The Role Of Taxation In National Development From The Inception Of Fourth Republic In Nigeria

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ABSTRACT
This paper investigates the role of taxation in national development of Nigeria. The data used in the research work is secondary data sourced from CBN bulletin 2018 and Federal Inland Revenue Service of Nigeria from 1999 to 2018. The model employed in the research is a simple linear regression model capturing Federal Government Non-Oil revenue (FNR) as a dependent variable and tax revenue (TR) as independent variable. Other variables used in the study to investigate national development in Nigeria using Granger causality test include government expenditure on: Internal security, social and community service, education, Health, agriculture and construction service. Ordinary least squares method was used for regressing FNR on TR. Stationarity test was based on Augmented Dicky-Fuller Unit Root test and the results showed that all the variables in the study were stationary at first difference, I(1). Meaning the development in Nigeria is more visible in the long-run. This is in line with the outcome of long-run positive relationship between FNR and TR as Engle-Granger cointegration and cointegrating Regression Durbin-Watson tests proved. The outcome of Granger Causality test also confirms this long-run relationship. In conclusion, tax revenue may contribute positively to national development in Nigeria. Therefore, the study recommends among others, a better and efficient tax system in Nigeria since tax has a great role in national development. Keywords: Taxation, National Development, Fourth Republic of Nigeria

1. INTRODUCTION
Global development emanate from continent development. Continent development in turn emanate from national development of each country within a continent. National development is critical and essential for the well-being of the citizens as well as the sustainability and growth of a nation, and as such, it is worth pursuing by any government of a country. One of the superior ways to achieve national development (ND) vis-à-vis its sustainability by any government is taxation. Taxation plays a greater and a dual role in achieving ND than any factor or group of factors. It plays dual role because; at one hand it is a source of revenue generation to the government, and at the other, it serves as stabilisation policy (control and regulation policy) and income redistribution. Uzonwanne (2015) also observed this dual role of taxation as the instrument of: Revenue generation, stabilisation, regulation, payment and instrument of mobilization. The essentiality of taxation can be viewed in both developed and developing nations. As a developing country, the role of taxation in Nigeria cannot be over emphasised. Over the years, government of Nigeria has been implementing tax as an instrument of controlling inflation, unemployment and revenue generation for the well-being of its citizens through the provision of roads, health care, education among others to achieve it national development objectives. Despite these efforts, the following problems of national development thrive in Nigeria: (i) Tardy economic growth in terms of G.N.P. and standard of living, (ii) Large scale unemployment and under-employment, (iii) Large pool of illiteracy, (iv) Rapid growth of population, (v) Challenges of national and emotional integration, (vi) Inertia to change process., (vii) Slow process of modernization, (viii) Problem of evolving a democratic, socialistic and secular order, (ix) Incidence of poverty and poor standard of living, (x) Phenomenon of urbanisation and its allied malaise.(xi)
Lethargic attitude of people to the core value of work and unwillingness to take responsibility, (xii) Mismatch between moral and scientific values, (xiii) Rise of phenomenon of brain-drain, (xiv) Useless and low quality products of institutions of higher learning (Bawa, 2016). Some of these problems also include; corruption and indiscipline, lack of good governance, security threat, problems of social amenities and alike. These obvious problems make it possible to empirically investigate the role of taxation in national development in the inception of fourth republic in Nigeria. This main objective can be achieved through these specific objectives: 1) to investigate the impact of tax revenue on the Nigerian GDP, 2) to find out if government expenditure on national development indicators such as: Internal security (IS), social and community service (SCS), education (ED), Health (HS), agriculture (AG) and construction service (CS) through taxation sustained national development in Nigeria, 3) to know if the sustainability of the national development observed after many years of the inception of fourth republic. The research work therefore, covers the period between 1999 and 2018. The choice of this period is enough to study the sustainability of national development in Nigeria. The research paper is organised in six sections. Section 1 is introduction; section 2 is literature review; section 3 is the methodology; section 4 is results and interpretation, section 5 is policy implication and section 6 is the conclusion and recommendations.

