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An Evaluation of Tax Revenues and Capital Expenditures of Nigerian Economy

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ABSTRACT

The aim of this study was to evaluate the effect of tax revenues on capital expenditures of Nigeria Economy. Data for the study was collected through secondary source from federal Inland Revenue Service, CBN statistical bulletin and National Bureau of Statistics between periods of 2009 - 2018. A longitudinal research design was adopted and a linear regression method of data analysis were utilized in explaining relationship between variables tax revenue (oil and non oil) (independent variable), capital expenditure (dependent variables). Result shows that there was no significant relationship between tax revenues (oil and non oil) and capital expenditure of the Nigerian economy. The regression result for the three models further revealed that the relationship between the tax revenues and capital expenditure in Nigeria proxies are not in line with the stated expected result. The study concludes that revenue generated form tax has no impact on capital expenditure allocation. The study therefore, recommends that Government should utilize the revenue generated from oil and non-oil tax revenues to invest in other domestic sectors such as Agriculture and manufacturing sector in order to expand the revenue source of the economy and further increase the revenue base of the economy which will in turn increase fund allocated for capital expenditures.

Keyword: Tax Revenue Economy, Growth, Oil Revenue, Non-Oil Revenue, Capital Expenditure.

1. INTRODUCTION

The primary goal of any developing country like Nigeria is to increase the rate of economic growth and per capital income which leads to a higher standard of living thus taxation can be used as a stimulus to accelerate such growth of the Nigerian economy (Okoli, Njoku and Kaka, 2014). It is an instrument the government uses to measure, access and control the informal sector that dominate developing economies of the world (Wambai and Hanga, 2013). Tax is one of the major sources of government revenue however, not every government effectively exploits this opportunity as a means of revenue generation (Okwara & Amori, 2017). In Nigeria tax revenue has accounted for a small proportion of total government revenue over the years compared with the bulk of revenue needed for the development purposes that is derived from oil (Uremadu and Ndule, 2011). Tax Revenues is the receipt from the tax structures. Revenue accruing to an economy, such as Nigeria can be divided into two main categories, which are Oil revenue includes (Royalties, Petroleum profit tax (PPT), Gas tax, Pipeline licence) and Non-oil revenue include (Trade, Loans, Direct tax, import duties, Exercise duties and indirect taxes paid by other sector of the economy.

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Government expenditure no doubt is an important instrument for a government to control the economy of a nation. In Nigeria, the federal government's expenditures are broadly divided into capital and recurrent expenditure. The recurrent expenditure consist of government expenditure on administration such as wages, salaries, interest on loans, maintenances etc. whereas the capital expenditure are on projects like roads, airport, health, education, electricity generation, telecommunication, water etc. Capital expenditures are investments with multiplier effects on the economy in terms of public benefits. In most cases government intervention has brought stability in income and employment in the economy (Collins & Mary, 2017).

1.1 Statement of the Problem
Nigerian economy in the last decade, has transformed from the level of billion Naira to trillion Naira on the expenditure side of the budge and the effects of this expenditure are largely unnoticeable to the public (Muritala, 2011). According to Azubike (2009) in Ojong et al 2016, it is an opportunity for government to generate additional revenue to discharge its pressing obligations. Also, it is one of the effective means of mobilizing a country's internal resources so as to promote economic growth. Looking at the current situation of the Nigeria economy, it has been noticed that taxes are been irregular due to the high inflation rate hitting most commodity as well as increasing standard of living of most citizen. Most citizen have found it difficult to pay taxes especially the public servant, this affecting the personal income tax. Also the oil sector has faced challenges in irregular prices of fuel since December, 2017 till this present day. In Nigeria the incidence of tax evasion and avoidance by tax payers is high, leading to low level of government revenue which further reduces the level of government expenditure, culminating into a reduction in the income savings and expenditure of households and firms, leading to low level of economic activities and economic growth. Also, inadequate tax personnel, fraudulent activities of tax collectors and lack of understanding of the importance to pay tax by tax payers are some of the problems of tax revenues which led to no or poor physical development on our capital expenditures in Nigeria economy (Worlu, 2012). A lot of empirical studies had focused only on the effect of Tax revenue has a whole, tax evasion on Nigerian economic growth and development while there have been dearth on impact of tax revenue in and it effect on capital expenditure, as a result of the neglect of the sector by the government.Therefore, this sought to evaluate the effect tax revenues and capital expenditures of Nigeria Economy.

1. 2 Objectives of the Study
The main objective of the study was to evaluate tax revenues and capital expenditures of Nigeria Economy. In specific terms, the objectives are to:
i. Examine the effect of oil tax revenues and capital expenditure of Nigeria.
ii. Evaluate the effect of non - oil tax revenues on capital expenditure of Nigeria.
iii. Ascertain the relationship between total tax revenues and capital expenditure of Nigeria.

