IMPACT OF TAXATION ON INVESTMENT, SOCIAL AND ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract
The research work examined the impact of taxation on investment, social and economic development in Nigeria. The objective of the study was to examine how tax revenue affects investment, social and economic development in Nigeria. This Study is predicated on the social political theory of taxation, expectancy theory, benefits-received theory and ability to pay theory. Secondary data source was explored in presenting the facts of the situation. The secondary data were obtained from relevant literatures, Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics publications among other. Data were tested using the Ordinary Least Square Linear Regression model. From the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics, information concerning Gross Domestic Product, Gross Fixed Capital Formation, Value Added Tax, Company Income Tax and Personal Income Tax in Nigeria were extracted. The findings show that all the coefficients of the explanatory variables in model 1 and 2 are all statistically significant to gross domestic product and Gross Fixed Capital Formation (GFCF) except company income tax. The study concluded that, tax revenues are tools of both capital formation and economic growth to enhance investment, social and economic development of the country. The study then recommends among others, that to ensure sustainable investment, social and economic development, generation of tax revenue must be sufficient, efficiently and judiciously utilized. The government should pay attention to encouraging her citizens to build trust in it by tax accountability, ensuring that the promises made to the citizens are delivered.

1.0 Introduction

According to Matthew, (2014), the recent economy recession contributed to inconsistencies in the Nigerian tax laws which had made it difficult for the tax authority to administer and tax payers to comprehend tax system. The intention of the federal government to maintain a uniform tax system proved abortive as a result of economy condition of each state which gives room for divergence system. In any economy, the usefulness of taxation in the activities of the government cannot be overemphasized. The main aim of any developing nation like Nigeria is to increase the rate of investment, social, economic development and per capital income which otherwise increases the standard of living thus taxation can be used as a stimulus to accelerate such growth. Tax is one of the major sources of government revenue, however, not every government effectively exploits this opportunity as a means of revenue generation.

Azubike, (2009) posits that tax is a major player in every society of the world. 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. The Nigerian tax system has undergone significant changes in recent times. The tax laws are being reviewed with the aim of repelling obsolete provisions and simplifying the main ones. Under current Nigerian Law, tax revenue is enforced by the three tiers of Government, which are Federal, State and Local Government with each having its sphere clearly spelt out in the Taxes and Levies Act, 1998 and 2004 as amended.

According to Appah (2004), tax is a compulsory levy imposed on a subject or properties by the government to provide investment opportunities, security, social amenities and cater for the welfare of the society. It is a levy imposed by the government on incomes, profits and properties of both individuals and corporate bodies for the sole administration of that government which has no compensatory benefits. The main forms of tax collected are direct and indirect taxes. For the direct taxes, it is levied on individuals and factors of productions e.g. Personal Income Tax (PIT), Capital Gain Tax (CGT). However, indirect taxes are levied on goods and services e.g. import and export duties. Thus, the consumers bear the ultimate burden.

It is an important note that taxation supposed to be an instrument of social change which is not answering as much as it should be doing presently in Nigeria. The impact of tax payment is not felt by payee and some do not understand some tax laws and this indeed has put them into doubt and confusion which has definitely led to tax evasion and avoidance. Having realized that taxation is one of the most important sources of revenue for the various tiers of government and a major way of sourcing financial support to the Nigeria government at large, it is of paramount importance that tax evasion and avoidance is discouraged with every conceivable
This study therefore seeks to investigate the Impact of Taxation on Investment, Social and Economic development in Nigeria for the period 1993-2018 (25 years).

2.0 Review of Related Literature

2.1 Conceptual Framework

2.1.1 Concept of Taxation

Taxation is a tool employed by the government of a nation for generating public funds (Anyaduba, 2004). It is a required payment imposed by the government on the income, profit or wealth of individuals, group of persons, and corporate organisations. According to Brautigam, (2008), a well-designed tax system can help governments in developing countries prioritize their spending, build stable institutions, and improve democratic accountability.

