

# IMPACT OF NON-OIL REVENUE ON GOVERNMENT BUDGET IMPLEMENTATION IN NIGERIA (1999-2022)

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## Abstract

The study examined the impact of non-oil revenue on government budget implantation in Nigeria. Specifically, the study sought to evaluate the impact of agricultural revenue, custom and excise duty, mining revenue, company income tax and value added tax on government budget implantation in Nigeria. The study adopted ex-post facto research design which enabled data to be collected from Central Bank of Nigeria (CBN) Statistical Bulletin and annual reports and accounts of Federal Inland Revenue Service (FIRS) for the period of 23 years, spanning from 1999 to 2022. The first preliminary test conducted in the study was unit root test using the conventional Augmented Dickey-Fuller (ADF) Statistics on both the independent and dependent variables. The aim of the unit root test was to validate the data used in the analysis of the study in order to avoid spurious regression results. Descriptive statistics was performed to ascertain the characteristics of the model variables. The study went further and conducted Correlation Matrix Test so as to determine the strength and magnitude of the impact of the independent variables on government budget implantation in Nigeria. Ordinary Least Square (OLS) Multiple Regression Model was adopted to determine the empirical relationship between components of non-oil revenue and government budget implementation at 0.05 level of significance. The results of the regression analysis revealed that agricultural revenue, custom and excise duty, company income tax and value added tax had positive and significant impact on government budget implantation in Nigeria. However, the study also observed that mining revenue had positive and no significant impact on government budget implantation in Nigeria. The implication of these results is that non-oil revenue has contributed positively in the implementation of government budget in Nigeria. The study therefore recommended that government should channel efforts towards creating international awareness on the business and investment opportunities available in Nigeria in non-oil areas such as agricultural, solid mineral and industrialization.

**Key Word:** Agricultural Revenue, Customs And Excise Duty, Mining Revenue, Company Income Tax And Value Added Tax And Government Budget Implementation

## 1. Introduction

The Nigerian government relies mainly on crude oil revenue for financing its budget. However, a decline in global oil prices implies a fall in the revenue available for budget financing. Consequently, in recognition of the precarious nature of an oil-dependent economy, emphasis has continued to be laid on the urgent need for revenue diversification as an alternative means of financing the Nigerian economy. This is in line with the realization that dependency on crude oil earnings can no longer adequately sustain public expenditure due largely to the consistent drop in the world's prices of crude oil (Akpokerere and Ekane, 2022). This development was acknowledged by president Muhammadu Buhari in an interview with China's Television in Beijing in 2019 when he said:

“that the increasing utilization of Shale Gas and other alternative sources of energy by the United States and other developed economies of the world was a matter of concern to Nigeria. That is

why we have to increase the pace of diversifying our economy and move our country away from dependence on oil and gas industry. We must work towards greater industrialization, add more value to our solid mineral potentials and other sectors of our economy before the time comes when crude oil may no longer be dominant as a global source of energy” (Umeji, 2019).

The implication is that developed nations of the world have designed new energy policies and strategies

that may eventually displace their dependency on crude oil as a source of energy (Sani and Ahmad, 2019). This development is a threat to Nigeria’s fiscal operation and requires an urgent move towards the diversification of its revenue base away from the oil. Prior to the discovery of oil in Nigeria, the non-oil sector was the country’s fiscal mainstay and remained a major revenue resource which contributed 95 percent of Nigeria’s Foreign Exchange earnings and generated over 60 percent employment capacity (Ofumbia, Nwaeze and Egundu, 2020). According to Ideh and Okolo (2021), non oil sources of revenue comprised of agriculture, solid minerals, trade and services and certain taxes. Agricultural sector is further made up of crop production, livestock, forestry and fishing; while services include entertainment and tourism, transportation, information communication technology, education, real estate and human health and social services (NBS, 2019). Taxes include all the tax revenues except petroleum profit tax. The sector was the nation’s glory before the discovery of crude oil, and having realized the pitfall the dependence on oil has caused the nation, the government has made enormous effort to re-awaken the dead glory (Ideh and Okolo, 2021). For instance, the economic recovery and growth plan (ERGP) established by the Federal Government of Nigeria in 2017 was a plan initiated to catapult the nation into quick economic development through diversification into the non-oil sources (Omesi, Ngoke and Ordu, 2020). Unfortunately, the policy thrust over the years to expand the non-oil sector in a bid to diversify the Nigeria’s revenue base by the government has yielded no result; as there has not been any perceptible improvement in the Nigerian economy (Akpokerere and Ekane, 2022).

An assessment of the trend of activities in the non-oil sector in Nigeria reveals that despite the various

policies, strategies and reforms, the contributions of the sector has been dismal, disheartening and below its full potential (Abogan, Akinola and Baruwa, 2014). The growth of the Nigeria’s non-oil sector averaged about 2.3 percent for the period 1960 to 1990, but declined systematically as proportion of total export dropped from 40 percent in 1970 to about 5 percent in 2010 (CBN, 2011). Another notable challenge is the fact that Nigeria having relied on easy oil money for many decades finds it difficult to shift base to the non-oil revenues which undoubtedly has less developed systems and know-how (Okezie and Azubike, 2016). This fact was buttressed further by Ude and Agodi (2014) who confirmed that when countries start relying on natural resources wealth, they seem to forget the need for diversification and skilled labour force that can support other productive sectors when resources are fully depleted. Audu (2014) posits that in macroeconomic challenges such as inadequate national savings, excessive budget deficit, huge public debt burden and high unemployment, fiscal policy has been acknowledged to hold centre stage in policy debate both in developed and developing economies. Therefore, the fiscal operations at any level of government become very important if macroeconomic stability of any given nation is to be achieved. Budget according to Olatunji and Hassan (2020) is the means through which government carry out these fiscal operations. It is a key instrument for macroeconomic management in most economies and its effectiveness determines the success of government in meeting its primary functions. Budget spells out how the available resources can be used to achieve whatever its producers agreed to be the priorities. It has been in practice in

Nigeria to support policy process and planning and also to provide the basis for monitoring income and spending (Akinleye, Ogunmakin and Olusola, 2020).

A good budget according to Ezeagba (2012) must possess certain basic characteristics which include realistic revenue projection, linkage of available resources with expenditure plans, focus and project priority and time frame. Hence, Allam (2014) documented that budget implementation involves the channeling and efficient management of public resources by the sectors of the economy that facilitate the achievement of government macroeconomic needs in line with the citizens' priorities. It is in line with this that Usman and Iyaiya (2010) opined that efficient and effective budgetary allocation to key sectors of the economy such as agriculture, education, solid minerals, information and communication, health and transport amongst others bring government closer to the people and enhance equity. However, the reality of recent downward of oil prices and its impact on the economy means that it has never been more vital but now for Nigeria to protect herself by diversifying her revenue streams. This calls for an urgent need in the revitalization of the non-oil sector in order to strengthen the sources of revenue generation that will facilitate adequate budget planning and implementation.

### **1.2 Statement of Problem**

One of the greatest challenges facing the implementation of government budget in recent times is excessive reliance of Nigerian government on oil earnings. One major problem with over reliance on oil revenue is the fact that its price often fluctuates, and therefore its volatility. This means that the dynamics of the Nigerian economy is at the whims and caprices of oil price. The implication is that any structural distortion in foreign economies capable of causing change in oil price directly affect the Nigerian economy. Hence, the current dwindling of oil price in the global market has resulted in the consistent fall in revenue accruing to Nigeria for effective budget implementation. This has led to difficulty in carrying out the primary functions of government. The government has resorted to public borrowings in order to finance its budget leading to inflationary pressure on the economy (Akinleye, Ogunmakin and Olusola, 2020).

