand of literature (Lyndon & Paymaster, 2016; Cornelius, Ogar & Oka, 2016; Okoye, Amahalu & Obi, 2019; Neog & Gaur, 2020) found a negative relationship between tax revenue and gross domestic product. A third strand of literature (Onakoya & Afintini, 2016; Haji & Esfandiar, 2016; Kiabel & Nwokah, 2018) reported a nonsignificant positive effect of tax revenue on gross domestic product.

1.2 Objective of the Study

The main objective of the study is to ascertain the relationship between tax revenue and economic growth of Nigeria.

However, the specific objectives of the study include:

To determine the relationship between tax revenue and gross domestic product of Nigeria.

1.3 Research Hypothesis

The following null hypothesis was formulated

Ho1: There is no significant relationship between tax revenue and gross domestic product of Nigeria economy.

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2.1 Conceptual Review

Withholding tax

A withholding tax is an amount that an employer withholds from employees' wages and pays directly to the government Uradu, (2020). The amount withheld is a credit against the income taxes the employee must pay during the year. It also is a tax levied on income (interest and dividends) from securities owned by a non resident alien, as well as other income paid to non residents of a country (Kagan, 2020). A withholding tax, or a retention tax, is an income tax to be paid to the government by the payer of the income rather than by the recipient of the income. The tax is thus withheld or deducted from the income due to the recipient (Abiahu & Amahalu, 2017).

Companies Income Tax

Companies are liable to Company Income Tax (CIT) at the rate of 30%. The CIT is currently charged at the rate of 30% for companies having more than N100 Million Naira turnover. It is also charged at the rate of 20% for companies with a turnover between N25 Million and N100 Million. The tax is assessed on a preceding year basis (i.e. tax is charged on profits for the accounting year ending in the year preceding assessment). The companies having less than N25 Million turnover are not liable to pay company income tax in line with the Finance Act 2019. In respect of business profits, a non-resident company that has a fixed base or a Permanent Establishment (PE) in Nigeria is taxable on the profits attributable to that fixed base. As such, it is required to register for CIT and file its tax returns (Lea, 2020). The Company Income Tax Act (CITA) is the principal law that regulates the taxation of companies in Nigeria. The tax regime in Nigeria is a multi-level tax system, which simply means that taxation is administered by the three tiers of government. The Federal Inland Revenue Service (FIRS) administers or oversee the income tax for companies. Companies Income Tax (CIT) is a tax on the profits of registered companies in Nigeria. It also includes the tax on the profits of foreign companies carrying on any business in Nigeria. The CIT is paid by limited liability companies inclusive of the public limited liability companies. Resident companies are liable to corporate income tax (CIT) on their worldwide income while non-residents are subject to CIT on their Nigeria-source income. Corporate income tax is based on accounting profits adjusted for tax purposes.

Personal Income Tax

Personal Income Tax (PIT) is a compulsory tax charged on the income earned by an individual. The rate of tax payable is not a fixed sum, depending on the gross income of the taxable employee, and the tax relief granted to him under Personal Income Tax Act (PITA). Tax is imposed on individuals who are either in employment or are running their own small businesses, under a business name or partnership (Pwc, 2020). PIT is regulated by the Personal Income Tax Act Cap P8 LFN 2004 (as amended). Under Nigerian Personal Income Tax Laws all taxable persons are entitled to a consolidated relief allowance of 20% of gross income plus higher of 1% of gross income or N200,000.

Old Bands	Old Rates	New Bands	New Rates
First N30,000	5%	First N300,000	7%
Next N30,000	10%	Next N300,000	11%
Next N50,000	15%	Next N500,000	15%
Next N50,000	20%	Next N500,000	19%
Above N160,000	25%	Next N1,600,000	21%
		Above N3,200,000	24%

Revised graduated tax bands as shown below

Economic Growth

Economic growth is an increase in the amount of goods and services produced per head of the population over a period. Economic growth is an increase in the production of economic goods and services, compared from one period to another. Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or Gross Domestic Product (GDP) (Amadeo, 2020). Economic growth creates more profit for businesses. As a result, stock prices rise. That gives companies capital to invest and hire more employees. As more jobs are created, incomes rise. Consumers have more money to buy additional products and services. Purchases drive higher economic growth. For this reason, all countries want positive economic growth (Polenghi, 2020).