The main purpose of a tax is to enable public sector finance its activities so as to achieve some nation’s economic and social goals. It can also be for the purpose of redistribution of wealth to ensure social justice (Ola, 2001). Therefore, taxes can be used as an instrument for achieving both micro and macroeconomic objectives especially in developing countries such as Nigeria. However, Musgrave and Musgrave (2004) comment that the dwindling level of tax revenue generation in the developing countries makes it difficult to use tax as an instrument of fiscal policy for the achievement of economic development.

According to Anyaduba, (2004), different types, forms and classes of taxes exist but the commonest classification in Nigeria is categorised as direct or indirect. The direct tax is a levy on personal, corporate income or property. Examples are Personal income tax, company income tax, petroleum profit tax, and capital gains tax. When the imposition is on the price of goods and services, then it is called an indirect tax. Indirect tax is payable on the consumption of products and services associated with import duties/tariffs, export duties, value added tax and excise duties. In Nigeria, the government can emphasize on any one of the tax forms depending on the objective it wants to pursue. In Nigeria, different legislations that allow the government tax its citizens and to increase the tax revenue of the country exist. These legislations are the Personal Income Tax Amendment Act 2011, Companies Income Tax Amendment Act 2007, the Petroleum Profit Tax Amendment Act 2004. Others are the Capital Gains Tax Amendment Act 2004, the Value Added Tax Amendment Act 2007 and the Education Tax Amendment Act 2004. The agency of the federal government in charge of the administration and collection of these taxes, (except customs/excise duties) up to April 2007 was the Federal Board of Inland Revenue (FBIR). In 2007, the board was scrapped and replaced by the Federal Inland Revenue Services (FIRS).

2.1.2 Personal Income Tax (PIT)
This is a form of tax paid on one's personal income as distinct from the tax paid on the firm's earnings. In an incorporated firm, the owners (shareholders) pay taxes on both their income (salary or dividend from the firm) and firm's income (profits). In partnerships and sole-ownership, the tax is paid only once on the firm's profits. Personal Income Tax is also a direct tax charged on the income of a person. In the context of personal income tax, a 'person' means an individual, a sole proprietorship (non-juristic person), communities and families and on executors and trustees (of an undivided estate). The tax is on the Pay As You Earn (PAYE) basis, that is the tax payable depends on how much is earned by the tax payer. The tax is easy to collect among civil servants as it is deducted from source by the appropriate authorities unlike the private sector who will have to file returns of each tax payer which in most cases is not done. The tax is payable to both the Federal Board of Inland Revenue and the state Board of Internal Revenue depending on the sector in which the tax payer is employed. The tax is regulated by the Personal Income Tax Act 2004 (Federal Inland Revenue Service, 2014).

2.1.3 Value Added Tax (VAT)

Ajakaiye, (2000) defined VAT as a “multi stage tax imposed on the value added to goods and services as they proceed through various stages of production and distribution and to services as they are rendered” which is eventually borne by the final consumer but collected at each stage of production and distribution chain. Ola (2001), said that, VAT is a tax paid at each stage of value added. It is a multi-stage tax which applies whenever goods and services are supplied by the producers. He also said that VAT are levied on the value gained or added on the products before being sold, VAT is an output tax less input tax. He went further to say that VAT is one of indirect taxes collected by the government in this case the incidence of tax is borne by either the producer or the final consumer or shared by both.

2.1.4 Company Income Tax (CIT)

This is a percentage of the profit of a company accruing in, derived from, brought into or received in Nigeria. This tax is payable to the Federal Tax of Inland Revenue. The rationale behind the tax is to levy tax on the company which is juristic person as different from its shareholders as the company becomes a distinct legal entity at incorporation. The tax is regulated by the Companies Income tax Act 2004.

