

## **Effects of Oil Revenue Generation on Government Budget Performance in Nigeria**

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### **Abstract**

*Oil revenue in Nigeria is indeed an important component of budget financing and economic growth. Revenues generated from oil have become a major determining point in defining the level of budget performance in the country. Prior to oil discovery in Nigeria, agricultural sector was the mainstay of Nigeria economy contributing to about 95% to her foreign exchange earnings and approximately 60% to her gross domestic product (GDP). In conducting this research, ex post factor research design was employed, and this study aims at critically analyzing the impact of oil revenue on the Nigerian Budget performance for a period of 25 years (1996 – 2020). Data used for analysis were collected from the Office of Accountant General of the Federation (OAGF), Central Bank of Nigeria (CBN) Statistical Bulletin 2020, and CBN Annual Reports of 2004, 2008, 2012, 2017 and 2020. Oil revenues as the independent variable was proxied by petroleum profit tax, while government budget performance was proxied by capital budget releases. The study further used descriptive statistics and ARDL (Auto Regressive Distributed Lags) to analysis the data, bound co-integration test was also used to determine the long run relationship between the two variables. The result shows that Petroleum Profit Tax has a positive and significant effect on budget performance (Capital Budget Releases) in Nigeria. The study therefore recommended that Government should have policies that will encourage proper monitoring of the oil revenue to achieve better budget performance.*

Keywords: Oil Revenue, Budget Performance, Capital Budget, Petroleum Profit tax

### **INTRODUCTION**

Nigeria is one of the countries blessed with huge oil resources and is the most populous country in Africa with over 250 ethnic groups spread across six geo-political zones, with an estimated population of about 206 million people according to Nigeria Population Commission (NPC) 2020 bulletin. Nigeria is placed as the number 10th country in the world in terms of oil reserves estimated at 37.2 billion barrels and ranked 8th in the Organization of Petroleum Exporting Countries (OPEC) based on its crude oil reserves and production (OPEC, 2012 and Central Intelligence Agency (CIA) Fact Book, 2012). The country produces a daily average of about 1.572 million barrels of oil per day (mb/d) in the first quarter of 2021(Census and Economic Information Center (CEIC), 2021). According to (KPMG 2019), the oil sector provides for 95% of Nigeria's foreign exchange earnings and 80% of its budgetary revenues in 2019 Global edge. Reliance on one commodity as a source of revenue to a country has its consequences of leading to political, social and economic crises and inter-state conflicts across nations with Nigeria as an example. Prior to the discovery of oil in the 1960s and its sudden boom, Nigeria relied on agriculture

as the key source of revenue, which accounts for about more than 60 percent of the country's Gross Domestic Product (GDP). However, between 2007 and 2011 the country earned a total of \$196 billion from oil exports (Business Day, 2011). However, despite the flow of oil revenues, Nigeria records low economic growth and slow economic development (Abubakar, 2011).

In Nigeria, data gathered from the Central Bank of Nigeria (2019)) has shown that expenditure has always been greater than the revenue generated by the government. In fact, over 38-year period, the Nigerian government has only recorded fiscal surplus in two years 1995 and 1996. Surplus was N1 billion in 1995 and N32.05 billion in 1996. The budget over the years is also characterized by over estimation of budgeted revenue in order to justify for the proposed expenses to be incurred for each of the fiscal years. In 2010, the Nigerian Government recorded deficit of N1.1 trillion and this grew by 4.8% in 2011 to N1.16 trillion. In 2012, actual deficit was N975.78b but this grew by 18.2% in 2013 to 1.15 trillion. Even when crude oil prices were at its highest in 2014, the Federal Government still recorded actual deficit in its fiscal operation as actual deficit was N835.71b even though it is the lowest recorded in 10 years. In 2015, the Federal Government (FG) spent more than it budgeted for as actual expenditure was N4.99 trillion while budgeted expenditure was N4.63 trillion, and this represents 14% expenditure over performance. Even though expenditure underperformed in 2017 and 2018, actual deficit was still large at N3.61 trillion and N3.63 trillion respectively. By 2019, actual expenditure was more than budgeted expenditure by N474.41bln, representing 5% over performance in expenditure. However, in 2019, revenue of the federal government is now almost equal to the deficit recorded during the period. Total actual revenue was N4.77 trillion while the total deficit was N4.62 trillion. It is therefore saddening that at this stage, the country's budget is still largely determined by the international price of crude oil. Nigeria has a revenue problem which reliance on crude oil will never solve.

There have been several studies on oil revenue and economic growth in Nigeria such as Joseph, Michael and Stella (2016), Ogunmakin, Adebayo and Dada (2014), Nweze and Greg (2016), Akinlo (2012), Ujunwa (2013), Odularu (2008), but none have focused on oil revenue and budget performance in Nigeria. Therefore, impetus for this study is to provide empirical data in that regard. This study is undertaken to investigate the effects of oil revenue generation on government budget performance in Nigeria for 25 years ranging from year 1996 to 2020. The basic hypothesis underlying this study is stated thus:

H01; Revenue from Petroleum Profit Tax have no significant effect on government budget performance in Nigeria.