Gross Domestic Product

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period. Gross domestic product is a monetary measure of the market value of all the final goods and services produced in a specific time period (Chappelow, 2020). Gross domestic product (GDP) is the total market value of the goods and services produced by a country's economy during a specified period of time. It includes all final goods and services, that is, those that are produced by the economic agents located in that country regardless of their ownership and that are not resold in any form. It is used throughout the world as the main measure of output and economic activity (Bondarenko, 2020).

Tax Revenue and Economic Growth

The importance of taxation as a variable tool for economic growth and development largely depends on a proper tax system which has the capacity to generate revenue through tax. Since tax is a major source of governments' revenue in meeting its expenditure, the extent to which the Nigerian tax system generates the needed revenue to meet up with this ever-increasing government expenditure burden calls for concern. This implies that the tax system must be productive. The productivity of a tax system is the ability of the system to yield maximum revenue for the government with a given tax base without placing a difficult economic burden on the taxpayer. Nigeria has been one of the most backward developing countries in terms of harnessing revenue owing to weak standard of good governance. In recent years, the most worrisome about Nigeria's economy is that corruption and mismanagement prevented the strait of the country's resources from taxation and other sources into lasting improvements in self-sustaining economy. The relationship between tax revenue and economic growth in

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Nigeria has been traced with mixed evidences. For instance, a strand of literature: Okonkwo and Chukwu (2019); Adegbie, Nwaobia and Osinowo (2020); Olugbemi, Bassey, Okon and Osang (2020) showed a positive relationship between tax revenue and gross domestic product. Another strand of literature (Lyndon & Paymaster, 2016; Cornelius, Ogar & Oka, 2016; Okoye, Amahalu & Obi, 2019; Neog & Gaur, 2020) found a negative relationship between tax revenue and gross domestic product. A third strand of literature (Onakoya & Afintini, 2016; Haji & Esfandiar, 2016; Kiabel & Nwokah, 2018) reported a non-significant positive effect of tax revenue on gross domestic product.

2.2 Theoretical Review Benefit Received Theory

Benefit received theory was based on the assumption that there is basically an exchange relationship between tax payers and the state. The state provides certain goods and services to the members of the society and they contribute to the cost of these supplies in proportion to the benefit received. The theory argues that taxes should be allocated based on benefits received from government.

2.3 Empirical Review

Olugbemi, Bassey, Okon and Osang (2020) examined tax revenue and economic growth using an econometric approach. The specific objectives were to examine the effect of taxation, domestic investment, government expenditure on economic growth in Nigeria. Exploratory design was employed to identify the factors that contributed to tax revenue on economic growth in Nigeria. Secondary sources of data was employed which include Central Bank Statistical Bulletin. In analyzing the data gathered for the work, multiple regression model was employed to establish the relationship between dependent and independent variables. The study empirically examined the effect of the tax revenue on economic growth in Nigeria. The result revealed the positive relationship that existed between tax revenue and economic growth using GDP as an index economy. The study recommended that funds generated from the public should be properly utilized so that the growth of Nigeria economy will be positively affected. Also investment opportunities should be available in order to fostering economic growth.

