



OIL REVENUE AND ECONOMIC GROWTH OF NIGERIA: 1990 – 2019

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ABSTRACT: *The oil and gas business in Nigeria has brought unparalleled fluctuations to the Nigerian economy, mostly in the past five decades after it substituted agriculture as the basis of the Nigerian economy. This study investigated the relationship between oil revenue and economic growth in Nigeria. It spanned through the period 1990 through 2019. The specific objectives are to investigate the relationship between crude oil/gas export, petroleum profit tax/royalty, domestic crude oil sales, oil licensing fees on real gross domestic product and real gross national product in Nigeria. And also, ascertain whether the exchange rate moderates the relationship between oil revenue and economic growth in Nigeria. The study employed an ex post facto research design and the secondary data used for the investigation were sourced from the Central Bank of Nigeria (CBN) statistical bulletin, Federal Inland Revenue Service Fact Book and the World Bank Development Website. Descriptive Statistics, Pearson Moment Correlation Coefficient and Ordinary Least Square Multiple Regression Statistical tools were used in the study. The results revealed that Crude oil/gas export has a significant and negative relationship with the real gross domestic product in Nigeria; Petroleum profit tax/royalty has a significant and positive relationship with real gross domestic in Nigeria; Domestic crude oil sales have an insignificant and negative relationship with real gross domestic product in Nigeria; Oil licensing fees have an insignificant and negative relationship with real gross domestic product in Nigeria; The study concluded that there is a significant relationship between oil revenue and economic growth in Nigeria. The study recommends that the government should effectively and efficiently utilize the oil fund in strategic development projects so as to reduce the rate of poverty and facilitate economic growth.*

KEYWORDS: Crude Oil, Petroleum Profit Tax, Economic Growth, Gross Domestic Product



INTRODUCTION

Nigeria is a nation blessed with mineral resources out of which oil is singled out. Akinlolu and Nejo (2020) maintained that the discovery of oil in commercial quantity made the oil and gas sector in Nigeria the biggest. Oil provided near 90% of foreign exchange earnings and approximately 80% of Federal revenue and contributes to the growth of the Nigerian economy. The income from oil exploration and exportation over time has been the mainstay of the economy (Efanga et al, 2020). Oil being the backbone of the Nigerian economy performs a major function in influencing the economic well-being of the country. According to Nweze and Edame (2016), the oil and gas sector has been seen as the mainstay that drives the economic growth and development of Nigeria. The authors further argued that the contribution of the oil and gas sector to the economic growth of Nigeria can be observed from the position of employment generation, foreign exchange incomes, government income and gross domestic product. Efanga et al (2020) stated that the Nigerian economy is largely reliant on oil and gas revenue to finance its budget; therefore, the Nigerian economy is oil and gas-dependent for the achievement of major macroeconomic policy from the huge amount of oil and gas revenue. Uremadu et al (2020) noted that the oil and gas sector in Nigeria has also been pronounced to have delivered 95% of foreign exchange earnings and about 65% of government budgetary revenues (Akinlolu & Nejo, 2020). Similarly, Nweze and Edame (2016) opined that oil and gas delivered about 90% of foreign exchange incomes and about 80% of federal revenue and supports the growth rate of gross domestic product (GDP) of the economy of Nigeria.

Crude oil became the main resource in the mid-1970s. On-shore oil exploration accounts for about 65% of total production and it is found largely in the swampy areas of the Niger Delta, while the remaining 35% represents offshore production and includes drilling for oil in the deep waters of the continental shelf (Uremadu et al, 2020). The huge increase in oil revenue as an aftermath of the Middle-East war of 1973 generated unprecedented, unanticipated and unexpected wealth for Nigeria, and then created the vivid shift of policies from an all-inclusive method to benchmarking them against the State of the oil sector (Akinlolu & Nejo, 2020; Efanga et al, 2020). The discovery of oil and gas has had a major effect on the Nigerian economy both positively and unfavourably. On the destructive side, this can be measured with reverence to the close communities within which the Oil Wells are exploited. Some of these communities suffer environmental degradation, which leads to the dispossession of sources of livelihood and other economic and social factors. Uremadu et al, (2020) noted that though huge earnings are gotten from the domestic sales and export of petroleum products, its consequence on the growth of the Nigerian economy as regards returns and productivity is still doubtful. Furthermore, given the fact that the oil industry is a very critical segment of the Nigerian economy, there is the need for a suitable and necessary production and export policy for the sector (Akinlolu & Nejo, 2020). In Nigeria, however, crude oil has contributed largely to the economy; the revenue has not been appropriately employed. Bearing in mind the fact that there are other sectors in the economy, the excess revenue made from the oil and sector can be invested in them to diversify and also increase the total gross domestic product of the economy (Efanga et al, 2020).

Oil revenue is the income earned from the sale of crude oil. According to Ogbonna and Appah (2012), oil is the main source of government revenue, accounting for about 90% of total exports, and this approximates to 80% of total government revenues in Nigeria. Ilori and Akinwunmi (2020) noted that oil and gas is the major source of revenue in Nigeria as well as supporting the nation for the future. The authors argued that the budget of Nigeria most vital



source of income is from oil revenue. It includes, though is not limited to, revenue from the export of crude oil, petroleum income tax receipts, and revenue from the domestic sale of crude oil (Ilori & Akinwunmi, 2020). The revenue generated from oil and gas in Nigeria contributes to the economic growth of the Country. The studies conducted by Ogbonna (2011), Ogbonna and Appah (2012), Lawrence and Victor (2016), Mgbame et al (2015), Eze et al (2018), Yahaya and Yusuf (2019), Akinlolu and Nejo, (2020), Efanga et al, (2020), Uremade et al (2020) disclosed contradictory results on the relationship between oil revenue and economic growth.

According to Nweze and Edame (2016), the effects of the oil industry on the economic growth and development of Nigeria are both positive and negative. Ogbonna (2011), states that over the years, the effect of oil income on the Nigerian economy has been a controversial issue. This has been generating prescriptive contributions from different individuals and groups based on their personal opinion, knowledge and experiences. Various stakeholders and political interest groups are involved in the oil and gas business in Nigeria and each of them is always competing with one another for oil income. Ogbonna and Appah (2012), Lawrence and Victor (2016), Mgbame et al (2015), Eze et al (2018), Yahaya and Yusuf (2019), Akinlolu and Nejo, (2020), Efanga et al, (2020), Uremade et al (2020) argue that the over-reliance on oil revenue has a tendency to mislead and depress sourcing of revenue from other sources by the government. For instance, as a result of enormous oil revenue flows; countries tend to de-emphasize taxes as a source of government revenue. Nweze and Edame (2016) opine that low tax ratios and high consumption expenditures support inflationary propensities with respect to expenditure; government pay less or no devotion to infrastructural expansion, the boost of private sector investment, industrializing the agricultural and manufacturing sector of the economy because of reliance on oil and gas revenue. Some earlier studies had been carried out on the relationship between oil revenue and economic growth in Nigeria. For example, Ogbonna (2011), Ogbonna and Appah (2012), Lawrence and Victor (2016), Mgbame et al (2015), Eze et al (2018), Yahaya and Yusuf (2019), Akinlolu and Nejo, (2020), Efanga et al, (2020), Uremade et al (2020). While some of these previous studies found a positive relationship between oil sector revenue and economic growth (Nweze and Edame 2016; Efanga et al, 2020), others found a negative relationship between oil sector revenue and economic growth (Akinlolu & Nejo, 2020). In terms of the degree of influence, some of the studies (Ogbonna & Appah, 2012; Efanga et al, 2020) found oil sector revenue to have exerted a significant impact on economic growth while others found that oil sector revenue had no significant effect on economic growth (Asagunla & Agbede, 2018). Equally, in some previous studies, oil industry constituents were inadequate to largely the sale of crude oil were carried out on whether revenues from the sale of crude oil impacted economic growth. Therefore, this study empirically investigates the relationship between oil revenue and economic growth in Nigeria. The major aim of this study is to empirically investigate oil revenue and economic growth in Nigeria from the period 1990 to 2019.

The specific objectives are to:

1. Investigate the relationship between crude oil/gas export and real gross domestic product in Nigeria;
2. Investigate the relationship between petroleum profit tax/royalty and real gross domestic in Nigeria;



3. Investigate the relationship between domestic crude oil sales and real gross domestic product in Nigeria;
4. Determine the relationship between oil licensing fees and real gross domestic product in Nigeria;

The study was guided by the following research questions:

1. What is the relationship between crude oil/gas export and real gross domestic product in Nigeria?
2. What is the relationship between petroleum profit tax/royalty and real gross domestic product in Nigeria?
3. What is the relationship between domestic crude oil sales and real gross domestic product in Nigeria?
4. What is the relationship between oil licensing fees and real gross domestic product in Nigeria?