## **LITERATURE REVIEW**

### **Conceptual Framework**

#### **Oil Revenue Generation**

Oil Revenue generation is the total amount of monies collected for the duration of a specified period of time from oil. This amount of money is taken into consideration when analyzing the overall profit made from the sales of oil. Subtracting expenses from revenue provides a base number for profit margins. It is necessary to ensure that all expenses are included when subtracting from revenue generation. If not accurately subtracted, profit margins are drastically affected. The financial business in the public sector is similar to that applicable to the private sector. In the public sector, the government has to live and perform duties to the nation; as a result, there must be a means of livelihood called money. The money required by the government to perform its duties must be obtained from somewhere and utilized on something (Adams, 2011). From the foregoing therefore, it is important to posit that the government's financial problem falls under three areas, which are: where to get the money, how to keep the money; and how to utilize the money. These problems are more compounded because; the state in modern times has many functions to perform. Its activities are no longer confined to mere maintenance of peace, order and security. Important economic, industrial and social schemes form part and parcel of the activities of a

modern state. In order that the state cater for these enormous hitches around her, revenue must be generated and duly distributed among the tiers of government; Federal, States and Local Government Councils on such terms and manner prescribed by law. An important feature of our revenue generation is worthy of note. Prior to the oil boom of the 1970s, especially for most of the 1960s, the federally collected revenue comprised of revenue from the non-oil sources which account for an average of about 92% of the total receipts. However, throughout the 1980s till date, the oil sector revenue rose to a dominant position, accounting for between 70.2% to 95% of the total federally collected revenue, even with value added tax (VAT), federally collected revenue joining the league of non-oil revenue sources in 1994. The exploration of mineral resources is vested on the Federal Government, although, the proceeds from the sale of crude oil, petroleum profit tax and royalties which form the bulk of the oil-revenues are paid into the Federation Account for distribution among the three tiers of government. The non-oil revenues are company's income tax, customs and excise duties, value added tax and personal income tax, and these revenues are collected and paid into the Federation Account.

### **Budget Performance**

Ideally, a budget is a subset of a broader economic policy, which details how the government influences the economy and performs three overarching roles: Allocative, Stabilization and Distribution functions. The absence of such coordinated and clear macroeconomic policy framework raises the level of uncertainty on the direction of the economy and as such limits the movement of capital and investments in productive sectors (Mark & Johnson, 2014). A budget for an economy therefore is an estimation of the revenues and expenses over a specified future period of time (Aminu, 2015). From an economic perspective, a national budget is a fiscal policy; it contains the package of several blueprints of the government that aims to achieve certain specific goals (Simaon, Grace & Bilal, 2015). According to Musa (2016), the nature of a national budget at a particular regime is for stabilization. The economy of every nation fluctuates from time to time and certain abnormalities emerge also from time to time; a national budget therefore should be timely or provide the right policy response based on the performance of an economy.

### **Petroleum Profit Tax (PPT)**

The Petroleum Profit Tax Act was enacted in 1959 as amended. It is the law governing the operations of petroleum activities in Nigeria. It provides for the assessment and collection of tax imposed on profits from petroleum operations in Nigeria. The authority that is in charge of this tax is the Federal Inland Revenue Service (FIRS). The assessment therefore, in respect of the PPT is made on any company engaging in Petroleum Operations. Partnerships and individuals are forbidden by the law from engaging in such operations. According to Odusola (2010), petroleum profit tax (PPT) is a tax applicable to upstream operations in the oil industry. It is partially related to rents, royalties' margins and profit sharing elements associated with oil mining, prospecting and exploration leases. It is the most important tax in Nigeria in terms of its share of total revenue. Section 8 of Petroleum Profit Tax Act states that every industry engaged in petroleum operations is under an obligation to render returns, together with properly annual audited accounts and computations, within a specified time after the end of its accounting period. Petroleum profit tax involves the charging of tax on the incomes accruing from petroleum operations (Nwezeaku, 2015). Nwezeaku noted that the importance of petroleum to the profitability of oil and gas firms in Nigeria gave rise to the enactment of a different law regulating the taxation of incomes from petroleum operations.

### **Capital Budget**

Capital budgeting is the process of determining how to allocate (invest) the finite sources of capital (money) within an organization. There is usually a multitude of potential projects from which to choose, hence the need to budget appropriately. Capital budgeting is used by companies to evaluate major projects and investments, such as new plants or equipment. The process involves analyzing a project's cash

inflows and outflows to determine whether the expected return meets a set benchmark. Due to the huge amount of funds normally involved, managers must make careful choices about when and where to invest capital to ensure that it is used wisely to create value for the firm. Investing capital should not be taken lightly and should not be made until a full and thorough analysis of the costs (financial and opportunity) and outcomes has been prepared and evaluated. The capital budgeting process is rooted in the concept of time value of money, (sometimes referred to as future value/present value) and uses a present value or discounted cash flow analysis to evaluate the investment opportunity. Likewise, the difficulty when investing capital is to determine which is worth more, the capital to be invested now or the value of future cash flows that an investment will produce, if we look at both in terms of their present value we can compare values. The specific time value of money calculation used in Capital Budgeting is called net present value (NPV). NPV is the sum of the present value (PV) of each projected cash flow, including the investment, discounted at the weighted average cost of the capital being invested (WACC). If upon calculating a project's NPV, the value is positive, then the PV of the future cash flows exceeds the PV of the investment. In this case, value is being created and the project is worthy of further investigation. If on the other hand the NPV is negative, the investment is projected to lose value and should not be pursued, based on rational investment grounds. The total investment represents the total cost of the asset being acquired, or the total investment necessary to fund the project.

