Trend Analysis of the Link Between Tax Revenue, Non-Tax Revenue and Public Expenditure in Nigeria

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Abstract

Objective – The paper is aimed at examining the relationship between government tax revenue, non-tax revenue and government expenditure in Nigeria.

Design/methodology – Quantitative research design was employed. Secondary data were collected from Central Bank of Nigeria statistical bulletin, World Bank, World Data Atlas and Federal Inland Revenue Service. The study covers the period of 2010 to 2018. Meanwhile descriptive statistics was used to analyzed the data.

Results – The findings of the study discovered that, there is a relationship between government revenue and government expenditure, and the Nigerian government revenue and expenditure is in line with the spend-and-revenue hypothesis. That is government revenue only respond to previous changes in expenditure. Thus, government is expected to generate enough tax revenue to enable it meet government expenses as revenue from oil is decreasing. This signifies that whenever there is high government expenditure, it is required that government must raise higher revenue, and in Nigeria, government expenditure is always higher than the revenue resulting to budget deficit. In addition, tax revenue was found to have been increasing even though at a slower rate.

Limitation/Suggestion - The study recommends that Nigerian government should cut down current expenditures on wages, acquisition of goods and services that are unnecessary and increase capital expenditure. Increase in capital expenditures on education, infrastructures and health care will boast the economic activity and which will in turn increases government tax revenue.

Keywords: Budget Deficit, Expenditure, Government, Tax Revenue, Spend-and-Revenue.

1. Introduction

Researchers and policy makers have always had interest on the prospective changes to government expenditure and its effects on government revenue. The relationship that subsid between government expenditure and government revenue has been a sources of argument in microeconomics. Currently, there has been issues pertaining to the increase in budget deficit in some developing countries, since expenditure perform a crucial and important role in economic development, and in the upgrading of the quality of life of the citizens of a nation. As the people population grows and demographic changes occurred, government expenditure will equally increase, leading to interest in government expenditure on agriculture, health care, education, security, street cleaning, and sewage and trash deposal sectors of the economy (IGI Global, 2018). This will subsequently increase the demand for more tax revenue and non-tax revenue to be generated to cover up the budget deficit.

The whole purpose of tax and non-tax revenue is to generate revenue to the government to enhance the standard of living of a nation citizen, with specific interest on covering the government expenditure needs that can stimulate the economic growth and development of an economy (Omodera & Dandago, 2019). Tax revenue and non-tax revenue are influential tools or instruments in transforming any economy in the world, and no country economy in the world can functions effectively and efficiently
without them (Munir, Sultan, & Maryam, 2016), because they are the only means government can use to cover up expenditures pertaining to the growth and development of a country economy.

Nigeria has been in the front line of the developing nations that are backward in harnessing tax and some non-tax sources of government revenue due to poor, weak and bad standard of governance. Thus, where the government generate tax and non-tax revenues, the funds are being mismanaged and siphoned by the corrupt government officials. Instead of channeling it into productive sectors of the economy to change the fortunes of the country for a better. This hinders its utilization to enhance the quality of its citizen’s life and bring about lasting improvement and sustainability of the economy (Okwori & Sule, 2016). Moreover, studies have shown that despite the previous increase in tax and non-tax revenue by the government, the economy is still wallowing in high rate of inflation, high interest rates, high unemployment rate, low capacity utilization of oil industry and high exchange rate (Central Bank of Nigeria, 2019), low per capital income, accumulated debt, corruption, poor infrastructures, weak institutions, low investment (Okwori & Sule, 2016). Some investigators, Onifade, Cevik, Erdogan, Asongu, & Bekun (2020) opined that earning tax and non-tax revenue by the government is vital to every economy, and channeling the tax revenue and non-tax revenue to create the desired significant positive impact on the government expenditure that can result to the achievement of the economic goals and objectives of the nation and its citizens is the most important issue.