1.3 Research Questions
Based on the statement of the problem and research objectives above, the following questions were answered.
    i.   To what extent does oil tax revenues has effect on capital expenditure of Nigeria?
    ii.   In what way does the non - oil tax revenues has effect on capital expenditure of Nigeria?
    iii.   What is the relationship between total tax revenues and capital expenditure of Nigeria?

1.4 Research Hypotheses
For the purpose of this study, the following hypotheses were tested in their null form:
H_{01}: Oil tax revenues do not have effect on capital expenditure of Nigeria.
H_{02}: Non-oil tax revenues do not have effect on capital expenditure of Nigeria.
H_{03}: Total tax revenues do not have relationship with capital expenditure of Nigeria.

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1.5 Scope of the Study

The study evaluated effects of tax on the nation capital expenditure towards the growth and development in Nigeria economy.This study covered a period of 10 years (i.e. 2009 - 2018). And it is limited to Nigeria capital expenditure.

2. LITERATURE REVIEW

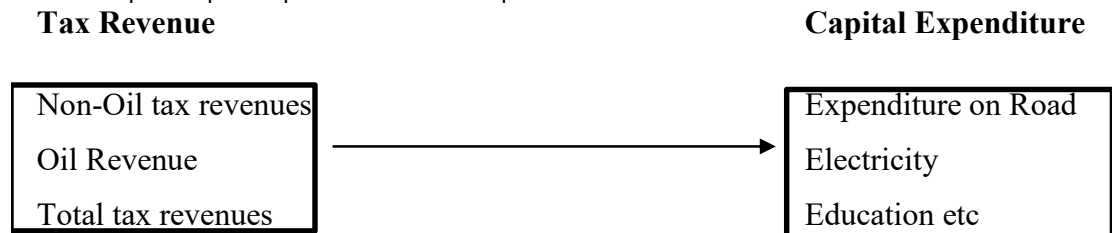The Concept of capital expenditure and tax expenditure

Tax Revenue   **Capital Expenditure**

Non-Oil tax revenues	Expenditure on Road
Oil Revenue	Electricity
Total tax revenues	Education etc

Figure 2.1: Conceptual Framework On Capital Expenditure and Tax Expenditure

2.1 Analyses of research variables
Independent variable

Tax Revenue

Taxation is a dynamic theme which grows with the constant changes in the economic environment in which it operates. Tax is a compulsory payment made by individuals and organizations to the government in accordance with predetermined criteria for which no direct or specific benefit is received by the tax payer (Bassey 2013). Tax revenue is a source of financing developmental activities in developing country. To effectively carry out its primary function and other subsidiary functions, governments need adequate funding. Governments use tax proceeds to render their traditional functions such as the provision of public goods, maintenance of law and order, defense against external and internal aggression, regulation trade and business to ensure social and economic justice. Unfortunately, Government responsibilities continue to increase over time especially in developing countries; as a result of growing population of citizens, and technological development (Ofoegbu, Akwu & Oliver, 2016).

Tax revenue is defined as the revenues collected from taxes on income and profits, social security contributions, taxes levied on goods and services, payroll taxes, taxes on the ownership and transfer of property, and other taxes. Total tax revenue as a percentage of GDP indicates the share of a country's output that is collected by the government through taxes. It can be regarded as one measure of the degree to which the government controls the economy's resources. The tax burden is measured by taking the total tax revenues received as a percentage of GDP. This indicator relates to government as a whole (all government levels) and is measured in million USD and percentage of GDP. (https://data.oecd.org/tax/tax-revenue.htm)

Non-Oil Revenue

Non-oil revenue is the income or proceeds generated from the commodities that are sold in the international market excluding crude oil (petroleum product). Non-oil exports on the other hand are those commodities (excluding crude oil) that are sold abroad in order to generate revenue. These non-oil exports include agricultural products or crops, manufactured goods, tourist services/receipts, solid minerals, telecommunication services and other exports. Non-oil export can also be seen as a sector (Kromtit & Gukat, 2016).

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Dependent Variable

Nigerian Capital Expenditure
Government expenditure could be current, recurrent and capital expenditures. Capital government expenditure refers to spending on fixed assets such as roads, schools, hospitals, building, plant and machinery etc, the benefits of which are durable and lasting for several years while recurrent government expenditure refers to the expenses that government incurs for its maintenance, for the society and the economy as a whole (Uwaezuoke, Nweke and Ogar, 2018). Government expenditures have far a very high effect on the overall economic activities of any nation. Government expenditure on production depends on three factors; the ability to work, save and invest; the willingness to work, save and invest and the diversion of economic activities between different uses and localities (Musa, & Asare, 2013). Government expenditure in the form of grants and subsidies to farmers, firms and industries is highly productive as it minimizes cost of production which leads to a fall in prices while expenditures on education and health has direct welfare effect on the society. Expenditure on education and health seen as investment in human capital improves skill formation and raises the ability to produce which has the effect of raising disposable income and in turn increases consumption and investment (Uwaezuoke, Nweke and Ogar, 2018).