2. LITERATURE REVIEW
2.1 CONCEPTUAL ISSUES
National Development and its Sustainability
Bawa (2019) opined that the term national development is very comprehensive that includes all aspects of the life of an individual and the nation. That is, it is a holistic approach for the process of reconstruction and development in various dimensions of a nation and development of individuals. That national development includes full-growth and expansion of our industries, agriculture, education, social, religious and cultural institutions. Moreover, that national development implies development of a nation as a whole. The scholar concluded that, national development can be best defined as the all-round and balanced development of different aspects and facets of the nation viz. political, economic, social, cultural, scientific and material. Onyenemezu (2013) defined national development as national growth in all ramifications (economic, social, cultural, political and environmental). According to the scholar, the main purpose of national development is to liberate citizens from the shackles of poverty. Lawal and Oluwatoyin (2011) viewed national development in the way Longman dictionary refers it as a phenomenon that embraces a whole nation. In their view, national development can be described as the overall development or a collective socio-economic, political as well as religious advancement of a country. The authors observed that, national development can be best achieve through development planning, which can be described as the country’s collection of strategies mapped out by the government. Hence economic, political, social, cultural, physical, spiritual, material and moral development of a nation is inevitable for freedom and dignity of man (Agboeze, 2011). Aggarwal (2010) perceives national development to include the improvement of all aspects of the life of an individual and the nation’s cultural, democratic, emotional, economic, intellectual, material, moral, physical, spiritual and social. To this end, it should be noted that national development does not concern only economic development even though it is a crucial factor of it. Therefore in a broad way, national development can be seen as “Growth plus Change” despite economic development can also be viewed in the same way. That is, national development is a broad concept while economic development is a narrow concept. In Nigeria, national development may not be limited to: The improvement in education, health, agriculture, infrastructures, industrial activities, higher GDP, more revenue, attitudinal change, cultural and religious commitments, poverty reduction, unemployment reduction, equal distribution of income, gender equality, price stability, good security system, good governance and alike. Sustainability of national development can be seen as the capability of a particular nation to achieve comprehensive improvements or refinement in all ramifications of its existence (economic, political, cultural, religious etc) and set, maintain and continue affairs at that level for a long time (Abraham, 2012a). This simply means the ability of a particular country to plan and achieve betterment and improvements in its socio-economic, political, cultural and environmental lives both now and in the future. In the early 1970’s, sustainability was used to describe an economy in equilibrium with basic ecological support systems (Abraham 2012b). The field of sustainable development can be
Conceptually broken into three components: economic sustainability, environmental sustainability, and socio-political sustainability (Bassey, Ekpah and Edeth, 2008).

**Taxation and Tax System**

Taxation is seen as a burden which every citizen must bear to sustain his or her government because the government has certain functions to perform for the benefits of those it governs. A precise definition of taxation by Farayola (1987) is that taxation is one of the sources of income for government, such income is used to finance or run public utilities and perform other social responsibilities. Ochiogu (1994) defines tax as a levy imposed by the government against the income, profit or wealth of the individuals and corporate organizations. According to Adams (2001) taxation is the most important source of revenue for modern governments, typically accounting for ninety percent or more of their income. Aigulu (2004) defined taxation as a compulsory levy by the government through its agencies on the income, consumption and capital of its subjects. Whereas, Ojo (2008) stresses that, taxation is a concept and the science of imposing tax on citizens. That tax is itself a compulsory levy which is required to be paid by every citizen. The imposition of taxation is expected to yield income which should be utilized in the provision of amenities, both social and security and creates conditions for the economic well being of the society. It plays a very important role in the economic life of a developing country. Today, Nigeria is indeed in dire need of effective and efficient tax system in order to generate enough revenue that will stimulate economic growth (Oji, 2018).