While a positive NPV on a base case projection is an indication that the project is worth further consideration, it should not be the sole basis for proceeding with an investment. Recall that all of the values in the analysis are based on projections, a process that itself is a complicated art. Therefore, if a positive NPV is returned, start stress testing your work, various "what if" analyses should be run. For example: What if the actual cost of the investment is greater than the projected? what if the operating cash flows are less than anticipated? what if the residual value is overstated? and what if the Weighted Average Cost of Capital (WACC) is higher than estimated? However, capital budgeting in government is a bit different as the government considers projects that will be beneficiary to the people, they carry out the feasibility report assessment of the project, include the project among the projects to be executed within the year in their annual budget proposal and when approved and funds released awards the contract to the contractor that meets their led down expectations. Under government capital budgeting system, the primary consideration is not cash flows or returns the project will make rather the number of citizens that will benefit from the project, also when chosen between two or more projects under this government budgeting system, the emphasis is on the project that will benefit more people and as well as being cost effective to the government.

## **EMPIRICAL REVIEW**

Magani and Gichure (2018) conducted a research which examined the influence of public financial management reforms (PFMRs) on budget implementation by Kenyan city counties. The PFMRs studies included integrated financial management information system (IFMIS) Re-Engineering and fiscal decentralization. The study was based on modern portfolio theory; resource based theory and stakeholder theory and relied on an ex-post-facto descriptive research design with a survey method to determine the relationships between the study variables. Structured questionnaires, data collection sheets and interview schedules were used to collect data which was then cleaned, coded and scrutinized thoroughly for completeness. The study relied on primary data collected from treasuries, directorate of economic planning, budget offices, IFMIS departments and sectoral departments of Nairobi city country, Mombasa City County and Kisumu City County respectively. Secondary data was obtained from the annual county governing government's budget implementation reports. The data was analyzed using SPSS version 24. Statistical measures such as means, percentages and standard deviation were used to interpret the data. The researcher also performed both a linear regression analysis and a Spearman correlation analysis to show the relationships between the study variables. The study revealed strong positive and statistically significant correlation between fiscal decentralization and budget implementation while IFMIS re-engineering had a negative and statistically insignificant correlation with budget execution. The Study

concludes that the pursuit of further fiscal decentralization should be well calculated and regulated to ensure both the national county governments remain relevant to the economy. The research recommended a complete decentralization of the integrated financial management information system operations and maintenance to county governments to enable the users have additional rights to operate it, but with stronger controls and strict monitoring.

Etale and Bingilar (2016) examined the relationship-between petroleum profit tax (PPT), personal income tax (PIT) and economic growth (proxy by real gross domestic product) in Nigeria. Secondary time series data were collected for period 2005 to 2014 from CBN Statistical Bulletin. The study employed Ordinary Least Square (OLS) technique based on the computer software Windows, Statistical Packages for Social Sciences (SPSS) 20.0 version for the analysis of data, where Real Gross Domestic Product (the dependent variables) was regressed as a function of PPT and PIT (the independent variables). The results of the analysis showed that both petroleum profits tax and personal income tax have significant positive relationship with economic growth. The study recommended that government should strengthen the tax administration system to broaden the tax income, and embark on tax education to ensure voluntary tax compliance. The study also recommended that government should diversify the revenue base of economy as the reduction in the price of crude oil at international market would adversely affect income from PPT. Nazim (2016) examined the relationship between government revenue and government expenditure. The study sought to find out the theoretical relationship between revenue and expenditure in Malaysia using the four hypotheses from the literature study. The study found out that although the majority of the government revenue is from direct tax, government spending only varies due to change in indirect tax revenue and non-tax revenue. The study is analytical and based on data collected from published sources focusing on the impact of revenue and expenditure on the continuous development of Malaysia. Finally, this study suggested to the authorities to follow the proper rules and guidance at the time of policy making whereby they will be able to coup up with the optimum revenue and relevant expenditure in the state.

Nweze and Greg (2016) undertook a study captioned; An Empirical Investigation of oil revenue and economic growth in Nigeria. This empirical study examined oil revenue and economic growth in Nigeria between 1981 and 2014. Secondary data on gross domestic product (GDP), used as a proxy for economic growth; oil revenue (OREV), and government expenditure (GEXP) which represented the explanatory variables were sourced mainly from CBN publications. In the course of empirical investigation, various advanced econometric techniques like Augmented Dickey Fuller Unit Root Test, Johansen Co-integration Test and Error Correction Mechanism (ECM) were employed and the result reveals among others: That all the variables were all stationary at first difference, meaning that the variables were not integrated of the same order justifying co-integration and error correction mechanism test. The co-integration result indicated that there is long run relationship among the variables with three co-integrating equation(s). The result of the error correction mechanism (ECM) test indicates that all the variables except lag of government expenditure exerted significant impact on economic growth in Nigeria. However, all the variables exhibited their expected sign in the short run but exhibited negative relationship with economic growth in the long run except for government expenditure, which has positive relationship with economic growth both in the long run and short run. The study then recommended that Government should use the revenue generated from petroleum to invest in other domestic sectors such as agriculture and manufacturing sector in order to expand the revenue source of the economy and further increase the revenue base of the economy.