2.3 Theoretical Review
Keynesian theory
The Keynesian theory posited that there exists a multiplier effect of a change in expenditure on the national income. Hence an increase in the government expenditure would lead to increased employment and investment which would improve aggregate output (Ahuja 2013). The law of increasing state spending was propounded by German economist Adolph Wagner (1835- 1917). He posited that the development of an industrial economy will be accompanied by an increased share of public expenditure in gross national product. With the development of an economy, new functions and activities spring up and are undertaken by the government while the old activities of the economy are performed more thorough. The Wagner's law implies that there is a functional relationship between economic growth and the growth of government sectors which has the tendency of increasing public expenditure (Anyanwu 1993 in Ajudua and Davis, 2015).

Wagner highlighted certain forms of government activities that lead to increasing public expenditure;
i.   Keeping law and order
ii.   Participation in production of economic goods including provision of certain social products.
iii. Increase in demand for public goods
iv.   Urbanisation and pressure on social amenities
v.   Social security
vi.   Provision of welfare etc. (Nnamocha 2001 in Ajudua and Davis, 2015).

Wiseman and Peacock put forward a hypothesis about the growth of public expenditure in their study of public expenditure of UK between 1891 and 1955. They posited that government expenditure increases in a jerk and step-like manner rather than in a steady continuous rate (Ajudua and Davis, 2015).

Exogenous growth model
The exogenous growth model, also known as the neo – classical growth model or Solow-Swan growth model was Federal Inland Revenue Service devised by Nobel Prize winning Economist, Robert Solow in 1957. The model believes that a sustained increase in capital investment increases the growth rate only temporarily; because the ratio of capital to labour goes up but the marginal product of additional units of capital is assumed to decline and the economy eventually moves back to a long – term growth path, with real GDP growing at the same rate as the work force plus a

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factor to reflect improving productivity. A steady – state growth path is reached when output, capital and labour are all growing at the same rate, so that output per worker and capital per worker are constant. The centre piece of the standard neoclassical growth model developed by Solow (1957) is an aggregate production function of the form:

$Y_t = F(K_t, L_t, A_t)$

Where Y is output, K is capital, L is labour and A is an index of technology or efficiency.

2.4 Empirical Review
Empirical literatures on Federal government expenditure

Inyiama, Chinedu & Nnenna (2017) examined the effect of Federal Government of Nigeria's Tax resources on infrastructural development of Nigeria. Incomes from Value Added Tax (VAT), Petroleum Profit Taxes (PPT) were used as proxies for Tax revenues/resources while Infrastructural Development was applied as proxy for Infrastructural Development of Nigeria. The research adopted ex-pos-facto research design as secondary data were used for the analysis. Data were sourced from the Central Bank of Nigeria Statistical Bulletin and the Federal Statistical Bureau. The study covered ten year period (2006-2015). Data were analyzed using the multiple linear regression technique. The result reveals tax revenue resources (PPT, CIT and VAT) had positive and insignificant effect on Infrastructural Development in Nigeria. The study recommends that government should provide the necessary human and material infrastructures that are needed to support seamless tax collection so they can earn more income that will boost taxation to enhance infrastructural development in Nigeria.

Kyissima, Pacific & Ramadhan (2017) empirically examines the long-run and short-run relationship between government expenditure and Economic growth in Tanzania over the period of 1996-2014 making the use of annual secondary time series data. The Error Correcting Model (ECM) is employed to examine the long-run and short-run estimates of parameters. In addition to that the granger causality test is employed to determine whether government expenditures granger causes economic growth. In the long-run government expenditure is found to be statistically significant and has positive relationship with economic growth. The short -run estimates show there is no significant relationship between government expenditures and economic growth. The results of granger causality test show uni-directional causality running from economic growth to government expenditures. The government of Tanzania should improve in the allocation of resources in its development expenditure and social services expenditure and channel such expenditure to allow for private sector participation and infrastructure development in order to accelerate economic growth.

Oziengbe (2013) explores the relative impacts of federal capital and recurrent expenditures on Nigeria's economy in the 1980-2011 periods. The empirical analysis begins with an investigation of the effect of total government expenditure on gross domestic product (GDP) using multiple linear regression analysis. The variance decomposition results indicate that the proportion of forecast error variance of GDP explained by innovations in RECEXP dominates the proportion explained by innovations in CAPEXP in all the periods.

Nwofor & Gordon (2013) studied tax revenue and government expenditure. They explored how revenue generated from taxation affects Nigeria expenditure. Secondary data used for data collection hypotheses and hypotheses tested using Pearson moments collation coefficient. The study found out that the volume of expenditure incurred S by government can negatively affect total tax revenue especially those when those expenditure are mainly a recurrent expenditure.