The country is found in this problem today because, majority of the revenue needed for developmental purposes is planned to be generated from oil which has continued to decline in recent times without any perceptible improvement in the non-oil revenues such as the agriculture, custom and excise duty, mining, company income tax and value added tax amongst others, leading to increase in fiscal deficit. For instance, the fiscal deficit for 2022 budget amounted to N6.39 trillion which the Federal Government financed with borrowings from both domestic and foreign sources (NBS, 2021). This has resulted to increase in public borrowing and may crowd out private sector players, hence, limiting the growth potential of the economy. Besides, this development poses constraints on the government's capacity to channel adequate funds to productive areas of the economy, hence resulting to an exacerbation of the country's economic woes.

Currently, a lot of empirical studies had focused on the effect of non-oil revenue on economic growth and development in Nigeria. For instance, (Akpokerere and Ekane, 2022; Ideh and Okolo, 2021; Udeh, 2021; Omes, Ngoke and Ordu, 2020; Ofumbia, Nwaeze and Egundu, 2020; Adeusi, Uniamikogbond Erah, 2020; Adegbe, Nwaobia and Olalekan, Olowo, Daramola, Ogunsanwo and Edewusim, 2020 and Ogunbiyi and Abina, 2020). The problem with these studies is that they cannot be used for the explanation of the impact of non-oil revenue on government budget implementation in Nigeria, because of the difference in dependent variables. Surprisingly, Akinleye and Ogunmakin (2020) noted that there is dearth volume of empirical studies on non-oil

revenues and government budget implementation in Nigeria. Moreover, the study conducted by Omodero and Ehikioya (2020) focused on the contributions of the non-oil revenue to infrastructural development in Nigeria, which also cannot be extrapolated for the explanation of the present study which dwelt on non-oil revenues and government budget implementation. Hence, there is need for a study that would evaluate the extent to which non-oil revenues had contributed in the implementation of government budget in the face of persistent drop in world's prices of crude oil in recent times. This is the researcher's justification for this present study.

## **2. Review of Related Literature**

### **Non-Oil Revenue**

The non-oil sector was indeed, a very critical sector to the Nigerian economy. This is perhaps why

Olusola and Siyanbola (2014) argued based on the statistics from the World Bank in 2013 that prior to the discovery of oil in Nigeria, the sector contributed about 95% of her foreign exchange earnings, generated over 60% of her employment capacity and approximately 56% to her gross domestic earnings". But today, the story is no longer the same as that lucrative sector has been abandoned, neglected and ignored in preference for the "Black Gold". However, Chima (2017) observed that the recently released central Bank of Nigeria's (CBN) Financial Stability Report for December, 2016 had revealed that the Federal Government of Nigeria's retained revenue for the second quarter of 2016 increased to 2.558 Trillion, above the levels of N1.898 Trillion recorded in the first half of 2016. The increase in the retained revenue relative to the first half, according to him was mainly attributable to non-oil revenue. This suggests that the Federal Government of Nigeria has signaled its readiness to gradually shift away from oil revenue dependence to the non-oil sector.

According to Adams (2013), cited in Uremadu, et al. (2020), non-oil revenue in Nigeria consists of corporate income tax, customs and excise duties, and independent revenue sources, which include fees, licenses, and rent on government property. Agriculture, tourism, entertainment, services, hospitality, sports, manufacturing, information and communications technology, and solid minerals are other non-oil sources of income worth mentioning in this study. With the exception of crude oil, non-oil revenue is the profits from products sold on foreign markets. The non-oil industry consists of all endeavours not located in or closely related to oil and gas areas. Businesses in the construction, health, and other non-oil sectors are included. Exports of non-oil manufactured items from the country's industrial, mining, and agricultural sectors are done to raise money for economic growth.

**Agricultural Revenue** :The role of the Nigerian government in agriculture is predicted on the prevailing socio- economic conditions of the Nigerian Society, particularly at independence. The conditions generally made state intervention inevitable. For insincere, agriculture provided nearly two- thirds of government's revenue and foreign exchange earnings in the 1960s (Haggblade, 2005). Also, about 70 percent of the population lived on agriculture for household income and employment. However, the agricultural sector was characterized by little growth of output per capita, low productivity, pervasive illiteracy, static and poorly developed institutions, restrictive markets and policy inconsistency. Despite the dominant role of the petroleum sector as the major foreign exchange earner, agriculture remains the mainstay of the economy In addition to contributing the largest share of Gross Domestic Product (GDP), it is the largest non-oil export sector earner, the largest employer of labour, and a key contributor to wealth creation and poverty alleviation, as a large percentage of the population derives its income from agriculture and related activities, Agricultural sector, one of the sources of economic growth, is looked unto to pave the

way for economic development since it has the potentials of generating employment opportunities, alleviating food insecurity, encouraging agro-industrialization. and improving entrepreneurship through capacity building (Ayogbokiki, Arigbede, Okuneye, Ayinde and Adeoye, 2016).

**2.1.1 Customs and Excise Duty:** The introduction of Customs duty which is also known as import

duty dates back to 1860. In Nigeria, customs duties are the oldest form of modern tax revenue and it consists the main revenue source for the Federal Government which is payable by importers of specified goods (Buyonge 2008). Customs duty are taxes levied on goods and services imported into Nigeria, it is charged either as a percentage of the value of goods or services imports or as a fixed amount of contingent on quantity (unit tax) of goods (Buba, 2007). To further broaden the revenue base of Nigeria, excise duties were also introduced on several goods in 1962 in Nigeria (Buba, 2007). Excise duty is a tax levied on locally manufactured goods, sale, or use of locally produced goods (such as alcohol, tobacco, petrol, manufactures, and so on). Excise duties are charges imposed by government on specific commodities produced in a country at differing rates. These charges are being imposed on domestic products locally produced as distinct from imported goods and are mainly imposed for revenue generating purposes. The major difference between both taxes is while excise duty is levied by the government on the goods and products that are manufactured locally in a country, customs duty is levied on goods imported from foreign countries. Custom duties are the totality of import duties collected by the customs and excise Department. However, excise taxes are either 'selective or general' or 'specific or ad valorem' depending on the tax base. Customs and excise duties are an essential element of the non-oil revenue and have remained the major revenue source before and after the discovering of oil in Nigeria and have over the years contributed significantly to national development. According to Buba (2007), the Nigeria Custom Services is saddled with the responsibility of collecting customs and excise duties, fees, tariffs, and other levies so imposed by the Federal Government on imports, exports and statutory rates. In line with Finance Act 2021, excise duties on non-alcoholic, carbonated, ad sweetened beverages are now charged at flat rate of N10 per litre.