Ojong, Anthony and Arikpo (2016) examined the impact of tax revenue on the Nigerian economy. Data were sourced from Central Bank of Nigeria Statistical Bulletin and extracted through desk survey method (DSM). Ordinary Least Square of multiple regression models were used to establish the relationship between dependent and independent variables. The finding revealed that there is a significant relationship between petroleum profit tax and the growth of the Nigerian economy. It also showed that there is a significant relationship between non-oil revenue and the growth of the Nigeria economy. It was

recommended that government should endeavor to provide social amenities to all nooks and crannies of the country, and that the government should engage in a complete re-organization of the tax administrative machineries; in order to reduce tolerable problems of tax evasion and avoidance so as to enhance the tax base of government. Nwaorgu (2015) examined the effect of dominant individuals on budget implementations in Nigeria. His methodology was basically content analysis. The author identified the activities of dominant individuals, ranging from manipulation of budget items before and after approval of annual budget estimate: embezzlement and fraudulent activities: lack of proper budgeting processes is responsible for the failure of budget in Nigeria. The study recommended the need for budget reform in Nigeria. Budget should be based on thorough evaluation of revenue and needs and the issue of probity, transparency and accountability should be properly addressed in the budget process. Usman, Madu and Abdullahi (2015) carried out a study titled Evidence of Petroleum Resources on Nigerian Economic Development (2000 – 2009). The main objective of the study was to examine the impact of petroleum on Nigeria's economic development. The variables were two, that is; Crude Oil Revenue and the Gross Domestic Product (GDP). The study was based on secondary data. Data was sourced from the Central Bank of Nigeria Statistical Bulletin and National Bureau of Statistics. The data used was a ten years' record of GDP and Oil Revenue, 2000 – 2009. The tool of analysis used was Simple Linear Regression model with the aid of Statistical Packages for Social Sciences (SPSS). The study concluded that petroleum has a direct and positive significant relationship with the economy. It therefore, recommended diversification of revenue from petroleum resources to other sectors of the economy.

Ogunmakin (2014) investigated the impact of oil revenue on economic development in Nigeria (1981-2012), their study sought to examine the economic development and oil revenue in Nigeria. In doing this, regression analysis was carried out using Statistical Package for Social Science (SPSS) version 23. The result revealed the overdependence of Nigeria economy on oil revenue. Thus, this research effort recommended policies, programs and functional institutions to checkmate the poor transparency in the management of oil revenue that robbed the people of their potential benefits and economy diversification that will lead to improvement in revenue generation via other sources in the economy if well managed. Abdul-Rahamoh, Taiwo and Adejare (2013) carried out an investigation on the analysis of the effect of petroleum profit tax on Nigerian economy. The study empirically examined the effect of petroleum profit tax (PPT) on Nigeria economy. The study used data generated from the secondary source by extracting information from Central Bank of Nigeria statistical bulletin covering the period of 1970 to 2010. The study employed multiple regressions to analyze data on such variables such as gross domestic product (GDP), petroleum profit tax, inflation, and exchange rate; which were all determined to have had significant effects with adjusted R<sup>2</sup> of 86.3% on the economic growth and development of Nigeria. The study recommended that government should transparently and judiciously account for the revenue it generates through PPT by investing it in infrastructure and public goods and services. Ibeh (2013) investigated the impact of the oil industry on the economic growth of Nigeria. Using ordinary least square (OLS) regression technique, Ibeh regressed Gross Domestic Product (GDP), against oil Revenue (OREV) and time appeared as repressor. A two tailed test of 5% significant levels were conducted indicating that the two explanatory variables did not have any significant impact on growth performance of the Nigerian economy within the same period. The researcher therefore recommends that government should formulate appropriate policy mix that would motivate the firm in the oil sector to enhance improved performance and contribution of the sector.

Riman, Akpan, Offiong, and Ojong (2013) had set forth in their study to explore the intertwining relationships that exist between oil revenue shock, non-oil export and industrial output in Nigeria. In achieving the objective, the study utilized data spanning the period 1970-2010. This period captured the major era of regime shift (changes in governance) and policy administration in Nigeria. Vector Auto Regressive (VAR) model and co-integration technique were used to examine the long run relationship, while the Vector Error Correction Model (VECM) was used to analyze the short-run behavior of the variables. The Johansen co-integration analysis suggests that a long run behavior exists between oil revenue shock, non-oil export, policy/regime shift and industrial output in Nigeria. The short-run result