The study will be guided by the following research hypotheses:

- H₀₁:** There is no significant and positive relationship between crude oil/gas export and real gross domestic product in Nigeria.
- H₀₂:** There is no significant and positive relationship between petroleum profit tax/royalty and real gross domestic product in Nigeria.
- H₀₃:** There is no significant and positive relationship between domestic crude oil sales and real gross domestic product in Nigeria.
- H₀₄:** There is no significant and positive relationship between oil licensing fees and real gross domestic product in Nigeria.

REVIEW OF RELATED LITERATURE

The Concept of Oil Revenue

Oil revenue is the income earned from the sale of crude oil. According to Ogbonna (2011), oil revenue is money received from the sales of petroleum products by any company or organization engaged in petroleum operations. For the Nigerian government, it is the money received on behalf of the government by its agencies such as Nigerian National Petroleum Corporation (NNPC), Central Bank of Nigeria (CBN) in respect of Petroleum Profits Tax, royalties, sale of crude oil and gas, licensing fees and other incidentals. The author further notes that to understand the meaning of the oil and gas income generation environment and its effects on the economy, it is necessary to state that it deals with the appropriate strategies for generating income and the necessary investment decision to invest it in the relevant sector of the economy where it will have a positive impact and multiplier effects on the economy. This will promote economic growth and facilitate the realization of the much needed economic goals and objectives.



Crude Oil/Gas Export: Crude oil is a naturally occurring, unprocessed petroleum product composed of hydrocarbon deposits and other carbon-based materials. Crude oil can be refined to produce usable products such as gasoline, diesel and various forms of petrochemicals. Ugwo et al (2019) state that crude oil is a nonrenewable resource, which means that it can't be substituted naturally at the rate we consume it and is, therefore, a limited resource. Crude oil is typically obtained through drilling, where it is usually found alongside other resources, such as natural gas (which is lighter and therefore sits above the crude oil) and saline water (which is denser, and sinks below). It is then refined and processed into a variety of forms, such as gasoline, kerosene and asphalt, and sold to consumers (Investopedia, 2018). This is one of the major components of oil and gas revenue in Nigeria. Ugwo et al (2019) argue that in Nigeria, crude oil is the major export because of the large revenue it generates. This has led the economy to focus on the petroleum sector while ignoring the other sectors as well as the potential revenue they can generate. It is clear from the empirical studies that there are different results by various scholars where some empirical studies found that crude oil export negatively and significantly influences economic growth (Eravwoke, et al 2014) Ogbonna and Appah (2012). Similar studies disclose a positive insignificant association between crude oil export and economic growth (Usman, et al, 2015; Awujola et al, 2015).

Petroleum Profit Tax/Royalties: Petroleum Profit Tax is a liability that takes place when a company disposes of chargeable oil and gas. This levy is on the firm's profit from oil activities under the Nigerian Petroleum Income Tax Act (Okoh et al, 2016). According to Obaretin and Monye-Emina (2019), petroleum profit tax is levied, evaluated and payable on the profits or income of each accounting period of any firm engaged in petroleum operations during any such accounting period, usually one year (January to December). The petroleum profit tax is legislation that levies a tax on profits from petroleum extraction in Nigeria and provides the estimation and collection and the related purposes. It is a tax that refers to upstream activities in the oil and gas industry. Olatunji and Adegbite (2014) state that petroleum profit tax (PPT) is a tax related to upstream operations in the oil industry in Nigeria. It is principally related to rents, royalties, margins and profit-sharing elements associated with oil mining, prospecting and exploration leases.

Domestic Crude Oil Sales: Domestic crude oil sales entail the sale of crude to the domestic refineries. The Nigerian National Petroleum Corporation sells roughly 445,000 barrels per day on an intercompany basis to the Pipeline Product Marketing Company, its main downstream subsidiary. The country's four NNPC-owned refineries are supposed to process 445,000 barrels per day if they run at full capacity. PPMC is meant to pay NNPC for this crude, and then NNPC is supposed to send the funds to the Federation Account. This simple two-part system has broken down, however, especially during the 2010-2015 period. As NNPC's financial and operational problems deepened, it introduced more types of makeshift oil sale transactions, many grouped under the domestic crude system.

Licensing Fees: This is the type of fee paid to the government for different types of licenses for crude oil prospecting, exploration and exploitation granted by the minister charged with the responsibility for petroleum matters under the power conferred by Section 2 (1) (a) of the Petroleum Act of Nigeria. This means a license granted to a company under the petroleum Act of 1969 to explore for petroleum and does not confer any exclusive right over the area of the license. It usually attracts fees payment as stipulated by law. This means that another type of license may also be granted in the same area. Oil exploration License usually has one year term



but the licensee has the option to renew it if he can fulfil the necessary conditions as stated in the PPTA 1969 schedule 1, paragraph 3.

Concept of Economic Growth

Economic growth simply refers to an increase in the value of goods and services produced by a country over a period and can be used to reflect the size of a country. According to Dwivedi (2004), economic growth is a sustained increase in per capita national output or net national product over an extended period. It implies that the rate of increase in total output must be higher than the rate of population growth, thereby resulting in improvement or an increase in the standard of living of the citizens. There are different proxies used for measuring economic growth but the most accepted is Gross Domestic Product (GDP). GDP is the monetary value of goods and services produced in a nation during a particular period by the residents of that nation irrespective of the nationality of the residents. GDP can be measured at current basic prices (Nominal GDP), constant basic prices (Real GDP) or current market price. Real GDP has been seen as a good measure of economic growth because it accounts for the change in the price level of goods and services produced within the nation at a particular period. This makes it to be an attraction to economics, finance and accounting researchers (Peter & Adesina, 2016). Based on this, the study used real GDP as an economic growth proxy. Ogbonna (2011), Ogbonna and Appah (2012) defined GDP as the money value of goods and services produced in an economy during a period of time irrespective of the nationality of the people who produced the goods and services. It is usually calculated without making any allowance for capital consumption (or deductions for depreciation). Also, GDP by expenditure-based is total final expenditure at purchasers' prices (including the f.o.b. value of exports of goods and services) less the f.o.b. value of imports of goods and services. Appah and Zibaghafa (2018) clearly state that the GDP or Gross Domestic Product is the total volume of production that has taken place in the economy irrespective of the nationality of the people who produced the goods and services. According to him, it is the total production that has taken place in Nigeria by Nigerians themselves and foreigners living in Nigeria. The GDP does not include the incomes and property earnings of Nigerians abroad. In the same vein, it does not exclude the income of foreigners and foreign property earnings in Nigeria. To distinguish GDP from GNP, Appah and Zibaghafa (2018) further posit that the GNP or the Gross National Product is obtained when we add to the GDP, Nigerians' incomes from abroad and we deduct foreigners' earnings in Nigeria; that is, when we add the net factor income from abroad. To this end, it is the GNP that is a better measure of the standard of living for the people in a country because it shows the incomes accruing solely to citizens of the country.

Theoretical Review

Resource Curse Theory: This study is anchored on the resource dependency theory. The resource curse conception was advanced by Richard Auty in 1993. The notion of the resource curse theory refers to the contradiction that resource-rich nations are inclined to grow more slowly than resource-poor nations. This perplexing discovery was the focus of several investigations (Sachs and Warner; 1995; Auty, 2001; Gylfason; 2001, Sala-i-Martin and Subramanian; 2003; Smith, 2004). It was also recognized as the absurdity of plenty and states to the disappointment of many resource-rich states to take advantage of their natural resource wealth, and for governments in these nations to answer effectively to public welfare needs. While one might expect to see better development outcomes after countries discover natural resources, resource-rich countries tend to have higher rates of conflict and authoritarianism,



and lower rates of economic stability and economic growth, compared to their non-resource-rich neighbours. Auty (1998) in Akinyele et al (2021) was the first author to use the term resource curse to refer to how countries rich in natural resources were incapable to use that wealth to boost their economies; these countries had lower economic growth than countries without an abundance of natural resources. There are several long run symptoms of the resource curse theory. Firstly, resource-rich nations are linked to slow economic growth. According to Sachs and Warner (1997), there is a negative association between macroeconomic volatility and growth. The authors noted that given oil price instability, it is not irrational to make the linkage between oil revenues and poor growth performance of resource-rich nations. Secondly, the resource curse is obvious in those nations that have a pitiable record of deficiency. Considerable prominence is placed on the opinion that resource richness inclines to increase income inequality, which is frequently explicated as a complete problem caused by the way in which extractive resource affluence drifts into an economy. Thirdly, resource-rich nations might reflect the extraction of resources as too vital. This point to an inadequate expansion of the economy. Lastly, excessive extraction of natural resources might have an adverse influence on the environment. The resource curse notion has been argued as insufficient, restraining and unsuitable as a structure for accepting the multifaceted and fluctuating diminuendos of resource management and extraction. One criticism argues the factuality of the resource curse by contradicting the conception of a causal association between the existence and mining of resources and poor socio-economic performance. The evaluation of the reason of the notion is introduced from two diverse locations in the academy: firstly is a procedural criticism and secondly, is an epistemological criticism. Another criticism of the resource curse theory underlines the deterministic importance of the resource curse notion as either ‘blessing’ or ‘curse’. Implicit in such duality is an intrinsic or predetermined (tragic) course for the characteristics of mining, principally in the universal South. Obi (2012) noted that this notion ‘casts a curse of unavailability. This ‘curse of unavailability shared persons of agency, topographies of complication, history of gravity—while obstructing the role of colonial history and coloniality in raising definite extractive associations and governments. Also, the resource curse notion has been confronted for insufficient considerations of the difficulties and multi-dimensionality of life in the topographies and ecosystems of extraction (Murrey2015). Although resource curse theorists by no means acceptable to clarify such complications, the notion is critiqued as being a ‘historical clarification of the operational origins and the misrepresenting influence of the extractive businesses and capitalist international associations more broadly’ (Wengraf 2018). The resource curse is generally and administratively shaped in place through irregular power associations.