CIT was created by the Companies Income Tax Act (CITA) 1979 and has its root from the Income Tax Management Act of 1961. It is one of the taxes administered and collected by the Federal Inland Revenue Service (FIRS). The tax contributes significantly to the revenue profile of the Service. In 2016, the revenue target for Companies Income Tax is N1.877 trillion representing approximately 40 percent of the total projected tax revenue of N4.957 trillion for the year. In filing for Companies Income Tax, audited financial statement are statutorily
required. This necessitates the engagement of External Auditors to prepare and/or certify the accounts to be submitted. The returns should mandatorily be accompanied by the tax computations and capital allowances computations on qualifying assets of the company. The requirement for filing does not discriminate between small, medium or large taxpayers. To many taxpayers therefore, CIT is a complicated kind of tax, difficult to understand and to comply with (Federal Inland Revenue Service, 2014).

2.1.5 Gross Domestic Product (GDP)
According to Adekunle and Aderemi, (2012), gross domestic product measures the monetary value of final goods and services, that is, those that are bought by the final users produced in a country in a given period of time e.g quarterly or yearly. It counts all the output generated within the borders of a country. GDP is composed of goods and services produced for sale in the market and also include some non market production, such as defence or education services provided by the government. An alternative concept, gross national product, or GNP, counts all the output of the residents of a country. Not all productive activity is included in GDP. For example, unpaid work (such as that performed in the home or by volunteers) and black-market activities are not included because they are difficult to measure and value accurately.

2.1.6 Gross Fixed Capital Formation (GFCF)
Capital formation is a term used to describe the net capital accumulation during an accounting period for a particular country. The term refers to additions of capital stock, such as equipment, tools, transportation assets and electricity. Countries need capital goods to replace the ones that are used to produce goods and services. If a country cannot replace capital goods, production declines. Generally, the higher the capital formation of an economy, the faster an economy can grow its aggregate income. Capital formation is similar to an increase in physical capital stock of a nation with investment in social and economic infrastructures. Gross fixed capital formation can be classified into gross private domestic investment and gross public domestic investment. The gross private domestic investment includes investment by private individuals and/or enterprises while gross public investment includes investment by government and/or public enterprises. Gross domestic investment is equivalent to gross fixed capital formation plus net changes in the level of inventories. Capital formation perhaps leads to production of tangible goods (i.e., plants, tools & machinery, etc) and/or intangible goods (i.e., qualitative & high standard education, health, scientific tradition and research) in a country (Adekunle & Aderemi, 2012).

2.1.7 Concept of Investment, Social and Economic Development
Investment is generally classified into four major components: the private domestic investment, the public domestic investment, the foreign direct investment and portfolio investment. Private domestic investment refer to gross fixed capital formation plus net changes in the level of inventories whereas public investment includes investment by government and public enterprises on social and economic infrastructure, real estate and tangible assets. The combination of private investment and public investment is normally referred to a Gross Fixed Capital Formation. The foreign investment, when it is on tangible asset, is referred to as Foreign Direct Investment (FDI). It is called portfolio investment when it is on shares, bonds, securities, etc (Bakare 2013).

Economic development is a policy intervention efforts targeted at the economic and social well-being of people (Salmon Valley Business Innovation Centre, 2014). Its concern is on improvement in the quality of life of people, introduction of new goods and services using modern technological, mitigation of risk and dynamics of innovation and entrepreneurship (Hadjimichael, 2014). The objective of social and economic development is to create an enabling environment for local communities and regions to develop new ways of production of goods in such quantities that may lead to exportation to other countries. Availability of financial resources from exportation leads to more investment in infrastructure for the benefit of the society and improvement in living conditions of the people, in education, transportation networks, health conditions, water supply, sewage and sanitation conditions (SVBIC, 2014). The changes create the conditions for long-run economic growth by positioning the economy on a higher growth trajectory (Hadjimichael, 2014).