Recent study has shown that the trend of expenditure has been in the increase in Nigeria despite the reduction in revenue generation in Nigeria and elsewhere in the world. But the main issue is whether there is enough fund to finance all the government spending. Most especially, in the face of expansionary policy where government spending increase year in year out and tax revenue and non-tax revenue generated are is low and not enough. Expenditure in Nigeria is classified into two main types, capital expenditure and recurrent expenditure. Capital expenditure is made up of construction of roads, rail lines, buildings, dams, power. Recurrent expenditure are daily expenses incurred in running the administration of government, like supplies services, staff overheads cost (emoluments) and other routine expenses (Yinusa & Adedokun, 2017).

Thus, the government of Nigeria has been engulfed with budget deficit right from the period of structural adjustment program in 1980s till date. Even though, budget deficit is not a bad thing at all the time depending on the economic situation at that moment, so it has its merits and demerits. In boom economic situation, the government is required to have balance budget or surplus budget in other to enable the country settle debts that were collected at the time of budget deficit. During recession, government should operate a deficit budget to meet up with the short falls in demand to stimulate or boast the economy. Nigeria has been running a deficit budget since 1980s. However, deficit budget is better during recession, but in the case of Nigeria, even when there was oil boom in the early 90s Nigerian government was running a deficit budget due to the extravagant spending of our corrupt leaders.

This study is necessary owing to the fewer or lack of research on the trend analysis of the links between government tax revenue, non-tax revenue and government expenditure in Nigeria. Thus, the aim of this research is to examine the relationship between government tax revenue and government expenditure in Nigerian economy. This study is also limited to finding the trend in the links between government tax revenue, non-tax revenue and expenditure for a timeframe of 2010-2018 and also look at the gross domestic product growth with revenue and expenditure in Nigeria. Apart from introduction, section two deals with literature review. Section three discusses the research method used in this study, while section four described the presentation and analysis of data and lastly, section five look at the discovery and conclusion of the study.
2. Literature Review

Tax revenue is one of the famous source of public finance, and so taxes are compulsory payments to the purse of government without quid pro quo or without expecting direct return to accrue to the taxpayer. Tax revenue are collected in form of direct and indirect taxes. The indirect taxes comprise of Value Added Tax, excise duty and custom duty. Direct taxes comprise of personal income tax, company income tax, petroleum profit tax, capital gain tax and stamp duty. Non-tax revenue deals with revenue collected by government from fines, gain from sales of oil, penalties, grants and gifts, deficit financing, fees, levy and surplus from public enterprises (Okwori & Sule, 2016). This shows that government tax revenue and non-tax revenue are components of public revenue, and so public revenue can rightly be said to be revenue from administrative activities, grants and taxes. In another words, revenue can be referred to as non-oil revenue and oil revenue, as oil revenue is the main sources of government revenue according to (Ihendinihu, Jones, & AmapsIbanichuka, 2014). Thus, non-oil revenue comprises of direct and indirect taxes, levies, aids, grants and oil revenue comprises of revenue from gas exports, crude oil, royalties, petroleum profit taxes and domestic crude oil sales. Expenditure is made up of capital expenditure and current expenditure. Capital expenditure is a spending on activities that the benefits derived by the citizen spans for a very long-term, such as capital expenditure on social services, and capital expenditure on transfers. Current expenditure are expenses incurred on daily running of the government affairs (Awode, 2019; Onifade et al., 2020).

There are four types of direct relationships that exist between government revenue and government expenditure discovered in the literature. Kiminyei (2018); Ullah (2016); Yinusa & Adedokun (2017) explains the four relationship that exist between government revenue and expenditure. The first is tax and spend or revenue-and-spend hypothesis: this relationship assumed that changes in government revenue determine the changes in government expenditure. Here, the amount of revenue raised through taxation will determine the extent of government expenditure (Kiminyei, 2018). This is an indication that an increase in government revenue leads to an increase in government spending. In this case, government revenue can easily be stimulated to avoid deficit when spending is greater or more than revenue.