Empirical Review

Jabir et al. (2020) carried out a study of oil revenue on economic growth in 83 oil-producing countries from 1990 to 2015. The study employed ex post and correlational research designs. The study utilized the financial markets development mechanism and discovered that government investment of oil revenues exerted a positive impact on economic growth through banking sector development. There was no effect found on stock market development. The study further recognized that the private investment of oil revenues indicated a negative influence on banking sector development did not have any effect on stock market development.

Eganga et al (2020) conducted a study on the oil revenue and economic growth of Nigeria for the period 1981 to 2018. The study used ex post facto and correlational research designs. The study collected secondary data from the Central Bank of Nigeria for the period under review.



The data collected from CBN was analyzed using Auto-Regressive Distributed Lag (ARDL) model to analyze data, other diagnostic tests such as; unit root test, a test of Normality, Autocorrelation test, Heteroskedasticity test and Breusch-Godfrey Serial Correlation LM test. The results disclosed that oil revenue positively and significantly affects the economic growth of Nigeria for the period between 1981 and 2018. The study, therefore, recommended that since oil revenue had a significant positive influence on the economic growth of Nigeria within the period under review and also makes up about 70% of Nigeria's annual budget, it was vital for the government to improve oil exploration and guarantee that the actions of militants and oil facilities criminals are minimized to the barest minimum if not completely eliminated so as to increase oil production in Nigeria and in turn assist the improvement of economic growth in Nigeria.

Ugwo et al (2019) conducted a study of crude oil export and economic growth of Nigeria for the period 1980 to 2017. The study used ex post facto and correlational research designs. The study utilized time-series data from the Central Bank of Nigeria (CBN) and the time series were analyzed using unit root test, cointegration and multiple regressions. The study used crude oil revenue and crude oil barrels as measures for crude oil export and real gross domestic product as a proxy for economic growth. The empirical analysis disclosed a positive impact of crude oil export and the economic growth of Nigeria for the period under review. The study, therefore, recommended that crude oil and its natural components should be utilized for the development of the country.

Olayungbo (2019) investigated oil revenue on Nigeria's economic growth for the period 1970 to 2015. The study employed ex post facto and correlational research designs. The data was obtained from the Central Bank of Nigeria Statistical Bulletin and Annual Reports for the period under review. The secondary data obtained were analyzed using the Bayesian time-varying parameter and the result found that oil revenue had significantly and positively contributed to Nigeria's economic growth for the period 1970 to 2015.

Olawunmi et al. (2018) conducted a study of the relationship between oil price, revenue and changes and economic growth of Nigeria. The study employed data from 1981 to 2016. The method of estimation used was the Auto-regressive Distribution Lag to create the presence of a long-run and short-run relationship between the variables used in the study. In the long run assessment, oil price, the consumer price index and the exchange rate ensured a positive relationship with economic growth, but oil revenue was negatively associated with economic growth. However, in the short run, the consumer price index and exchange rate are negatively related to economic growth. On the contrary, oil price and oil revenue displayed a significant positive association with economic growth in the short run.

Obaretin and Monye-Emina (2019) investigated petroleum profit tax and economic growth in Nigeria for the period 1994 to 2015. The study employed ex post facto and correlational research designs. The study used time series secondary sources of data collection from the Central Bank of Nigeria and the office of the National Bureau of Statistics for the period under review. The secondary data were analyzed using the ordinary least square statistical method. The findings revealed that petroleum income tax, foreign direct investment positively and significantly influence economic growth in Nigeria for the period under investigation. Thus, the authors recommended amongst others that incentives given to investors in the petroleum industry are sufficient to decrease the influence of the social crisis on the risk premium of investors etc.



Brown and Nnamaka (2014) carried out a study on oil revenue and developing countries: A Case of Nigeria. The study used ex post facto and correlational research designs and data was obtained from the Central Bank of Nigeria and the data collected was analysed using ordinary least squares regression method, Augmented Dickey-Fuller unit root and co-integration test. The study variables included gross domestic product (GDP), per capita income (PCI), and inflation (INF) as the explained variables, oil revenue, petroleum profit tax/royalties (PPT (R), and licensing fees (LF) as the explanatory variables. The result indicated a significant relationship between oil revenue, petroleum profit tax and licensing fees on economic growth in Nigeria.

Olayungbo and Kazeem (2017) conducted a study of oil revenue and institutional quality on Economic growth with an ARDL Approach. The study employed ex post facto and correlational research designs and the population of the study was collected from the Central Bank of Nigeria Statistical Bulletin and Annual Reports for the period 1984 to 2014. The secondary data obtained from the secondary sources were analysed using the autoregressive distributive lag (ARDL) model. The result disclosed that oil revenue, corruption and economic growth had a long-run equilibrium relationship. The study further revealed that corruption and oil revenue promoted economic growth in the long run, but in short, there was a reduction.

Asangunla and Agbede (2018) investigated oil revenue and output growth in Nigeria for the period 1981 to 2014. The study used ex post facto and correlational research designs. The study used secondary data obtained from the Central Bank of Nigeria for the period under review. The study employed Beghebo and Atima model with little modification with a fully modified ordinary least squared method (FMOLS) for the purpose of data analysis. The data analysis indicated that oil revenue does not have a short-run influence on the economic activities of Nigeria. However, the long-run influence of this policy provided an authentic level, as it was discovered that the continued increase in oil revenue will eventually provide future economic growth for Nigeria. The study though suggested that the government should efficiently and resourcefully use the oil revenue into strategic progressive ventures so as to decrease the rate of insufficiency and assist output growth.

Ali and Harvie (2013) studied the effect of oil revenue and the economic development of Libya in the post-Gaddafi era. The study employed ex post facto and correlational research designs. The study used secondary sources of data collection and a deterministic dynamic macroeconomic model to evaluate the effects of oil production on significant macroeconomic variables that come up as a result of oil sector recovery in Libya. The investigation established a positive influence of oil production on key macroeconomic elements which take into consideration of private capital stock, real income, domestic physical capital stock, human capital stock, non-oil supply and imported capital stock.

Kawai (2017), studied the impact of non-oil exports on Nigerian economic growth. The study covered the 1980 to 2016 and real gross domestic product was adopted as a proxy for economic growth and it was used as the dependent variable. On the other hand, non-oil export and exchange rate were used as the independent variables. Unit root test was carried out to determine the stationary of the variables used in the study and Engel-Granger cointegration test was carried out to ascertain the existence of a long-run equilibrium relationship among the variables. The findings of the study indicated that non-oil export exerted a positive and significant influence on the economic growth of Nigeria whereas the exchange rate exerted a



negative and significant effect on the economic growth of Nigeria. The study maintained that non-oil exports exerted a significant influence on the economic growth of Nigeria.

Okezie and Azubuike (2016) studied the contributions of non-oil revenue to economic growth in Nigeria for the period 1980 to 2014. The study employed *ex post facto* and correlational research designs and data for the study was collected from the Central Bank of Nigeria for the period under review. The study used the gross domestic product as a proxy for economic growth while oil revenue and non-oil revenue as independent variables. The secondary data was analysed using the Ordinary Least Squares (OLS) multiple regression method. The results from the study indicated that oil revenue contributed positively to economic growth in Nigeria. On the contrary, the study showed that non-oil revenue affects positively and weakly economic growth in Nigeria. In addition, the study revealed that oil revenue and non-oil revenue positively and significantly contribute to total government revenue in Nigeria. Thus, the study concluded that non-oil revenue had significantly affected economic growth in Nigeria.

