TAX REVENUE SOURCES AND THE NIGERIAN ECONOMY IN THE POST COVID PERIODS

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\textbf{ABSTRACT}

The study examined the impact of tax revenue on the Nigeria economic growth between the periods of 2002Q1 to 2022Q4. The study covers the entire economic growth of Nigeria. The tax revenue proxies considered are: Petroleum Profit Tax (PPT), Value Added Tax (VAT), Company Income Tax (CIT) and Custom and excise duties (CED) whereas economic growth was proxied with Gross Domestic Product (GDP). The study made use of secondary (Quarterly data) sourced from Planning, Research and Statistics Department (2020-2022); Financial Inland Revenue (2020 to 2022); CBN Statistical Bulletin (2020 to 2022). The result showed that, both Petroleum Profit Tax (PPT) Company Income Tax (CIT) had high adverse yet considerable effect on economic growth of Nigeria during the Post Covid-19 periods whereas Value Added Tax (VAT) and Custom and excise duties (CED) had high positive yet considerable effect on economic growth of Nigeria during the Post Covid-19 periods. Hence, the study conclude that, Tax revenues have mixed effect on the growth of the Nigerian economy during the Post Covid-19 Era. As such, policy makers must ensure that, revenue gotten from petroleum tax should be the fund obtained be properly channels. Lastly, the Nigerian government should ensure that companies that evade tax should be brought to book.
**INTRODUCTION**

The significance of tax revenue as a means of producing government income is of utmost importance, particularly in the current economic climate characterized by efforts to restore stability and growth. The topic under consideration is primarily influenced by the decline in oil income due to the decrease in oil prices, changes in supply, and the country's loss of international clientele. A comprehensive examination of the tax collecting endeavors undertaken by the Federal Inland income Service (FIRS) reveals that the organization is actively engaged in a concerted endeavor to mitigate the income shortfall resulting from the global pandemic. The Federal Inland Revenue Service (FIRS) has implemented several strategies, such as the establishment of electronic filing systems and rigorous taxpayer audits, in order to effectively collect all outstanding taxes within the designated timeframes. Additionally, it serves as a method for maintaining the accuracy and currency of the taxpayer database, hence facilitating the enhanced detection and apprehension of those engaging in tax evasion (Ogunmakin & Owoniya, 2022).

Based on the announcement by the Federal Inland Revenue Service (FIRS), the aggregate tax revenue generated in Nigeria in 2019 amounted to ₦5.26 trillion naira, including both oil and non-oil tax sources. The aforementioned figure represented a reduction of 40.22 percent compared to the yearly objective of ₦8.80 trillion and the quarterly target of ₦2.20. Remarkably, the aggregate tax revenue generated in 2020, a year marked by the viral outbreak, amounted to ₦4.95 trillion, falling short by ₦125 billion in comparison to the projected ₦5.08 trillion budgeted amount. Subsequent examination indicated that the tax revenue generated from the oil and gas industry had a much superior performance in comparison to the projected budgetary figures. The annual budget allocated to the petroleum industry amounted to ₦284 billion, with the actual collection reaching ₦1.52 trillion. This indicates a significant rise of 434 units in the amount collected. This phenomenon is not an exception, as it aligns with the industry's consistent pattern over the last three years, which may plausibly be attributed to the depreciation of the Naira (Belnap, Hoopes, & Wilde, 2023).

In contrast, non-oil tax revenues in 2020 were lower than projected, amounting to ₦3.43 trillion instead of the expected ₦4.79 trillion. The virus had a negative impact on both the underlying GDP growth assumption and the anticipated efficiency improvements. The non-oil tax income has shown a constant upward trend, with figures of ₦2.15 trillion in 2016, ₦2.51 trillion in 2017, ₦2.85 trillion in 2018, and ₦3.15 trillion in 2019. The aforementioned citation provides evidence supporting the notion that the Federal Inland Revenue Service (FIRS) is implementing an effective tax collection strategy (FIRS Report, 2022).

Despite being inconspicuous, the coronavirus pandemic has had a discernible influence on the tax revenue generated by enterprises, hence compelling tax authorities to explore alternate avenues for fiscal augmentation. Due to the prevailing trend of enterprises in the sector reporting losses, the imposition of persistent or onerous taxes might potentially precipitate the collapse of these companies, therefore exacerbating the adverse impact on the economy. In 2019, the first stage of the Strategic Revenue Growth Initiative (SRGI) was introduced with the aim of facilitating the allocation of fiscal resources by the Federal Inland Revenue Service.
(FIRS) and other governmental entities. The initiative is focused on attaining sustainable revenue generation by identifying new sources of revenue, improving the enforcement of revenue collection on existing streams, fostering collaboration among revenue generating entities, and providing them with the necessary expertise and tools to efficiently mobilize tax funds. Following the first phase of the initiative, a new phase known as SRGI 2.0 was introduced. The primary objective of this phase is to redirect attention from revenue collection towards tax compliance, with the ultimate goal of increasing tax revenues. The current tax-to-GDP ratio of 6% is targeted to be raised to 15% by the year 2023, as stated by Chang, Mohsin, and Iqbal (2023).