**Mining Revenue:** Nigeria is enriched with over forty (40) types of minerals including marble, gypsum,

lithium, silver, granite, gold gemstones, bentonite, iron ore and talc. The mining and solid mineral sector of the extractive industry in Nigeria has always been a viable green field and is now getting the attention it deserves, having been earmarked as a key source of economic development and diversification of the revenue streams of the country. The annual Nigeria Extractive Industries Transparency Initiative (NEITI) Solid Minerals Audit Report put total revenue from the sector in 2013 at 1433.86 billion, and in 2014 at N55.82 billion accounting for just 0.11 percent of GDP. In 2015, a marginal growth was recorded in solid minerals mining with accrued revenue hitting 1469,2 billion and amounting to 0.33 percent contribution to GDP. However, figures published by the National Bureau of Statistics (NBS) showed that the minerals and mining sector contributed 0.55 percent to Nigeria's GDP in 2016 while the corresponding figures were 40 percent, 25 percent and 18 percent respectively for Botswana, DRC and South Africa for the same period. Currently, solid minerals sector contributes averagely about 0.5 percent to GDP, accounts for about 0.3 percent of national employment and 0.02 percent of exports. This contribution is a reversal of ON dependent on 4 export 8 historically higher percentages of up to 5 percent in the 1960s-70s, when the economy was largely sustained by agriculture and exploration of solid minerals (Owan, Ndibe and Anyanwu, 2020).

**Company Income Tax:** Ogbonna and Appah (2016) defines Companies Income Tax (CIT) as a tax

levied on the profit of companies (excluding profit from companies engaged in upstream operations) accruing in, derived from, brought into or received in Nigeria in respect of any trade or business, rent, premium, dividends, interest, royalties and any other source of annual profit. Hence, Ariwodola (2000) resolved that the companies' income tax is chargeable on the global profits of Nigerian companies irrespective of whether or not they are brought into or received in Nigeria. The share of the profits of foreign firms derived from such firm's operations in Nigeria (dividends, interests or royalties due to foreign companies) is assessed at ten percent (10%) withholding tax rate. Companies Income Tax (CIT) is charged at 30 percent rate of assessable profits of companies. Prior to the enactment of the Finance Act, 2021, companies were allowed to claim capital allowances on all qualifying capital expenditure (QCE) utilized for the generation of their taxable and non-taxable business income, with the capital allowances claimable in a tax year restricted to two-thirds of assessable profits for companies other than those engaged in manufacturing and primary agricultural production/ agro-allied business. However, Section 9 of Finance Act, 2021 has introduced a condition that provides that QCE used to generate taxable and tax-exempt income will not be fully deductible (in the form of capital allowances) against the taxable income of a company where the proportion of the company's non-taxable income is greater than 20% of the total income of the company. Hence, where a QCE is used in generating both taxable and non-taxable income, the capital expenditure would be prorated and only the portion relating to the taxable income would be allowable as a deduction by way of capital allowances, once the proportion of non-taxable income exceeds 20% of the total income of the company.

**Value Added Tax:** Value Added Tax (VAT) is the tax levied on the value which the supplier or seller of goods/services add to the goods/services before selling it. The introduction of VAT was necessitated by the need to boost the revenue of the government from non-oil sources following the fluctuations in the oil revenue due to the glut in the international market. VAT was introduced into the Nigerian tax system in 1994, fiscal year with the promulgation of VAT Decree No. 102 of 1993 to replace the Sales Tax Act. It is administered by the Federal Inland Revenue Services at the current rate of 7.5% (PWC, 2018) Value 261). Value added tax is a multiple stage tax that is charged on the additional value of goods produced or services rendered as they advance through numerous stages of production & distribution and the rendering of services which is ultimately borne by the last consumer but collected at each phase of production and service chain (Bird, 2005). According to Umeora (2013), value added tax is a tax on estimated market value added to a product or service at every phase of manufacturing or distribution and the additions are eventually added to goods and services which bear the tax burden or the incidence because the tax paid on consumption of goods and services cannot be recovered. The value added of a firm is the difference between a firm's sales (output) and purchases (input) from other firms.

**Government Budget Implementation:** According to Adah and Akogu (2019), the essence of budget is

not in its formulation or initiation but in its implementation which is aimed at achieving the expectations and aspirations of the people. A well-start implemented budget helps to translate government campaign promises, policies and programs into outcomes that have a direct bearing on the people such as provision of employment opportunities, poverty reduction as well as development of critical infrastructure such as roads, water, electricity, hospitals, schools etc. for

the good of the people. While appreciating the fact that budget implementation is the basic thing, however the size and structure of public expenditure is expected to boost the growth in output of the economy. Be that as it may, implementation of policies and programs is fundamental to the attainment of socio-economic wellbeing of the society (Adah and Akogu, 2019).

The term budgeting is a system of forecasting expected revenue and expenditure in quantifiable terms.

For instance, time, personnel, space, building and equipment among others are usually expressed in monetary terms (Abdalla, 2018). This implies that budget is integral part of planning, where budgeted amount is compared with the actual. Thus, government may witness over, under or target expenditure levels and take corrective measures if necessary (Etale and Idumeasro, 2019). They opined that the fundamental principles of budgetary control for efficient and effective budget implementation are outline as follows: Establish a plan or target of performance which coordinates all other activities; record the actual performance; compare the actual performance with that planned; calculate the difference or variances and analyze the reason for them and act immediately, if necessary to remedy the situation. Therefore, to implement budget entails ensuring that both revenue projections and expenditure framework contained in the approve budget document are achieved within the fiscal year (Olaoye and Alabandan, 2022).

## **2.2 Empirical Review**

Akpokereke and Ekane (2022) examined the effect of oil and non-oil revenue on the Nigerian economy.

The specific objectives of the study were to evaluate the effect of oil revenue and non-oil revenue on the Nigerian economy proxied by Real Gross Domestic product (RGDP). Time series data were collected from Central Bank of Nigeria (CBN) Statistical Bulletin for the period 1994-2021 on the variables of the study. The data was analyzed using descriptive statistics, followed by Pearson correlation analysis with the aid of E-views 9.0 in a bid to estimate the effect of the oil and non-oil revenues on Nigeria's real gross domestic product. The outcome of the analysis revealed that oil revenue and non-oil revenue had positive and significant effect on real gross domestic product in Nigeria. The study therefore concluded oil and non-oil revenues have considerable effect on the expansion of the Nigerian economy. The study recommended that it is a high time the government looked into the development of the non-oil sector which has wider opportunities for economic growth, which can be achieved through diversification of the revenue streams away from the oil.

Pamba (2022) carried out a study on the link between tax revenue components and economic growth of South Africa. Time series data for the period of 22 years was obtained from the South African Reserve Bank (SARB), the objective of the study was to examine the effect of tax revenue components on economic growth of South Africa. The study employed real GDP as a proxy for economic growth; while company income tax, personal income tax, international trade taxes, income and profit taxes, capital gains tax, foreign direct investment, inflation and gross savings were the independent variables. Philips-Perron (PP) unit root test was employed to determine the stationary of the model variables; while long-run and short effects were established using Autoregressive Distributed lag (ARDL). Findings from ARDL tests revealed that company income tax, personal income tax and international trade taxes have both positive long-run and short-run link with economic growth of South Africa. Diagnostic tests indicated that Heteroskedasticity and autocorrection are not present in the model of the study.

Lateef, Lasisi, Adegboye, Ajepe and Isife (2022) studied the relationship between tax revenue collections and healthcare infrastructural development in Nigeria. The objective of the study was to evaluate the effect of tax revenue on healthcare infrastructural development from 2013-2020 in Nigeria. The specific objectives of the study were to assess the effect of company income tax (CIT), Petroleum Profit Tax (PPT) education tax (EDT) and effect of value added tax (VAT) on government expenditure on health infrastructure. (Healthcare infrastructure was proxied by government expenditure on health infrastructure). Time Series data was collected from secondary source through Central Bank of Nigeria and Federal Inland Revenue Service over the period of 8 years (2013 -2020). Analysis of data was performed using descriptive statistics to determine the attributes of the model data. Multiple linear regression anchored on Ordinary Least method was employed to test the research hypotheses at 0.05 level of significance. Findings from the tests of hypotheses revealed that CIT and PPT affected the development of healthcare infrastructure in Nigeria; while VAT and EDT have not significantly affected healthcare infrastructure in Nigeria.