showed that the speed at which industrial output will converge towards long-run equilibrium after experiencing shock from oil revenue is very slow. It therefore would take a very slow process for industrial output to recover from shock arising from variation in oil revenue. The long run result shows that oil revenue shock and policy/regime shift had negative impact on industrial output and non-oil export. The impulse response function and variance decomposition analysis suggest that the major drivers of industrial development in Nigeria are non-oil export regime shift and oil revenue. Thus, innovations from these variables impact severely on industrial growth in Nigeria. The study therefore suggested among other things that the panacea to industrial growth in Nigeria rest on diversifying the economy away from crude oil export and ensuring a stable government in Nigeria that will endure long enough to sustain industrial and other economic policies. Akinlo (2012) assessed the importance of oil in the development of the Nigerian economy in a multivariate VAR model over the period 1960-2009. He models oil sector against other four sectors i.e. manufacturing, agriculture, trade and service and building & construction. Empirical evidence shows that the five subsectors are co-integrated and that the oil can cause other non-oil sectors to grow. However, oil had adverse effect on the manufacturing sector; Granger causality test finds bidirectional causality between oil and manufacturing, oil and building and construction, manufacturing and building and construction, manufacturing and trade and services, and agriculture and building and construction. It also confirms unidirectional causality from manufacturing to agriculture and trade and services to oil. No causality was found between agriculture and oil, likewise between trade and services and building and construction. The study recommended appropriate regulatory and pricing reforms in the oil sector to integrate it into the economy and reverse the negative impact of oil on the manufacturing sub sector.

Emanuel (2012) described the budget as the expected income and expenditure over a period of time, usually a year. The researcher argues that Governments at all levels do envisage how much they are likely to generate from all sources of revenue available to them. At the same time, they visualize what the expenditure will be like. The author also added that the income side of a budget normally includes loans sourced both internally and externally in the case of deficit budget. In essence, budget has become the means by which governments achieve their objectives. While reviewing the performance of budget in Nigeria; the author also identified poor planning, lack of political will, weak data base, spatial development and corruption as the major constraints in the budget implementation and thereafter performance. The study recommended that corruption should be tackled so as to enable the government achieve its objectives. Ogujiuba and Abraham (2012) also examined the revenue-spending hypothesis for Nigeria using macro data from 1970 to 2011. Applying correlation analysis, granger causality test, regression analysis, lag regression model, vector error correction model and impulse response analysis, they report that revenue and capital expenditure are highly correlated and that causality runs from revenue to capital expenditure in Nigeria. The vector error correction model also proves that there is a significant long run relationship between revenue and capital expenditure. The second is the spend-and-revenue hypothesis, a reverse of the revenue-and-spend hypothesis in which revenue responds to prior spending changes. This hypothesis suggests that government would raise the funds to cover its spending, and therefore, higher government capital expenditures lead to higher government revenues. Thus, empirical results showed a unidirectional relationship running from government capital expenditure to revenue. The study therefore, recommended that for spend-revenue hypothesis to hold, that government should spend first and raise taxes later in order to pay for the spending.

## **Theoretical Framework**

### **Public Finance Management (PFM) Theory**

Charles Davenant (1656-1714) was an early advocate of this theory; this theory assumes that all aspects of financial resources; mobilization and expenditure should be well managed in government for the benefits of the citizenry. It comprises resource mobilization, prioritization of programs, budgetary procedures, efficient management of resources and applying control to guide against threats. Treasury Single Account (TSA) primarily is to avoid misapplication of public funds. PFM refers to the set of laws, rules, systems

and processes used by sovereign nations to mobilize revenue, allocate public funds, undertake public spending, account for funds and audit results. It encompasses a broader set of functions than financial management and is commonly conceived as a cycle of six phases, beginning with policy design, and ending with external audit and evaluation (budget policy design, budget formulation, budget approval, budget execution, accounting and external auditing and evaluation). A large number of actors engage in this “PFM cycle” to ensure it operates effectively and transparently, whilst preserving accountability.

### **Natural Resource Rents and Economic Growth Theory**

Mikesell, 1997 the author of natural resource rents and economic theory, says the world perceives natural resources as the most primitive yet significant source of economic as well as financial affluence for the countries. However, history evidenced that it is not necessarily true that the country, which is affluent in its natural resources, is likely to acquire maximum economic prosperity and progress out of it. To affirm this point, take the most successful and richest countries of the world for instance; the prominent names in the list of world’s richest countries are Hong Kong, Japan, Singapore and Switzerland and in actual fact, all these countries do not possess sovereign ownership of their natural resources and do not also use them for their national wealth (Mauro 2005). On the other hand, countries like United States and the United Kingdom are among the most developed nations of the world as they are rich in all of their industrial sectors, but when it comes to natural resources, these countries do not involve the natural resource they have for generating economic benefits for the entire nation and thus, natural resources play a very minor role in their national income. Empirical studies on the subject matter suggest that the inclinations towards natural resources in developing countries are comparatively more ubiquitous (Backus 2002). This fact reflects the economic status of Analysis of the Impact of Oil Revenue on the Nigerian Economy, these countries to be underdeveloped as those countries which are developing their economic sectors for being modestly recognized frequently takes account for agriculture and other natural-resource-based economic activities to boost their economic growth. On the other hand, this world is full of such countries that are tremendously affluent as far as their natural resources are concerned but still did not come up with apparent gestures of a sustained economic growth (Levine and Renelt, 2002). Economic growth is influenced by many factors, although the neoclassical growth model emphasizes the role of investment as a key determinant of growth. The other factors include legal, political, socio cultural and the geographical factors as in the case of the Solow model. Eifert (2003) also identified a number of other factors as important determinants of economic growth, including labour force, tangible capital, technological know-how and natural resources.