Economic development differs from economic growth. Economic growth specifically means an increase in the value of goods and services produced by a country over a period and Economists use an increase in country's GDP to measure it. Thus, it is possible to have economic growth without economic development in the short or even medium term (Hadjimichael, 2014). In other words, there could be an increase in GDP without any increase in standard of living of people in a state. Environmental conditions that would enhance economic growth must be created through an investment of the national income in infrastructural development for subsequently improvement in the standard of life of the population of a country (Wilkins and Zarawski, 2014).

Writers use economic growth and development interchangeably and also use GDP as measurement indicator for both. However, since the two are differentiated, any attempt to use GDP as a measure for the two gives incorrect result on economic development. Robert, (2009) emphasize the need for a new measure of progress in the well-being of people, arguing that GDP is not a good measure because economic growth is not synonymous with improved well-
being. The authors suggested that indicators promoting sustainable development should be used to replace GDP. Tejvan (2015) opines that one of the several measures of economic development is the Human Development Index (HDI). HDI is a measurement indicator that takes into consideration the literacy rates and life expectancy that affect productivity and could lead to economic growth while economic growth does not take into account unrecorded economic activity.

2.1.8 Concept of Taxation on Investment, Social and Economic Development in Nigeria

2.2 Theoretical Framework

2.2.1 Socio political theory of taxation

Ogbonna and Appah (2012) affirmed this reasoning justifies the imposition of taxes for financing state activities and for the provision of a basis for apportioning the tax burden between members of the society. They advocated that, advocates for a tax system which is not designed to serve individuals but one that cures the ills of the society as a whole. The society is made up of individuals but is more than the sum total of its individual members; consequently,
the tax system should be directed towards the health of the society as a whole, since individuals are integral part of the broader society (Chigbu, Akujuobi & Appah, 2012).

2.2.2 Expectancy theory
Ayuba (2014) and Bhartia (2009) asserts that, the taxation is such that every tax proposal passes the test of practicality and must be the sole consideration before the tax authorities in a bid for tax proposal. It strongly emphasises that, the economic and social objective of the state is considered irrelevant since it is meaningless to have a tax that cannot be levied and effectively collected.

2.2.3 Benefits-received theory
According to Chigbu, Akujuobi and Appah, (2012), this theory assumes an exchange or contractual relationship between the state and the tax-payers, certain goods and services are provided by the state and the cost of such goods and services are contributed in the proportion of the received benefits, thus, the benefits received present the basis for distributing the tax burden in specific manner. This theory overlooks the possible use of the tax policy for bringing about economic growth or stabilization., They also see the cost of service theory as very similar to the benefits-received theory. The theory emphasize on semi commercial relationships between the state and the citizens to a greater extent. The implication according to them, was that, the citizens are not entitled to any benefits from the state and if they do, they must pay the cost thereof.

2.2.4 Ability to pay theory
This theory of taxation upholds that, taxes imposed on tax-payers should be based on the progressive tax approach which maintains that taxes should be levied according to a tax-payer’s ability to pay. This system of taxation requires that higher earning persons pay taxes higher than those with lower income. The basic tenet of this theory is that, the burden of taxation should be shared by the members of the society on the principle of equity and justice and that this principle necessitates that tax burden is apportioned according to their relative ability to pay. Adam Smith is the brain behind the principle of equity and justice. He advocates that, the amount of tax payable should be equal, this by implication means that, tax payable is in proportion to earned income. Equity and justice is assumed only when the tax system is based on the ability of the tax payer to pay the amount levied as tax liability (Okafor, 2012)

2.3 Review of Empirical Framework
Many studies have investigated the impact of tax revenue on economic growth in Nigeria, and in different part of the countries with diverse techniques and opinions. The outcomes of the investigations however, have shown that, tax revenue has a significant relationship with economic variables.
Lyndon and Paymaster, (2016) examined the impact of companies’ income tax, value-added tax on economic growth (proxy by gross domestic product) in Nigeria, using secondary time series panel data covered the period 2005 to 2014. Their results of the analysis showed that, both company income tax and value-added tax have positive impact on economic growth.