The Federal Inland Revenue Service (FIRS) has implemented various technology initiatives at the federal level to enhance tax collection, address revenue leakages, improve tax control effectiveness, and facilitate compliance with tax obligations by Nigerian taxpayers. In 2013, the Federal Inland Revenue Service (FIRS) introduced the Integrated Tax Administration System (ITAS) as a means to facilitate electronic tax return filing, online tax payment, and other related activities for taxpayers. A more recent development is the release of Tax-Pro max, a software designed for the electronic submission of Corporate Income Tax returns, with an effective date of June 2021. In addition, the Federal Inland Revenue Service (FIRS) implemented significant enhancements to its web platform in 2017. These enhancements included the introduction of six electronic tax services. The first service, known as e-Registration, facilitates the registration of new taxpayers with the FIRS for various federal taxes. The second service, e-Stamp Duty, enables the payment of stamp duties on relevant documents. The third service, e-Tax Payment, allows for the payment of all federal taxes and levies through approved collection platforms such as Remita, Interswitch, and the Nigeria Inter-Bank Settlement System (NIBSS). The fourth service, e-Receipt, is utilized for receiving and verifying online receipts generated for taxes paid via the new e-Tax Payment system. The fifth service, e-Filing, permits taxpayers to file their tax returns electronically through the Integrated Tax Administration System (ITAS). Lastly, the sixth service, e-TCC, empowers taxpayers to process their tax clearance certificates online (FIRS, 2022).

The Federal Inland Revenue Service (FIRS) has recently released a public notice in which it declares its plan to implement the Automated Tax Administration System (ATAS). This action is in accordance with the stipulations outlined in Section 25(4) of the Federal Inland Revenue Service Establishment Act of 2007, as modified by section 51 of the Finance Act of 2019. The objective of the ATAS initiative is to get access to electronic devices or cloud computing services that are owned, managed, operated, or controlled by taxpayers or their agents, for the purpose of retrieving relevant data or records for tax-related matters (FIRS, 2022).
From the above conceptual model, it is obvious that, economic growth of a country is dependent on the amount of revenue generated from tax and that for policy makers especially those in emerging countries to address the issue of economic, tax revenue must be increased. This is the main crux of the study.

**LITERATURE REVIEWS**

Having carefully, presented the conceptual linkage between study variable, the study considered the theoretical underpinning and the empirical findings. The Benefit theory of taxation by Cooper (1994) suggests that the taxes are to be imposed on individuals according to the benefit conferred on them. In effect, the more benefits a person derives from the activities of the State, the more he should pay to the government, thus a “quid pro quo” is expected to subsist. However, it is impossible to implement precisely due to the difficulty of determining the amount of government benefits, including diffuse benefits such as military protection received by each resident and non-resident tax payer. This 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 (Chigbu, Akujuobi and Appah, 2012). They 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.