The role of natural resources in the economic growth process is, however, subject to controversy, as a number of empirical studies have yielded evidence of the adverse impact of natural resource rents on growth. For instance, Hausman and Rigobon (2002) have stated that: The concern that natural resource wealth may somehow be immiserating is a recurring theme in both policy discussions and in empirical analysis. The practical uniformity seems to be in the data but understanding its causes has been a much harder task. Sala-I Martin (2003) have argued that this practical consistency originates from the original work of Sachs and Warner (1995), who showed that "the curse of natural resource-ownership is substantial, manifested in such countries growing slower, on average, by about 1 percent per year during the period 1970–1989. (P.5)" Different alternatives of this result have also been emphasized by Leite and Weidmann (1999) and Bravo-Ortega and De Gregorio (2001).

### **Resource Curse Theory**

This was first published by Sachs and Warner in 1995; his study laid the foundation for what later became known as the “resource curse theory”. The main finding of the study was that economies with a high ratio of natural resource exports to GDP grew slower during a twenty-year period from 1970 to 1990 than the world average. Mbendi (2010) pointed at the resource curse theory as presupposing that countries with abundant natural resources may fail to grow in other sectors and ultimately resulting to financial problems. Mbendi (2010) mentioned that the theory also assumes that such a country will also fail to



grow critical infrastructures and other industries; rather they emphasize on a handful of industries which cripple the economy by encouraging very isolated investments and development; while ignoring the need to develop a more diversified economy. Auty (2013) added that the result of such attitude is that the country is also force to a large degree to depend on other nations for a wide variety of goods and services; and may in fact end with a net loss at the end of the year. Auty (2013) was the first author to use the term resource curse to describe how countries rich in natural resources were unable to use that wealth to boost their economies; these countries had lower economic growth than countries without an abundance of natural resources.

**METHODOLOGY**

This study adopts an ex-post facto design and this design is appropriate for the study because it involves carrying out research on something that has occurred. It is a systematic empirical study in which the researcher does not have direct control over independent variable because they have already occurred or they cannot be manipulated. The study was carried out on Nigeria, and utilized Petroleum Profit tax as the independent variable to represent the revenue generation and capital budget releases percentages to proxy budget performance. The study used secondary method of data collection from the Office of Accountant General of the Federation (OAGF), Central Bank of Nigeria (CBN) Statistical Bulletin 2020, and the CBN Annual Reports of 2004, 2008, 2012, 2017 and 2020 publications, for the period of twenty-five years ranging from (1996 – 2020).

The study also utilized both descriptive (mean, standard deviation, minimum, maximum, Jarque-bera) and inferential statistics starting from the unit root test, ARDL (Autoregressive Distributed Lags) based on the unit root test, also the co-integration test for the two variables were examined and the long-run effect was established through Error correction term(ECT). Other post estimation test (normality, heteroskedasticity, auto correlation and stability tests) were conducted. From a microeconomic standpoint, the model assumed that government budget performance (BP) is dependent on PPT. The functional relationship is specified below:

$$BR = (PPT) \dots \dots \dots (1)$$

A stochastic model of the above functional relationship will suffice in logarithm form below.

$$BR = \alpha_0 + \alpha_1 \text{Log} (PPT) + e \dots \dots \dots (2)$$

- PPT = Petroleum Profit Tax
- BR = Budget Performance (Budget Releases in Percentages)
- $\alpha_0, \alpha_1$  = Model parameters
- e = error term.

**RESULT AND DISCUSSION**

**Table 1**  
**Descriptive Results**

	BR	PPT
Mean	-73.5332	1821.973
Median	50.08	1782.4
Maximum	100	4365.4
Minimum	-757.51	67.9866
Std. Dev.	217.9604	1375.218
Skewness	-1.7184	0.352888
Kurtosis	5.566432	1.861373

Jarque-Bera	19.16468	1.869366
Probability	0.000069	0.39271
Sum	-1838.33	45549.33
Sum Sq. Dev.	1140161	4538936
Observations	25	25

**Source: EVIEWS 9 OUTPUT**

Table 1 above contains the descriptive analysis of the time series data for all the variables involved in the study. There are 25 observations in the series for the two variables. The researcher covers a period of 25years (1996-2020). The average value of dependent variable (Capital Budget Releases) is-73.53%, the standard deviation which measure the dispersion shows that budget releases (BR) is 217.96%. The minimum value for the budget releases -757.51% while the maximum is 100%. Also for independent variable, the mean value forpetroleum profit tax is N1821.97 Billion while the standard deviation is N1375.21Billions, this shows that is not great difference in the amount generated over the period under study, the minimum value is N67.98Billions and maximum value is N4365.4Billions. The Jarque-bera probability shows that the data were normally distributed, hence we carry out the Pearson correlation for the variables as shown in the table above.