Riti, et al (2016), examined the effects of non-oil sectors on the economic performance and diversification of Nigeria. The study employed *ex post* and correlational research designs. The data for the study was collected from the Central Bank of Nigeria. The study used the gross domestic product as a measure of economic performance and as the dependent variable. The independent variables in the study consisted of the agriculture sector; manufacturing sector and telecommunication sector were used as proxies for non-oil sector. The study used autoregressive distributed lag model (ARDL) and vector error correction mechanism (VECM) methods as tools for analyzing the data collected. The findings of the study revealed that the agriculture sector and telecommunication sector exerted a positive and significant impact on Nigerian economic performance. The study also showed that the manufacturing sector exerted a negative and significant impact on Nigerian economic performance.

Ojong, et al (2016) carried out an investigation of tax revenue on the Nigerian economy for the period 1993 to 2012. The study used *ex post facto* and correlational research designs and data was collected from the Central Bank of Nigeria (CBN). The study used the gross domestic product as a measure for the Nigerian economy and as the dependent variable. The study also used petroleum profit tax, company income tax and non-oil revenue as measures of tax revenue and as independent variables. The data collected for the study were analyzed using the Ordinary Least Squares (OLS) method to analyze the data collected. The results revealed that petroleum profit tax exerted a negative and insignificant influence on the Nigerian economy while company income tax exerted a positive and insignificant influence on the Nigerian economy. The study further showed that non-oil revenue exerted a positive and significant influence on the Nigerian economy.

Omodero and Ehikioya (2020) carried out a study of oil and non-oil revenue in Nigeria for the period 2005 to 2019. The study used *ex post facto* and correlational research designs. The study used secondary data from the Central Bank of Nigeria Statistical Bulletin and relevant econometric models were employed for data analysis. The study revealed that oil revenue and exchange rate have a significant negative impact on infrastructural provisions. The inflation rate is not substantial in this study. Conversely, non-oil revenue has a significant positive influence on infrastructural development in the country. The results provide the recommendation that the government will have to leverage more on tax revenue to execute its public responsibilities.



Apere (2017) conducted a study of crude oil and fiscal formulation in Nigeria for the period 1980 to 2015. The study used ex post facto and correlational research designs. The study employed secondary sources of data collection and the data obtained were analyzed using univariate and multivariate analysis while the multivariate analysis was achieved using vector autoregression analysis, granger causality and forecast error decomposition. The granger causality test disclosed that there occurs a bi-directional association between natural gas and fiscal policy; oil revenue and a unidirectional causality between crude oil and fiscal policy notably government total expenditure. The impulse response function and Forecast Error Variance Decomposition findings indicate that oil shocks exercise an obvious effect on Nigeria fiscal policy through a fiscal channel of government expenditures that are funded by oil revenues. The study further suggested that the influence of crude oil and natural gas on improvements in fiscal policy shock was positive from the first, second, third forecast periods and was stable throughout and did not expire in the long run.

Al- Rasasi et al (2019) investigated oil revenues and economic growth in Saudi Arabia for the period 1970 to 2017. The study employed ex post facto and correlational research designs. The data for the study was collected from the GASTAT and the Ministry of Finance of Saudi Arabia. The data collected was analysed using stationary, cointegration, error correction model and causality tests. The error-correction model analysis indicated a highly significant short- and long-run relationship between oil revenue and economic growth. The granger causality test that was performed disclosed that real government oil revenue growth “Granger-causing” real private-sector GDP growth.

Ogbonna and Appah (2012) investigated the effects of petroleum income and Nigeria economy for the period 2000 to 2009. The study employed ex post facto and correlational research design. The data was obtained from the Central Bank of Nigeria (CBN), the National Bureau of Statistics (NBS) and the Nigerian National Petroleum Corporation (NNPC). The data obtained were analysed using univariate, bivariate and multivariate analysis. The results disclosed that oil revenue has a positive and significant association with gross domestic product and per capita income, but a positive and insignificant association with inflation. Similarly, petroleum profit tax and royalty have a positive and significant association with gross domestic product and per capita income, but a negative and insignificant association with inflation.

Lawrence and Victor (2016) conducted a study of oil revenue and agricultural sector performance in Nigeria. The study used ex post facto and correlational research design. The data was obtained from the Central Bank of Nigeria for the period 1981 to 2014. The data collected was analysed using cointegration and granger causality analysis. The results indicated that oil revenue is not statistically significant in explaining economic growth in Nigeria.

Ilori and Akinwunmi (2020) analyzed the effect of oil and non-oil revenue on the economic development of Nigeria. The study used ex post facto and correlational research design. The study collected secondary data from the Central Bank of Nigeria for the period 1989 to 2018. The secondary used in the investigation were collected from the Central Bank of Nigeria Statistical Bulletin for the period under review. The data collected was analyzed using cointegration and error correction analysis. The multivariate analysis was conducted on oil and non-oil revenue, exchange rates, and real gross domestic product. The analysis disclosed that oil and non-oil revenues negatively affect real gross domestic products in Nigeria. However, the exchange rate contributes a positive and statistical significance on real gross domestic products in Nigeria.



Ude and Agodi (2014) investigated non-oil revenue and Nigeria's economic development. The study used ex post facto and correlational research designs. The data was collected from the Central Bank of Nigeria for the period 1980 to 2013. The study used a co-integration methodology together with an error correction mechanism for data analysis. The non-oil revenue variables examined are the revenue from agriculture and manufacturing. The findings of the study disclosed that agricultural revenue, income from manufacturing, and the interest rate significantly affects the economic development of Nigeria. The findings further indicated a long-run equilibrium association and short-run dynamic adjustment to restore equilibrium with a pace of about 52 percent.

Usman et al (2015) carried out a study of petroleum resources on the economic development of Nigeria for the period 2000 to 2009. The study employed ex post facto and correlational research designs. The study employed secondary data from the Central Bank of Nigeria. The two employed in the study were crude oil revenue and gross domestic product (GDP). The secondary data were analyzed using a simple linear regression model with the aid of Statistical Packages for Social Sciences (SPSS). The findings from the study indicated that petroleum has a positive and significant association with the Nigerian economy.

Eravwoke et al (2014) carried out a study on crude oil export and the economy of Nigeria. The study used ex post facto and correlational research designs and data was collected from the Central Bank of Nigeria for the period under review. The data obtained were analyzed using the ordinary least squares regression method, Augmented Dickey-Fuller unit root, co-integration test and the short-run dynamics. The framework for the study has its basis on the Keynesian and endogenous growth models. The result disclosed an inverse association between crude oil exports on economic growth in the Nigerian economy, given the coefficient of -2.115947, which is statistically significant with a t-value of -3.623380. This implies that crude oil exports are a significant factor that can transform the growth of an economy. The study also revealed a significant association between crude oil exports of the Nigerian economy.

Baghebo and Atima (2013) conducted a study on petroleum on economic growth in Nigeria for the period 1980-2011. The study used data from the Central Bank of Nigeria Statistical Bulletin and transparency international Agency annual publications. The study used the econometric approach in estimating the association between oil export, foreign direct investment, corruption index, external debt and the Nigerian economic growth. The study used econometric models for statistical analysis such as the stationary status of the time series data was examined using the Augmented Dickey-Fuller test. The Johansen cointegration test was conducted to ascertain the long-run equilibrium condition of the variables in the model. The variables were cointegrated because four cointegrating equations were found. The study found that FDI impacted positively and significantly on Real GDP with a coefficient of 50.15043. This implies that a unit change in FDI will result in a 50.15043 increase in GDP. The Parsimonious model was established to account for the short-run dynamic adjustments required for stable long-run equilibrium. Oil revenue, on the other hand, impacted negatively and significantly on Real GDP. A unit change in Oil revenue brings about a fall in GDP. The results indicate that a unit change in oil revenue results in 1.362996 reductions in GDP. This means that the Dutch disease phenomenon exists in Nigeria. The impact of the Corruption index on Real GDP is negative and statistically insignificant. The results support the negative impact of oil revenue on Real GDP. The corruption scandal that bedevilled the Nigerian oil industry which has called for the enactment of a law to transform the Oil industry becomes necessary. The study concludes that,



if the petroleum industry bill is passed and implemented to the letters, there exists hope for the Nigerian nation.

Appah and Ebiringa (2012) investigated petroleum profit tax and economic growth of Nigeria for the period 1970 to 2010. The study used ex post facto and correlational research design. The study employed time series data collected from the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS) from 1970 to 2010. The time series secondary was analysed with relevant econometric tests of Breusch -Godfrey Serial Correlation LM, White Heteroskedasticity, Ramsey RESET, Jarque Bera, Johansen Co-integration, and Granger Causality. The results indicated a long-run equilibrium relationship between economic growth and petroleum profit tax. The result also disclosed that petroleum profit tax does granger cause gross domestic product of Nigeria. Based on the empirical analysis, the study concluded that petroleum profit tax is one of the most vital components of direct taxes in Nigeria that impacts the economic growth of the country and therefore should be properly managed to reduce the level of evasion by petroleum exploration companies in Nigeria.