Olaoye and Alabandan (2022) examined the effect of internally generated revenue, value added tax and government borrowing on budget implementation in Nigeria. The specific objectives of the study were to ascertain the effect of value added tax, internally generated revenue and government external borrowing on budget implementation in Nigeria. Data for the study were collected from Central Bank of Nigeria Statistical Bulletin for the period 1990-2020. The data were validated through unit root test using the conventional Augmented Dickey-Fuller on the research variables. Multiple Linear Regression Model anchored on Ordinary Least Square (OLS) was employed to test research hypotheses at 0.05 level of significance. Results of the regression analysis showed that value added tax exerted both positive and significant on government budget implementation in Nigeria.

Ideh, Okolo and Emengini (2021) evaluate the effect of the non-oil sector on economic growth in Nigeria. The specific objectives of the study were to examine the effect of agricultural revenue, solid minerals revenue, trade revenue and service industry revenue on real gross domestic product. The study obtained data from the Central Bank of Nigeria (CBN) Statistical Bulletin for the of 20 years spanning from 2000 to 2019. Diagnostic tests such as Roots of characteristic polynomial for vector Augmented Dickey-Fuller test for time series stationarity and ganger causality tests were carried out to ensure the reliability of the model estimates with the aid of SPSS 20 and E-views 9.0 the outcome of the vector Auto-regression showed that real gross domestic product was strongly influenced by the variables in the short run but weakly influenced in the long run. The implication of the findings is that the non-oil sectors had significant effect on the growth of the Nigerian economy.

Udeh (2021) carried out a study on the effect of oil and non-oil revenue on economic growth of Nigeria. Specifically, the study sought to examine the effect of oil and non-oil revenue on the growth of the Nigerian economy. Secondary data was collected from the Central Bank of Nigeria (CBN) on oil and non-oil revenue of the government for the period 1981 to 2015. The study made use of descriptive statistics to analyze data so as to determine the characteristics of the model variables. Ordinary Least Square multiple linear regression was employed to estimate the effect of the oil and non-oil revenue on the economic growth of Nigeria. The study also used Augmented Dickey-Fuller unit root test, co-integration test and error correction model in the analysis of data. Findings from the analysis indicated that oil and non-oil revenue exerted a positive and significant effect on gross domestic product.



Odogu, Obalokumo, Odoko and Dadowei (2021) examined the effect of tax revenue on human development index in Nigeria. Specifically, the study sought to determine the effect of person income tax on human development index; the effect of petroleum profit tax on human development index and effect of company income tax human development index in Nigeria. The data needed for the analysis of the study was obtained from the official publication of Federal Inland Revenue Services and Central Bank of Nigeria for the period 2005 - 2017. Granger causality Test was employed to test the statistical relationship between the research variables. Findings revealed that the components of tax revenues employed in this study have positive and significant effect on human development index in Nigeria.

Atolagbe and Abiodun (2021) studied the impact of macroeconomic variables on tax revenues in Nigeria. The objective of the study was to ascertain the effect of trade liberalization and six (6) macroeconomic variables on tax revenue in Nigeria for the period 1981-2019. The independent was trade liberalization proxied (b) trade openness. The control variables were exchange rate, inflation rate, per capita income, foreign direct investment, share of agriculture in GDP, share of petroleum in GDP and share of mining in GDP. Specifically, the study sought to determine the effect of total tax revenue on trade openness with other control variables; the relationship between domestic tax revenue and trade openness with other control variables and the effect of external tax revenue on trade openness alongside other macroeconomic variables. Data was collected from secondary source covering the period 1981-2019 from central Bank of Nigeria. Autoregressive Distributed Lag (ARDL) and Error correction model (ECM) were employed to analyze the time series data. It was observed that a unit increase in total tax revenue and domestic tax revenues when other variables in the model were held constant. The result also showed that the macroeconomic control variables observed to be the predictors of domestic and external tax revenues were share of petroleum and mining in GDP; foreign direct investment, share of agriculture in GDP; per capital income; exchange rate and inflationary rate.

Amah (2021) studied the relationship between taxation and Nigerian economy. The specific objectives of the study were to ascertain the effect of value added tax (VAT) petroleum profit tax (PPT), and effect of company income tax (CIT) on economic growth of Nigeria. The economic growth of Nigeria was proxied by gross domestic product (GDP). The study was rooted on benefit received theory. Ex-post facto research design was adopted while time series data were gathered from Federal Inland Revenue service and Central Bank of Nigeria for the years 1999-2017. Formulated hypotheses were tested using ordinary least square multiple regression approach at 5% level of significance. Results of the OLS tests indicated that PPT and CIT have positive and significant regression with GDP; while VAT had negative relationship with GDP in Nigeria.

Rath (2021) explored the empirical relationship between tax gap and infrastructural development in Nigeria for the period of 37 years (that is 1982-2018). The study used secondary data obtained from central bank of Nigeria for the period under consideration. The natural logarithm of government capital expenditure on economic services was employed as a proxy for the dependent variable, infrastructure development; while the tax gap on company's income tax and custom and excise duty tax are the independent variable. Descriptive statistics were used to determine the data's descriptive properties, such as the mean, maximum and minimum, standard deviation and Jarque-Bera. Unit root tests were also used to look at the time series characteristics of the research variable. Diagnostic tests were carried out to ascertain their munity. Multiple linear regression was employed to determine the hypothetical relationship between the dependent and

the independent variables at 0.05 level of significance. The result of the regression tests revealed that there is a positive and substantial line between company's income tax gap and government capital spending on economic services. The study also indicated that custom and excise duty tax gap has a positive significant effect on infrastructure development in Nigeria.

### **2.3 Theoretical Framework**

This study was anchored on two theories, namely: Resource Curse Theory and Theory of Incrementalism

**The Resource Curse Theory:** The resource curse theory was propounded in the year 1993 by Auty, who

tried to illustrate how rich countries blessed by natural endowment are unable to improve their economy even as this economy witnesses low pace of development compared to countries that are not blessed with natural resources. The resource curse theory also postulates that countries blessed with rich natural resource fail to develop the infrastructural projects and other sectors in their economy which eventually leads to financial problem. Little or no investment is redeployed back to the resource endowed country. The theory assumes that countries with abundant natural resource are out rightly forced to depend on other nations for goods and services which they might eventually end up losing. The basic reason why countries that export their natural resource to foreign country lose is because revenue that is generated from exported product to other countries will eventually be used to purchase finished product at a high cost. The theory is related to this study because, over exploitation of natural resource arises as a result of free access to natural resource thus, creating an avenue for socio-political crises which limit government and other potential investors whose resources are essential in improving the non oil sector.

**Theory of Incrementalism:** Incremental theory of budgeting was propounded by Aaron Wildavsky in the year 1964. The theory tries to justify and find the basis for the constant changes in budget outlay from one financial year to the other. Aaron (1964) discovered that the basis for increasing outlay is based on small additions to the preceding year's expenditure or revenue items. The assumption of the theory is that, the future performance of an organization can be predicted by using the prior year budget outlay as a predictor. The relevance of the theory to this study is that for budget to be an effective tool of financial control and performance evaluation in the government sector lies in the fact that small incremental changes in non-oil revenues and expenditure items of government from one year to another could indicate consistent measureable growth and adherence to plan which are indicative that budget can be used to achieve objectives for the benefits of the citizens.