Macek (2014) similarly, investigated the impact of taxation revenue on economic growth in OECD countries, using time series secondary data for the period 2000 – 2011. He adopted a mathematical multiple regression model to capture the linearity correlation between the variables of the study.

Ogbonna & Appah (2012) observed the impact of tax reforms on economic growth in Nigeria using data collected from the Statistical Bulletin of the Central Bank of Nigeria (CBN) for the period 1994 - 2009. They found that, tax reform variables such as petroleum profit tax, companies’ income tax, value-added tax, education tax, personal income tax, and custom and excise duties had significantly impact on economic growth in Nigeria. They concluded that, tax reforms improved government revenue.

In a related study, Ude & Agodi, (2014) investigated the correlation between the New National Tax Policy and economic growth in Nigeria using co-integration technique and error correction model to analyze data. The results of their analysis revealed that, direct taxation revenue has significant positive relationship with economic growth, while indirect tax revenue had insignificant but negative impact on economic growth in Nigeria. They concluded that, Nigeria’s tax policy towards indirect taxation lack justification, rather the country should strengthen the structures of direct taxation.


Ofoegbu, Akwu and Olive, (2016) studied empirical analysis of effects of tax revenue on economic development of Nigeria using annual time series data for the period 2005-2014. They discovered that, there was a significant relationship between tax revenue and economic development. The results also revealed that, measuring the effects of tax revenue on economic development using HDI gave lower relationship than measuring the relationship with GDP.
which gives a painted picture of the relationship between tax revenue and economic development in Nigeria.

3.0 Methodology

The data for this study was obtained mainly from secondary sources. In order to investigate the impact of taxation on the investment, social and economic development in Nigeria, information from the Central Bank of Nigeria Statistical Bulletin concerning; Gross Fixed Capital Formation (GFCF), Gross Domestic Product (GDP), Value Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT) covering the period of years 1982-2017 (25 years) was used. Other Secondary Sources of data are relevant articles, journals and newspapers.

3.1 Model Specification

The following mathematical model was developed to analyse the relationship between taxation and investment, social and economic development in Nigeria using Value Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT) as the independent variables and regressed against the dependent variables Gross Fixed Capital Formation (GFCF) and Gross Domestic Product (GDP) used as proxy for investment, social and economic development.

This study employed the model specified below.

\[ Y_{lt} = \alpha + \beta_1 \text{VAT}_{lt} + \beta_2 \text{CIT}_{lt} + \beta_3 \text{PIT}_{lt} + \varepsilon_{lt} \] ........................................................ 3.1

where \( Y \) represents the investment, social and economic development in Nigeria measured by Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF).

\( \alpha = \) the constant term

\( \text{VAT} = \) Value Added Tax

\( \text{CIT} = \) Company Income Tax

\( \text{PIT} = \) Personal Income Tax

\( \beta = \) the coefficient of the function

\( \varepsilon = \) error term.

Since Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF) are the proxies to be used in measuring investment, social and economic development in Nigeria. In this study, the model will be modified as follows:

\[ \text{GDP}_{it} = f(\text{VAT}_{it}, \text{CIT}_{it}, \text{PIT}_{it}) \] ........................................................................................................3.2

\[ \text{GDP}_{it} = \alpha + \beta_1 \text{VAT}_{it} + \beta_2 \text{CIT}_{it} + \beta_3 \text{PIT}_{it} + \varepsilon_{it} \] ........................................................ 3.3

\[ \text{GFCF}_{it} = f(\text{VAT}_{it}, \text{CIT}_{it}, \text{PIT}_{it}) \] ........................................................................................................3.4

\[ \text{GFCF}_{it} = \alpha + \beta_1 \text{VAT}_{it} + \beta_2 \text{CIT}_{it} + \beta_3 \text{PIT}_{it} + \varepsilon_{it} \] ........................................................ 3.5