The second type is spend-and-tax revenue hypothesis or spend and tax. The assumption is that changes in government expenditure is the determinant factor for change in government revenue. As such, government spending determine the direction of government revenue, or it can be said to be an increment in government expenditure can causes an increment in government revenue. As expenditure of government increases, taxes to be levied on individual, properties and businesses will also increase. The consequences are that government expenditure must be used as a mechanism to check budget deficit. Thus, using this method can be scary because it has the tendency to cause budget deficit.

The third type is the fiscal synchronization: it assumed that decision by the government on revenue and expenditure must be taken at the same time or concurrently. That is to say the government revenue and expenditure should determine each other. That mean government revenue and expenditure are expected to be interdependent and the right policy is to take decision on them at the same time. Thus, government is required to enhance revenue and expenditure to avoid the problem of budget deficit. The fourth type is fiscal or institutional separation: here the government decision as it concerned tax revenue and expenditure are carried out at different time by different institutions. It also means that there is no dependency between the government revenue and government expenditure. Thus, government revenue and government expenditure are mutually independent.

A series of studies that attempted to address the relationship between government revenue (tax revenue and non-tax revenue) and government spending are (Omodera & Dandago, 2019; Ullah, 2016; Yinusa & Adedokun, 2017). Adedokun (2018) studied the effect of oil price shocks on government expenditure and government revenue nexus in
Nigeria using structural VAR (SVAR) on the key variables and used unrestricted VAR and vector error model. The results of the study indicated that oil price shock did not affect the variation in government expenditure in the short-run and long-run. But there existed a spend-to-tax hypothesis between government expenditure and government total revenue in the long-run relationship. The study suggested immediate action on the part of the government to diversify the economy from dependence in oil revenue to other sources of revenue like taxes to prevent long-run effect of oil shocks. A recent study by Omodera & Dandago (2019) determined the extent to which tax revenue affects expenditure or service delivery in health care and education sectors in Nigeria, and used ordinary least square method in analyzing the effect from 1981 to 2017. The paper discovered tax revenue to have a significant positive effect on expenditure on education and health care sectors and concluded that government should harness all available tax revenue sources and apply it to maintain health care and education sectors and also provide entrepreneurship development programs to its people to boast Nigerian economy.

Ullah (2016) considered the relationship of government revenue and expenditure in Malaysia, with the aim of discovering the theoretical relationship between government revenue and government expenditure using four hypotheses from the literature review. The study discovered direct taxes to be the major sources of government revenue and the spending of government differ as a result of changes in non-tax revenue and indirect tax revenue. The study was basically narrowed on the impact of government revenue and government expenditure based on collected data from published sources. And suggested that government should observe proper rules and regulation when making policy to coup up with the optimum revenue and government expenditure that are relevant in the state. However, Nwosu & Okafor (2014) investigated the relationship between government revenue and expenditure from 1970 to 2011. The study found a long run unidirectional relationship running from expenditure and revenue (tax and non-tax revenue) in Nigeria. This result is in agreement with spend and revenue hypothesis. Showing that changes in expenditure of government causes changes in revenue of government in Nigeria. Obioma & Ozughalu (2010) examined the relationship between government revenue and government expenditure from 1970-2007 in Nigeria, and discovered a long-run relationship between government revenue and government expenditure. Hence, the results support revenue-and-spend hypothesis for Nigeria.

Takumah (2014) undertook a study to determine whether there is causal relationship between government revenue and government expenditure for a time frame of 1986-2012 in Ghana. The paper discovered a bidirectional causal and effect relationship between government revenue and government expenditure in the short-run and long-run, and concluded that government makes its decision on expenditure and revenue at the same time since there is interconnectedness and dependency between government revenue and expenditure. While, Ogujiuba & Abraham (2012), investigate the relationship between government revenue and expenditure in Nigeria and use the revenue-spending hypothesis for Nigeria from 1770-2011 correlation analysis, granger causality test, regression analysis as the methods adopted for data analysis. The study discovered government revenue and government expenditure to have a link, and a causal relationship from revenue to expenditure. This means disequilibrium in expenditure can be address in a near future, through the initiation of policies that will adjust tax revenue and non-tax revenue. And concluded that the decrease in crude oil price in the international market gave birth to the reduction in oil revenue, and consequently, affected government expenditure.