### **3. Methodology**

#### **Research Design**

The study adopted ex-post facto research design. This design type is relevant in explaining a consequence based on antecedent conditions; as well as determining the influence of one variable on another variable. Thus, the adoption of this research design is due to the fact that the study relied on historic data which were in existence before the commencement of this study. Data for the study were obtained from secondary source only. Basically, the data were sourced from annual reports and accounts of Federal Inland Revenue Service (FIRS), National Bureau of Statistical Bulletin and CBN publications for the period of 24 years spanning from 1999-2022.

#### **Model Specification**

Ordinary Least Square (OLS) multiple regression model was adopted to test the impact of the independent variables on the dependent variable. For the purpose of data analysis, it was

proposed that components of non-oil revenue employed in the model were the determinants of government budget implementation in Nigeria. This is technically expressed as follows:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + ut \dots\dots\dots(i)$$

The above functional model was restated explicitly as an econometric equation as below stated:

$$GBI = \beta_0 + \beta_1AR + \beta_2CED + \beta_3MR + \beta_4CIT + \beta_5VAT + ut \dots\dots\dots(ii)$$

Where

GBI = Government Budget Implementation (proxied by total government expenditure)

$\beta_0$  = Constant

$\beta_1 - \beta_5$  = Slopes of coefficient

AR = Agricultural Revenue

CED = Customs and Excise Duties

MR = Mining Revenue

CIT = Company Income Tax

VAT = Value Added Tax

ut = Error term

#### 4. RESULTS

##### Descriptive Statistics Results

The essence of descriptive test was to examine the characteristics of the dependent and independent variables.

**Table 1: Descriptive Statistics**

	<b>GBI</b>	<b>AR</b>	<b>CED</b>	<b>MR</b>	<b>CIT</b>	<b>VAT</b>
Mean	795.4150	299.4236	486.8898	248.5664	222.8255	188.3480
Median	232.8544	122.3783	138.2083	88.4500	122.4300	101.2152
Maximum	973.2130	516.4827	674.3840	256.3146	242.2792	203.8518
Minimum	339.5145	206.4622	258.7911	98.9725	110.6400	84.8956
Std. Dev.	114.4613	103.2776	64.5642	49.4541	18.3440	10.5668
Skewness	2.8352	0.9293	1.8996	0.9388	0.8955	1.9989
Kurtosis	3.3475	1.8771	2.3829	2.2396	0.4829	0.6608
Jarque-Bera	66.9344	9.4715	2.9398	8.4429	3.6674	3.7306
Probability	0.0486	0.0073	0.0388	0.0000	0.0084	0.0000
Sum	10.8990	2.8206	6.7608	8.4420	2.4632	2.5344
Sum Sq. Dev.	8.66E+11	3.99E+12	4.73E+8	8.63E+11	2.6545	2.8620
Observations	23	23	23	23	23	23

**Source:** Author's Computation 2022 from E-view Version 10

Table 1 showed the summary of descriptive statistics for all the variables of the study. The mean value of government budget implementation (GBI) for the period 1999 to 2022 was 795.4150 percent; which fluctuated from the minimum of 339.5145 to a maximum of 973.2130%. The standard deviation value of 114.4613% showed the extent to which government expenditure

deviated from its expected value. It was also discovered that GBI was positively skewed with skewness coefficient of 2.8352, which measures the asymmetry distribution of the series around its mean. The implication is that GBI had a long tail to the right, but clustered to the left. The closer the value of skewness is to zero, the higher the tendency that the data is normally distributed. Hence, government budget implementation proxied by government expenditure is not normally distributed as confirmed by its skewness value of 2.8352. The kurtosis which measures how the series clustered a central point for standard distribution indicated that GBI did not meet the Gaussian distribution requirement which suggested zero value for kurtosis. The probability value of GBI (0.0406) is less than 0.05 level of significance indicating that the null hypothesis of normal distribution was rejected.

On average, the value of agricultural revenue (AR) was 299.4236% which fluctuated from the minimum value of 206.4622% to a maximum of 516.4827 percent. The standard deviation value of 103.2776% indicated the rate at which agricultural revenue deviated from its mean. It was discovered that AR is positively skewed with skewness coefficient of 0.9293 which measures how AR is distributed around its mean. This implied that AR had a long tail to the right, but clustered to the left. The closer the value of skewness is to zero, the higher the tendency that AR is normally distributed. Hence, agricultural revenue is not normally distributed since its skewness value of 0.9293 is greater than zero. The kurtosis which measures how the series clustered around its mean for a standard distribution showed that AR did not meet the Gaussian distribution requirement which suggested zero value for kurtosis. The probability value (0.0073) of AR was less than 0.05 level of significance, indicating that the null hypothesis of normal distribution was rejected.

Custom and excise duty (CED) was 486.8898 percent on average, which fluctuated from the minimum of 258.711% to a maximum of 674.3840%. The standard deviation value of 64.5642 revealed the extent to which CED deviated from its expected value. It was also observed that CED was positively skewed with skewness coefficient of 1.8996% which showed how CED was positively skewed implied that CED had long tail to the right, but clustered to the left. The closer the skewness coefficient is to zero, the higher the tendency that CED is normally distributed. Hence, CED did not meet the symmetrical distribution requirement, which suggested a value of zero (0) for skewness.

Mining revenue (MR) had a mean value of 248.5664 percent, which fluctuated from the minimum value of 98.9725 to the maximum of 256.3146%. The standard deviation value of 49.4541% indicated the rate at which MR deviated from its expected value. It was also discovered that MR is positively skewed with skewness coefficient value of 0.9388%, which showed how this variable is distributed around its mean. The positive value of its skewness coefficient showed that MR had long tail to the right, but clustered to the left. The closer the value of skewness is to zero, the higher the tendency that MR is normally distributed. Since MR has skewness coefficient of 0.9388%, it implied that MR did not meet the symmetrical distribution requirement of Gaussian which suggested a value of zero (0) for skewness. The Kurtosis which measures how the series clustered around a central point for a standard distribution showed that MR did not also meet the Gaussian distribution requirement which suggested zero value for kurtosis.

The result of descriptive test on table 1 showed that company income tax (CIT) had 222.8255 percent on average; which fluctuated from the minimum value of 110.6400% to the maximum value of 242.2792%. The standard deviation value of 18.3440% indicated the extent to which CIT deviated from its expected value. It was also discovered that CIT is positively skewed with skewness coefficient value of 0.8955%, which measures how CIT is distributed around its mean.

The implication is that CIT had long tail to the right; but clustered to the left. The closer the value of skewness is to zero, the higher the tendency that CIT is normally distributed.

Hence, CIT was not normally distributed as confirmed by its skewness value of 0.8955% which is greater than zero (0). The kurtosis which measures how the series clustered a central point for a standard distribution showed that CIT did not meet the Gaussian distribution requirement which suggested a zero value for kurtosis.

On average, value added tax (VAT) had 188.348 percent; which fluctuated from the minimum value of 84.8956% to the maximum value of 203.8518 percent. The standard deviation value of 10.5668% revealed the extent to which VAT deviated from its expected value. It was found that VAT was positively skewed with skewness coefficient of 1.9989%. This implied that VAT had long tail to the right, but clustered to the left. The kurtosis which measure how the clustered, around a central point for a standard distribution, showed that VAT did not meet the Gaussian distribution requirement which suggested zero value for kurtosis. The probability of VAT is 0.0000, indicating that the null hypothesis of normal distribution was rejected at 0.05 level of significance.