4.0 Results and Discussion of Findings
4.1 Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>GFCF</th>
<th>PIT</th>
<th>VAT</th>
<th>CIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15105182</td>
<td>863174.9</td>
<td>2018956.</td>
<td>229490.1</td>
<td>4316151.</td>
</tr>
<tr>
<td>Median</td>
<td>10662293</td>
<td>447542.5</td>
<td>1266098.</td>
<td>147950.0</td>
<td>972800.0</td>
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<tr>
<td>Maximum</td>
<td>40544100</td>
<td>2045097.</td>
<td>6537536.</td>
<td>716200.0</td>
<td>32010000</td>
</tr>
<tr>
<td>Minimum</td>
<td>1399703.</td>
<td>85021.90</td>
<td>407582.7</td>
<td>7260.80</td>
<td>10070.00</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>12596846</td>
<td>747687.7</td>
<td>1868021.0</td>
<td>7260.80</td>
<td>10070.00</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.770988</td>
<td>0.400331</td>
<td>1.246866</td>
<td>0.913624</td>
<td>2.442082</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.307478</td>
<td>1.395018</td>
<td>3.394284</td>
<td>2.458524</td>
<td>7.041135</td>
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<tr>
<td>Jarque-Bera</td>
<td>2.142958</td>
<td>2.412770</td>
<td>4.780617</td>
<td>2.724026</td>
<td>30.13937</td>
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<td>Probability</td>
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<td>0.299277</td>
<td>0.091601</td>
<td>0.256145</td>
<td>0.000000</td>
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<tr>
<td>Sum</td>
<td>2.72E+08</td>
<td>15537147</td>
<td>36341213</td>
<td>4130822.</td>
<td>77690712</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>2.70E+15</td>
<td>9.50E+12</td>
<td>5.93E+13</td>
<td>9.17E+11</td>
<td>1.66E+15</td>
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<tr>
<td>Observations</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
</tbody>
</table>

Source: Researchers' E-view Results, (2019).

The table above shows the descriptive statistics of Gross Domestic Product (GDP), Gross Fixed Capital Formation (GFCF), Personal Income Tax (PIT), Value Added Tax (VAT), Company Income Tax (CIT), covering the the period of years 1992-2017. They show a mean of (15105182, 863174.9, 2018956, 229490.1 and 4316151), standard deviation of (12596846, 747687.7, 1868021.0, 232229.8 and 9876443.), Skewness of (0.770988, 0.400331, 1.246866, 0.913624 and 2.442082), and kurtosis of (2.307478, 1.395018, 3.394284, 2.458524 and 7.041135).

From the table, it is revealed that, over 25-year period, the gross domestic product has a minimum value of 1399703. and maximum value of 40544100. The standard deviation of value added tax is 232229.8 which is affected by the extreme value in a slightly pattern.

As revealed by the skewness of gross fixed capital formation, there was a positive skewness (0.400331) indicating that the degree of departure from the mean of the distribution is positive revealing that overall, there was a consistent increase in gross fixed capital formation from 1983 to 2018 in Nigeria.

Though, as indicated by the Kurtosis of 1.395018 less 3 which is the normal value shows that the degree of peakedness within the period of this study were normally distributed as most of the values do not depart from the mean. The Jarque-Bera statistic shows that the JB statistics is about 2.412770, and the probability of obtaining such a statistic under normality assumption is 0.299277 percent. We therefore, accept the hypothesis that states “Gross fixed capital formation is normally distributed”.
4.2 Test of Hypotheses

Hypothesis One

H₀: Tax revenue has no significant effect on gross domestic product in Nigeria.