**Table 2: Correlation Matrix**

	BR	PPTR
BR	1	0.618589
PPT	0.618589	1

**Source: EVIEWS 9 OUTPUT**

The above table shows the correlation between the dependent variable Budget performance proxies by budget releases and the independent variable petroleum profit tax. The table shows that the independent variables is positively (0.6185) associated with the dependent variable

**Hypotheses Testing and Discussion of Findings**

**Decision rule:** Accept null hypothesis if the p-value is less than 0.05 and reject the null hypothesis when the p-value is greater than 0.05

From the unit root test (check appendix 2), the variables have a mixed order of stationary, hence ARDL model will be appropriate.

The hypotheses formulated for the study are tested and analyzed from the results in table 4.

**Table 3: ARDL Bound Co-integration Test**

ARDL Bounds Test  
 Date: 08/01/21 Time: 22:24  
 Sample: 1997 2020  
 Included observations: 24  
 Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	12.10512	1
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	4.04	4.78
5%	4.94	5.73
2.50%	5.77	6.68
1%	6.84	7.84

**Source: EViews 9 OUTPUT**

The table 3 above shows the ARDL Bound co-integration test. This was used to check whether there is a long term relationship between the two variables. From the table above, the value of F-stat is 12.10, this is higher than the upper bound I (1) shown in the table, this means that long term relationship exist between budget performance (Budget releases) and petroleum profit tax. Based on the above result in table 3 the study estimated Error Correction Model to look for nature of the long term relationship that exist between the two variables.

**Table 4: ARDL Integrating and Long Run Form**

Variable	Aprori Sign	Baseline GDP Model
<b>SHORT RUN</b>		
<i>Cointe.q</i>	-	-0.8395*** (0.2063) {0.0001}
<i>D(logppt)</i>	+	213.2916*** (86.728) {0.0227}
<b>LONG RUN</b>		
<i>C</i>	-	-845.617*** (266.313) {0.0046}
<i>logppt</i>	+	254.0642*** (85.2520) {0.0071}
<i>Model Parameters</i>		
R <sup>2</sup>		0.5355
Adjusted R <sup>2</sup>		0.4912
F-Statistics		12.1051
Prob.		0.0003
Normality test	0.3134	
Residual Serial Correlation: LM test	0.2428	
Stability Test: Ramsey	0.702	
Heteroskedasticity: Breusch-Pagan-Godfrey	0.1000	

**Source: EViews 9 OUTPUT**

\*\*\* Sig @5%, standard error ( ) p-value { }

Table 4 show the ARDL (short run result) and Error Correction Model (Long run result) for the variables. The result shows that petroleum profit

tax has a significant effect on Budget performance both in the short and long run. The short run result shows a positive coefficient of 213.2916 with 0.0227 as its p-value this means that PPT has a positive and significant effect on budget performance in Nigeria. The Error Correction Mechanism ECM (Coint.q) also confirm that there is a long term relationship between the variables because it is negative (-0.8395) and significant (0.00001). The long run result also shows a positive (254.0642) and significant (0.0071) effect of PPT on budget performance. The R-square is 0.5355 which implies that the model explains about 53.6% of the systematic variations in the dependent variable with a degree of freedom adjusted the R<sup>2</sup> of 49%. The F-stat is 12.10 (p-value = 0.0003) is significant at 1% and suggests that the hypothesis of a significant linear relationship between the dependent and independent variables cannot be rejected. It is also indicative of the joint statistical significance of the model. Also, all the post estimation test was not significant. Normality test was 0.3134 which shows that the residuals are not normally distributed, the serial correlation test using LM test (0.2428) shows that there is no serial correlation in the residuals, the heteroskedascity test using Greusch-Pagan-Godfrey test (0.1000) shows that there is no heteroskedascity in the residuals and the stability test using Ramsey (0.702) confirmed that the model is stable.

### **Discussion of Findings**

From the above we found out that petroleum profit tax and royalty has a positive significant on budget performance in Nigeria, this implies that oil revenue generating from petroleum profit tax is contributing greatly and positively to the implementation of Budget in Nigeria. This shows that Nigeria government should have a very good policy and proper monitoring for the collection, usage and proper accountability for those revenue so as to achieve better budget performance since revenue from petroleum profit tax can increase budget implementation positively which on the long run amount to economic growth. In addition to the above and to the best of the knowledge of the researcher, no study has combined these two variables before and this is one of the gaps which this study sought to fill. Some of those researchers that have used oil revenue and economic growth and they have a positive and significant relationship between them are Ojong, Anthony and Arikpo (2016), Etale and Bingilar (2016) and Usman, Madu and Abudullahi (2015), they found a positive and significant relationship between oil revenue and economic growth while Nweze and Greg (2016) found out that there is a negative relationship between petroleum profit tax and economic growth.

### **CONCLUSION AND RECOMMENDATIONS**

From all the followings, this study established that petroleum profit tax have a positive and significant effect on budget performance in Nigeria. This shows that government urgently needs to encourage means of getting more oil revenues by putting more policy, laws and proper monitoring mechanism in place that will enhance better budget performance and economic growth. Given the conclusion drawn above, the following recommendations are put forward as a consequence of the research findings.