### Correlation Test

The study used correlation test to examine the strength and magnitude of the impact of the independent variables on the dependent variable. The result of the correlation test is presented in table 2 below:

**Table 2: Correlation Test**

	<b>GBI</b>	<b>AR</b>	<b>CED</b>	<b>MR</b>	<b>CIT</b>	<b>VAT</b>
<b>GBI</b>	1.0000	0.4566	0.3664	0.0978	0.4288	0.3873
<b>AR</b>	0.4566	1.0000	0.3844	0.5386	0.7259	0.8492
<b>CED</b>	0.3664	0.3844	1.0000	0.7859	0.2839	0.3756
<b>MR</b>	0.0978	0.5386	0.7859	1.0000	0.1597	0.4258
<b>CIT</b>	0.4288	0.7259	0.2839	0.1597	1.0000	0.8398
<b>VAT</b>	0.3873	0.8492	0.3756	0.4258	0.8398	1.0000

**Source: Authors' Computation 2023 from E-views, Version 10.0**

The Pearson correlation test results in table 2 showed that agricultural revenue (AR) had positive relationship with government budget implementation (GBI) in Nigeria. This is confirmed by the value of the value of the coefficient estimate as presented in table 2. This implies that AR had a direct relationship with government budget implementation; meaning that any increase in AR leads to increase in government expenditure. Moreover, the result of the correlation test also revealed that custom and excise duty had a positive relationship with government budget implementation. This is confirmed by the value of the coefficient estimate as presented in table 2. This implies that CED had a direct relationship with government expenditure (a proxy for government budget implementation); meaning that any increase in CED leads to increase in government expenditure.

Similarly, table 2 showed that mining revenue (MR) had a positive relationship with government budget implementation. This is confirmed by the value of the coefficient estimate as presented in table 2. The implication is that an increase in government expenditure. Besides, company income tax (CIT) and value added tax (VAT) had positive relationship with government budget implementation. This implies that increase in CIT and VAT will lead to increase in government expenditure in Nigeria.

### Unit Root Test

Unit root test is one of the preliminary tests carried out to check for the existence of stochastic error terms properties that might have entered the research model which could result to spurious

regression outcome. For the purpose of accomplishing the basic assumption of ordinary least square (OLS) and to ensure a reliable regression results, all the variables (AR, CED, MR, CIT, VAT and GBI) are required to be stationary before applying them in the regression tests. The unit root test was conducted using ADF statistics on both the dependent and the independent variables as indicated below.

**Table 3: Unit Root Test**

Variable	Constant and trend level		1 <sup>st</sup> difference	
	Constant and trend level	Prob.	Constant and trend level	Prob.
GBI	0.568	0.143	-4.356	0.003
AR	-1.148	0.842	-3.623	0.033
CED	-3.414	0.318	-5.568	0.051
MR	-2.919	0.317	-6.336	0.019
CIT	-3.641	0.443	-3.326	0.000
VAT	-3.268	0.289	-3.386	0.028

**Source: Author's Computation from Eviews, 2022, Version 10.0**

The result of table 2 with respect to ADF unit root test indicated that all the variables, AR, CED, MR, CIT and VAT series are non-stationary at levels. But, considering their series in 1<sup>st</sup> difference, all the series became stationary. Therefore, the result showed that the time series on AR, CED, MR, CIT and VAT are integrated or order 1 (1). Hence, the series do not have root and therefore, considered relevant for prediction.

#### **Detection of Multicollinearity**

Multicollinearity exists as a result of the existence of linear relationships involving one or more additional independent variables. Existence of multicollinearity leads to false regression result. Consequently, it is imperative to ascertain the presence of multicollinearity that exists among the explanatory variables. To achieve this, robustness checks were carried out to ensure that there is no presence of multicollinearity. The non-existence of multicollinearity is established when the tolerance value is substantially below 10% and the corresponding values of variance of inflation factor (VIF) is above 5% (Ringle, Wende and Becker, 2015). Our results showed that the tolerance value of all the variables in the study agreed with the above condition as shown on the table below:

**Table 4 Multicollinearity Test**

Variables	Tolerance	VIF
AR	0.022	8.429
CED	0.017	13.302
MR	0.029	7.241
CIT	0.038	8.203
VAT	0.093	6.892

**Source: Author's Computation from Eviews, 2022, Version 10.0**

**T-Statistics**

In order to ensure that the decision on the formulated hypotheses is validated empirically, the study has employed the t-statistics tests. This is achieved as the t-statistics calculated is compared against the t-statistics critical table value. When the t-statistics calculated is greater than the t-statistics critical table value at 0.05 chosen level of significance. The researcher accepted the alternate hypothesis and rejected the null hypotheses. Table 4 as shown below suggested that t-statistics calculated for parameters:  $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4$  and  $\beta_5$  are greater than the t-statistics critical table value at 5% level of significance on two tailed test. This implies that government budget implementation in Nigeria is significantly influenced by Agricultural revenue (MR), Company and Income Tax (CIT) and value added tax (VAT) at 5% level of significance. Therefore, the alternate hypotheses which stated that there is a significant effect of AR, CED, MR, CIT and VAT on government budget implementation in Nigeria have been accepted.

**Table 5 T-statistics**

Variables	C	AR	CED	MR	CIT	
Parameters	$\beta_0$	$\beta_1$	$\beta_2$	$\beta_3$	$\beta_4$	$\beta_5$
t-statistics	14.226	4.350	6.926	10.234	3.996	2.646
t-table @ 5%	1.697	1.697	1.697	1.697	1.697	1.697
Decision	Accept ha	Accept ha	Accept ha	Accept ha	Accept ha	Accept HA

**Source: Author's Computation from Eviews, 2022, Version 10.0**

**Table 6: Regression Result**

Dependent Variable: GBI  
 Method: Least Squares  
 Date: 05/18/2023  
 Time: 3.00am  
 Sample: 1999-2022  
 Included observation 23

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	14.63324	0.62280	23.49589	0.0000
AR	1.28303	0.34082	3.76454	0.04238
CED	1.82142	0.26408	6.89722	0.02130
MR	0.48766	0.32653	1.49346	0.52270
CIT	0.64232	0.08849	7.25867	0.00840
VAT	0.57428	0.26808	2.14220	0.04818
R-squared	0.60458	Mean dependent var		0.83626
Adjusted R-squared	0.580826	S. D. dependent var		0.06268
S.E. of regression	0.80458	Akaike info criterion		-2.456924
Sum squared resid	42.65824	Schwarz criterion		-2.45615
Log likelihood	0.86826	Hannan-Quinn criter.		-2.15430
F-statistic	33.33642	Durbin-Watson stat		1.68942
Prob(F-statistic)	0.00033			

**Source: Author's Computation from E-views, 2022, Version 10.0**

### **Test of Research Hypotheses**

In this study, the decision-making on the statistical significance of the findings obtained from each of the research hypotheses rests on the probability values and the level/direction of the coefficient. Therefore, in testing the first, second, third and fourth and fifth hypotheses, the p-values of the t-statistics in table 5 were used.

#### **Test of Hypothesis One**

Research hypothesis one evaluated the impact of agricultural revenue (AR) on government budget implementation in Nigeria. Accordingly, the following steps were taken.