Taha & Loganathan (2008) noted the trend in the inconsistent changes of the tax collection depending on the economic conditions in Malaysia over a 30 years period. The aim of the study was to empirically test the causality and impact between government tax revenue and government expenditure by using econometrics model. The findings gave evidence of the presences of long-run relationship between tax revenue and
government expenditure with a bidirectional and unidirectional cause and effect. Some investigators Okwori & Sule (2016) undertake a study with the aim of appraising oil revenue and tax revenue, public debt on economic growth in Nigeria. The results showed that there is a causation between tax revenue, oil revenue and gross domestic product, and it also shows a unidirectional relationship between GDP and oil revenue and a bidirectional relationship between tax revenue and GDP. The study recommended that a review of revenue sources, especially tax revenue to ensure efficient, effective and improved revenue collection to the government purse. Moreover, Dizaji (2014) examined the link between government revenue and government expenditure in Iran, and looked at how oil revenue and oil price shock could impact on government revenue and spending relationship. The study found out that the influence of oil revenue in explaining government expenditure is stronger than the oil price shock, and that there is a great link or causality running from government revenue to government expenditure. Meanwhile, the causality of government expenditure to government revenue is weak. Hence, the discovery is in support of revenue-spending hypothesis.

The results of the above studies showed inconsistencies in their findings. Some indicated a strong relationship between government revenue and government expenditure, while others showed a weak relationship existed between government revenue and government expenditure. Additionally, some studies result supported spend-and-revenue hypothesis and others supported revenue-and-spending hypothesis. Moreover, none of the study in Nigeria have used descriptive statistics to analyze data. This indicates that there is need for the study to be undertaken in Nigeria.

3. Methodology

The main objective of this paper is to determine the links between government tax revenue, non-tax revenue and government expenditure in Nigeria. Quantitative research design was utilized and data connected to government tax revenue, non-tax revenue and government expenditure were gathered from Central Bank of Nigeria statistical bulletin, World Bank, World Data Atlas and Federal Inland Revenue Service bulletin. The scope of the study is limited to government tax revenue and government expenditure of Nigeria for the period of 2010-2018, that is the period of decline in non-tax revenue (oil revenue) due to fall in oil prices in the international market up to the recent available data. The study also employed the used of descriptive statistics in data analysis. Thus, descriptive statistics analysis is an instrument that describe and explain the statement of problem for easy understandability of the readers and conclusion. The study followed the example of Ullah (2016) in Malaysia and Takumah (2014) in Ghana who used descriptive analysis in analyzing data in a relationship between expenditure and revenue in Malaysia and Ghana. These variables were also used in previous studies. For example, Tax revenue variable was also used in Ullah (2016); Taha & Loganathan (2008), Non-tax-revenue in Ullah (2016); Takumah (2014), and expenditure in Ullah (2016); Ogujiuba & Abraham (2012) and Takumah (2014). The unit of analysis is Nigerian government.

4. Data Presentation and Analysis

Nigerian economy was hit by the fall in oil prices in the international market as a result of shift by many countries in the world, from the use of oil as a source of energy to fossil or renewable source of energy before 2010. This scenario led to the drop in revenue generation and government where forced to consider an alternative sources of revenue generation through taxation to enable the government to meet its expenditures needs, to survive the unprecedented drastic fall in revenue. In addition, the decline in revenue from oil which is the major source of foreign exchange has forced Nigerian government to keep pegging its currency against the US dollar. For example, in 2013, 1 USD is equivalent to 150 Nigerian naira, and presently, 1 USD is around 480 Nigerian naira.
Total Government Expenditure and Revenue

The table 1 below shows the total revenue and expenditure of Nigerian government from 2010 to 2018.