- i. Government should make effort in making policies that will encourage more revenue generation so as to encourage better budget performance and economic growth.
- ii. More funds should also be invested in the oil sector so as to increase the revenue generation from the sector for better budget performance.

### **References**

- Akinlo, A. E. (2012). *How important is oil in Nigeria's economic growth? Journal of Sustainable Development*, 5(4).
- Aminu, U. (2015). Foreign Direct Investment and the Growth of the Nigerian Economy. Retrieved online on February 18, 2020 from: URL: <http://dx.doi.org/10.156>.

*Effects of Oil Revenue Generation on Government Budget Performance in Nigeria*

- Backus, D. K., Kehoe, P. J. & Kehoe, T. J. (2002). *In search of scale effects in trade and growth*, *Journal of Economic Theory*, 58.
- Bravo-Ortega, C., & De-Gregorio, J. (2001). *The Relative Richness of the Poor? Natural Resources, Human Capital, and Economic Growth*, mimeo, University of California, Berkeley.
- Businessday,(2011). Nigeria oil revenue rose 46% to \$59bn in 2010 on improved security. National Daily Published on 15/4/2011. [Online]. Available from: [www.businessdayonline.com/NG/index.php/news/76-hot-topic/20504-Nigeria-oil-revenue-rose-46-to59bn-in-2010-on-improved-security](http://www.businessdayonline.com/NG/index.php/news/76-hot-topic/20504-Nigeria-oil-revenue-rose-46-to59bn-in-2010-on-improved-security) [Accessed 10 July 2012].
- CEIC. (2021). *American Heritage Dictionary of the English Language, Fifth Edition*. Copyright © 2016 by Houghton Mifflin Harcourt Publishing Company.
- CIA.Fact Book, (2012). *The World Fact Book- Nigeria*. [Online] Available at: <https://www.cia.gov/library/publications/the-worldfactbook/geos/ni.html> [Accessed on 21 June, 2012].
- Eifert, B., Gelb, A. H., & Tallroth, N. B. (2003). *The political economy of fiscal policy and economic management in oil exporting countries*, World Bank Policy Research Working PaperNo. 2899, 1-33.
- Emmanuel, O. O. (2012). *Constraints on Budgeting and Development Plan Implementation in Nigeria: An Overview*. *European Journal of Sustainable Development (2012)*, 1, 3, 44 - 456 ISSN: 2239-5938.
- Ibeh, D. S. (2013). *Diversification and development of the UAE's economy: Messina, Italy*: University of Messina.
- KPMG. (2019). *Loan impairment modeling according to IAS 39 by using Basel II parameters*. Romania: KPMG Publications.
- Leite, C. & Weidmann, M. (1999). *Does Mother Nature Corrupt? Natural Resources, Corruption and Economic Growth*, IMF Working paper WP/99/85, Washington D.C.
- Levine, R. & Renelt, D. (2002). "A Sensitivity Analysis of Cross-Country Growth Regressions," *American Economic Review*, American Economic Association, 82(4): 942-63 [26].
- Mbendi, M. L. (2010). *Law and Petroleum Industry in Nigeria*. Lagos, Nigeria: African Books Publishers.
- Musa, A. (2016). *A reviewed of macroeconomic challenges in Nigeria 2010-2015*. *Journal of Science and humanities; ISSN: 8404-7864*.
- Odosola, A. (2010). *Tax Policy Reforms in Nigeria*, World Institute for Development Economics and Research, Research Paper No. 2006/03. <http://www.wider.unu.edu>.
- Ogujiuba, K. & Abraham, T. W. (2012). *Testing the relationship between government revenue and expenditure: Evidence from Nigeria*. *International Journal of Economics and Finance*, 4(11): 172-182.

*Effects of Oil Revenue Generation on Government Budget Performance in Nigeria*

Ogunmakin, A., Adebayo, A. & Dada, R. (2014). *Impact of oil revenue on economic development in Nigeria(1981-2014)*. *Journal of Social and Development Sciences*.5(2), 73-78

Ojong, C. M., Anthony, O. &Arikpo, O. F. (2016). *Impact of Tax Revenue on Economic Growth: Evidence from Nigeria*. *IOSR Journal of Economics and Finance*, (1), 32-38.

Sachs, J. &Warner, A. (1995). *Natural Resource Abundance and Economic Growth*, in G. Meier and J. Rauch (eds.), *Leading Issues in Economic Development*, New York: Oxford University Press.

Sala-i-Martin, S. (2003). *Addressing the Natural Resource Curse: An Illustration from Nigeria*, NBER Working Paper W9804,

Simaon, k., Grace, M. & Bilal, D. (2015). *The role of Expansionary Fiscal Policy in a deflating Economy*. *Journal of Science and Management*; 2102-2343

Ujunwa, A. (2013). *Corporate board diversity and firm performance: Evidence from Nigeria*. *Review of International Comparative Management*, 13(4), 605-620.

Usman, A., Madu, I. &Abdullahi, F. (2015). *Evidence of Petroleum Resources on Nigerian Economic Development (2000-2009)*. *Business and Economic Journal*, 6(2), 1-5.