Abstract
The study examined the role tax plays in stimulating Nigeria’s economic growth and development by analysing the relationship between specific taxes - Company Income Tax (CIT), Petroleum Profits Tax (PPT), Value Added Tax (VAT) - and economic growth and development (proxied by Gross Domestic Product (GDP). Adopting longitudinal research design, Ordinary least squares multiple regression was deployed for analysis. The various years in the CBN statistical bulletin 2020 from 1982-2020 (a period of 39 years) made up the population while the sample used in the study consisted of 28 years from 1993-2020. The study extracted data on GDP from the CBN statistical bulletin 2020 while data on taxes was collected from the published FIRS tax statistics report. The study revealed that taxes do affect economic growth and development in Nigeria, albeit to varying degrees and significance, with the CIT affecting economic growth the most and the PPT having the least effect. The study concluded that taxes contribute about 90% to economic growth and development and should be a focal point in improving the nation's GDP and thus recommended restructuring of the petroleum sector, increasing the tax base by creating jobs and ensuring tax collection transparency towards strengthening the tax system for economic growth and development.

Keywords: tax, economic growth and development, tax system

1. Introduction
Tax is a mandatory payment or levy that is payable to the government by economic units and subjects (individuals and organizations) based on predetermined criteria for which the taxpayer receives or is anticipated to receive no direct or specific benefit (Bassey, 2013; Appah, 2004). Taxation is a significant source of government revenue that helps meet government expenditure by stimulating internal resources and aids in wealth reallocation for economic management (Azubike, 2009; Bhartia, 2009). Emmanuel (2010) asserts that it has been demonstrated through the experiences of economies around the world that the development of a nation’s tax system is instrumental to its development, which leads to the implementation of tax reforms and reorganization to ensure tax systems that maximize government revenue (Kizito, 2014).

Company Income Tax (CIT), Value Added Tax (VAT) and Import Duties have been used in various countries including Canada, United States, Netherlands, and United Kingdom to create prosperity (Adegbie, 2010). However, in Nigeria, tax revenue has continued to fall short of governments’ expectations which has led to various strategies towards expanding the non-oil tax revenue (Eguaghide & Samuel, 2007). Although Ariyo (1998) documented an acceptable level of tax system productivity prior to the oil boom (i.e. before the 1970s). Also, Eguaghide and Samuel (2007) established that the role tax
revenue played in promoting economic activities and growth in the country diminished between 1970s and 2000s. Considering the foregoing, the role taxes play in economic growth and development was investigated.

The study thus investigated if taxes have stimulated Nigeria's economic growth and development with specific focus on PPT, CIT, and VAT from 1993 to 2020 (a period of 28 years). As a result, the study was concerned with providing answering the following research questions towards achieving its aim:

i. Does Petroleum Profit Tax affect Nigeria’s economic growth and development?
ii. Has Company Income Tax contributed to Nigeria’s economic growth and development?
iii. What effect does Value Added Tax on Nigeria’s economic growth and development?
iv. What is the combined effect of tax revenues from PPT, CIT and VAT have on Nigeria’s economic growth and development?

The hypotheses tested were:

H01: Petroleum profits tax has no significant effect on Nigeria’s economic growth and development.
H02: Company Income Tax has no significant effect on Nigeria’s economic growth and development.
H03: Value Added Tax has no significant effect on Nigeria’s economic growth and development.
H04: The combined tax revenue streams from CIT, PPT, and VAT have no significant effect on Nigeria's economic growth and development.

2. Literature Review

2.1 Conceptual Framework
2.1.1 Tax, Taxation and Tax Revenue
Tax is an unavoidable charge paid by both corporate bodies and individuals to the government of a nation to enable it to provide basic amenities for its citizenry (Appah & Oyadonghan, 2011). As an unavoidable charge on the income, capital, and consumption, it is a significant source of government revenue, allowing it to meet its duty of ensuring citizens well-being (Aguolu, 2004). These taxes are levied on personal income; company's profits; petroleum profits and capital gains etc. Adams (2001) asserts that taxation - the science of imposing taxes- is an important source of modern governments revenue (providing up to 90% or more) and while the government has several choices for revenue generation, tax revenue remains the primary source (Soyode & Kajola, 2006).

2.1.2 Economic Growth and Development
Growth is increased economic activity (Bhartia, 2009) while economic growth is increase in long-term capacity of a country to supply increasingly varied economic products based on advancing technology,
institutional and ideological changes (Ayanwu, 1997). Economic growth measured by Gross Domestic Product (GDP) is extent to which the economy's output (goods and services) increases (Ironkwe & Agu, 2019) while economic development is the process by which a country's Gross National Product (GNP) per capita increases over a long period of time both qualitatively and quantitatively (Harelimana, 2018). GDP is the entire monetary value of production by a country's residents irrespective of origin (Okwu, Oseni, Aberu & Obiakor, 2017; International Monetary Fund (IMF), 2020). It is a crucial indicator for comparing economic growth rates and is used to determine an economy's strength (Jhingan, 1989; World Bank, 2016).