In most countries, tax system is seen as an embodiment of contention and controversy whether in its policy formulation, legislation or administration (Bariyama & Gladson, 2009). For example, in 2009 Nigeria government was contemplating to raise Value Added Tax rate, while the organised private sector was resisting that attempt and would rather have government bring more companies and individuals into the tax net (Alli, 2009). The tax reform in Nigeria is spearheaded by the Federal Inland Revenue service which is geared to achieving greater revenue collection, voluntary and willing compliance and breaking the long piercing phobia between tax payers and tax collectors. The revenue generation capacity of the nation’s present tax administrative system is hampered by challenges such as paucity of data, inefficient monitoring and enforcement system, and corrupt practices (Leyira, Chukwuma and Asian 2012). All these have impeded the economic growth of Nigeria; which has resulted to her current state of economic recession with the resultant effect of companies closing down, hence, reducing the tax revenue of the Government. According to James and Moses (2012), the prevalence of tax evasion in the Nigeria tax system has curtailed the amount of revenue collected from tax income, this in no doubt has effect on the government expenditure in the economy. To Ovunda (2018) that fiscal operation of Nigeria is arranged in such a way that it adheres to the tenets of a federal system of government practiced in the country: a fact that has serious implication on the management of her tax system. That fiscal federalism vis-à-vis tax administration in Nigeria is characterized by series of problems. That Nigeria’s tax system is lopsided and has the dominance of oil revenue. But despite the dominance of petroleum, taxation still remains an indispensable source of revenue in Nigeria.

**Fourth Republic of Nigeria**

According to Wikipedia (2008), Fourth Republic is the republican government of Nigeria and since 1999; it has governed the country according to the fourth republican constitution. That it was in many ways a revival of the Second Republic, which was in place between 1979 and 1983 and suffers many of the same problems, such as multiple ministries which made policy planning difficult and that, Nigeria adopted the constitution of the Fourth Republic on May 29, 1999.

2.2 EMPIRICAL REVIEW

Ibadin and Oladipupo (2015) examined indirect taxes and economic growth in Nigeria for the period of 34 years starting from 1981 to 2014. Data collected was through secondary source, (CBN) bulletin and then was analysed and tested for unit roots using the Augmented Dickey-Fuller test. The study used Error Correction Model to assess the impact of VAT, PPT and CED on RGDP. Results of the study found that the VAT and PPT showed positive and significant correlation with RGDP. Gale, Krupkin and Rueben (2015) carried out a study about the relationship between taxes and growth in Nigeria at the state level. This study used 1977 to 2011 data to measure the business activity. The variables used in the study were personal income per capita, employment- population ratio, amount of..
total state and local government tax revenue, statutory marginal personal income tax rate, adjusted marginal personal income tax rate and unemployment rate. The findings show inconsistent with the view that cuts in top state income tax rates that will automatically or necessarily generate growth. The result also shows that marginal tax rates generally have impact on employment and statistically significant, but economically small, effects on the rate of firm formation. Wambai and Hanga (2013) examined taxation and social development in Nigeria: tackling Kano’s hidden economy. They found that the attitude of the government on taxation need to change and recommends a tax system that concentrate on establishing simplicity, predictability, and neutrality. Nwakanma and Nnandi (2013) examined taxation and national development in Nigeria with the least square methodology and specification on the lin-log model of human development index. Their findings revealed that Petroleum Profit Tax, Company Income Tax and Excise Tax respectively exhibit a positive relationship with the level of national development, and a negative relationship between human development index and corporate tax. Olusanya, Peter and Oyebo (2012) investigate taxation as a fiscal policy instrument for income redistribution among Lagos state civil servants using spearman’s rank correlation coefficient and the study found a positive relationship between tax as a fiscal policy instrument and income redistribution. Worlu and Emeka (2012) examined tax revenue and economic development in Nigeria using the three stage least square estimation technique. The study found that tax revenue stimulates economic growth through infrastructural development. Chiumia and Simwaka (2012) analysed the effect of taxation in sub-Saharan Africa. They found that taxes levied on personal and corporate income reduces economic growth. From their study, one may be tempted to conclude that the tax structure is largely irrelevant in less developed economies, but embedded in an effective tax system are benefits for both the taxpayers and the government. Tosun and Abizadeh (2005) studied economic growth and tax charges in OECD countries from 1980 to 1999. Their study reveals that economic growth measured by GDP per capita has significant effect on tax mix of GDP per capita. The study recorded a decline in shares of payroll, goods and services and positive growth from personal and property taxes. More so, Saez (2004) studied the impact of direct and indirect tax instruments for wealth redistribution in Nigeria: short-run versus long-run, the findings reveals that in a long-run context individuals respond to tax incentives through the occupational margin, which is in contrast to a short-run situation where individuals are stuck into their occupations and can only adjust labour supply on the job.