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2.5 Empirical literatures on Tax revenue

Okwara & Amori, (2017) examines the impact of tax revenue on the economic growth in Nigeria for the period of 1994-2015. Secondary data were used and sourced from journals, textbooks and Central Bank of Nigeria (CBN) statistical bulletin. The variables considered are: Gross Domestic Product (GDP) as a proxy for economic growth, Value Added Tax (VAT), and non-oil income (tax). To avoid spurious results, Ordinary Least Square (OLS) with the aids of Statistical Package for Social Sciences (SPSS) was used to test the significant impact of value added tax and non-oil income on Gross Domestic Product (GDP). The results revealed that non-oil income has significant impact on gross domestic product while value added tax has a negative relationship and statistically insignificant for the period under review. The study concludes that tax revenue have significant impact on Nigerian economic growth.

Onakoya, Afintinni and Ogundajo, (2017) also investigated the impact of taxation on economic growth in Africa from 2004 to 2013. The study carried out various preliminary tests including descriptive statistics, and stationary tests using Augmented Dickey Fuller (ADF) test, Levin et al. test, Im, Pesaran and Shin W-stat tests. The appropriate fixed and random effect test was employed to determine the fitness of the model using the Hausman test. The study conducted the Hausman-Test to determine the appropriate estimator between Fixed and Random Effect. Findings indicated that tax revenue is positively related to GDP and promotes Economic Growth in Africa. It was significant at 5% level. The study concluded that tax revenue has a significant positive relationship with Gross Domestic Product. Therefore, high and weak levels of taxation are favorable to economic growth as upheld by the economic effect of Ibn Khaldun's theory on taxation, which approves the positive impact that lower tax rate have on work, output and economic performance.

Ogbonna and Appah, (2016) examines the effect of tax administration and revenue on economic growth of Nigeria. To achieve the objective of this paper, data was collected from primary and secondary sources. The secondary sources were from scholarly books and journals while the primary source involved a well structured questionnaire of three sections of sixty five items with an average reliability of 0.78. The data collected from the questionnaire and secondary data were analyzed using relevant regression analysis. The results reveal that there is a significant relationship between Personal income tax revenue (PITR) and per capita income, Company income Tax Revenue and Gross Domestic product of Nigeria, VAT revenue and PCI of Nigeria, Petroleum Profit Tax revenue and GDP of Nigeria and tax administration and Gross domestic product of Nigeria. Hence, the study concludes that tax administration and revenue does affect the economic growth of Nigeria for the period under study.

Ojong, et al, (2016) examined the impact of tax revenue on the Nigerian economy. The objectives of the study were; to examine the relationship between petroleum profit tax and the Nigeria economy, the impact of company income tax on the Nigerian economy and the effectiveness of non oil revenue on the Nigerian economy. Data were sourced from Central Bank Statistical Bulletin and extracted through desk survey method. Ordinary least square of multiple regression models was used to establish the relationship between dependent and independent variables. The finding revealed that there is a significant relationship between petroleum profit tax and the growth of the Nigeria economy. It showed that there is a significant relationship between non oil revenue and the growth of the Nigeria economy. The finding also revealed that there is no significant relationship between company income tax and the growth of the Nigeria economy.

Ofoegbu, Akwu & Oliver, (2016) examine the effect of tax revenue on the economic development of Nigerian, and to ascertain whether there is any difference in using HDI and GDP in establishing the relationship. The approach adopted in this study was that of using annual time series data for the period 2005 - 2014 to estimate a linear model of tax revenue and human development index using ordinary least square (OLS) regression technique. Findings show a positively and significantly relationship between tax revenue and economic development.

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The result also reveals that measuring the effect of tax revenue on economic development using HDI gives lower relationship than measuring the relationship with GDP thus suggesting that using gross domestic product (GDP) gives a painted picture of the relationship between tax revenue and economic development in Nigeria. The researcher, therefore, conclude that tax revenue can be an instrument of economic development in Nigeria. Development of any tax policy on tax revenue for economic development should better be based on human development index rather than GDP.

Nweze and Edame (2016) examined oil revenue and economic growth in Nigeria between 1981 and 2014. Secondary data on gross domestic product (GDP), used as a proxy for economic growth; oil revenue (OREV), and government expenditure (GEXP) which represented the explanatory variables were sourced mainly from CBN publications. In the course of empirical investigation, various advanced econometric techniques like Augmented Dickey Fuller Unit Root Test, Johansen Cointegration Test and Error Correction Mechanism (ECM) were employed and the result reveals among others: That all the variables were all stationary at first difference, meaning that the variables were not integrated of the same order justifying cointegration and error correction mechanism test. The cointegration result indicated that there is long run relationship among the variables with three cointegrating equation(s). The result of the error correction mechanism (ECM) test indicates that all the variables except lag of government expenditure exerted significant impact on economic growth in Nigeria. However, all the variables exhibited their expected sign in the short run but exhibited negative relationship with economic growth in the long run except for government expenditure, which has positive relationship with economic growth both in the long run and short run. The study concluded that Government should use the revenue generated from petroleum to invest in other domestic sectors such as Agriculture and manufacturing sector in order to expand the revenue source of the economy and further increase the revenue base of the economy.