Economic development is sustained economic growth over time with changes in technical and institutional arrangements to improve production (Satope & Akanbi, 2014) and aims to allow local communities develop new methods of production that may lead to exportation. Using GDP as a measure of both economic growth and development, Ogbonna and Appah (2012) concluded that the amount of government revenue available for establishment of infrastructure and basic amenities in a nation relies on tax revenue of which a well-structured tax system is key.

2.1.3 Conceptual Model

Figure 2.1: Conceptual model depicting relationship among variables.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Dependent variable</th>
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<tbody>
<tr>
<td>X = Taxes</td>
<td>Y= Economic growth/development</td>
</tr>
<tr>
<td>PPT</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>CIT</td>
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<td>VAT</td>
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</table>

Source: Author’s conceptualization (2022)

2.2 Theoretical Framework

2.2.1 Socio-political theory

This tax revenue theory advocates a tax system aimed at curing societal ills and thus focuses on social and political objectives for determination of taxes (Bhartia, 2009) since society is greater than the sum of its individual members who make it up; thus, the tax system should be aimed at the society (Chigbu, Akujuobi & Appah 2012). Adolph Wagner, a German economist, advocated in Wagner (1890) that decision on taxes should consider social and political objectives to ensure a societal rather than an
individualist approach is utilized in finding an appropriate solution. The theory is used because it allows for the consideration of various types of taxes as a means of ensuring economic growth and development.

2.2.2 Benefit received theory.

The drawbacks of the cost-of-service theory gave rise to the Benefit Received Theory which was transformed from the cost-of-service theory and founded on the premise that taxable people and the state have a swapping link. The state provides society with infrastructure and amenities, which taxpayers must pay for regardless of the number of benefits received (Bhartia, 2009). This study was anchored on the theory because taxpayers demand prudent and transparent use of taxes paid for infrastructure, social and health services, while the state retains the right to tax policies determination.

2.3 Empirical Review

Adereti, Adesina, and Sanni (2011) discovered a highly positive correlation between VAT revenue and GDP using secondary data gathered from the Central Bank of Nigeria (CBN) from 1994 to 2008 and analyzed using simple regression and descriptive statistics. Adegbie and Fakile (2011) using chi-square and multiple linear regression analysis discovered a significant relationship between CIT revenue and Nigeria's economic growth. The study also found tax evasion and avoidance to be significant impediments to tax revenue generation, though the extent of their impediment was not investigated. Ogbonna and Ebimobowei (2012) employed descriptive statistics and econometric analysis discovered that tax reforms have positively significant relationship to economic growth and improve the government's revenue-generating ability. The study also highlighted the importance of ongoing tax reforms, as stringent tax policies were found to lead to decreased tax revenue. Jibrin, Ejura, and Ifurueze (2012) used ordinary least square (OLS) regression discovered that PPT has a statistically significant positive impact on the nation's GDP from 2000 to 2010. Ogbonna and Appah (2012) using primary and secondary data analysed with OLS regression and descriptive statistics discovered that petroleum revenue has positive impact on Nigeria's GDP and per capita income from 1970-2009.

Abdul - Rahomoh, Taiwo, and Adejare (2013) used secondary data to empirically analyze effect of PPT on the Nigerian economy from 1970 to 2010. Using multiple regression to analyze GDP, PPT, inflation, and exchange rate data, it was discovered that investigated variables had significant effect on economic growth. This also aligns with Jibrin, Ejura, and Ifurueze (2012), who suggest that Nigeria’s abundant petroleum provides a chance for more tax income generation to the economy with effective and efficient PPT administration and collection. Acti and Abigail (2014) investigated Nigerian tax system and economic growth using time series data. Using regression analysis, the study found a linear relationship between
economic growth and taxes, and also a higher contribution to the economy from indirect taxes in relation to direct taxes.

Ojong, Anthony and Arikpo (2016) found a statistically significant positive relationship between PPT, Non-oil Revenue, CIT, and economic growth (GDP). They also indicated that lack of transparency is a key barrier to tax compliance. Popoola, Jimoh and Oladipo (2017) used time series data from 1986 to 2015 to study the relationship between tax revenue and Nigerian economic growth over a three-decade period. The study found a strong positive correlation between oil and non-oil tax revenue and Real GDP using OLS regression, though there exists significant difference between the effects of oil and non-oil tax revenue. The study posits that increasing government officials’ accountability and transparency in tax revenue management in Nigeria would boost economic growth.