2.3 THEORETICAL FRAMEWORK
This study anchored on the following theories;
**Optimal tax theory** is the study of designing and implementing a tax that reduces inefficiency and distortion in the market under given economic constraints (Slemrod, 1990). The standard theory of optimal taxation is pointed out that the tax should be chosen to maximize a social welfare function subject to a set of constraints (Mankiw, Weinzierl and Yagan, 2009). Moreover, the design of the optimal tax theory is to know how to increase the number of result from a heterogeneous population using socially optimal way when the first best outcome is not feasible.

More so, **endogenous growth theory** embraces a diverse body of theoretical and empirical work that emerged in the 1980s (Romer, 1994). This theory was predicted that the government expenditure and tax will have both temporary and permanent impact to economic growth as well as national development as a whole (Barro, 1990). The discussion by Barro was that, tax will make market distortion and the productive expenditure will give an impact to long-term growth rate. Akcigit, Grigsby, Nicholas and Stantcheva (2018) use new data on inventors and firms active in Research and Development (R & D) and a database of tax changes over the twentieth century to explore how one of the most significant government policy levers - taxation - can impact innovation. That, higher tax rates (personal and corporate) are shown to negatively influence the quantity and quality of innovation as well as where inventors and firms chose to locate their R & D activities. Importantly, the analysis reveals that “business stealing” across states in response to different tax regimes cannot fully account for the size of the estimated responses to taxation, implying that the impact of taxes is quantitatively large. This study illustrates how insights from the theory of endogenous growth can be used to frame an empirical analysis, which directly speaks to the issue of innovation policy design.

**Laffer curve or Laffer theory of taxation:** The Laffer curve is one of the main theoretical constructs of supply-side economics, and it is often used as to sum up the entire pro-growth world view of supply-side economics. The Laffer curve illustrates the basic idea stating that changes in tax rates have two effects: Effect on tax revenues which is the arithmetic effect and the economic effect (Laffer, 2004). This theory also shows the relationship between tax rates and tax revenue collected by governments. Busato and Chiariini (2009) have published a Laffer curve for income and corporate taxation in the sector shadow economy in addition to finding a strong effect of the shadow economy to the level of taxation.
Socio-political theory of taxation: Ogbonna and Appah (2012) saw the socio-political theory of taxation as a theory 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 and Appah, 2012).

Modernization theory of National Development was the response scholars (Grasso, Cornin and Kort, 2009; Ment, 2005; Nils, 2003 and Michio, 1989) gave to nation building and institution building after World War II. The Western world became interested in modernization when colonies in the Third World started clamoring for political independence. The interest was mainly for politicians of the West to demonstrate to the world that newly independent countries could sustain development if they adopted Western strategies (Harrison, 1988; Webster, 1984). Modernization theory originated in the early 1960’s mainly from the work of David McClelland. McClelland (1961), a social psychologist attempts to explain the differences between societies in social and technological advancement. McClelland asserts that some societies are more advanced than others because of differences in cultural and personality styles. That advancement is caused by the need for achievement. That child can develop the need for achievement through literature that stresses the significance of self-help, competition and general extroverted behavior. Therefore, societies that wish to encourage their young to become entrepreneurs can impart them with the values of the need for achievement at the right age. So, for McClelland, modernization is closely linked with the acquisition of modern values.

Alex Inkeles, an American sociologist’s modernity scale became widely used in the 1960’s and 1970’s. From their study of individual modernity in six developing countries, Inkeles and Smith (1974) provide a rationale for the modernization theory. They stated that because people become modern through their daily experiences and bureaucratic organizations, it is important to modify places of employment to allow people to “move from the more traditional to the more modern pole in their attitudes, values and behavior”. Inkeles and his followers believe that to modernize is to develop, and society cannot develop until the bulk of its population absorbs modern values. In an attempt to define modernization, Inkeles and Smith write: The socio-psychological approach to modernization treats it mainly as a process of change in ways of perceiving, expressing, and valuing. Inkeles and Smith assert that societies can create modern values through certain social institutions such as family, school, and factory. For them modernization is closely tied with industrialization and the personal qualities that are likely to result from working in factories, and “perhaps more critical, which may be required of the workers and the staff if the factory is to operate efficiently and effectively”. Therefore, the basic assumption underlying the modernization theory is that there is a direct causal link between five sets of variables in the process of modernization, namely, modernizing institutions, modern values, modern behavior, modern society, and economic development (Fagerlind & Saha, 1989).