| Year | Total Government Expenditure | Total Government Revenue |
|------|------------------------------|--------------------------|
| 2010 | 9,233                        | 6,890                    |
| 2011 | 11,055                       | 11,296                   |
| 2012 | 10,202                       | 10,379                   |
| 2013 | 10,835                       | 8,949                    |
| 2014 | 11,397                       | 9,484                    |
| 2015 | 10,540                       | 7,200                    |
| 2016 | 9,735                        | 5,681                    |
| 2017 | 13,797                       | 7,593                    |
| 2018 | 16,829                       | 10,991                   |

Table 1 gave the account of government revenue and government expenditure to show the financial position of Nigerian government over a timeframe of 2010 to 2018. Government revenue and expenditure stood at the range of 6,890 naira and 9,233 naira in 2010 to 10,991 naira and 16,829 naira in 2018. The numbers keep fluctuating between the years trading positively and negatively on an annual basis for both the revenue and expenditure indicating that the economy as a whole is in trouble due to lack of stability in the growth of revenue and expenditure despite the increase in terms of population in the country. The trend has been affected severely, most especially as the oil price keeps fluctuating. Thus, the figure 1 below shows the movement of government revenue and expenditure from 2010 to 2018.

When you look at the expenditure in Nigeria, it seems to be growing in the same direction with the revenue. This is because both of them depends on each other to functions properly. That is why the movement of both are similar in terms of increase and decline from year to year Table 1 shows that expenditure and revenue increases from 2010 to 2011 and goes down a bit in 2012 and 2013 and when up a little in 2014 before it nosedived in 2015 and 2016, and suddenly it pick up again towards the ends of 2018. After the end of 2017 to 2018 the chart shows an upward trend with an increase of 30 percent for revenue and 18 percent for expenditure. The study observed that the relationship between revenue and expenditure is close, as revenue increases, expenditures also increases vice versa. This shows that the movement and the reaction...
to each other is similar. This result is similar to Ullah (2016) in Malaysia who discovered the movement and reaction of revenue and expenditure to be in the same direction.

It further shows that government in Nigeria has been operating a deficit budget, looking at the relationships between government revenue and expenditure. This reflect the reality of Nigerian that has been operating an open economy, hence, the government had no option than to expend more to cover the loopholes in between revenue and expenditure. Similarly, expenditure and revenue seems to be going in the same direction even though not in the same fashion, and the growth towards the end of 2017 to 2018 does not gave the economy an assurance of a balance economic policy. Therefore, the government of Nigeria is expected to look inward to tab more of its tax revenue to improve total revenue generation in order to strive, instead of considering other policy that can expose weakness and pin down the economy in the future.

Growth in Government Revenue and Expenditure

The figure 2 shows the growth in both total government revenue and expenditure.

![Figure 2. Growth in Government Revenue and Expenditure from 2010 to 2018](image)

Figure 2 describes the percentage increase in government revenue and expenditure and it shows that there was an increase in the growth of government revenue to 63.95 percent in 2011 as against 53.95 percent of 2010. Invariably, government expenditure declined to 19.74 percent in 2011 from 43.77 percent in 2010. Immediately after 2011 both government revenue and expenditure fall drastically and recorded a negative growth in 2012 and the trend continued for the revenue, while expenditure recorded a positive growth in 2013. In 2014, the growth rate was almost at the same rate of both the government expenditure and revenue and it was positive. Beyond that year, government revenue and expenditure became negative again both in 2015 and 2016, with revenue recording the high negative figure. However, the government revenue and expenditure shot up continuously as for the revenue but expenditure growth reduced in 2018.

Ratio of Revenue and Expenditure as a Percentage of GDP

The movement of money within, in and out of every economy is a direct reflection of revenue and expenditure of the government. As such, the impact of GDP on revenue and expenditure can be determine at all time in any country of which Nigeria is not different. Thus, the ratio of revenue and expenditure as a percentage of GDP can be shown in figure 3 below.
Figure 3 clearly shows that the ratio of government expenditure to GDP is higher than that of government revenue to GDP. Generally, the relationship between the two is moving toward the same direction that is when there is an increase in the ratio of Expenditure to GDP, there will also be an increase in the ratio of government revenue to GDP. The ratios where almost at the same point in 2011 and they both fall in 2012 and continued their downward trend up to 2016 before they now pick up again. This signifies that there is a relationship between government expenditure and revenue.