Focusing on years 1981 to 2016, Khumbuzile and Khobai (2018) evaluated the impact of taxation on economic growth in South Africa. The results of the Auto-Regressive Distribution Lag (ARDL) technique reveal a negative relationship between taxes and economic growth in South Africa. Okwara and Amori (2017) calculated economic development using GDP, while tax revenue was calculated using VAT and non-oil income (tax) and found that taxes had a significant positive impact on GDP, though VAT had an insignificant negative effect during the review period (1994 to 2015). The study suggested that an expansion of government revenue sources to include other sectors of the economy such as agriculture.


According to Osho and Efuntade (2019), all other forms of taxes had insignificant effect on economic growth except VAT with significant positive effect, while the overall relationship showed a significant effect of tax revenue on Nigeria’s economic growth. Azubike and Onukwube (2019) examined the effect of tax revenue using time series data (years 2002 to 2016) and found that tax revenue had a significant impact on Nigeria’s economic growth.

Samuel, Adewole and Idih (2019) investigated the effects of tax revenue on Nigeria’s economic development from 2003 to 2013. Using simple linear regression analysis on available time series data, tax revenue had negligible positive impact on the Nigerian economy. From 2000 to 2017, Oshiobugie and Akpokerere (2019) investigated economic development as it was influenced by PIT and CIT. The findings
of an ex-post facto research using the OLS regression framework revealed that tax revenue components had insignificant negative impact on economic growth.

Regardless of the number of papers reviewed, the problem of tax revenue and administration, as well as the country's economic growth, cannot be overlooked. As a result, the study contributes to existing literature on taxes, tax revenue and economic growth and development by focusing on three major but diverse taxes (CIT, PPT and VAT) in the country in relation to economic growth and development.

3. Methodology
3.1 Research Design

Longitudinal research design using time-series data was employed since the study is focused on various variables over a period. Secondary data relating to the independent variables of CIT, PPT and VAT revenue and dependent variable of GDP at the current price collected from CBN 2020 Statistical Bulletin and Federal Inland Revenue Service (FIRS) Tax Statistics Report was available for 39 years (1982-2020). The data used is publicly available and published by the apex bank of the country which ensures its validity and credibility. Ogbonna and Appah (2012); Acti and Abigail (2014); Udoka and Chiedu (2018) are similar previous studies which made use of same type of data. Data relating to these variables were however collected for the years 1993-2020, a 28-year period which served as the sample derived using the Taro Yamane Formula. The sampling technique used is consecutive sampling method where selection of every subject meeting criterion of inclusion is done until completion of required sample size. Thus, the sample began from the latest year in the bulletin up till the required 28 years was achieved. The study employed the multiple regression model using the OLS technique with the following model:

Economic growth/development = \( f \) (taxation) + \( \mu \)

where:

Economic growth/development = GDP (Dependent Variable)
Taxation (Independent variable) = PPT, CIT, VAT
\( \mu = \) Error term
GDP = \( \int \) (PPT, CIT, VAT) ................................. (1)
GDP = \( \alpha + \beta_1 \text{PPT} + \beta_2 \text{CIT} + \beta_3 \text{VAT} + \mu \) ................................. (2)

The variables are taken to the same base through logarithmic transformation of equation 2, hence the model becomes:

\[
\log (\text{GDP}) = \alpha + \beta_1 \log (\text{PPT}) + \beta_2 \log (\text{CIT}) + \beta_3 \log (\text{VAT}) + \mu
\]

where:
\( \alpha = \) Intercept
\( \beta_1, \beta_2, \beta_3 = \) Coefficient of parameters of taxation
\( \mu = \) Stochastic error term
A priori = \( \alpha > 0, \beta_1 > 0, \beta_2 > 0, \beta_3 > 0 \)
4. Data Presentation and Analysis

<table>
<thead>
<tr>
<th>Table 4.1 Descriptive Statistics</th>
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<tr>
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<tr>
<td>LOGCIT</td>
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<tr>
<td>LOGPPT</td>
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<td>LOGVAT</td>
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<tr>
<td>LOGGDP</td>
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</tbody>
</table>

| Valid N (listwise)             | 27 |

Source: IBM SPSS v26 Output (2022) Dependent Variable: LOGGDP Independent Variables: LOGCIT, LOGPPT, LOGVAT

As shown in table 4.1, after logarithmic transformation of all variables, the mean of the dependent variable (GDP) is computed as 4.3519 and the independent variables of CIT, PPT, and VAT had means of 2.3073, 2.8256, and 2.2574 respectively. Standard deviation of the variables CIT, PPT, VAT and GDP were .7160, .6322, .7670 and .6352 respectively. The mean of all variables considered is above average and closer to the maximum value of the variable while standard deviation of all the variables falls within 1 standard deviation of the mean (positive) i.e. the data falls within +1 variation of the mean.