The Stages of Economic Growth – A Non-Communist Manifesto, Rostow (1990) identifies five stages of economic growth that lead to development in modernization theory ; they are: (1) the traditional society; (2) the preconditions of take-off; (3) the take-off; (4) the drive to maturity; and (5) the age of high mass consumption. Rostow describes a traditional society as an agrarian-dependent society with limited access to science and technology. In traditional society, religion and natural laws dictate the mode of production. There is virtually lack of diversification in the economy. A social hierarchy controls the means of production with family and clan affiliations playing a greater role in society. In traditional societies, political power is usually vested in landowners who maintain considerable influence on society members. The precondition for take-off stage is a transitional period to modernity, a period when developing society becomes aware of the need for advancement. The society at this period introduces innovations in education, develops infrastructure such as banks and other economic establishments for capital mobilization, encourages investment, broadens the scope of commerce internally and externally and finally, encourages the establishment of modern manufacturing industries. Rostow views the third stage, the take-off, as the most critical period of the development process. He refers to this stage as the period of rapid industrial and technological growth. The fourth, the drive to maturity stage, is a period of long sustained growth. It is a period when society modernizes all economic activities through technology. The final stage, the age of high mass consumption, is characterized by a period of economic growth when society moves toward demanding durable consumer goods and services. Accordingly, for Rostow, development is unilinear and in order for traditional societies to develop, they have to change their economies, values and social structures.
3. METHODOLOGY

The data used in the research work is secondary data sourced from CBN bulletin 2018 and Federal Inland Revenue Service (FIRS) of Nigeria from 1999 to 2018.

Model

The model employed in the research work is adopted from the work of Ogechukwu and Uche (2016). Their model is:

\[ \text{TOREV} = \beta_0 + \beta_1 \text{OILREV} + \beta_2 \text{NONOILREV} + \mu_t \]

Where; TOREV = Total revenue, OILREV = Oil revenue, NOILREV = Non-oil revenue.

But the model of this research work has some modification as a simple linear regression model capturing Federal Government Non-Oil revenue (FNR) as a dependent variable and tax revenue (TR) as independent variable. The model thus:

\[ \text{FNR}_t = a_0 + a_1 \text{TR}_t + U_t \]

Where;

FNR = Federal Government Non-Oil revenue
TR = Tax Revenue
U = White Noise (Error Term)

Subscribe (t) = Current time

\[ a_i = \text{Any parameter to be estimated, as } i = 0, 1. \]

And the apriori expectation is that: \( a_0, a_1 > 0 \). That is \( a_0 \) and \( a_1 \) are expected to be positive

Ordinary least squares (OLS) method was used for regressing FNR on TR. OLS was choosing based on the BLUE properties it posses and its fundamental assumptions. Also, OLS method is relevant in the study because, the model adopted in the research work is a linear model. Other variables used in the study to investigate national development in Nigeria using Granger causality test include government expenditure on: Internal security (IS), social and community service (SCS), education (ED), Health (HS), agriculture (AG) and construction service (CS). Stationarity test was based on Augmented Dicky-Fuller (ADF) Unit Root test, Angle-Granger (AG) Cointegration test and Cointegrating Regression Durbin Watson (CRDW) test. CRDW test and AG test are tests for simple linear regression model such as the one adopted in this study.