Relationship between the Current Expenditure of the Federal and State Governments

The figure below described the link between current expenditure of both the federal and state government.

Looking at the trend of event in figure 4, it shows that federal government expenditure is more than that of the state governments in Nigeria. The federal government current expenditure seems to be increasing steadily with the exception of a small declined in 2013. But the current expenditure of the state governments started declining from 2010 to 2013 before it picks up in 2014 and keeps increasing up to 2018 in the same direction with the federal government current expenditure.
Relationship between the Capital Expenditure of the Federal and State Governments

The figure 5 below explains the relationship between capital expenditures of both the federal and state government.

![Graph of Capital Expenditure of Federal and State Governments](image1.png)

The trend above generally shows that both federal government capital expenditure and state government capital expenditure moves in a similar fashion. The federal government capital expenditure reduces a bit in 2011 while that of state government capital expenditure remain the same with that of 2010. From there, federal government and state government capital expenditure started growing up to 2013 before it begins to decline continuously throughout the remaining years.

Tax Revenue of the Federal and State Government

The figure 6 below shows the flows of relationship between tax revenue of the federal and state government.

![Graph of Tax Revenue of Federal and State Governments](image2.png)

![Figure 5. Relationship of Capital Expenditure (Federal and State Government)](image1.png)

![Figure 6. Relationship of Tax Revenue of Both the Federal and State Government](image2.png)
The major source of government revenue in Nigeria is non-tax revenue. Even though, the growth of non-tax revenue is decreasing as it is shown in figure 7, the total non-tax revenue is still more than that of the tax revenue. While, the tax revenue is increasing gradually, but the growth rate is slow and unimpressive. Anyway, the small increases experienced may be due to the government policy of according priority to tax revenue in its search for alternative sources of revenue away from oil that can stand the test of time. The increase in taxes by the Nigerian government has shown a steady increase in tax revenue even though it is slow as could be seen above.

The Growth Rate of Total Current and Capital Expenditure of Government

Thus, figure 8 shows the growth of government expenditure in Nigeria between the capital and current expenditure.

There are different types of expenditure as shown in figure 8 above. These are current expenditure and capital expenditure. Capital expenditure is the amount government spend in long term projects like infrastructures, education, health care etc. While, current expenditure is the amount spends on daily running cost of administration or maintaining the government. The figure 8 above, shows that capital expenditure was 31 percent of the total expenditure of the government in Nigeria in 2010. The figure came
down a little bit to 30 percent in 2011 and when up to 36 percent and 37 percent in 2013 and 2014. Immediate after 2014 capital expenditure started declining steadily or continuously until it reached 2017. While current expenditure in 2010 was 69 percent and increased a little to 70 percent in 2011. It declined in 2013 and from there it continued to climb up until 2017. Thus, the trend in percentage rate fluctuates in between the years showing lack of consistency.

Gross Domestic Product Growth Rate

Other main economic factor the study is considering is the growth in GDP over some years. The GDP growth rate is shown in figure 9 below.

![Gross Domestic Product Growth Rate](image)

Nigerian GDP growth rate has not being smooth due to the fall in oil revenue as a result of declined in oil price in the international market as could be shown from the chart above. From 2010 the growth rate started declining up to 2012 before it pick up a little bit in 2013 and started declining again continuously and became -1.62 negative in 2016. The fall in GDP was necessitated by the drastic declined in oil price that was recorded continuously in the international market since Nigerian government depends heavily of revenue generated from the sales of crude oil. A year after the GDP became negative, the GDP became positive but the growth rate was at a slow paste or very minimal in the following years 2017 and 2018.

5. Conclusion

In contrast with past studies in Nigeria, in this study, the paper examined the relationship between government tax revenue and government expenditure in Nigerian economy, over the years of 2010 to 2018 period. Distinctively, the study used descriptive statistics in order to take account of the relationship between government revenue and expenditure, just as it is in Ullah (2016) in Malaysia who also used this method. From the findings above, it shows that Nigerian government have been operating a deficit budget for quite a long time. This scenario has affected private investment because whenever a government continue to operate under budget deficit, private investors may be reluctant to invest in such economy and this will hamper economic growth and development. That is what Nigerian government is witnessing today, investors are divesting and people are no longer interested in investing their money in the economy because of lack of conducive environment due to government policies that are unfavorable.