Dependent Variable: GDP
Method: Least Squares
Date: 09/25/19  Time: 19:37
Sample (adjusted) 1993-2018
Included observations: 25

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2079028.</td>
<td>733978.1</td>
<td>2.832548</td>
<td>0.0133</td>
</tr>
<tr>
<td>CIT</td>
<td>-0.097507</td>
<td>0.080627</td>
<td>-1.209353</td>
<td>0.2466</td>
</tr>
<tr>
<td>PIT</td>
<td>1.774612</td>
<td>1.315013</td>
<td>1.349501</td>
<td>0.1986</td>
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<tr>
<td>VAT</td>
<td>42.98287</td>
<td>9.068351</td>
<td>4.739877</td>
<td>0.0003</td>
</tr>
</tbody>
</table>

R-squared 0.985812  Mean dependent var 15105182
Adjusted R-squared 0.982771  S.D. dependent var 12596846
S.E. of regression 1653439.  Akaike info criterion 31.66774
Sum squared residua 3.83E+13  Schwarz criterion 31.86560
Log likelihood -281.0097  Hannan-Quinn criter. 31.69503
F-statistic 324.2416  Durbin-Watson stat 1.201961
Prob(F-statistic) 0.001


From the regression result, the coefficient of determination (R²) value of 0.985812 shows that at 98.86 percent, the explanatory variables explain changes in the dependent variable. This means that at 98.86 percent, the independent variables explain changes in the Gross Domestic Product (GDP). This simply means that the explanatory variables explain the behaviour of the dependent variable at 98.86 percent. The calculated F-statistics (324.2416) having significant level (0.001) which is less than 0.05 level of significance implies that the model is significant. The Durbin-Watson (DW) as shown in the regression analysis is 1.2019. From this, it shows that there is the presence of autocorrelation. The above model tested the effect of three different variables namely; Value Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT) on Gross Domestic Product (GDP).

In order to obtain the regression result, the Ordinary Least Square (OLS) technique with the help of the Econometric Views (E-views) software was used. The result obtained from the
regression shows that there is negative but insignificant impact of Company Income Tax (CIT) on Gross Domestic Product (GDP) with a coefficient of -0.097507. Hence, Company Income Tax is negatively insignificant to Gross Domestic Product in Nigeria.

Also, the regression result shows that Personal Income Tax (PIT) has a positive impact on Gross Domestic Product (GDP) with a coefficient of 1.774612. The coefficient of Personal Income Tax is statistically significant as shown by both the corresponding standard error and t-values. Thus, Cumulative Personal Income Tax is elastic to Gross Domestic Product. This positivity of the coefficient of Tax revenue conforms to the economic a priori expectation of a positive impact of personal income tax on Gross Domestic Product. Furthermore, the result obtained from the regression shows that Value Added Tax (VAT) has a positive impact on Gross Domestic Product. This is indicated in its positive coefficient of 42.98287. However, Value Added Tax is elastic to Gross Domestic Product since the standard error and t-values revealed that the coefficient is statistically significant.

The F-statistics of 324.2416 shows overall significance of the regression model. F-sig. level of .001 is less than 0.05 which suggests that H₀ is not true. Therefore, tax revenue has significant and positive effect on gross domestic product, thus tax revenue is an instrument for economic growth and development in Nigeria.
Hypothesis Two

H$_0$: Tax revenue has no significant effect on gross fixed capital formation in Nigeria.

Dependent Variable: GFCF
Method: Least Squares
Date: 09/25/19  Time: 21:56
Sample (adjusted): 1993-2018
Included observations: 25

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
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<tbody>
<tr>
<td>C</td>
<td>93766.72</td>
<td>119222.8</td>
<td>0.786483</td>
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<td>CIT</td>
<td>-0.019479</td>
<td>0.013097</td>
<td>-1.487354</td>
<td>0.1591</td>
</tr>
<tr>
<td>PIT</td>
<td>0.090496</td>
<td>0.213603</td>
<td>0.423668</td>
<td>0.6782</td>
</tr>
<tr>
<td>VAT</td>
<td>2.922893</td>
<td>1.473006</td>
<td>1.984305</td>
<td>0.0672</td>
</tr>
</tbody>
</table>