4. RESULTS AND ITS INTERPRETATION

<table>
<thead>
<tr>
<th>Variable</th>
<th>ADF Statistics</th>
<th>Critical Value</th>
<th>Stationary Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>FNR</td>
<td>-4.952619</td>
<td>-4.571559 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.690814 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.286909 (10%)</td>
<td></td>
</tr>
<tr>
<td>TR</td>
<td>-3.972672</td>
<td>-3.857386 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.040391 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-2.660551 (10%)</td>
<td></td>
</tr>
<tr>
<td>IS</td>
<td>-4.959895</td>
<td>-4.571559 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.690814 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.286909 (10%)</td>
<td></td>
</tr>
<tr>
<td>SCS</td>
<td>-5.275815</td>
<td>-4.571559 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.690814 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.286909 (10%)</td>
<td></td>
</tr>
<tr>
<td>ED</td>
<td>-4.699289</td>
<td>-4.571559 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.690814 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-3.286909 (10%)</td>
<td></td>
</tr>
<tr>
<td>HS</td>
<td>-5.499483</td>
<td>-3.857386 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>-2.660551 (10%)</td>
<td></td>
</tr>
<tr>
<td>AG</td>
<td>-6.795788</td>
<td>-2.699769 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.961409 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.606610 (10%)</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>-6.919372</td>
<td>-2.699769 (1%)</td>
<td>I(1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.961409 (5%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-1.606610 (10%)</td>
<td></td>
</tr>
</tbody>
</table>

The critical values for rejection of hypothesis of unit root were from MacKinnon (1996) as reported in e-views 9.0.

Source: Authors’ Computation, 2019
This research paper commences its empirical analysis by testing the properties of time series employed in the work. To guard against spurious result, this study took caution by checking the properties of the variables via Augmented Dicky-Fuller (ADF) unit root test. As indicated in table 1, all the variables individually are stationary at first difference, I(1) as their ADF statistics or ADF values calculated are all greater than their critical values even at 1% level of significance. This implies that the variables in the study have long-run equilibrium.

The ADF stationarity test is confirmed by Engle-Granger Cointegration (EGC) test for long-run equilibrium among the variables; FNR, TR, IS, SCS, ED, HS, AG and CS employed in the study. This is true as indicated in table 2, the tau calculated value (t-statistic) \(-3.010656\) of their Error Term, ECM in absolute term is greater than its critical value \((-2.692358\) even at 1\%. Again, this long-run equilibrium of the variables; FNR and TR is also proved by Cointegrating Regression Durbin–Watson test as the calculated D–W(1.908402) in table 3 is greater than its critical values at 1\%(0.511), 5\%(0.386) and 10\%(0.322) provided by Sargan and Bhargawa (Sargan and Bhargawa, 1983).

\[
\Delta \text{FNR}_t = 141.1770 + 0.000200 \Delta \text{TR}_t - 0.226349 \text{ECM}_t - 1 \tag{2}
\]

Despite the long-run relationship of the variables (TR and FNR), their short-run disequilibrium was corrected by the Error Correction Mechanism (ECM). As indicated in equation 2, this correction was possible as about 0.226349 of such error was eliminated each period of the time series data. Therefore, the variables have both short-run and long-run relationship. This means that government expenditure on IS, SCS, ED, HS, AG and CS through Federal Government Non-oil Revenue (FNR) to sustain national development in Nigeria can be visible both in the short-run and the long-run and taxation is one of the major players for such development.

### Table 3: Regression Result (OLS Method)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic (tc)</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a_0)</td>
<td>44.30808</td>
<td>197.8464</td>
<td>0.223952</td>
<td>0.8253</td>
</tr>
<tr>
<td>TR</td>
<td>0.000647</td>
<td>6.32E-05</td>
<td>10.23792</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

As presented in table 3, the stabilisation of these long-run and short-run relationships among the variables used in the study is further confirmed by the t-test. That the coefficient of TR is statistically significant as its t-calculated (t-statistic, \(t_c\)) value 10.23792 is greater than t-tabulated (\(t_t\)) value = \(t_{a/2|n-k|} = t_{0.05/2|n-k|} = t_{0.025/20-2} = t_{0.025/18} = 2.101\) at 5\% level of significance. As expected, this means that the explanatory variable, TR has a positive impact on the dependent variable, FNR. That is, a 1 unit increase in TR, on average FNR increases by 0.000647 annually. R-square supported the finding of the t-test as indicated, about 85\% of the dependent variable, FNR was explained by the independent variable, TR. The significance of R\(^2\) was in turn confirmed by the F-statistic for the relationships of the variables. As shown in table 3, F-calculated (\(F_c\)) value is 104.8150 greater than its critical value, F-tabulated (\(F_t\)) = \(F_{v1,v2} = F_{(k-1),(n-k)} = F_{1,18} = 3.24\) at 5\% level of significance. The regression result of this
study is good and reliable as the time series are stationary, \( R^2 \) is high, Akaike and Schwartz criteria are very low and the emerging of free autocorrelation as D-W statistic is approximately 2.