Akinlo (2012) conducted a study on the effect of oil revenue and the economic growth of Nigeria. The study employed ex post facto and correlational research designs and secondary data used was collected from the Central Bank of Nigeria for the period 1960-2009. The data collected was analyzed using multivariate cointegration VAR model and Johansen & Juselius was used. Granger causality test found bi-directional causality between oil and manufacturing, oil and building/construction, manufacturing and building/construction, manufacturing and trade/services, and agriculture and building/construction. It also established unidirectional causality from manufacturing to agriculture and trade/services to oil. No causality was established between agriculture and oil, likewise between trade/services and building/construction.

Nwoba and Abah (2017) conducted a study of crude oil revenue on economic growth in Nigeria. The study made use of time series data for the period 1960 to 2010 and an ex post facto research design and a simple regression analysis to estimates its variables. The study discovered a long-run association between the variables under study. The results revealed that oil revenue has a positive and significant association with the growth of the agricultural sector and further revealed that there is an insignificant impact of government budget deficit on the performance of Nigeria. The study further suggests that the government should expand its oil revenue policies so as to consolidate the budget discipline, accountability and transparency so as to improve the living standards of its population, increase income, improve education, increase income and cultural and human's values.

Takumah (2014) carried out an investigation on tax revenue and economic growth in Ghana for the period 1986 to 2010. The study employed ex post facto and correlational research designs and secondary data was collected from the Central Bank of Ghana for the period under review. The study used the real gross domestic product as a measure for economic growth and as the dependent variable. The study further indicated that tax revenue, foreign direct investment (FDI), government expenditure and consumer price index were used as proxies for the independent variables. The study secondary data collected analyzed using unit root test, cointegration test, granger causality test and vector error correction mechanism (VECM) method. The results of the study disclosed that tax revenue and foreign direct investment positively and significantly affect economic growth in the short run. Conversely, the study disclosed that government expenditure positively and insignificantly influences economic



growth in the short run. Nevertheless, the study discovered that the consumer price index (CPI) negatively and significantly affects economic growth in Ghana in the short run. In the long run, the study suggested that tax revenue, foreign direct investment and government expenditure positively and significantly affects economic growth in Ghana while the consumer price index negatively and significantly affects economic growth in Ghana.

Lyndon and Bingilar (2016) investigated petroleum profit tax, personal income tax and economic growth for the period 2005 to 2014 in Nigeria. The study used ex post facto and correlational research design. The study employed time series secondary data from the Central Bank of Nigeria Statistical Bulletin. The time-series data collected from the CBN was analyzed using the ordinary least squares (OLS) technique. The dependent variable economic growth was measured using the real gross domestic product as the dependent variable while petroleum profit tax and personal income tax as the independent variables. The results of the analysis indicated that both petroleum profit tax and personal income positively and significantly influence economic growth. The study recommended that government should make a stronger tax administration system to widen the tax income, and embark on tax education to ensure voluntary tax compliance.

Nweze and Greg (2016) conducted a study of oil revenue and economic growth in Nigeria. The study used ex post facto and correlational research designs with time-series data between 1981-2014. The study collected secondary data from the Central Bank of Nigeria (CBN) and an Error Correction Mechanism (ECM) was used to estimate the dependent and independent variables. The findings indicated a long-run association between the dependent and independent variables. The study discovered that all the variables have a highly statistically significant influence on GDP while the lag of government spending was insignificant. Therefore, in the long run, all the variables had a negative influence on GDP with the exclusion of government spending which was positive while in the short run all variables demonstrated their expected signs with GDP.

Akinleye et al (2021) conducted a study of oil revenue and economic growth in Nigeria for the period 1981 to 2018. The study used ex post facto and correctional research designs and secondary data was collected on the economic variables from the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. The secondary data collected was analyzed using the Augmented Dickey-Fuller unit root test, autoregressive distributive lag (ARDL) method and ARDL bound to test for co-integration with various other diagnostic techniques. The result exposed that exchange rate (EXCR), real gross domestic product (RGDP), petroleum profit tax (PPT) and oil revenue (OREV) were stationary at the first difference (I(1)) and it was discovered that the inflation rate (INF) was at stationary level (I(0)); on ARDL, the result showed that the previous values of the economic growth (RGDP (-1)) and oil revenue were directly related with the economic growth (RGDP) in Nigeria; it was also discovered that the petroleum profit tax (PPT), inflation rate (INF) and exchange rate (EXCR) were inversely related with the economic growth (RGDP) in both the short and long run. The fitted ARDL model was statistical significance and as such reliable and appropriate for examining the impact of oil revenue and other identified economic variables on economic growth in Nigeria during the period under study.



Igwe et al (2015) conducted a study on the non-oil sector and economic growth in Nigeria for the period of 1981 to 2012. The study used ex post facto and correlational research designs. The study used secondary data from the Central Bank of Nigeria for the period under review. The study used domestic products as a proxy for economic growth and as the dependent variable while net export, capital stock and labour were used as independent variables. The secondary data collected from CBN was analyzed using the Johansen cointegration test, vector error correction mechanism (VECM) and Granger-causality test as analytical tools. The results showed that non-oil export positively and significantly influence economic growth in Nigeria in both the short run and long run. The Granger causality test discovered that there was no causality between oil export and economic growth in Nigeria. The study further indicated that both capital stock and labour positively influence the economic growth of Nigeria.

Mohsen (2015) carried out a study of non-oil trade and gross domestic product in petroleum exporting countries for the period 1975 to 2010. The study employed ex post facto and correlational research designs. The secondary data was collected from the Central Bank of Nigeria for the period under review. The study used the gross domestic product as a measure for economic growth and as the dependent variable. Also, oil exports revenue and non-oil export revenue were used as independent variables. The secondary data collected from CBN was analyzed using the granger-causality test to determine the flow of causation among the variables; a co-integration test was carried out to determine the existence of long-run equilibrium association between the variables and subsequently the panel data analysis was carried out to ascertain the influence of the independent variables on the dependent variable using the data collected. The results indicated that both oil export revenue and non-oil sector revenue positively and significantly affects the gross domestic product. The granger-causality test suggested a bidirectional association between non-oil export revenue and gross domestic product. They showed that non-oil export revenue affects gross domestic product while gross domestic product also affects non-oil export revenue in petroleum exporting countries. The study also discovered that there was a unidirectional association between oil export revenue and gross domestic product. The result further showed that oil export revenue influences the growth of gross domestic product and not otherwise.

Ilaboya and Ofiafor (2014) conducted an investigation of Petroleum Profits tax and economic growth in Nigeria for the period 1980 to 2011. The study used ex post facto and correlational research designs for the period under investigation. The study used time series secondary data obtained from the Federal Inland Revenue Service, Central Bank of Nigeria Statistical Bulletin and Federal Office of Statistics. The time-series data were analysed using co-integration and error correction estimation techniques were employed in the study. The study also conducted diagnostic tests to check the adequacy of the specified model. The findings indicated that petroleum profits tax positively and significantly influences real GDP growth for the period under investigation. The study also disclosed that total direct tax positively influences economic growth in Nigeria while trade openness negatively and insignificantly influences economic growth.

Okoh et al (2016) carried out an investigation of petroleum profit tax and economic growth of Nigeria for the period 2004 to 2015. The study used ex post facto and correlational research designs. The study used time series secondary sources collected from the Central Bank of Nigeria (CBN) and the National Bureau of Statistics for the period under investigation. The time-series data collected were analysed using simple regression analysis. The result indicated



that petroleum profit tax positively and significantly affects economic growth in Nigeria for the period under investigation.

Eyisi et al (2015) conducted a study of taxation and macroeconomic performance in Nigeria from 2002 to 2011. The study used ex post facto and correlational research designs. The study used time series secondary data from the Central Bank of Nigeria and the National Bureau of Statistics. The time-series data collected was analyzed using the ordinary least square regression method. The findings indicated that government earnings from taxation positively and significantly influence real gross domestic product in Nigeria, government revenue from taxation negatively and significantly impact on unemployment rate in Nigeria. This result implies that revenue generation from taxation increases economic growth and growth that changes in taxation, repeatedly will affect individuals real standard of living (GDP), employment rate and interest rate. The study, therefore, recommended amongst others that government should consider taxpayers and other key stakeholders' interest in fiscal policy formulation and implementation in order to attain an enhanced tax compliance rate in Nigeria.