3. Research Methodology

Research Design
The research design employed in this study is the Longitudinal Research Design, since the data was time series data.

Study Population
The population of the study was limited to the Nigerian economy.

Sample Size and Sampling Technique
The sample size used for this study was Federal Inland Revenue Service and the Technique used was Purposive-sampling technique because tax revenue are recorded and monitored by the Federal Inland Revenue Service

Method of Data Collection and Data Analysis
The relevant information used for the data analysis was collected from audited statements (secondary data) of Federal Inland Revenue Service, CBN statistical bulletin and National Bureau of Statistics between 2009-2018. Data collected were analyzed from panel data using regression analysis from E-view 9.

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Model Specification

The mathematical equation below represents the relationship between tax revenue and capital expenditure of Nigeria economy in a linear form.

$Y = f(x)$

$CE = a_0 + \beta_1 OTR + e$ ----------------------------------i

$CE = a_0 + \beta_2 NOTR + e$ --ii

$CE = a_0 + \beta_3 OTR + B_4 NOTR + e$--------------------------------iii

Where CE = capital expenditure

$\beta_1 - \beta_3$ = Co-efficient of independent variables

a_0 = constant of the equation

OTR = Oil tax revenue

NOTR = Non-Oil tax revenue

TTR = total tax revenue

OTR, NOTR & TTR are all independent variable

e = error terms

4. DATA PRESENTATION, ANALYSIS, AND DISCUSSION OF RESULTS

Table 4.1: Data for all variables

Year	Oil tax revenue (₦'B)	Non- oil tax revenue (₦'B)	Total tax revenue (₦'B)	Capital expenditure (₦'B)
2018	484.74	1994.84	2479.58	1,434.80
2017	910.31	1885.31	2795.63	1163.2
2016	2467.56	1444.44	3912	634.79
2015	383.01	308.24	691.25	818.35
2014	638.08	180.2	818.28	783.12
2013	520.48	243.44	763.92	1108.39
2012	815.87	159.92	975.79	874.7
2011	891.45	153.45	1044.9	918.55
2010	539.61	190.76	730.37	883.87
2009	319.19	165.27	484.46	1152.8

Source: Researcher's Computation, 2019

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Figure 4.1: Frequency distribution of non-oil tax revenues and capital expenditure
Source: Researcher's Computation, 2019

Figure 4.1 above showed the relationship between non-oil tax revenues and capital expenditure. There was an increase in non-oil tax revenue from 2009-2013, while there was also a significant decrease in capital expenditure between 2009 and 2012. As non-oil tax revenue decrease in 2014 and later increases from 2015 to 2018, it was observed that capital expenditure reduces from 2014 to 2016 and later increases from 2017 to 2018 respectively.
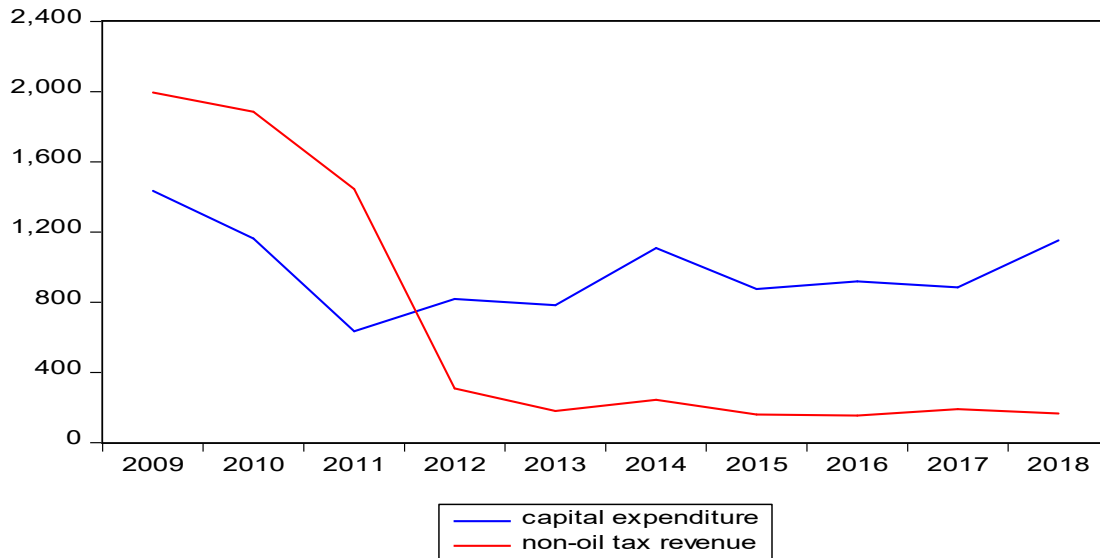