The analysis conducted also shows that, there is a relationship between government revenue and government expenditure, and the Nigerian government revenue and expenditure is in line with the spend-and-revenue hypothesis. That is government revenue only respond to previous changes in expenditure. This discovery is similar to Ullah
JAROE VOL. 3(3) (2016), but contrary to Dizaji (2014). Thus, government is expected to generate enough revenue to enable it meet the government expenses. This signifies that whenever there is high expenditure by the government, it is required that the government must raise higher revenue. Failure to do that, government expenditure will be higher than the revenue resulting to budget deficit. Since, government always spend or incur expenditure before raising funds to meet its previous expenditure charges, the relationship will lead to continuous budget deficit as in the case of Nigeria. This is because higher government expenditure needs higher government revenue, and when the revenue generated cannot meet up with the previous expenses, government will have to borrow internally or externally or both to cover up the budget deficit. This is the circumstances the government of Nigeria have been for quiet sometimes now. Therefore, continuous borrowing by the government will not address budget deficit, rather, it will worsen it. Unfortunately, Nigerian government have been financing budget deficit through internal and external borrowing for over two decades. The interest paid on debt will also skyrocket government expenditure, and worsen the budget deficit, most especially if revenue is not increasing. Meanwhile, the effect on GPD was positive at the initial stage, but the ratio kept reducing and at a point it became negative in 2016 before it started picking up at a slow pace and become positive once again.

Although, Nigerian government is trying to reduce the budget deficit and is coming up with some policies in 2020 aimed at assisting the government to raise more revenue. Some of the policies are that; the government has introduced new taxes, and increased the rate of some taxes; like Value Added Tax from 5 percent to 7.50 percent, stamp duty from N5 to N10 in order to raise more revenue to meet up with the budget deficit and subsequently, have a balance budget if possible. Nonetheless, there have been a lot of debates or argument about the recent introduction and increments of some tax rates and its implication to Nigerian economic system. But despite the criticism, the government of Nigeria have no option than to resort to such act. Another effort made by the government to reduce expenditure in order to cut budget deficit is the decision to recently removed subsidies in the oil prices in the Nigerian market. Before now, Nigerian government used to give subsidy on oil price consumed in the country because the oil price if not subsidies, the price will be very high for its citizen. Thus, the government decided to stop the subsidies on oil price in the economy due to decline in prices of oil recorded in the international market. The government was able to save money through this policy, thereby reducing expenditure on subsidy and consequently decreases budget deficit.

The study also discovered that the major sources of government revenue in Nigeria is the non-tax revenue. However, the growth rate of non-tax revenue has been decreasing due to reduction of oil price in the international market. Despite from that, it still shows that it is the main revenue source as Nigerian government depends more on oil revenue to meet its spending. Thus, the reduction in revenue generated by the government will lead to budget deficit as there is no corresponding reduction in expenditure. Similarly, tax revenue has increased over the years but at a slow rate. And government current expenditure was found to be higher than the government capital expenditure. The trend also indicated that capital expenditure is decreasing while current expenditure is increasing right from 2013 to date. Moreover, in comparing capital and current expenditure of the federal and state government, the federal government incurred more current expenditure than the state government. Alternatively, the state government incurred more capital expenditure than the federal government. Therefore, it is natural that increase in government expenditure without a corresponding increase in government revenue can widen the budget deficit gap continuously. If this happened, government will have no alternative than to collect loan which will raise the debt level of the country and possibly reduces private investment. If care is not taken, continuous borrowing will worsen the debt crisis of an economy.
Government should look for an alternative sources of generating revenue outside production and sales of oil. Nigerian government can do that by tapping her solid mineral resources deposits, like gold, columbines, iron ore, uranium, and bitumen. Money realized from solid minerals will affect the revenue in huge number, and so, contribute in reducing budget deficit. Since, the relationship between revenue and expenditure is spend-and-revenue theory. And expenditure will not follow revenue even when the revenue goes down and hence, the budget deficit gap will be widen. Secondly, Nigerian government should cut down current expenditures on wages, acquisition of goods and services that are unnecessary and increase capital expenditure. Increase in capital expenditures on education, infrastructures and health care will boast the economic activity and which will in turn increases government revenue.