Awujola et al (2015) investigated the economic effect of oil exportation on the Nigerian economy for the period 1970 to 2012. The study used ex post facto and correlational research designs. The data was used from time series secondary data collected from the Central Bank of Nigeria (CBN) and the data obtained were analysed using a vector error correction model. The findings disclosed a long-run association between crude oil exports and economic growth. The study concluded that exports should not be promoted at all cost, but rather the utilization and allocation of the physical resources and labour complement of the country in the most advantageous combination as between production for the local and foreign markets and that diversification should be seen as an economic management strategy aimed at ensuring the stability of incomes.

Inimino et al (2020) investigated the petroleum profit tax and economic growth of Nigeria for the period 1980 to 2017. The study employed ex post facto research and correlational research designs. The study used time series secondary data obtained from the Central Bank of Nigeria (CBN) and the National Bureau of Statistics for the period under review. The secondary data collected was analysed using relevant econometric models such as unit root test, generalized method of moments (GMM) and granger causality tests. The results from the GMM analysis indicated a positive and significant influence of petroleum profit tax and the economic growth of Nigeria. The granger causality test disclosed bidirectional causality between petroleum profit tax and the economic growth of Nigeria.

METHODOLOGY

Research Design: This study adopted an ex post facto research design. Ex post facto research is a logical experimental investigation in which the researcher does not have uninterrupted manipulation of independent variables because their expressions have at present happened or because they are essentially not influenced (Kpolovie, 2010). The design permits the measurement of changes in a variable from one period to another (i.e., the description of patterns of change over time). Also, time-series studies facilitate the prediction of future outcomes based upon earlier factors. Overall, this design is tailored after a quantitative



approach whereby secondary data ranging from 1990 to 2019 is collected and used for data analysis.

Population of the Study: A research population is also known as a well-defined collection of individuals or objects known to have similar characteristics (Appah, 2020). The population of this study is the National economic data relevant to this study. However, this is restricted to oil revenue (crude oil export, petroleum profit tax and royalties, domestic sale of crude oil, licensing fees) and economic growth (GDP).

Source of Data: The main source of data for this study is secondary data. Secondary data was further divided into raw secondary data, where there have been little if any, processing and compiled secondary data which has received some degree of selection or summarization.

Method of Data Analysis: Consistent with the positivist research philosophy and quantitative design, the employed technique of inferential analysis in this study is parametric statistics. This technique is related to the use of quantitative models that seek to establish relationships between two variables by using sample-based parameters as measures to infer the population of the study. The data analysis was executed in three distinct stages. Firstly, a univariate (or descriptive) analysis was executed, followed by bivariate analysis and lastly, multivariate analysis. In line with the study objective and operational framework, the required functional relationship to test the developed hypotheses is presented as follows:

$$\text{Economic Growth} = f(\text{COES}, \text{PPTR}, \text{DMOS}, \text{LICF}) \quad \text{Eqn. (1)}$$

$$\text{RGDP} = g(\text{COES}, \text{PPTR}, \text{DMOS}, \text{LICF}) \quad - \quad \text{Eqn. (2)}$$

In their respective empirical forms, eqn.(1a) and eqn.(1b) are restated thus:

$$\text{LogRGDP} = \beta_0 + \beta_1 \text{LogCOES} + \beta_2 \text{LogPPTR} + \beta_3 \text{LogDMOS} + \beta_4 \text{LogLICF} + U \text{--Eqn. (3)}$$

On the basis of 5% level of significance:

H_{01} is accepted if p-value (β_1) > 0.05, otherwise H_{01} is rejected

H_{02} is accepted if p-value (β_2) > 0.05, otherwise H_{03} is rejected

H_{03} is accepted if p-value (β_3) > 0.05, otherwise H_{05} is rejected

H_{04} is accepted if p-value (β_4) > 0.05, otherwise H_{02} is rejected



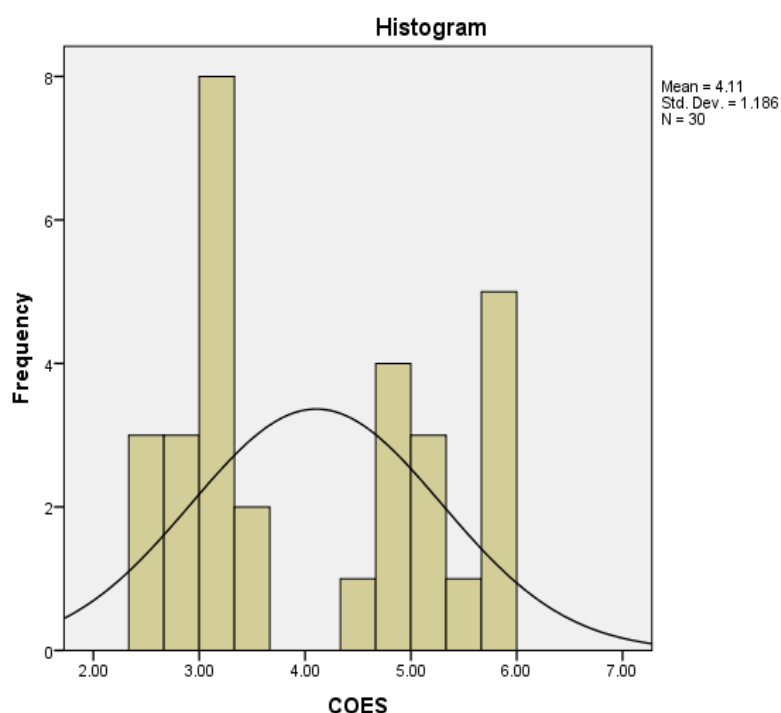
RESULTS AND DISCUSSION

Univariate Analysis

Table 1: Descriptive Statistics of Crude Oil and Gas Export (COGE)

	N	Mini	Maxi	Mean	Std. Dev.	Skewness		Kurtosis	
	Stat	Stat	Stat	Stat	Stat	Stat	Std. Error	Stat	Std. Error
COGE	30	2.59	6.00	4.1059	1.18577	.329	.427	-1.510	.833
Valid N (listwise)	30								

Source: SPSS Output



The results in table 1 had shown descriptive statistics of crude oil and gas export (COGE). The results had a positive growth rate between the Minimum (2.59) to Maximum (6.00); which had shown skewness and kurtosis statistics values that provide useful information about the symmetry of the probability distribution of Crude Oil and Gas Export data have a positive skewness value (0.329) and standard error (0.427) shown the data set have a long right tail and negative kurtosis value (-1.510) and standard error value (0.833) implying that the extent of flatness of the distribution is less than the normal curve indicated 4.1059, and 1.18577 mean and standard deviation values respectively.

**Table 2: Descriptive Statistics of Petroleum Profit Tax and Royalty (PPRR)**

	N	Mini	Maxi	Mean	Std. Dev.	Skewness	Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	
						Std. Error	Std. Error	
PPTR Valid N (listwise)	30 30	4.43	6.64	5.7404	.76293	-.490	.427 -1.407	.833

Source: SPSS Output

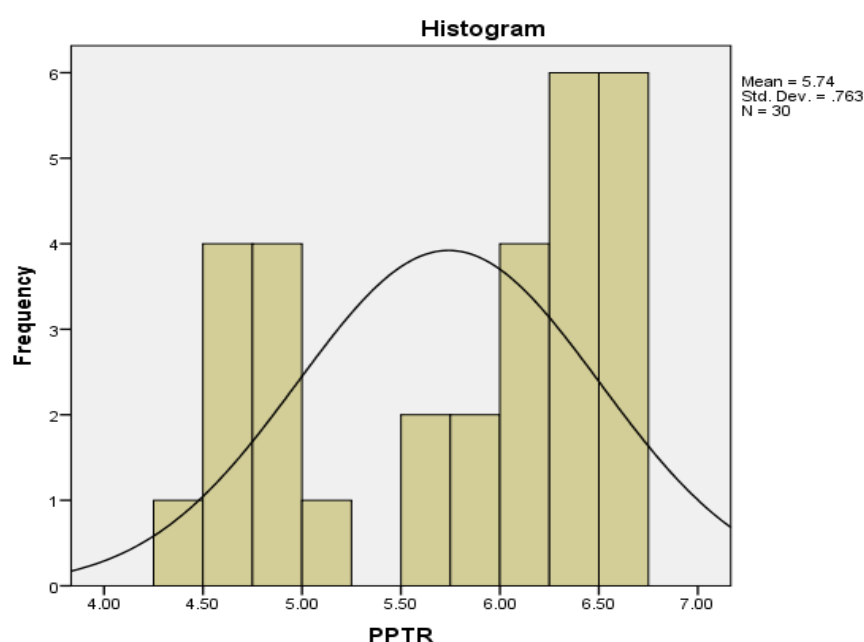


Table 2 showed the descriptive statistics of petroleum profit tax and royalty (PPRR). The result indicated that (PPRR) had a positive growth rate between the Minimum (4.43) to Maximum (6.64), with Mean and Standard derivation statistical values (5.7404) and (0.76293) respectively. The table above also indicated skewness and kurtosis statistics values which provide useful information about the symmetry of the probability distribution of petroleum profit tax and royalty (PPRR) data which had negative skewness value (-0.490) and standard error (0.427) showing that it has a short right tail and negative kurtosis value (-1.407) with standard error (0.833) implying that, the extent of flatness of the distribution is less than the normal curve.