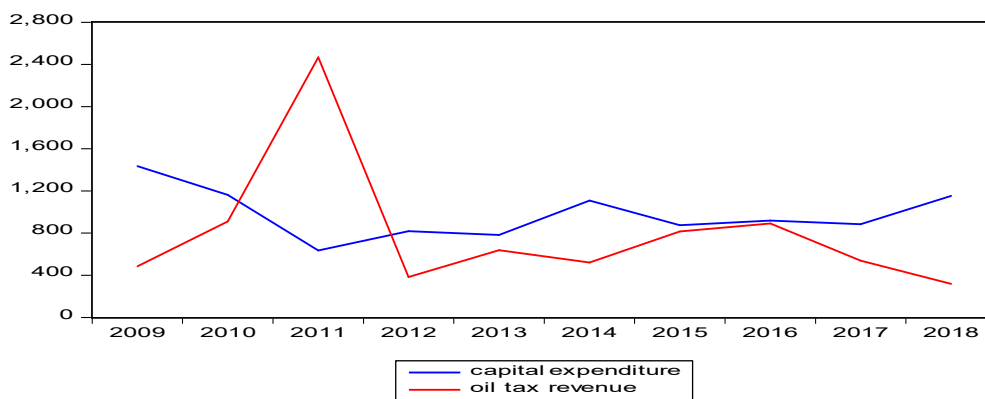**Figure 4.2: Frequency distribution of oil tax revenues and capital expenditure**
Source: Researcher's Computation, 2019

Figure 4.2 above was the relationship between oil tax revenues and capital expenditure, which shows that as oil tax revenues and capital expenditure were increasing/decreasing in the opposite proportion. On the overall, capital expenditure increased more than oil tax revenue.
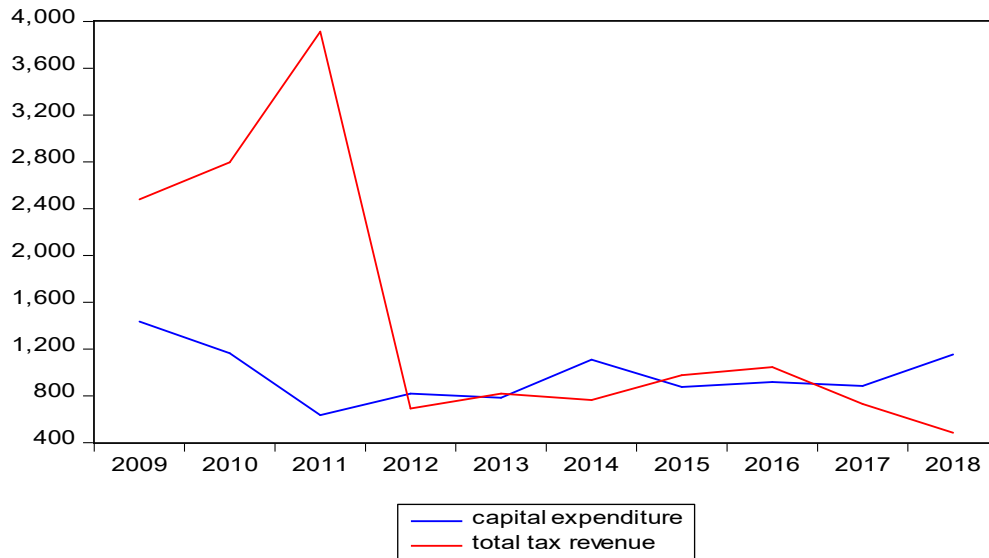
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Figure 4.3: Frequency distribution of total tax revenues and capital expenditure
Source: Researcher's Computation, 2019

As observed in Figure 4.3 above, increase in total tax revenue does not have any effect on capital expenditure. A sharp decrease/increase in TTR has no effect on the CR.

Table 4.1.2 Descriptive Statistics

	CAPITAL EXPENDITURE	TOTAL TAX REVENUE	NON_OIL TAX REVENUE	OIL TAX REVENUE
Mean	977.2570	1469.618	672.5870	797.0300
Median	901.2100	897.0350	217.1000	588.8450
Maximum	1434.800	3912.000	1994.840	2467.560
Minimum	634.7900	484.4600	153.4500	319.1900
Std. Dev.	234.4832	1164.901	774.3116	621.6512
Skewness	0.511341	1.131719	0.956480	2.150686
Kurtosis	2.543345	2.805366	2.042367	6.522357
Jarque-Bera	0.522671	2.150432	1.906867	12.87867
Probability	0.770022	0.341224	0.385415	0.001597
Sum	9772.570	14696.18	6725.870	7970.300
Sum Sq. Dev.	494841.4	12212944	5396026.	3478052.
Observations	10	10	10	10

Source: Eviews Output, 2019

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The mean of the data are Capital expenditure (977.2570), Non-oil tax revenue (672.5870), Oil tax revenue (797.0300), and Total tax revenue (1469.618) while the standard deviations of the data are Capital expenditure (234.4832), Non-oil revenue (774.3116), Oil revenue (621.6512), and Total tax revenue (1164.901). Jarque-Bera test does not accept the normality of CE and other proxies (non-oil tax revenue, and total tax revenues) except for oil tax revenues at 5% and 1% respectively. The result was as depicted by skewness and kurtosis of the data.