**Table 4: Pairwise Granger Causality Tests**

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Obs</th>
<th>( F_t )</th>
<th>F-cal.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR does not Granger Cause FNR</td>
<td>19</td>
<td>4.75</td>
<td>5.49486</td>
<td>0.0492</td>
</tr>
<tr>
<td>FNR does not Granger Cause TR</td>
<td></td>
<td></td>
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<td>0.3342</td>
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<td>4.03855</td>
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<td>FNR does not Granger Cause CS</td>
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</table>

\( F_{\text{tabulated}} (F_t) = F_{m,n-k} = F_{1,12} = 4.75, \) \( F_{\text{cal}} = F_{\text{calculated}}, n = \text{Sample Size}, k = \text{number of parameters}, m = \text{lag} 1 \)

**Source:** Authors’ Computation, 2019

In table4, F-calculated value for TR does not Granger Cause FNR to exist is 5.49486 greater than F-tabulated value 4.75. This means that Null hypothesis is rejected and the conclusion is that Tax Revenue (TR) contributes positively to Federal Government Non-oil Revenue (FNR) in Nigeria. The result is in line with the findings in table3 that TR has positive relationship with FNR. Federal Government Non-oil revenue in turn promotes national development through government expenditure on: Internal Security, Education, Health, Agriculture and Construction Service except for Social and Community Service. This is so as FNR Granger Cause IS, ED, HS, AG and CS to exist and not SCS. This can be seen from table4 as their F-calculated values are all greater than the F-tabulated value except for SCS. Meaning that government has poor funding of social community service (SCS) in Nigeria. The relationship of FNR and IS, HS, AG, CS is unidirectional while for FNR and ED is bi-directional which entails tax revenue was also contributed from education sector. These relationships may be more visible in the long-run than in the short-run.

**5. Policy Implications**

The policy implication of the findings is that revenue generation in the fourth republic by the governments through taxes may have the financial strength to promote and sustain national development in Nigeria. Attempt by any government in the fourth republic to diversify the economy and to source for more non-oil revenue will be paramount in national building. This can be seen from the findings as tax revenue has positive contribution to non-oil revenue. The expenditure embarked by the government on insecurity, social and community service, education, health, agriculture, construction service and alike through non-oil revenue is as result of higher contribution of tax revenue to Federal Government non-oil revenue. The findings also showed that the sustainability of national development in Nigeria is more visible in the long-run than in the short-run.

Despite the role of tax in sustaining national development, it is a common knowledge that oil revenue still remains the highest source of government revenue in Nigeria. Although diversifying sources of government revenue is still the best than over dependent on oil revenue generation.
6. CONCLUSION AND RECOMMENDATIONS

In conclusion, the findings of this research revealed that additional tax revenue to Federal Government Non-oil Revenue may have the tendency to promote national development in Nigeria. And that, the positivity of this relationship is viewed in the fourth republic and the relationship is sustained more in the long-run than in the short-run. Therefore, tax policy in Nigeria is worth to be implemented to sustain national development.

The following recommendations are based on the research findings:

i. There should be a good tax reform for a better and efficient tax system in Nigeria since tax play a good role in national development as it contributes positively to the Federal Government non-oil revenue.

ii. Government should invest more on human capital as trained personnel would acquire more skills, better invention, more productivity and will pay more taxes to government when they secure better jobs. All these qualities of trained personnel will contribute positively to the national development. This can be seen from the findings as Education (ED) granger cause Federal Government non-oil revenue to exist, as Federal Government non-oil revenue also granger cause education to exist.

iii. Government should embark on developmental project at the rural area levels as the findings showed poor funding on social and community service in Nigeria.

iv. Although, government at different levels, have been trying in combating insecurity in Nigeria, they however need to do more to encourage investors in the country.

REFERENCES