**Table 3: Descriptive Statistics of Domestic Crude Oil Sales (DMOS)**

	N	Mini	Maxi	Mean	Std. Dev.	Skewness	Kurtosis
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
						Std. Error	Std. Error
DMOS	30	2.93	5.82	4.0122	.96026	.346	-1.475
Valid N (listwise)	30					.427	.833

Source: SPSS Output

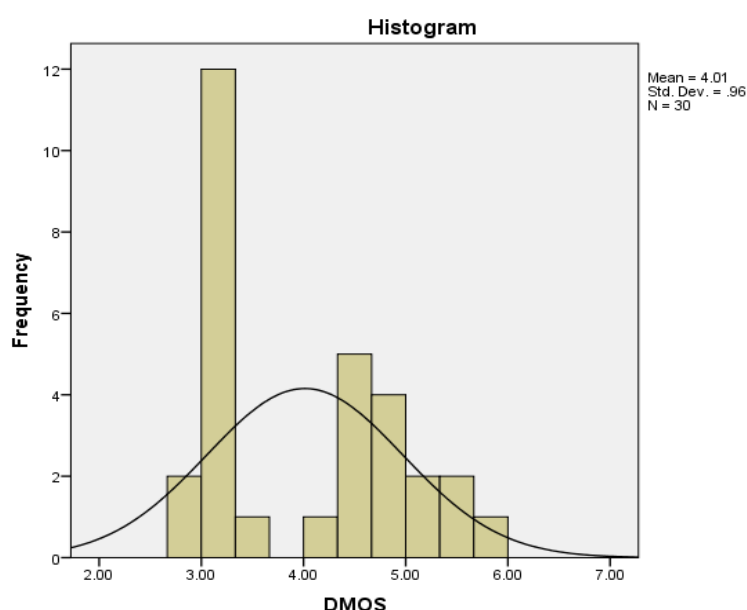


Table 4 shows the descriptive statistics of domestic crude oil sales (DMOS). The results had a positive growth rate between the Minimum (2.93) to Maximum (5.82); which had shown skewness and kurtosis statistics values that provide useful information about the symmetry of the probability distribution of Domestic Crude Oil Sales data have a positive skewness value (0.346) and standard error (0.427) shown the data set have a long right tail and negative kurtosis value (-1.475) and standard error value (0.833) implying that the extent of flatness of the distribution is less than the normal curve indicated 4.0122, and 0.96026 mean and standard deviation values respectively.

**Table 4: Descriptive Statistics of Licensing Fees (LICF)**

	N	Mini	Maxi	Mean	Std. Dev.	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic ic	Std. Error
LICF	30	.00	5.00	3.5832	1.02656	-1.485	.427	3.659	.833
Valid N (listwise)	30								

Source: SPSS Output

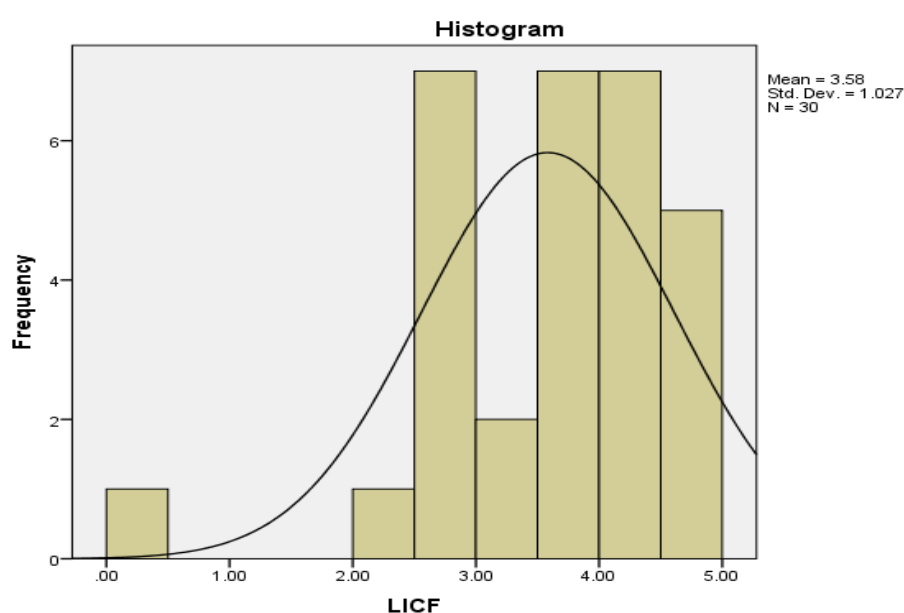
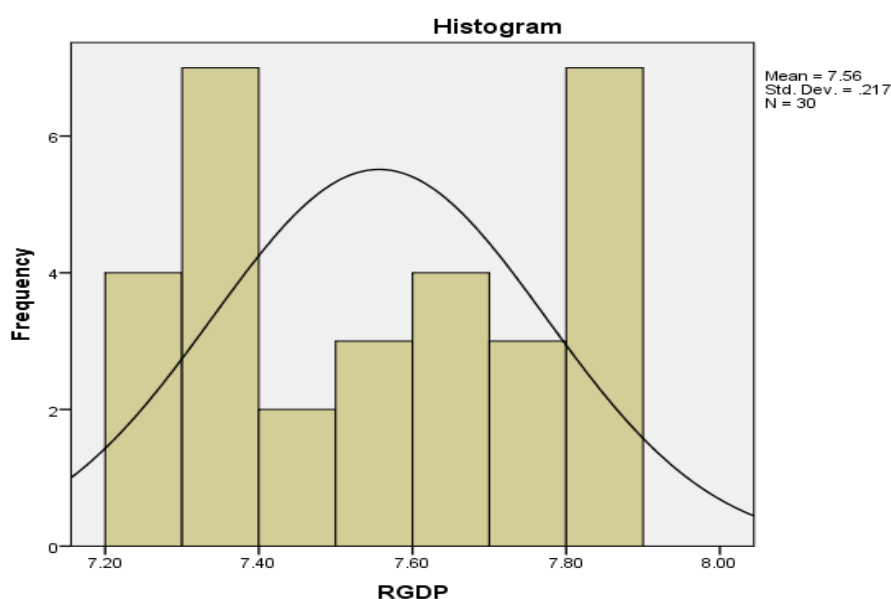


Table 4 shows the descriptive statistics of licensing fees (LICF). The result indicated that the licensing fees data set had a positive growth rate between the Minimum (0.00) to Maximum (5.00), with mean and standard derivation statistical values (3.5832) and (1.02656) respectively. The table above also indicated skewness and kurtosis statistics values which provide useful information about the symmetry of the probability distribution of licensing fees (LICF) data which had positive skewness value (0.427) and standard error (0.427) showing that it has a long right tail and positive kurtosis value (3.659) with standard error (0.833) implying that, the extent of flatness of the distribution is greater than the normal curve.

**Table 5: Descriptive Statistics of Real Gross Domestic Product (RGDP)**

	N	Mini	Maxi	Mean	Std. Dev.	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
RGDP	30	7.28	7.86	7.5566	.21712	.076	.427	-1.687	.833
Valid N (listwise)	30								

Source: SPSS Output



The results showed descriptive statistics of real gross domestic product (RGDP). The results had a positive growth rate between the Minimum (7.28) to Maximum (7.86); which had shown a skewness and kurtosis statistics values that provide useful information about the symmetry of the probability distribution of real gross domestic product (RGDP) data have a positive skewness value (0.427) and standard error (0.427) shown the data set have a long right tail and negative kurtosis value (-1.687) and standard error value (0.833) implying that the extent of flatness of the distribution is less than the normal curve indicated 7.5566, and 0.21712 mean and standard deviation values respectively.



Bivariate Analysis

Table 6: Correlations Coefficient of Model One

		RGDP	COES	PPTR	DMOS	LICF
RGDP	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	30				
COES	Pearson Correlation	-.841**	1			
	Sig. (2-tailed)	.000				
	N	30	30			
PPTR	Pearson Correlation	.913**	-.698**	1		
	Sig. (2-tailed)	.000	.000			
	N	30	30	30		
DMOS	Pearson Correlation	-.763**	.841**	-.639**	1	
	Sig. (2-tailed)	.000	.000	.000		
	N	30	30	30	30	
LICF	Pearson Correlation	-.261	.206	-.414*	.235	1
	Sig. (2-tailed)	.163	.275	.023	.211	
	N	30	30	30	30	30

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS Output

The results in table 6 indicate a correlation coefficient of $R = -0.841$ which illustrated a negative correlation between crude oil and gas export (COGE) and real gross domestic product (RGDP) with a P-value of $0.000 < 0.05$ alpha level. This implied that there is a negative correlation between crude oil and gas export on the real gross domestic product in Nigeria.