From the empirical viewpoint, careful investigation into tax studies clearly evidenced that, avalanche of empirical documentation though awashed but are conflicting and contradictory. The possible cause is the period considered, method use, and the country considered. This calls for further studies to look intently into the matter to see the lacunae recorded. For example, Ho, Tran and Nguyen (2023) examined the interplay among tax revenue, trade openness and economic growth of developing countries from 2000 to 2019 using the Generalized Least Squares (GLS) approach. They affirmed that, tax revenue improves
economic growth especially if the economic is not excessively open to trade. However, if the economic is excessively open to trade, tax revenue would reduce growth drastically. In another related study, Eneche, and Stephen (2023) studied the effect of tax revenue (petroleum profit tax, company income tax, and value added tax) on economic growth (RGDP) from 2003-2017. They evidenced that, both oil tax revenue (profit tax) and non-oil tax revenue (Value Added Tax and Companies Income Tax) improved the Nigeria’s Economic Growth from 2003-2017. Edewusi and Ajaiyi (2019) examined the nexus between tax revenue and economic growth in Nigeria. The Study considered tax proxies such as company tax, petroleum profit tax, and value added tax against economic growth of Nigeria. The researchers reaffirmed that, the three tax proxies had a noticeable and positive effect on economic growth of Nigeria. Using both the cointegration and OLS approach, Gwa and Kase (2018) reported that, Value added tax (VAT), and company income tax (CIT) contributed immensely to the growth of the Nigerian economy from 1997 to 2016 but petroleum profit tax (PPT) could not. Conversely, Arowoshegbe, Uniamikogbo and Aigienohuwa (2017) revealed that, both petroleum profit tax (PPT) and Value added tax (VAT) contributed immensely to the growth of the Nigerian economy from 1995 to 2015. Hence, they opined that, the legal tax system must be strengthened should the Nigerian government enjoy the gains inherent from tax. In another related study, Cornelius, Ogar and Oka (2016), company income tax had inconsiderable effect on the growth of the Nigerian economy from 1986 to 2010 but profit tax and non-oil revenue improved the growth of the Nigeria economy in the reviewed periods. Ojong, Ogar and Oka (2016) affirmed that, non-oil revenue contributed immensely to the growth of the Nigeria economy but company income tax did not improved the growth of the Nigeria economy. In like manner, 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. However, Akhor and Ekundayo (2016) reported that, value added tax had adverse considerable effect on the growth of Nigeria from 1993 to 2013 as presented by the Error correction model regression.

**RESEARCH METHODOLOGY**

The type of research design adopted in this study is the Ex-post facto research design. Ex-post facto research design involves ascertaining the impact of past factor(s) on the present happenings or event. The ex-post-facto research design is a quasi-experimental study examining how independent variables present prior to the study, affect the dependent variable. The Ex-post facto research design was considered most appropriate for this study because it is not possible to directly manipulate or control any of the independent variables. This is because the events have already taken place and therefore the research is been conducted after-the-fact (Ighosewe, 2022)

The method of data collection used in this study was the secondary source of data (time series data) from the Planning, Research and Statistics Department (2020-2022); Financial Inland Revenue (2020 to 2022); CBN Statistical Bulletin (2020 to 2022). The multiple regression analysis of E-VIEWS 9.0 was used to analyze the data. This tool was used in order to establish the kind of relationship that exists between the independent variables and the
dependent variable used in the study which will serve as the basis of testing the hypotheses raised in this study.

The model of this study was adopted from the work of Edewusi and Ajayi (2019) because model was adopted because it contain majority of the independent and dependent variables under study and it suits perfect into the type of analysis that will be used to analyze the data of the study. The model was modified to suit the variables of this study, which is specified as follows;

\[ \text{RGDP} = f(\text{PPT, VAT, CIT, CED}) \]

It is empirically stated as:

\[ \text{RGDP} = \beta_0 + \beta_1 \text{PPT} + \beta_2 \text{VAT} + \beta_3 \text{CIT} + \beta_4 \text{CED} + U \]

Where:
- \( \text{RGDP} \) = Real Gross Domestic Product
- \( \text{PPT} \) = Petroleum Profit Tax
- \( \text{VAT} \) = Value Added Tax
- \( \text{CIT} \) = Company Income Tax
- \( \text{CED} \) = Custom and excise duties
- \( \beta_0 \) = Regression intercept
- \( \beta_1 – \beta_4 \) = Coefficient of the independent variables to the dependent variable
- \( U \) = Error term.

The Apriori Expectation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Predicted Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Profit Tax (PPT)</td>
<td>+/-</td>
</tr>
<tr>
<td>Value Added Tax (VAT)</td>
<td>+/-</td>
</tr>
<tr>
<td>Company Income Tax (CIT)</td>
<td>+/-</td>
</tr>
<tr>
<td>Custom and excise duties (CED)</td>
<td>+/-</td>
</tr>
</tbody>
</table>

RESULTS AND DISCUSSION

Various tax revenue proxies and RGDP data generated (sourced) from the Planning, Research and Statistics Department (2020-2022); Financial Inland Revenue (2020 to 2022); CBN Statistical Bulletin (2020 to 2022) are presented in appendix 1:

Table 1  
*Post Tax Revenue Collection and Economic Stability of Nigeria*
From the above analysis, aggregate RGDP as at 2020 (2020Q1 to Q4) was ₦70800.54 billion but later increased to ₦73382.78 as at 2021 (2021Q1 to Q4) and later increased to ₦75768.94 billion. In the case of the tax revenue proxies, PPT recorded the highest throughout the reviewed periods, followed closely by VAT, and then CIT while the least tax revenue source is CED. To further substantiate this claim, the descriptive statistics is presented thus:

Table 2
Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Maximum</th>
<th>Minimum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>18329.36</td>
<td>21423.44</td>
<td>16044.51</td>
<td>1673.417</td>
</tr>
<tr>
<td>CIT</td>
<td>472.7135</td>
<td>778.2970</td>
<td>278.6500</td>
<td>163.3661</td>
</tr>
<tr>
<td>PPT</td>
<td>644.5384</td>
<td>1476.440</td>
<td>201.2460</td>
<td>409.9390</td>
</tr>
<tr>
<td>CED</td>
<td>5.549233</td>
<td>22.30050</td>
<td>0.000000</td>
<td>8.509178</td>
</tr>
<tr>
<td>VAT</td>
<td>509.6282</td>
<td>697.3789</td>
<td>324.5791</td>
<td>114.4266</td>
</tr>
</tbody>
</table>


From table 2, Real Gross Domestic Product (RGDP) had a mean of ₦18329.36 billion within the period 2020Q1 to 2022Q4, with a maximum and minimum of ₦16044.51 billion and ₦16044.51 billion respectively while the standard is ₦1673.417 billion. This shows that RGPD is very low. Also, Petroleum Profit Tax (PPT) had a mean of ₦644.5384 billion within the period 2020Q1 to 2022Q4, with a maximum and minimum of ₦1476.440 billion and ₦201.2460 billion respectively while the standard is 0.2989. This shows that Petroleum Profit Tax (PPT) volatility is about ₦409.9390 billion. Furthermore, Value Added Tax (VAT) had a mean of ₦509.6282 billion within the period 2020Q1 to 2022Q4, with a maximum and minimum of ₦697.3789 billion and ₦324.5791 billion respectively while the standard is 0.4021. This shows that Value Added Tax (VAT) volatility is about ₦114.4266 billion.

Similarly, Company Income Tax (CIT) had a mean of ₦472.7135 billion within the period 2020Q1 to 2022Q4, with a maximum and minimum of ₦778.2970 billion and ₦278.6500 billion respectively while the standard is 0.4503. This shows that Company Income Tax (CIT) volatility is about ₦163.3661 billion. Meanwhile, Custom and excise duties (CED) had a mean of ₦5.549233 billion within the period 2020Q1 to 2022Q4, with a maximum and minimum of ₦22.30050 billion and ₦0.000000 billion respectively while the standard is ₦8.509178 billion. To check whether the variables deviated from normality or not and that they did not exhibit multicollinearity issues, the model was subjected further (see Table 3 and table 4):

Table 3
Normality Test Using Jarque-Bera & it Associated Probability Value

<table>
<thead>
<tr>
<th>Variables</th>
<th>Jarque-Bera</th>
<th>Probability</th>
<th>Observations</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>RGDP</td>
<td>0.909724</td>
<td>0.634536</td>
<td>12</td>
<td>Normally Distributed</td>
</tr>
<tr>
<td>CIT</td>
<td>1.052494</td>
<td>0.590818</td>
<td>12</td>
<td>Normally Distributed</td>
</tr>
<tr>
<td>PPT</td>
<td>1.421889</td>
<td>0.491180</td>
<td>12</td>
<td>Normally Distributed</td>
</tr>
<tr>
<td>CED</td>
<td>3.128276</td>
<td>0.209268</td>
<td>12</td>
<td>Normally Distributed</td>
</tr>
<tr>
<td>VAT</td>
<td>0.391892</td>
<td>0.822056</td>
<td>12</td>
<td>Normally Distributed</td>
</tr>
</tbody>
</table>

From table 2, all the variables under review are normally distributed. Hence, they are considered reliable for policy formulation and predictions.

Table 4

**Correlation Matrix**

<table>
<thead>
<tr>
<th></th>
<th>1.0000</th>
<th>-0.5391</th>
<th>0.4864</th>
<th>0.1444</th>
<th>0.6244</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-0.5391</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4864</td>
<td>0.1025</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.1444</td>
<td>0.1277</td>
<td>0.3295</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.6244</td>
<td>0.1740</td>
<td>0.1788</td>
<td>0.1442</td>
<td>1.0000</td>
<td></td>
</tr>
</tbody>
</table>


From table 4 correlation analysis, PPT, CIT, CED, and VAT are positively related with RGDP suggesting that, if PPT, CIT, CED, and VAT, RGDP will increase as well. However, CIT has an adverse effect on RGDP such that, if CIT increase, CIT will fall. However, none of the variables reported high tendency of multicollinearity issues.