References
Adedokum, A. (2018). The effect of oil shock on government expenditure and government revenues nexus in Nigeria (with ergogeneity restriction). Future Business Journal, 4, 219–232.
Awode, S. S. (2019). The rising government expenditure in Nigeria: Any influence on growth? European Journal of Applied Economics, 16(2), 95–108.
Central Bank of Nigeria. (2019). CBN exchange rates. Retrieved from https://www.cbn.gov.ng/rates/exchratebycurrency.asp
Dizaji, S. F. (2014). The effect of oil shock on government expenditure and revenue nexus (with application to Iran sanctions). Economic Modelling, 40, 299–313.
IGI Global. (2018). Climate change and the sustainable financial sector. Retrieved from https://www.igi-global.com/publish/call-for-papers/call-details/4978
Ihendinhu, J., Jones, E., & Amasiphanchuka, E. (2014). Assessment of the long-run equilibrium relationship between tax revenue and economic growth in Nigeria: 1986 to 2012. The SIJ Transactions on Industrial, Financial & Business Management (IFBM), 2(2), 39–47. https://doi.org/10.9756/SIJASREE/V2I5/0202120102
Kiminyei, F. K. (2018). The nexus between tax revenue and government expenditure in Kenya. International Journal of Economics and Management Sciences, 7(5), 2–6.
Munir, Sultan, K., & Maryam. (2016). Are some taxes better for growth in Pakistan? A time series analysis. MPRA (Munich Personal RePEc Archive). Retrieved from https://mpra.ub.uni-muenchen.de/68828/
Nwosu, D. C., & Okafor, H. O. (2014). Government revenue and expenditure in Nigeria: A disaggregated analysis. Asian Economic and Financial Review, 4(7), 877–892.
Obioma, E. C., & Ozughalu, U. M. (2010). An examination of the relationship between government revenue and expenditure: evidence from Nigeria. Central Bank of Nigeria Economic and Financial Review, 48(2), 35–57.
Ogjujuha, K., & Abraham, T. W. (2012). Testing the relationship between government revenue and expenditure: evidence from Nigeria. International Journal of Economic and Finance, 4(11), 172–182.
Okwori, J., & Sule, A. (2016). Revenue sources and economic growth in Nigeria: an appraisal. Journal of Economics and Sustainable Development, 7(8), 113–123.
Omodera, C. O., & Dandago, K. I. (2019). Tax revenue and public service delivery: evidence from Nigeria. International Journal of Financial Research, 10(2), 82–91.
Onifade, S., Cevik, S., Erdogan, S., Asongu, S., & Bekun, F. C. (2020). An empirical retrospect of the impacts of government expenditure on economic growth: new evidence from Nigerian economy. Journal of Economic Structure, 9(6), 2–13.
Taha, R., & Loganathan, N. (2008). Causality between tax revenue and government spending in Malaysia. The International Journal of Business and Finance
Takumah, W. (2014). *The dynamic causal relationship between government revenue and government expenditure nexus in Ghana*. Retrieved from http://mpra.ub.uni-muenchen.de/58579/

Ullah, N. (2016). *The relationship of government revenue and government expenditure: A case study of Malaysia*. International Center of Education in Islamic Finance, MPRA. Retrieved from https://mpra.ub.uni-muenchen.de/69123/

Yinusa, D. O., & Adedokun, A. (2017). Fiscal synchronization or institutional separation: examination of tax-spend hypothesis in Nigeria. *Journal of Finance and Accounting, 5*(3), 80–87.