Table 4.1.3 GRANGER TEST 2LAG
Pairwise Granger Causality Tests
Date: 05/29/19   Time: 07:15
Sample: 2009 2018
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
Total tax revenue does not granger cause Capital expenditure	8	3.71227	0.1544
Capital expenditure does not granger cause Total tax revenue		11.4317	0.0395
Non-oil tax revenue does not granger cause Capital expenditure	8	3.45344	0.1666
Capital expenditure does not granger cause Non-oil tax revenue		2.45779	0.2333
Oil tax revenue does not granger cause Capital expenditure	8	4.11705	0.1380
Capital expenditure does not granger cause Oil tax revenue		10.0293	0.0469
Non oil tax revenue does not granger cause Total tax revenue	8	19.5989	0.0190
Total tax revenue does not granger cause Non-oil revenue		11.2272	0.0405
Oil tax revenue does not granger cause Total tax revenue	8	19.5991	0.0190
Total tax revenue does not granger cause Oil tax revenue		11.6608	0.0385
Oil tax revenue does not granger cause Non-oil tax revenue	8	11.2273	0.0405
Non-oil tax revenue does not granger cause Oil tax revenue		11.6607	0.0385

Source: Researcher's Computation through E-views (2019)

The results of the Granger causality test showed the statistics for the common significance of each of the lagged endogenous variables in the models above. The probability (p-values) of the F-statistics for the common significance between CE and TTR; and CE and OTR are lesser than the significance level of 0.05, while TTR and CE, NOTR and CE, OTR and CE, are greater than 0.05. Therefore the null hypothesis was failed to be rejected. The results of most of the F-statistics are very high and by good point of this, most of the endogenous variables can be treated as exogenous variables.

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Hypothesis I

Ho: Non-oil tax revenue does not has effect on capital expenditure of Nigerian economy
Dependent Variable: CAPITAL_EXPENDITURE
Method: Least Squares
Date: 05/29/19   Time: 07:23
Sample: 2009 2018
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	889.7116	96.28259	9.240628	0.0000
NON_OIL_TAX REVENUE	0.130162	0.096671	1.346441	0.2151

R-squared	0.184747	Mean dependent var		977.2570
Adjusted R-squared	0.082840	S.D. dependent var		234.4832
S.E. of regression	224.5610	Akaike info criterion		13.84303
Sum squared resid	403421.0	Schwarz criterion		13.90354
Log likelihood	-67.21514	Hannan-Quinn criter.		13.77664
F-statistic	1.812904	Durbin-Watson stat		1.552065
Prob(F-statistic)	0.215062			

Source: E-views Output, 2019

Hypothesis II

Ho: Oil tax revenue does not has effect on capital expenditure of Nigerian economy

Dependent Variable: CAPITAL_EXPENDITURE
Method: Least Squares
Date: 05/29/19   Time: 07:25
Sample: 2009 2018
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1137.865	111.7742	10.18004	0.0000
OIL TAX REVENUE	-0.201509	0.112733	-1.787485	0.1117

R-squared	0.285402	Mean dependent var		977.2570
Adjusted R-squared	0.196077	S.D. dependent var		234.4832
S.E. of regression	210.2418	Akaike info criterion		13.71125
Sum squared resid	353612.8	Schwarz criterion		13.77177
Log likelihood	-66.55625	Hannan-Quinn criter.		13.64486
F-statistic	3.195103	Durbin-Watson stat		0.913741
Prob(F-statistic)	0.111667			

Source: E-views Output, 2019

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Hypothesis III

Ho: Total tax revenue does not has effect on capital expenditure of Nigerian economy
Dependent Variable: CAPITAL_EXPENDITURE
Method: Least Squares
Date: 05/29/19   Time: 07:28
Sample: 2009 2018
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	977.0761	130.8594	7.466610	0.0001
TOTAL TAX REVENUE	0.000123	0.071167	0.001729	0.9987

R-squared	0.000000	Mean dependent var	977.2570
Adjusted R-squared	-0.125000	S.D. dependent var	234.4832
S.E. of regression	248.7070	Akaike info criterion	14.04728
Sum squared resid	494841.3	Schwarz criterion	14.10780
Log likelihood	-68.23642	Hannan-Quinn criter.	13.98090
F-statistic	2.99E-06	Durbin-Watson stat	1.261257
Prob(F-statistic)	0.998663		

Source: E-views Output, 2019

5. DISCUSSION OF FINDINGS

The result from the regression equations are shown in table 4.2.1. The equation employs capital expenditure as its dependent variable, while non-oil tax revenue was the independent variable. For the model, the F-value which was insignificant at 10% level indicates that the models do suffer from specification bias. However, from model 1, the coefficient of determination (R2) indicates that about 18.47% of change in capital expenditure was accounted for by the explanatory variable while the adjusted R-squared of 8.28% further justifies this effect. Also, for the second model, the estimated linear regression shows that the parameter of capital expenditure was not statistically significant on oil tax revenues at 5% or 10% level of significance. For the model, the F-value which was insignificant at 10% level indicates that the models do suffer from specification bias. However, from model 2, the coefficient of determination (R2) indicates that about 28.5% of change in capital expenditure was accounted for by the explanatory variable while the adjusted R-squared of 19.6% further justifies this effect.