**Regression Result**

Having ascertained that, the model is normally distributed and also presented low possibility of Multicollinearity issues, the fully Modified Ordinary Least Square estimate was considered. The rationalization for considering the estimation technique is that, it mitigates asymptotic bias and enhances efficiency by addressing two key issues (Orjinta, & Ighosewe, 2022): the presence of long-run serial correlation and endogeneity resulting from the long-run correlation between u0 t and u x t. The result is thus presented:

Table 5

**Fully Modified OLS (FMOLS) Estimate**

<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>9.1031</td>
<td>0.6225</td>
<td>14.6238</td>
<td>0.0000</td>
</tr>
<tr>
<td>PPT</td>
<td>-0.4887</td>
<td>0.0992</td>
<td>-4.9257</td>
<td>0.0044</td>
</tr>
<tr>
<td>CIT</td>
<td>-0.8153</td>
<td>0.2688</td>
<td>-3.0333</td>
<td>0.0290</td>
</tr>
<tr>
<td>VAT</td>
<td>0.4887</td>
<td>0.0992</td>
<td>4.9257</td>
<td>0.0044</td>
</tr>
<tr>
<td>CED</td>
<td>0.8915</td>
<td>0.2840</td>
<td>3.1394</td>
<td>0.0257</td>
</tr>
<tr>
<td>R-squared (R²)</td>
<td>0.68603</td>
<td>Adjusted R²</td>
<td>0.58927</td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson (DW) stat</td>
<td>1.721712</td>
<td>S.D. dependent var</td>
<td>1673.417</td>
<td></td>
</tr>
<tr>
<td>F-statistic</td>
<td>9.236809</td>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
<td></td>
</tr>
<tr>
<td>Heteroskedasticity Test (F-Statistics)</td>
<td>0.2087</td>
<td>Ramsey Reset Test</td>
<td>0.5502</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s Compilation (2023)

From the Regression Estimate in table 5, R² stood at 68.60% while the adjusted R² stood at 0.58927. This revealed that, the model has a high predictive power. This further revealed that, the Post Covid-19 tax revenue sources accounted for 68.60% variation in economic stability while the error term accounted for 31.40%. Again, the DW Stat. evidenced that the model is free from autocorrelation problems. Further, the Heteroskedasticity Test (F-Statistics) value of 0.2087 and Ramsey Reset Test has a p-value of 0.5502 suggests that, the model is Homoskedastic and model is well-specified.

The p-value of Petroleum Profit Tax (PPT) is 0.0044 which is lesser than the significant value of 0.05 and the t-ratio value of -4.925678 is greater than 2 which indicate the extent of significance to which PPT affects RGDP. The coefficient of Petroleum Profit Tax (PPT) is -
0.4887 imply that, one 1% movement in Petroleum Profit Tax (PPT) reduces Real Gross Domestic Product (RGDP) by 48.87%. Meanwhile, company income tax reduces Real Gross Domestic Product (RGDP) by 81.53%. The implication is that, CIT reduced the economic growth of Nigeria more in the post Covid periods than PPT.

Lastly, both Value Added Tax (VAT) and custom and exercise duties had high significant effect on economic growth of Nigeria. This finding agrees with the findings of Salami, Apelogun, Omidiya & Ojoye (2015) but contrary to the findings of Abomaye N., Williams A. S., Micheal J. E., Mni & Friday (2018).

CONCLUDING REMARKS AND RECOMMENDATIONS

The study examined the effect of tax revenue on the Nigeria economic growth between 2002Q1 to 2022Q4. The study made used of secondary (Quarterly data) sourced from Planning, Research and Statistics Department (2020-2022); Financial Inland Revenue (2020 to 2022); CBN Statistical Bulletin (2020 to 2022). The study covers the entire economic growth of Nigeria. Following scanning of various literatures, the researcher identified the potential measures of tax revenue to be Petroleum Profit Tax (PPT), Value Added Tax (VAT), Company Income Tax (CIT) and Custom and excise duties (CED) (independent variables) which were analyzed in relation to economic growth in Nigeria as proxy with Real Gross Domestic Product (RGDP). Based on the summary of findings above the researchers conclude that, Tax revenues have mixed effect on the growth of the Nigerian economy during the Post Covid-19 Era. As such, the policy recommendations are to:

1. Ensure that, revenue gotten from petroleum tax should be the fund obtained be properly channels.
2. The Nigerian government should ensure that companies that evade tax should be brought to book.
3. Nigerian Government should not relent in intensifying her effort in the collection of value added tax so as to eliminate every form of laziness in the collection of this important tax and disbursement of the said tax to the local government as 85% of VAT revenue is supposed to be handed over to the local government for development purposes.
4. It is advisable for the government Nigeria to maintain the existing charges of custom and excise duty in Nigeria so as to maintain a stable economic growth in Nigeria.

References