The results in table 4.9 also revealed a correlation coefficient of R-value 0.913 which illustrated a positive relationship between petroleum profit tax/royalty and real gross domestic product with a P-value of $0.000 < 0.05$ alpha levels. This implied that there is a positive relationship between petroleum profit tax and royalty on real gross domestic in Nigeria.

The results in table 4.9 revealed a correlation coefficient of R-value - 0.763 which discovered a negative relationship between domestic crude oil sales and real gross domestic product with a P-value of $0.000 < 0.05$ alpha levels. This means that there is a negative relationship between domestic crude oil sales and real gross domestic products in Nigeria.

The result in column seven (7) of table 4.9 above had shown a correlation coefficient value of $R = -0.261$ which discovered a negative relationship between licensing fees (LICF) and real gross domestic product with a P-value of $0.261 > 0.05$ alpha levels. This means that there is a negative relationship between licensing fees (LICF) and real gross domestic products in Nigeria.

**Table 7: Coefficients of Hypothesis One, Two, Three, and Four**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
(Constant)	6.678	.205		32.558	.000	
1	COES	-.057	.020	-.310	-2.791	.010
	PPTR	.194	.024	.682	8.187	.000
	DMOS	-.021	.023	-.092	-.894	.380
	LICF	.022	.013	.106	1.741	.094

a. Dependent Variable: RGDP

Source: SPSS Output

The results in table 7 discovered a significant level between crude oil/gas export (COES) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.010 < 0.05$ revealed that the relationship between crude oil/gas export (COES) and real gross domestic product (RGDP) is statistically significant at 0.05 alpha level. Thus the null hypothesis is rejected which implied that there is a significant and negative relationship between crude oil/gas export (COES) and real gross domestic product (RGDP) for the period 1990 to 2019 in Nigeria.

The results in Table 7 also indicated a significant level between petroleum profit tax/royalty (PPTR) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.000 < 0.05$ indicated that the relationship between petroleum profit tax/royalty (PPTR) and real gross domestic product (RGDP) is statistically significant at 0.05 alpha level. Thus the null hypothesis is rejected which implied that there is a significant and positive relationship between petroleum profit tax/royalty (PPTR) and real gross domestic product (RGDP) for the period 1990 to 2019 in Nigeria.

The results in table 7 also discovered an insignificant level between domestic crude oil sales (DMOS) and real gross domestic product (RGDP). The probability value $P= 0.380 > 0.05$ indicated that the relationship between domestic crude oil sales (DMOS) and real gross domestic product (RGDP) is statistically not significant at 0.05 alpha level. Thus the null hypothesis is accepted which implied that there is no significant relationship between crude oil sales (DMOS) and real gross domestic product (RGDP) for the period 1990 to 2019 in Nigeria.

The results in table 7 also highlighted an insignificant level between oil licensing fees (LICF) and real gross domestic product (RGDP). The probability value $P= 0.094 > 0.05$ revealed that the relationship between oil licensing fees (LICF) and real gross domestic product (RGDP) is statistically not significant at a 0.05 alpha level. Thus the null hypothesis is accepted and rejected the alternate hypothesis which implied that there is no significant relationship between oil licensing fees (LICF) and real gross domestic product (RGDP) for the period 1990 to 2019 in Nigeria.



DISCUSSION OF FINDINGS

Crude Oil/Gas Export and Economic Growth: The correlation and regression findings presented results in table 4.9 and table 4.14 discovered a negative R-value -0.841 and a significant level between crude oil/gas export (COES) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.010 < 0.05$. Thus, the correlation coefficient and regression coefficient was discovered negative correlation and statistically significant between crude oil/gas export (COES) and real gross domestic product (RGDP) at 0.05 alpha level for the period 1990 to 2019 in Nigeria. The findings concur with Akinleye et al (2021); Jabir et al. (2020); Olawunmi et al. (2018); Ojong, et al (2016); Omodero and Ehikioya (2020); Ogbonna and Appah (2012); whose results discovered a statistically significant negative relationship between crude oil/gas export (COES) and real gross domestic product (RGDP) in Nigeria. The findings of the study disagreed with Usman et al (2015); Noula et al (2013); Lyndon and Bingilar (2016); Ilaboya and Ofiafor (2014); Okoh et al (2016); Awujola et al (2015) whose results discovered a statistically significant positive relationship between crude oil/gas export (COES) and real gross domestic product (RGDP) in Nigeria for the period under study.

Petroleum Profit Tax and Economic Growth: The correlation and regression findings presented results in table 4.9 and table 4.14 discovered a positive R-value of 0.913 and a significant level between petroleum profit tax/royalty (PPTR) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.000 < 0.05$. Thus the correlation coefficient and regression coefficient was discovered a significant positive relationship between petroleum profit tax/royalty (PPTR) and real gross domestic product (RGDP) at 0.05 alpha levels for the period 1990 to 2019 in Nigeria. The findings of the study are in conformity with Eganga et al (2020); Igwe et al (2015); Ugwo et al (2019); Salami, et al (2018); Olayungbo (2019); Olawunmi et al. (2018); Obaretin and Monye-Emina (2019); Okezie and Azubuike (2016) whose study discovered a positive and significant relationship between petroleum profit tax/royalty (PPTR) and economic growth in Nigeria.

Domestic Crude oil Sales and Economic Growth: The correlation and regression findings presented results in table 4.9 and table 4.14 discovered a negative R-value -0.763 and statistical insignificant level between domestic crude oil sales (DMOS) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.380 > 0.05$. Thus the correlation coefficient and regression coefficient discovered an insignificant negative relationship between domestic crude oil sales (DMOS) and real gross domestic product (RGDP) at 0.05 alpha levels for the period 1990 to 2019 in Nigeria. The findings of the study conform with Ojong, et al (2016); Omodero and Ehikioya (2020); Ogbonna and Appah (2012); Nwoba and Abah (2017) whose results indicated a negative and statistical insignificant relationship between domestic crude oil sales (DMOS) and economic growth in Nigeria.

Oil Licensing Fees and Economic Growth: The correlation and regression findings presented results in table 4.9 and table 4.14 discovered a negative R-value -0.261 and statistical insignificant level between oil licensing fees (LICF) and real gross domestic product (RGDP) for the period under study in Nigeria. The probability value $P= 0.094 > 0.05$ alpha level. Thus the correlation coefficient and regression coefficient was discovered to be an insignificant negative relationship between oil licensing fees (LICF) and real gross domestic product (RGDP) at 0.05 alpha levels for the period 1990 to 2019 in Nigeria. The findings concur with Akinleye et al (2021); Jabir et al. (2020); Olawunmi et al. (2018); Ojong, et al (2016); Omodero



and Ehikioya (2020) whose results were a statistically insignificant negative relationship between oil licensing fees (LICF) and real gross domestic product (RGDP) in Nigeria. Obaretin and Monye-Emina (2019); Okezie and Azubuikwe (2016) whose study discovered a positive and significant relationship between oil licensing fees (LICF) and real gross domestic product (RGDP) in Nigeria for the period under study.

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

This study investigated the relationship between oil revenue and economic growth in Nigeria from 1990 to 2019. The study explores descriptive, correlation, and regression analyses. The study made use of secondary data variables such as crude oil/gas Export; petroleum Profit tax/royalty; domestic crude oil sale; oil licensing fees were dimensions of oil revenue used in the study. On the other hand, economic growth was measured through the real gross domestic product (RGDP) and real gross national product (RGNP). The empirical findings were suggested that crude oil/gas export has a significant and negative relationship with real gross domestic product in Nigeria; petroleum profit tax/royalty has a significant and positive relationship with real gross domestic in Nigeria; domestic crude oil sales have an insignificant and negative relationship with real gross domestic product in Nigeria and oil licensing fees has an insignificant and negative relationship with real gross domestic product in Nigeria. The study concluded that oil revenue influences the economic growth of Nigeria for the period under review. Hence, the following recommendations were provided:

1. The government should effectively and efficiently utilize the oil fund in strategic development projects so as to reduce the rate of poverty and facilitate economic growth.
2. The study recommends that the Nigerian government should reexamine its oil revenue strategy by way of increasing crude oil and gas export to improve economic growth.
3. The government should be consistent with policies that will bring about sustainable growth in the oil revenue to evaluate the domestic crude oil sale that will improve the country gross national product.
4. The government should ensure judicious use of the proceeds of oil revenues because producing communities are watching out for the area of the development to be properly addressed with the revenue generated by the sale of crude oil. Any contrary will discourage communities from allowing oil exploration.

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