**Step 1: Restatement of Research hypothesis one.**

H<sub>01</sub>: Agricultural revenue has no significant impact on government budget implementation in Nigeria.

h<sub>1</sub>: Agricultural revenue has significant impact on government budget implementation in Nigeria.

#### **Step 2: Decision Rules**

**Decision Rule 1:** Accept the alternate hypothesis and reject the null hypothesis if the p-value is less than the chosen level of significance (0.05). It simply implies that the estimated variable has significant effect on the dependent variable.

**Decision Rule 2:** Accept the null hypothesis and reject the alternate hypothesis if the p-value is greater than the chosen level of significance (0.05). It implies that the estimated variable has no significant effect on the dependent variable.

#### **Step 3: Decision**

Based on the regression result presented on table 5, the p-value of agricultural revenue is 0.04238 while its coefficient is -1.28303. The parameter of AR is negative and significant in measuring budget implementation in Nigeria for the period 1999-2022. This is confirmed by the p-value (0.04238) which is less than the chosen level of significance (0.05). We accepted the alternate hypothesis and concluded that agricultural revenue has significant effect on government budget implementation in Nigeria. However, the study accordingly rejected the null hypothesis since the p-value is less than the chosen 0.05 level of significance.

#### **Test of Hypothesis Two**

Research hypothesis two examined the impact of custom and excise duty on government budget implementation in Nigeria. Multiple regression result obtained in table 5 formed the basis for the testing of hypothesis two in line with the following steps.

#### **Step 1: Restatement of Research Hypothesis Two**

H<sub>02</sub>: Custom and excise duty has no significant impact government budget implementation in Nigeria.

h<sub>2</sub>: Custom and excise duty has significant impact government budget implementation in Nigeria.

#### **Step 2: Decision Rules**

**Decision Rule 1:** Accept the alternate hypothesis and reject the null hypothesis if the p-value is less than the chosen level of significance (0.05). It implies that the estimated variable has significant effect on the dependent variable.

**Decision Rule 2:** Accept the null hypothesis and reject the alternate hypothesis if the p-value is greater than the chosen level of significance (0.05).



### **Step 3: Decision**

Based on the regression result presented on table 5, the p-value of Custom and excise duty (CED) is 0.02130 while its coefficient is 1.82142. The parameter of CED has positive and significant impact on government budget implementation by its p-value. Since (0.05) level of significance is greater than the p-value (0.02130). Therefore, we accepted the alternate hypothesis and concluded that value added tax has significant impact on government budget implementation in Nigeria.

### **Test of Hypothesis Three**

Research hypothesis three assessed the impact of mining revenue on government budget implementation in Nigeria. Multiple regression result obtained in table 5 formed the basis for the testing of hypothesis three.

#### **Step 1: Restatement of Research Hypothesis**

H<sub>03</sub>: Mining revenue has no significant impact on government budget implementation in Nigeria.

h<sub>a3</sub>: Mining revenue has significant impact on government budget implementation in Nigeria.

#### **Step 2: Decision Rules**

**Decision Rule 1:** Accept the alternate hypothesis and reject the null hypothesis if the p- value is less than the chosen level of significance (0.05). It implies that the estimated variable has significant effect on the dependent variable.

**Decision Rule 2:** Accept the null hypothesis and reject the alternate hypothesis if the p-value is greater than the chosen level of significance (0.05). It implies that the estimated variable has no significant effect on economic growth in Nigeria.

#### **Step 3: Decision**

The regression result presented in table 5 showed that the p-value of mining revenue is 0.52270 whereas its coefficient is 0.48766. The parameter of mining revenue has positive and no significant impact on government budget implementation in Nigeria as confirmed by its p-value (0.52270) which is greater than the chosen level of significance (0.05). The researcher accepted the null hypothesis and consequently, concluded that mining revenue has positive and no significant impact on government budget implementation in Nigeria.

### **Test of Hypothesis Four**

Research hypothesis four investigated the impact of company income tax on government budget implementation in Nigeria.

#### **Step 1: Restatement of Research Hypothesis Four**

H<sub>04</sub>: Company income tax has no significant impact on government budget implementation in Nigeria.

H<sub>A4</sub>: Company income tax has significant impact on government budget implementation in Nigeria.

#### **Step 2: Decision Rules**

**Decision Rule 1:** Reject the null hypothesis and accept the alternate if the p-value is less than the chosen level of significance 0.05. It implies that the estimated variable has no significant effect on economic growth in Nigeria.

**Decision Rule 2:** Accept the null hypothesis and reject the alternate hypothesis if the p-value is greater than the chosen level of significance (0.05). It implies that the estimated variable has no significant effect on economic growth in Nigeria.

### **Step 3: Decision**

Based on the regression results presented in table 5, the coefficient of company income tax is 0.64232 while its p-value is 0.00840. The parameter of company income tax has positive and significant impact on government budget implementation in Nigeria as confirmed by its p-value. Since (0.05) level of significance is greater than 0.00840. In line with the decision rule, the researcher accepted the alternate hypothesis and concluded that company income tax has positive and significant impact on government budget implementation in Nigeria.

### **Text of Hypothesis Five**

Research hypothesis five educated the impact of value added tax (VAT) on government budget implementation in Nigeria.

#### **Step 1: Restatement of Research Hypothesis Five**

H<sub>05</sub>: Value added tax has no significant impact on government budget implementation in Nigeria.

H<sub>A5</sub>: Value added tax has significant impact on government budget implementation in Nigeria.

#### **Step 2: Decision Rules**

**Decision Rule 1:** Reject the null hypothesis and accept the alternate if the p-value is less than the chosen level of significance 0.05. It implies that the estimated variable has no significant effect on economic growth in Nigeria.

**Decision Rule 2:** Accept the null hypothesis and reject the alternate hypothesis if the p-value is greater than the chosen level of significance (0.05). It implies that the estimated variable has no significant effect on economic growth in Nigeria

### **Step 3: Decision**

The regression result presented in table 5 indicated that the p-value of value added tax is 0.04818 while its coefficient value is 0.57428. the parameter of VAT is positive and significant in measuring government budget implementation in Nigeria as confirmed by its p-value (0.04818). Inline with the decision rule, the research rejected the null hypothesis and concluded that value added tax has positive and significant impact on government budget implementation in Nigeria.

R-squared ( $R^2$ ) = 0.60458, implying that about 60% of the changes in government budget implementation in Nigeria is attributed to changes in AR, CED, MR, CIT and VAT; while 40% is caused by other factors not captured as variable in the model but which are capable of affecting government budget implementation in Nigeria. Durbin Waston statistics 1.68942 indicated that there is no presence of autocorrelation as it falls between the normal ranges of 1.5 to 1.9. besides, the value of the F-statistics (33.33642) is high which implies that the variables (AR, CED, MR, CIT and VAT) are jointly significant in measuring government budget implementation in Nigeria at 0.05level of significance.

## **5. Discussion**

The study examined the impact of non-oil revenue on government budge implementation in Nigeria for the period, 1999 to 2022. The selected variables used as proxies for non-oil revenue in the study were agricultural revenue (AR), Custom and excise duty (CED), mining revenue (MR), company income tax (CIT) and value added tax (VAT); while government budget implementation proxied by total government expenditure is the dependent variable. The results used in the study were obtained from OLS linear multiple regression analysis with the aid of E-view statistical software version 10.0. Discussion of findings were made in line with the specific objectives of the study as stated below: impact of agricultural revenue on government budget implementation in Nigeria; impact of custom and excise duty on government budget

implementation in Nigeria; impact of mining revenue on government budget implementation in Nigeria; impact of company income tax on government budget implementation in Nigeria and impact of value added tax on government budget implementation in Nigeria.