Adegbie, Nwaobia and Osinowo (2020) investigated the effect of non-oil taxes on economic growth and development of Nigeria. The study employed ex-post facto research design. Macro data for the period 1994-2017 representing seventy six (76) observations were obtained from CBN statistical bulletin and National Bureau of Statistics. The data were analyzed using descriptive and inferential statistics employing multiple regressions. The study discovered that non-oil taxes (custom and excise duties, capital gain tax, company income tax, tertiary education tax and value added tax) have significant effect on economic growth. (Adj. R2 = 0.75, F(5,71) = 213.43, p< .0.05). The individual effects are also positive and statistically significant: (VAT- β = 8.011, t(76)= 2.802, p<0.05, CIT- β = 2.560, t(76)= 2.383, p<0.05, CED - β = 1.767, t(76)=3.092, p<0.05, CGT- β = 4.162, t(76)= 3.509, p<0.05, and TET- β = 0.161, t(76)= 2.443, p<0.05). This study concluded that non-oil taxes significantly influenced both economic growth and economic development in Nigeria. The study recommended that government must strive to sustain the current unflinching commitment towards improving non-oil tax revenue, ensure Tertiary Education Tax collected translates into real development and also ensure efficient utilization of tax payers' money to boost non-oil tax revenue collection which will then lead to economic growth and development.

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Neog and Gaur (2020) examined the long-run and short-run relationship between tax structure and state-level growth performance in India for the period 1991–2016. With the use of 14 Indian states data, Panel Pool mean group estimation indicated that income tax and commodity–service tax have negative effects whilst property and capital transaction tax have a significant positive effect on state economic growth. The study found a 'U' shape relationship between tax structure and growth performance. Based on the analysis, it was concluded that for faster growth of Indian states, policymakers should give more focus on property taxes along with the reduction in income taxes.

3.1 Methodology

Research Design

This study focused on ascertaining the relationship between Tax Revenue and Economic Growth with emphasis on Nigeria. The research design employed in this study is the ex-post facto research design.

Nature and Sources of Data

The nature of data for this study was essentially secondary data. The scope of this study spanned from 2010-2019 to ensure robustness of the empirical result. Secondary and time series data were collected from publications of Central Bank of Nigeria (CBN), Federal Inland Revenue Service (FIRS), and National Bureau of Statistics (NBS). The data sourced were in respect to withholding tax, company income tax, personal income tax and gross domestic product.

3.2 Measurement of Research Variables

Independent Variables

The independent variable in this study is tax revenue which was proxied by:

i) Withholding Tax (WHT): Obtained from Federal Inland Revenue Service (FIRS) statistical bulletin (various issues).

ii) Company Income Tax (CIT): Obtained from Federal Inland Revenue Service (FIRS) statistical bulletin (various issues).

iii) Personal Income Tax (PIT): Obtained from Federal Inland Revenue Service (FIRS) statistical bulletin (various issues).

Dependent Variables

The dependent variable is economic growth which was measured by:

 Gross Domestic Product (GDP): Collected from Central Bank of Nigeria Statistical Bulletin, World Bank Statistical Bulletin and National Bureau of Statistics (various issues).

3.3 Model Specification

This study specifies a functional linear relationship between economic growth and tax revenue.

Generally, the model is specified as:

 $Y \ = \beta_o + \beta X_1 + \mu$

Where:

Y = economic growth (Dependent Variable)

X = tax revenue (Explanatory/Independent Variable)

 β_0 = Constant term (Intercept)

 $\beta_1 - \beta_3 =$ Coefficient of taxation

 $\mu = \text{Error term (Stochastic Term)}$ Explicitly, the equation can be defined as: Economic growth = f (tax revenue) + μ Representing the equations with the variables of the construct, hence the equations below are formulated: $\text{GDP} = \beta_0 + \beta_1 \text{WHT} + \beta_1 \text{CIT} + \beta_1 \text{PIT} + \mu$ - Model 1 Where: GDP = Gross Domestic ProductWHT = Withholding Tax CIT = Company Income TaxPIT = Personal Income Tax

4.0 Data Presentation and Analysis 4.1 Test of Reliability

The researcher tested for stationarity unit root test in order to fulfill the econometric theory which states that variables that must enter a regression model must undergo a stationarity test in order to achieve a realistic (non-spurious) result at 1%, 5% or 10% level of significance. The result for the test is shown below in table 1. The data used in this study had unit root problem, consequently, the data were detrended using Augmented Dickey-Fuller Test. The result of the differenced data in order to solve the unit root problem is shown in table 1.

Table 1: Differenced Result

b.