From the results of table 4.2.3 above, the sign of the coefficient of total tax revenue was positive. This implies that total tax revenue increased with higher capital expenditure and decrease with lower capital expenditure. Meanwhile, considering the statistical significance of the coefficients which could be judged from the Standard Error, T-Statistic and the probability value of each coefficient, the result show that capital expenditure was statistically insignificant. R-squared statistic shows that explanatory variables in the model (total tax revenue) account for about 0.01 percent of the variation in the dependent variable (capital expenditure). Thus, the explanatory power of the model was low and appears to suggest that the included variable was a low predictor of capital expenditure. Adjusted R-squared being very close to the R-squared implies that there was higher penalty for irrelevant variable in the model. F-statistic being insignificant implies that the overall goodness of fit of the model was not satisfactory.

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Given that the Prob. value of all the models are greater than 0.05, the null hypothesis was failed to be rejected. In effect, the alternative hypotheses of model 1-3 that there was statistically insignificant relationship between tax revenues and capital expenditure in Nigeria were not accepted. The regression result for the three models further revealed that the relationship between the tax revenues and capital expenditure in Nigeria proxies are not in line with the stated expected result. All the results do not conform to the a priori result.

6. SUMMARY OF THE FINDINGS

A quantitative, descriptive, longitudinal research design was conducted to investigate the relationship between tax revenues and capital expenditures of Nigerian economy. Data for the study were obtained from audited financial statement of FIRS and CBN statistical bulletin between the periods of 2009-2018. Descriptive statistic and ordinary least square (OLS) method were used to analyse the data and the significance of the relationship between variables using F-statistics and p-value of 0.05/0.10. Findings for each objective carried out shows that the coefficient estimate was statistically insignificant at the 5 percent level. This assertion was based on the low F-statistic and probability (F-statistics) which were greater than 0.05 and thus was statistically insignificant in line with statistical decision theory. Given that the Prob. value of all the models are greater than 0.05, the null hypothesis was failed to be rejected. In effect, the alternative hypotheses of model 1-3 that there was statistically insignificant relationship between tax revenues and capital expenditure in Nigeria were not accepted. The regression result for the three models further revealed that the relationship between the tax revenues and capital expenditure in Nigeria proxies are not in line with the stated expected result. All the results do not conform to the a priori result.

7. CONCLUSION

The study examines tax revenues and capital expenditures of Nigerian economy. From the findings it was concluded that revenue generated form tax has no impact on capital expenditure allocation. Though currently the major revenue of the Nigeria government are from oil tax activities and revenue from petroleum profit tax. Having evaluated the contribution of non-oil tax revenue and oil tax revenues to government income and economic growth, it was agreed that government should spend more on capital expenditure, not forgetting their responsibility on recurrent expenditure as well in order to sustain the growth of the economy.

8. RECOMMENDATIONS

Having gone through the study and conclusion made, the following are recommended;
i.   Government should use the revenue generated from oil and non-oil tax revenues to invest in other domestic sectors such as Agriculture and manufacturing sector in order to expand the revenue source of the economy and further increase the revenue base of the economy.
ii.   Government should also boost spending on capital projects, which will lead to reduction in poverty and unemployment in order to boost the economy of the country as compared to other countries of the world.
iii.   Government should carry out effective monitoring of the incomes generated from tax revenues to avoid misappropriation of funds.

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9. CONTRIBUTION TO KNOWLEDGE

This study contributes to understanding the relationships between tax revenues and capital expenditure of Nigerian economy, measuring tax revenues with proxy of oil tax revenue, non-oil tax revenues and total tax revenues. The outcome of this research would contribute to the field of study and help government to evaluate the effect of tax revenues on capital expenditure and growth of the economy.

10. SUGGESTIONS FOR FURTHER STUDIES

The study under consideration has investigated the effect of tax revenues on capital expenditure of Nigerian economy. Therefore, future researchers should consider more variables and proxies to measure tax revenues and capital expenditure of Nigerian economy using other sources of revenues and expenditure variables.

11. LIMITATION OF THE STUDY

This study was conducted using time series data extracted from the financial statements of the FIRS and CBN statistical bulletin. A major limitation of the study was the difficulty in getting timely and relevant data due to the delays by FIRS in publishing their financial statements.

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