<table>
<thead>
<tr>
<th>Table 4.2: Regression Coefficients</th>
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<tbody>
<tr>
<td>Model</td>
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<tr>
<td></td>
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<tr>
<td>1</td>
</tr>
<tr>
<td>LOGCIT</td>
</tr>
<tr>
<td>LOGPPT</td>
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<td>LOGVAT</td>
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</table>

According to Table 4.2, LOGCIT has a significant impact on LOGGDP (B=.714, α < 0.05). As a result, it is determined that CIT significantly affects GDP positively because every 1% increase in CIT translates to a 0.491% increase in economic growth and development. LOGPPT has an insignificant positive effect on LOGGDP (B= .027, α >0.05). Thus, it is determined that PPT has a negligible positive impact on the economy because every 1% rise in PPT results in a 2.7% increase in GDP. LOGVAT also has significant positive impact on LOGGDP (B= 0.143, α < 0.05).

<table>
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<tr>
<th>Table 4.3: Model Summary</th>
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<tr>
<td>Model</td>
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</table>
The combined effect of the predictors (CIT, PPT and VAT) on the dependent variable (GDP) as shown in table 4.3 is 99.3% while which reduces to 99.2% when adjusted to real-life situation (Adjusted R square). Thus, the combination of independent variables (CIT, PPT and VAT) influences the dependent variable of GDP by 99.2%. The research question four is answered thus: CIT, PPT and VAT have combined effect of 99.2% on Nigeria’s economic growth and development.

**Table 4.4: ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.813</td>
<td>3</td>
<td>3.604</td>
<td>1075.777</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>.080</td>
<td>24</td>
<td>.003</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10.893</td>
<td>27</td>
<td></td>
<td></td>
<td></td>
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</table>

The combined significance of the predictors’ impact on the dependent variable as revealed by table 4.4 is significant (α < 0.05). Null hypothesis 4 is thus rejected because combined revenue streams of the taxes used have a significant effect on Nigeria’s economic growth.

5. Summary of Findings

The independent variables were found to have significant positive effect on the dependent variable, both collectively (for all) and individually for CIT and VAT. Regardless of the overall relationship and impact, the PPT effect on GDP is not significant (α > 0.05) but positive (B = .027). This could be attributed to the global decline in crude oil prices over the last decade, as well as the Organization of Petroleum Exporting Countries (OPEC) specific quota of crude oil sales which has an impact on taxable profits of the petroleum industry. This is like Uket, Wasiu and Etim (2020) findings though their study posited a slightly positive impact of PPT on GDP prices while using up to 2018 data. The inclusion of 2020 data in this study brought about results in a smaller positive impact which could probably be attributed to the Covid-19 Pandemic causing further unexpected shock in the oil prices.

The positive and significant impact of CIT (B=.714, α <0.05) as well as VAT (B= 0.143, α <0.05) on GDP is in line with Adigwe, Oyadonghan and Kereotu (2020); Uket, Wasiu and Etim (2020); Ojong, Anthony and Arikpo (2016); Herbert, Nwarogu and Nwabueze (2018). Also, collectively these taxes account for 99.2% (Adjusted R square) of variation in economic growth and development while 0.8% variation is due to factors not discussed in the study.
6. Conclusion and Recommendations

Using annual time series data (years 1993-2020), the significance and effect of specific taxes on Nigeria’s economic growth and development was assessed using OLS regression technique. The importance of taxation cannot be over emphasized. However, Nigeria with all its potential and resources is still suffering from underdevelopment. The country is focusing majorly on oil production to sustain the economy while ignoring some potential stimulators of the economy such as an efficient tax system which can contribute over 90% to the country’s GDP.

Taxation continues to function as a powerful socio-political tool for economic growth and development, but Nigeria’s experience has been negative due to tax leakages caused by tax evasion, avoidance as well as a poor tax base. Globally, tax leakages raise great concern however Nigeria’s experience is malignant due to corruption exhibited by both taxpayers and tax authorities, citizens’ reluctance to pay and a readiness to avoid or evade taxes- due to their selfish reasons or the fact that the government itself are not using the taxes in a befitting or prosperous manner for the country. Thus, the study shows that all areas in tax collection and administration that should be focused on as taxation are greatly connected to economic growth and development.

The study recommends:

i. a restructuring of the entire petroleum sector, by encouraging and making facilities available for local refining of crude oil to enable PPT and other oil-related revenue to properly stimulate the country’s development.

ii. that tax authorities and policymakers should strive for tax system simplification to ensure easier means of tax administration and collection as well as ensure a tax system free of corruption and misappropriation.

iii. creation of employment opportunities towards building a strong tax base for the nation which would translate to increased tax revenue to further develop the economy.

iv. efficient channelling of tax proceeds into infrastructure, basic amenities and improvement in technical and institutional arrangements involved in production.

References