#### **Effect of Agricultural revenue on Government Budget Implementation in Nigeria**

The study found that agricultural revenue had positive and significant impact on government budget implementation in Nigeria (P-value = 0.04238 < 0.05). This indicated consistency with the prior study of Ideh, Okolo and Emengini (2021) who examined the impact of non-oil revenue on economic growth in Nigeria. This prior study discovered that agricultural revenue had significantly influenced gross domestic product in Nigeria. Moreover, our result is in agreement with the findings of Likita, Idisi and Nakah (2018) who evaluated the effect of agricultural revenue on economic growth of Nigeria; and found that agricultural revenue exerted positive and significant effect on gross domestic product in Nigeria. Similarly, our result is in line with the findings of Umeji (2019) who studied the diversification of the Nigerian economy through agricultural sector transformation. This prior study revealed that agriculture contributed in the development of the Nigerian economy through increase in both domestic and foreign exchange earnings.

#### **Impact of Custom and Excise Duty on Government Budget Implementation in Nigeria**

Based on the results obtained from the regression analysis, the study discovered that custom and excise duty had positive and significant impact on government budget implementation in Nigeria (p-value = 0.02130 < 0.05). The result is in agreement with the findings of Olayungbo and Olayemi (2018) who evaluated the empirical relationship between non-oil revenue and economic growth in Nigeria. This prior study revealed that custom and excise duty had positive and significant impact on **economic growth of Nigeria**. Our result is also in conformity with the finding of Raja and Assil (2020) who investigated the effect of non-oil revenue on economic growth of Saudi Arabia. This prior study found that increase in non-oil revenue has led to a surge in government spending. Besides, the result of our study is also in agreement with Aggreh (2020) who studied the effect on non-oil revenue on economic growth in Nigeria. This prior study revealed that custom and excise duty had positive and significant effect on growth of the Nigeria economy.

#### **Impact of Mining Revenue on Government Budget Implementation in Nigeria**

Mining Revenue was found to have positive and no significant impact on government budget implementation in Nigeria (p-value = 0.52270 > 0.05). However, the findings of our study contradict with Edeme, Onoja and Damula (2018) who examined the role of solid minerals in development of sustainable economic growth in Nigeria. This prior study revealed revenue from sound mineral had positive and significant effect on sustainable development of the Nigerian economy. The result of our study is also in disagreement with the findings of Orji (2018) who examined the diversification of the Nigerian economy through solid minerals and agriculture. Orji (2018) found that revenue from solid mineral had significant effect on the Nigerian economy both in the short-run and long-run. However, the result of our study is conformity with the finding of Likita, Idisi and Nakah (2018) who investigated the impact of non-oil revenue on economic growth of Nigeria. This prior study found that solid mineral revenue had no significant influence on the economy of Nigeria.

#### **Impact of Company Income Tax on Government Budget Implementation in Nigeria**

The study discovered that company income tax had positive and significant impact on government budget

implementation in Nigeria ( $p\text{-value} = 0.00840 < 0.05$ ). the result of this study showed in consistency with the finding of Akinleye, Ogunmakin and Olusola (2020) who examined the effect of non-oil revenue on government budget implementation in Nigeria. This prior study revealed that company income tax exerted positive and no significant effect on government expenditure both in the short-run and long-run. Moreover, the result of our study is inline with the finding of Ntekpere and Olayinka (2020) who observed that company income tax had positive and significant impact on capital expenditure in Nigeria. The outcome of our study aligns with the result of Olayungbo and Olayemi (2018) who investigated the relationship between non-oil revenue and government expenditure in Nigeria. This prior study discovered that non-oil revenue showed positive and significant influence on government expenditure both in the short-run and long-run.

### **Impact of Value Added Tax on Government Budget Implementation in Nigeria**

The result of the regression analysis presented in table 5 indicated that value added tax with  $p\text{-value}$  of

0.04818 and coefficient value of 0.57428 had positive and significant effect on government budget implementation in Nigeria. The out of this study is in line with the finding of Olaoye and Alabandan (2022) who found that value added tax exerted positive and significant effect on government budget implementation in Nigeria. The result of our study is also in agreement with the finding of Kaka (2020) who examined the empirical relationship between tax revenue, non-tax revenue and government expenditure in Nigeria. This prior study revealed that there is linear relationship between VAT and government expenditure in Nigeria. Similarly, our result is in agreement with the finding of Akpokereke and Ekane (2022) who investigated the effect on oil and non-oil revenue on the Nigerian economy. This prior study found that non-oil revenue had positive and significant influence on the real gross domestic product in Nigeria.

## **6. Findings**

The study examined the impact of non-oil revenue on government budget implementation in Nigeria for the period 1999-2022. The summary of findings are based on the results obtained from OLS regression analysis conducted in the study with the aid of economic E-view software. The summary of findings are stated below:

- (i) The study found that agricultural revenue with coefficient value of 1.28303 and  $p\text{-value}$  of 0.04238 had positive and significant impact on government budget implementation in Nigeria.
- (ii) Custom and excise duty with coefficient value of (1.82142) and  $p\text{-value}$  of 0.02130 was found to have positive and significant Impact on government budget implementation in Nigeria.
- (iii) The study discovered that revenue from mini had positive and no significant impact on government budget implementation in Nigeria ( $p\text{-value} = 0.52270$ ; coefficient value = 0.48766).
- (iv) Company income tax with coefficient value of 0.64232 and  $p\text{-value}$  of 0.00840 was found to have positive and significant impact on government budget implementation in Nigeria.
- (v) The study found that value added with coefficient value of 0.57428 and  $p\text{-value}$  of 0.04818 had positive and significant impact on government budget implementation in Nigeria.

## **Conclusion**

The study evaluated the impact of non-oil revenue on government budget implementation in Nigeria using time series data obtained from the annual publications of Central Bank of Nigeria, Federal Inland Revenue Service and National Bureau of Statistics for the period 1999 to 2022. Findings from the empirical analysis revealed that agricultural revenue, custom and excise duty, company income tax and value added tax had positive and significant impact on government budget implementation. However, the study also found that revenue from mining had positive and no significant impact on government budget implementation in Nigeria. In line with these results, the researcher concluded that non-oil revenue proxied by agricultural revenue, custom and excise duty, mining revenue, company income tax and valued added tax has significantly influenced government budget implementation in Nigeria.

## **Recommendations**

1. Government at all levels should sustain and improve its policies on the agricultural sector in order to boost agricultural production. For instance, policies on fertilizer sales and distribution should be improved so as to have increased agricultural yields which would increase agricultural revenue.
2. Government should ensure that revenue generated from custom and excise duty should be judiciously utilized to develop other sectors of the non-oil revenue as mining in order to have variable sources of income need or effective budget implementation.
3. Government should ensure that all the loopholes associated with solid minerals are adequately minimized through administrative management efficiency which would attract more revenue into the non-oil sector.
4. The study found that value added tax had positive and significant on government budget implementation in Nigeria. However, government should increase VAT base by incorporating many other items into the VAT net in order to increase VAT revenue for effective budget implementation.
5. The activities of corporate entities should be adequately checked to achieve optimum collection of company income tax. This can be achieved by removing all administrative loopholes that encourage companies to evade tax in the form of tax aggressiveness.

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