Source: E-Views 10.0 Output, 2020

Table 2 Pearson Correlation Matrix

	GDP	WHT	CIT	PIT
GDP	1.0000	0.4028	0.3987	0.2079
WHT	0.4028	1.0000	0.9723	0.6275
CIT	0.3987	0.9723	1.0000	0.6370
PIT	0.2079	0.6275	0.6370	1.0000

Source: E-Views 10.0 Output, 2020

The correlation result in table 2 shows that WHT, CIT and PIT are positively correlated with GDP at the coefficient factor of 0.4028, 0.3987 and 0.2079 respectively.

4.2 Test of Hypotheses

H₀: There is no significant relationship between tax revenue and gross domestic product of Nigeria economy.

H1: There is significant relationship between tax revenue and gross domestic product of Nigeria economy.

Table 3: Ordinary Least Square (OLS) Regression result between WHT, CIT PIT and GDP

Dependent Variable: DO				
Method: Least Squares				
Date: 09/23/20 Time:				
Sample: 2010 2019				
Included observations: 10				
Variable	Coefficien t	Std. Error	t-Statistic	Prob.
С	0.058959	0.040018	9.473325	0.0000
DWHT	-0.318360	0.023817	-5.829342	0.0004
DCIT	0.222793	0.005803	7.575413	0.0001
DPIT	-0.479095	0.010235	-6.291917	0.0002
R-squared	0.774977	Mean dependent var		0.044000
Adjusted R-squared	0.687535	S.D. depen	0.029889	
S.E. of regression	0.031169	Akaike info criterion		- 3 809586
Sum squared resid	0.005829	Schwarz cr	-	
Log likelihood	23 04703	Hannan Quinn aritar		3.688552
Log Inclinoou	23.04793	Taiman-Qu	3.942360	
F-statistic	42.78532	Durbin-Watson stat		1.870580
Prob(F-statistic)	0.000000			

Source: E-Views 10.0 output file, 2020

Table 3 is the result of the least square estimate for model one: GDP = 0.058959 - 0.318360WHT + 0.222793CIT - 0.479095PIT

The result shows that a unit increase in withholding tax (WHT) on the average holding other independent variables constant will lead to 0.318360 unit decrease in gross domestic product. This shows that withholding tax (WHT) has a negative impact on gross domestic product. In the same vein, the result shows that a unit increase in personal income tax (PIT) on the average holding other independent variables constant will lead to 0.479095 unit decrease in gross domestic product. This shows that personal income tax has a negative impact on gross domestic product. Also, a unit increase in company income tax (CIT) on the average holding other independent variables constant will lead to 0.222793 units increase in gross domestic product. This shows that company income tax has a positive impact on gross domestic product. The adjusted R-Squared shows that the model is a good fit with 0.687535 (68.8%) change in gross domestic product accounted for by change in the independent variables. This implies that 68.8 percent of the change in gross domestic product was explained by changes in the independent variables (WHT, CIT and PIT). Durbin Watson value is 1.87, going by the rule of thumb this can be approximated to 2.00 which shows that the model is free from autocorrelation problem.

5.0 Findings, Conclusion and Recommendation 5.1 Findings

There is a significant negative relationship between WHT, PIT and GDP; a significant positive relationship between CIT and GDP at 5% level of significance respectively.

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5.2 Conclusion

This study was set out to carry out an empirical analysis on the relationship between tax revenue and economic growth in Nigeria. The least square regression estimates showed that there is a significant negative relationship between WHT, PIT and GDP; a significant positive relationship between CIT and GDP at 5% level of significance.

5.3 Recommendations

Based on the findings and conclusion of the study, the following recommendations are proffered in other to improve tax revenue of the government.

Since tax revenue like company income tax improves economic growth in Nigeria, the government should double it effort and focus in generation of more revenue from taxes other than rely on foreign exchange from crude oil. Tax policymakers such as the Federal Inland Revenue Service and other tax regulatory bodies should strengthen their regulations on tax compliance mostly on taxes to curb tax evasion and avoidance by taxpayers.

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