R-squared 0.893741
Mean dependent var 863174.9
S.D. dependent var 747687.7
S.E. of regression 268574.3
Akaike info criterion 28.03277
Sum squared resid 1.01E+12
Schwarz criterion 28.23063
Log likelihood 248.2950
Hannan-Quinn criter. 28.06006
Durbin-Watson stat 1.056083
Prob(F-statistic) 0.000000


From the regression result, the R-squared ($R^2$) value of 0.893741 shows that at 89.37 percent, the explanatory variables explain changes in the dependent variable. This means that at 89.37 percent, the independent variables explain changes in the Gross Fixed Capital Formation (GFCF). This simply means that the explanatory variables explain the behaviour of the dependent variable at 89.37 percent. The calculated F-statistics (39.251) having significant level (0.000) which is less than 0.05 level of significance implies that the model is significant. The Durbin-Watson (DW) as shown in the regression analysis is 1.0561. From this, it shows that there is the presence of autocorrelation. The result obtained from the regression shows that there is negative but insignificant impact of Company Income Tax (CIT) on Gross Fixed Capital Formation (GDP) with a coefficient of -0.019479. Hence, Company Income Tax is negatively insignificant to Gross Fixed Capital Formation in Nigeria.

Also, the regression result shows that Personal Income Tax (PIT) has a positive impact on Gross Fixed Capital Formation (GFCF) with a coefficient of 0.090496. The coefficient of Personal Income Tax is statistically significant as shown by both the corresponding standard error and t-values. Thus, Cumulative Personal Income Tax is elastic to Gross Fixed Capital Formation. This positivity of the coefficient of Tax revenue conforms to the economic a priori expectation of a positive impact of personal income tax on Gross Fixed Capital Formation. Furthermore, the result obtained from the regression shows that Value Added Tax (VAT) has a positive impact on Gross Fixed Capital Formation. This is indicated in its positive coefficient
of 2.922893. However, Value Added Tax is elastic to Gross Fixed Capital Formation since the standard error and t-values revealed that the coefficient is statistically significant. The F-statistics of 39.25099 shows overall significance of the regression model. F-sig. level of .000 is less than 0.05 which suggests that H₀ should be rejected. Therefore, tax revenue has significant and positive effect on Gross Fixed Capital Formation, thus tax revenue is an instrument for investment, social and economic development in Nigeria.

5.0 Conclusion
The Ordinary Least Square(OLS) regression analysis is carried out, to determine the impact of taxation indicators on Gross Fixed Capital Formation (GFCF) and Gross Domestic Product(GDP). Hence, Gross Fixed Capital Formation (GFCF) was regressed on Value Added Tax (VAT), Company Income Tax (CIT), Personal Income Tax (PIT). Gross Domestic Product was also regressed on the above Tax revenue indicators. The results of the findings show that all the coefficients of the explanatory variables in model 1 are all statistically significant to gross domestic product, except company income tax. This means that company income tax do not contribute significantly to gross domestic product during the period under analysis. In model 2, all the explanatory variables show to be significant to Gross Fixed Capital Formation (GFCF) also, with the exception of company income tax. The implication of this is that the collection of company income tax by the relevant tax authorities has not been efficient enough to bring about significant increase in Gross Fixed Capital Formation during the period under analysis. However, the research findings still support the notion that tax revenues are tools of both capital formation and economic growth to enhance investment, social and economic development of the country.

Thus, to ensure sustainable investment, social and economic development, generation of tax revenue must be sufficient, efficiently and judiciously utilized. The government should pay attention to encouraging her citizens to build trust in it by tax accountability, ensuring that the promises made to the citizens are fulfilled. It should also ensure that the tax system is very transparent and the proceeds from taxes utilized honestly for the improvement of the citizens social welfare.

The federal government should prudently manage the financial resources generated from taxes and also reduce drastically waste of public funds. Practical application of tax revenue to solving problems surrounding welfare of the citizens’ will results into more generation of tax revenue.


